

# M10\_01\_Web\_Scrapping

July 29, 2022

S10 T01: Web scraping and automation

Libraries

```
[1]: #Python library
import requests
from urllib.request import urlopen
import time
import re
import shutil
from datetime import date

#Web Scraping
from bs4 import BeautifulSoup
from selenium import webdriver
from selenium.webdriver.chrome.options import Options
from selenium.webdriver.common.by import By
from selenium.webdriver import Chrome
#from webdriver_manager.chrome import ChromeDriverManager
from selenium.webdriver.support.ui import WebDriverWait
from selenium.webdriver.support import expected_conditions as EC
import scrapy
from scrapy.crawler import CrawlerProcess
import os

#Data Manipulation
import pandas as pd
import nltk

#Document creation
#from docx import Document
#from docx.shared import Inches
#from docx import text
#from docx.shared import Pt
#from docx.enum.table import WD_TABLE_ALIGNMENT
#from docx.enum.text import WD_LINE_SPACING
#from docx.enum.text import WD_ALIGN_PARAGRAPH

#Data Visualization
```

```
import matplotlib.pyplot as plt
import matplotlib.image as img
```

### Exercise 1

Perform web scraping of two of the three proposed web pages using BeautifulSoup first and Selenium later.

- <http://quotes.toscrape.com>
- <https://www.bolsamadrid.es>
- [www.wikipedia.es](http://www.wikipedia.es) (do some search first and scrape some content)

Bolsa de Madrid

Beautiful Soup

```
[2]: #url of the webpage
url_bolsa = "https://www.bolsamadrid.es/esp/aspx/Mercados/Precios.aspx?
↳indice=ESI100000000"
```

```
[3]: #fetch the webpage
web_page = urlopen(url_bolsa)
```

```
[4]: #get the webpage content
content = BeautifulSoup(web_page.read(), 'html.parser')
```

```
[5]: fig, ax = plt.subplots(figsize=(15, 15))
fig = img.imread('table_SC.png')
plt.imshow(fig)
plt.axis('off')
plt.show()
```

The screenshot shows a web browser at `bolsamadrid.es` displaying the 'Bolsa de Madrid - Precios de la sesión'. The main content area shows the IBEX 35 index and a table of stock prices. A cookie consent banner is visible. Below the browser, a code editor shows the HTML source code of the page, highlighting the table with `id='ctl00_Contenido_tblAcciones'`.

Nombre	Anterior	Último	% Dif.	Máximo	Mínimo	Fecha	Hora	% Dif. Año 2022
▲ IBEX 35®	8.028,90	8.059,60	0,38	8.061,90	7.970,30	21/07/2022	12:16:43	-7,51

Nombre	Últ.	% Dif.	Máx.	Min.	Volumen	Efectivo (miles €)	Fecha	Hora
▲ ACCIONA	183,1000	2,29	183,3000	178,5000	18.748	3.390,50	21/07/2022	12:16:07
▼ ACCIONA ENER	38,9200	-0,15	39,1800	38,2200	40.984	1.591,33	21/07/2022	12:15:10
▼ ACERINOX	8,8740	-0,38	8,9700	8,7240	342.228	3.022,72	21/07/2022	12:13:00
▲ ACS	21,8200	0,18	21,8200	21,5400	117.194	2.541,52	21/07/2022	12:15:49
▲ AENA	125,9000	1,86	126,0000	122,8000	23.815	2.957,89	21/07/2022	12:14:03
▲ AMADEUS	56,4600	1,00	56,5200	55,1800	83.934	4.697,03	21/07/2022	12:15:50

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Aceptar Cookies X

Consola Fuentes Red Líneas del tiempo Almacenamiento Gráficos Capas Inspección

Precios.aspx Respuesta

```

<td class="DifCl8j">-7,51</td>
</tr>
</table>
</div>
<div>
<table class="TblPort" cellspacing="0" cellpadding="3" id="ctl00_Contenido_tblAcciones"
style="width:100%;border-collapse:collapse;">
<tr align="center">
<th scope="col">Nombre</th>
<th scope="col">Últ.</th>
<th scope="col">% Dif.</th>
<th scope="col">Máx.</th>
<th scope="col">Mín.</th>
<th scope="col">Volumen</th>
<th scope="col">Efectivo (miles €)</th>
<th scope="col">Fecha</th>
<th class="Ult" scope="col">Hora</th>
</tr>
<tr align="right">
<td align="left" class="DifFl8j"><a href="/esp/aspx/Empresas/FichaValor.aspx?ISI
N=ES0125220311">ACCIONA</a></td><td>187,4000</td><td class="DifCl8j">1,46</td><t
d>188,7000</td><td>184,4000</td><td>47.640</td><td>8.927,51</td><td>

```

When you look the source code of the page you can find the id of the element that you want to scrap, in this case is a table with `id="ctl00_Contenido_tblAcciones"`.

[6]: `#get the table by id`

```
table_stocks = content.find(id="ctl00_Contenido_tblAcciones")
table_stocks
```

[6]: `<table cellpadding="3" cellspacing="0" class="TblPort" id="ctl00_Contenido_tblAcciones" width="100%">`  
`<tr align="center">`  
`<th scope="col">Nombre</th><th scope="col">Últ.</th><th scope="col">%`  
`Dif.</th><th scope="col">Máx.</th><th scope="col">Mín.</th><th`  
`scope="col">Volumen</th><th scope="col">Efectivo (miles €)</th><th`  
`scope="col">Fecha</th><th class="Ult" scope="col">Hora</th>`  
`</tr><tr align="right">`  
`<td align="left" class="DifFl8j"><a href="/esp/aspx/Empresas/FichaValor.aspx?ISI`  
`N=ES0125220311">ACCIONA</a></td><td>187,4000</td><td class="DifCl8j">1,46</td><t`  
`d>188,7000</td><td>184,4000</td><td>47.640</td><td>8.927,51</td><td>`

25/07/2022	15:02:12
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<table> <tr> <td align="left" class="DifFlBj"> <a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0105563003">ACCIONA ENER</a> </td> <td>39,1400</td> <td align="center" class="DifClBj">-0,81</td> <td>39,8400</td> <td>38,9000</td> <td>68.077</td> <td>2.665,83</td> <td align="center">25/07/2022</td> <td align="center" class="Ult">14:59:41</td> </tr> </table>	<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0105563003">ACCIONA ENER</a>	39,1400	-0,81	39,8400	38,9000	68.077	2.665,83	25/07/2022	14:59:41
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0105563003">ACCIONA ENER</a>	39,1400	-0,81	39,8400	38,9000	68.077	2.665,83	25/07/2022	14:59:41	
<table> <tr> <td align="left" class="DifFlSb"> <a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0132105018">ACERINOX</a> </td> <td>8,9460</td> <td align="center" class="DifClSb">0,56</td> <td>8,9840</td> <td>8,7720</td> <td>333.136</td> <td>2.967,96</td> <td align="center">25/07/2022</td> <td align="center" class="Ult">15:02:04</td> </tr> </table>	<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0132105018">ACERINOX</a>	8,9460	0,56	8,9840	8,7720	333.136	2.967,96	25/07/2022	15:02:04
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0132105018">ACERINOX</a>	8,9460	0,56	8,9840	8,7720	333.136	2.967,96	25/07/2022	15:02:04	
<table> <tr> <td align="left" class="DifFlSb"> <a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0167050915">ACS</a> </td> <td>22,4300</td> <td align="center" class="DifClSb">0,95</td> <td>22,4400</td> <td>22,1700</td> <td>154.285</td> <td>3.445,68</td> <td align="center">25/07/2022</td> <td align="center" class="Ult">15:01:55</td> </tr> </table>	<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0167050915">ACS</a>	22,4300	0,95	22,4400	22,1700	154.285	3.445,68	25/07/2022	15:01:55
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0167050915">ACS</a>	22,4300	0,95	22,4400	22,1700	154.285	3.445,68	25/07/2022	15:01:55	
<table> <tr> <td align="left" class="DifFlBj"> <a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0105046009">AENA</a> </td> <td>124,4000</td> <td align="center" class="DifClBj">-0,88</td> <td>126,2000</td> <td>123,9000</td> <td>28.361</td> <td>3.548,70</td> <td align="center">25/07/2022</td> <td align="center" class="Ult">15:02:08</td> </tr> </table>	<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0105046009">AENA</a>	124,4000	-0,88	126,2000	123,9000	28.361	3.548,70	25/07/2022	15:02:08
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0105046009">AENA</a>	124,4000	-0,88	126,2000	123,9000	28.361	3.548,70	25/07/2022	15:02:08	
<table> <tr> <td align="left" class="DifFlSb"> <a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0109067019">AMADEUS</a> </td> <td>56,3400</td> <td align="center" class="DifClSb">0,61</td> <td>56,4000</td> <td>55,4000</td> <td>140.394</td> <td>7.848,13</td> <td align="center">25/07/2022</td> <td align="center" class="Ult">15:00:20</td> </tr> </table>	<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0109067019">AMADEUS</a>	56,3400	0,61	56,4000	55,4000	140.394	7.848,13	25/07/2022	15:00:20
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0109067019">AMADEUS</a>	56,3400	0,61	56,4000	55,4000	140.394	7.848,13	25/07/2022	15:00:20	
<table> <tr> <td align="left" class="DifFlSb"> <a href="/esp/asp/empresas/fichavalor.aspx?ISIN=LU1598757687">ARCELORMIT.</a> </td> <td>23,0300</td> <td align="center" class="DifClSb">0,02</td> <td>23,0600</td> <td>22,4700</td> <td>102.196</td> <td>2.338,25</td> <td align="center">25/07/2022</td> <td align="center" class="Ult">15:02:16</td> </tr> </table>	<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=LU1598757687">ARCELORMIT.</a>	23,0300	0,02	23,0600	22,4700	102.196	2.338,25	25/07/2022	15:02:16
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=LU1598757687">ARCELORMIT.</a>	23,0300	0,02	23,0600	22,4700	102.196	2.338,25	25/07/2022	15:02:16	
<table> <tr> <td align="left" class="DifFlSb"> <a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0113900J37">B.SANTANDER</a> </td> <td>2,4550</td> <td align="center" class="DifClSb">0,90</td> <td>2,4720</td> <td>2,4170</td> <td>22.921.411</td> <td>55.889,51</td> <td align="center">25/07/2022</td> <td align="center" class="Ult">15:01:43</td> </tr> </table>	<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0113900J37">B.SANTANDER</a>	2,4550	0,90	2,4720	2,4170	22.921.411	55.889,51	25/07/2022	15:01:43
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0113900J37">B.SANTANDER</a>	2,4550	0,90	2,4720	2,4170	22.921.411	55.889,51	25/07/2022	15:01:43	
<table> <tr> <td align="left" class="DifFlSb"> <a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0113860A34">BA.SABADELL</a> </td> <td>0,6548</td> <td align="center" class="DifClSb">3,94</td> <td>0,6550</td> <td>0,6274</td> <td>15.100.114</td> <td>9.733,25</td> <td align="center">25/07/2022</td> <td align="center" class="Ult">15:02:09</td> </tr> </table>	<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0113860A34">BA.SABADELL</a>	0,6548	3,94	0,6550	0,6274	15.100.114	9.733,25	25/07/2022	15:02:09
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0113860A34">BA.SABADELL</a>	0,6548	3,94	0,6550	0,6274	15.100.114	9.733,25	25/07/2022	15:02:09	
<table> <tr> <td align="left" class="DifFlSb"> <a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0113679I37">BANKINTER</a> </td> <td>4,9790</td> <td align="center" class="DifClSb">2,94</td> <td>4,9850</td> <td>4,8110</td> <td>1.914.162</td> <td>9.395,53</td> <td align="center">25/07/2022</td> <td align="center" class="Ult">15:02:02</td> </tr> </table>	<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0113679I37">BANKINTER</a>	4,9790	2,94	4,9850	4,8110	1.914.162	9.395,53	25/07/2022	15:02:02
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0113679I37">BANKINTER</a>	4,9790	2,94	4,9850	4,8110	1.914.162	9.395,53	25/07/2022	15:02:02	

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</tr><tr align="right">
<td align="left" class="DifFlSb"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0113211835">BBVA</a></td><td>4,1795</td><td class="DifClSb">0,76</td><td>4,2060</td><td>4,1380</td><td>6.322.838</td><td>26.389,69</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:02:26</td>
</tr><tr align="right">
<td align="left" class="DifFlSb"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0140609019">CAIXABANK</a></td><td>2,9160</td><td class="DifClSb">3,26</td><td>2,9270</td><td>2,8210</td><td>9.151.316</td><td>26.219,63</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:02:28</td>
</tr><tr align="right">
<td align="left" class="DifFlBj"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0105066007">CELLNEX</a></td><td>41,9800</td><td class="DifClBj">-0,99</td><td>42,7800</td><td>41,8200</td><td>171.433</td><td>7.230,81</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:01:06</td>
</tr><tr align="right">
<td align="left" class="DifFlSb"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0130960018">ENAGAS</a></td><td>18,8750</td><td class="DifClSb">0,72</td><td>18,9350</td><td>18,7200</td><td>190.436</td><td>3.589,44</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:00:34</td>
</tr><tr align="right">
<td align="left" class="DifFlBj"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0130670112">ENDESA</a></td><td>17,6350</td><td class="DifClBj">-0,76</td><td>17,8050</td><td>17,5950</td><td>249.332</td><td>4.414,75</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:00:38</td>
</tr><tr align="right">
<td align="left" class="DifFlSb"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0118900010">FERROVIAL</a></td><td>26,2600</td><td class="DifClSb">0,04</td><td>26,6400</td><td>26,1300</td><td>251.706</td><td>6.629,03</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:02:25</td>
</tr><tr align="right">
<td align="left" class="DifFlBj"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0137650018">FLUIDRA</a></td><td>18,9800</td><td class="DifClBj">-1,40</td><td>19,3600</td><td>18,9400</td><td>236.756</td><td>4.527,81</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:01:02</td>
</tr><tr align="right">
<td align="left" class="DifFlBj"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0171996087">GRIFOLS CL.A</a></td><td>16,3150</td><td class="DifClBj">-0,73</td><td>16,3500</td><td>16,0950</td><td>151.241</td><td>2.454,86</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:00:15</td>
</tr><tr align="right">
<td align="left" class="DifFlSb"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0177542018">IAG</a></td><td>1,3780</td><td class="DifClSb">1,89</td><td>1,3825</td><td>1,3370</td><td>4.015.076</td><td>5.446,68</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:00:48</td>
</tr><tr align="right">

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<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0144580Y14">IBERDROLA</a>	<td>9,9800</td>	>-0,12</td>	<td>10,0950</td>	<td>9,9580</td>	<td>1.532.581</td>	<td>15.396,20</td>	<td>25/07/2022</td>	<td>15:00:38</td>
</tr>								
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0148396007">INDITEX</a>	<td>24,6400</td>	>0,33</td>	<td>24,6600</td>	<td>24,1000</td>	<td>676.148</td>	<td>16.538,05</td>	<td>25/07/2022</td>	<td>15:00:05</td>
</tr>								
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0118594417">INDRA A</a>	<td>9,2350</td>	>-0,43</td>	<td>9,2950</td>	<td>9,1600</td>	<td>194.017</td>	<td>1.791,04</td>	<td>25/07/2022</td>	<td>15:01:28</td>
</tr>								
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0139140174">INM. COLONIAL</a>	<td>6,3500</td>	>0,40</td>	<td>6,3500</td>	<td>6,2550</td>	<td>394.171</td>	<td>2.486,73</td>	<td>25/07/2022</td>	<td>15:01:50</td>
</tr>								
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0124244E34">MAPFRE</a>	<td>1,5420</td>	>0,39</td>	<td>1,5560</td>	<td>1,5400</td>	<td>1.616.819</td>	<td>2.498,74</td>	<td>25/07/2022</td>	<td>15:00:38</td>
</tr>								
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0176252718">MELIA HOTELS</a>	<td>5,9550</td>	>1,19</td>	<td>5,9700</td>	<td>5,8000</td>	<td>319.769</td>	<td>1.887,31</td>	<td>25/07/2022</td>	<td>15:02:17</td>
</tr>								
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0105025003">MERLIN</a>	<td>9,9250</td>	>-0,45</td>	<td>9,9950</td>	<td>9,8900</td>	<td>105.949</td>	<td>1.051,73</td>	<td>25/07/2022</td>	<td>14:51:10</td>
</tr>								
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0116870314">NATURGY</a>	<td>28,5200</td>	>1,06</td>	<td>28,6400</td>	<td>27,6600</td>	<td>68.225</td>	<td>1.940,72</td>	<td>25/07/2022</td>	<td>15:00:38</td>
</tr>								
<a href="/esp/asp/empresas/fichavalor.aspx?ISIN=ES0169501022">PHARMA MAR</a>	<td>72,6400</td>	>0,55</td>	<td>72,8400</td>	<td>71,3000</td>	<td>17.585</td>	<td>1.264,19</td>	<td>25/07/2022</td>	<td>15:02:28</td>

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</tr><tr align="right">
<td align="left" class="DifFlIg"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0173093024">R.E.C.</a></td><td>18,3200</td><td class="DifClIg">0,00</td><td>18,5300</td><td>18,2500</td><td>289.816</td><td>5.328,62</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:01:29</td>
</tr><tr align="right">
<td align="left" class="DifFlSb"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0173516115">REPSOL</a></td><td>12,0950</td><td class="DifClSb">0,54</td><td>12,1400</td><td>11,8100</td><td>1.094.318</td><td>13.138,08</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:01:59</td>
</tr><tr align="right">
<td align="left" class="DifFlSb"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0157261019">ROVI</a></td><td>60,1000</td><td class="DifClSb">0,59</td><td>60,6500</td><td>58,5000</td><td>38.886</td><td>2.343,76</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:01:05</td>
</tr><tr align="right">
<td align="left" class="DifFlSb"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0182870214">SACYR</a></td><td>2,3100</td><td class="DifClSb">1,14</td><td>2,3300</td><td>2,2600</td><td>1.059.570</td><td>2.427,45</td><td align="center">25/07/2022</td><td align="center" class="Ult">14:59:16</td>
</tr><tr align="right">
<td align="left" class="DifFlSb"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0143416115">SIEMENS GAME</a></td><td>17,9150</td><td class="DifClSb">0,03</td><td>17,9450</td><td>17,9000</td><td>1.224.647</td><td>21.941,79</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:01:29</td>
</tr><tr align="right">
<td align="left" class="DifFlBj"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0165386014">SOLARIA</a></td><td>20,8300</td><td class="DifClBj">-3,70</td><td>22,2500</td><td>20,7100</td><td>332.843</td><td>7.065,62</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:02:16</td>
</tr><tr align="right">
<td align="left" class="DifFlSb"><a href="/esp/asp/empresas/fichaValor.aspx?ISIN=ES0178430E18">TELEFONICA</a></td><td>4,4710</td><td class="DifClSb">1,96</td><td>4,4890</td><td>4,3860</td><td>6.919.220</td><td>30.710,62</td><td align="center">25/07/2022</td><td align="center" class="Ult">15:02:27</td>
</tr>
</table>

```

```

[7]: #get the headers of the table
cols= table_stocks.find_all('th')
cols

```

```

[7]: [<th scope="col">Nombre</th>,
      <th scope="col">Últ.</th>,
      <th scope="col">% Dif.</th>,
      <th scope="col">Máx.</th>,

```

```

<th scope="col">Mín.</th>,
<th scope="col">Volumen</th>,
<th scope="col">Efectivo (miles €)</th>,
<th scope="col">Fecha</th>,
<th class="Ult" scope="col">Hora</th>]

```

```

[8]: #get the text
table_cols = []

for c in cols:
    table_cols.append(c.get_text())

table_cols

```

```

[8]: ['Nombre',
      'Últ.',
      '% Dif.',
      'Máx.',
      'Mín.',
      'Volumen',
      'Efectivo (miles €)',
      'Fecha',
      'Hora']

```

```

[9]: #get the content of the table
rows= table_stocks.find_all('td')

table_rows = []

for row in rows:
    table_rows.append(row.text)

table_rows[:9]

```

```

[9]: ['ACCIONA',
      '187,4000',
      '1,46',
      '188,7000',
      '184,4000',
      '47.640',
      '8.927,51',
      '25/07/2022',
      '15:02:12']

```

```

[10]: #slice the text for every 9 elements that is a row
observations = {}

```



```
for i in range(9):
    observations[table_cols[i]] = table_rows[i::9]
```

```
[11]: #transform to DF
table_df = pd.DataFrame(observations)
table_df
```

```
[11]:
```

	Nombre	Últ.	% Dif.	Máx.	Min.	Volumen \
0	ACCIONA	187,4000	1,46	188,7000	184,4000	47.640
1	ACCIONA ENER	39,1400	-0,81	39,8400	38,9000	68.077
2	ACERINOX	8,9460	0,56	8,9840	8,7720	333.136
3	ACS	22,4300	0,95	22,4400	22,1700	154.285
4	AENA	124,4000	-0,88	126,2000	123,9000	28.361
5	AMADEUS	56,3400	0,61	56,4000	55,4000	140.394
6	ARCELORMIT.	23,0300	0,02	23,0600	22,4700	102.196
7	B.SANTANDER	2,4550	0,90	2,4720	2,4170	22.921.411
8	BA.SABADELL	0,6548	3,94	0,6550	0,6274	15.100.114
9	BANKINTER	4,9790	2,94	4,9850	4,8110	1.914.162
10	BBVA	4,1795	0,76	4,2060	4,1380	6.322.838
11	CAIXABANK	2,9160	3,26	2,9270	2,8210	9.151.316
12	CELLNEX	41,9800	-0,99	42,7800	41,8200	171.433
13	ENAGAS	18,8750	0,72	18,9350	18,7200	190.436
14	ENDESA	17,6350	-0,76	17,8050	17,5950	249.332
15	FERROVIAL	26,2600	0,04	26,6400	26,1300	251.706
16	FLUIDRA	18,9800	-1,40	19,3600	18,9400	236.756
17	GRIFOLS CL.A	16,3150	-0,73	16,3500	16,0950	151.241
18	IAG	1,3780	1,89	1,3825	1,3370	4.015.076
19	IBERDROLA	9,9800	-0,12	10,0950	9,9580	1.532.581
20	INDITEX	24,6400	0,33	24,6600	24,1000	676.148
21	INDRA A	9,2350	-0,43	9,2950	9,1600	194.017
22	INM.COLONIAL	6,3500	0,40	6,3500	6,2550	394.171
23	MAPFRE	1,5420	0,39	1,5560	1,5400	1.616.819
24	MELIA HOTELS	5,9550	1,19	5,9700	5,8000	319.769
25	MERLIN	9,9250	-0,45	9,9950	9,8900	105.949
26	NATURGY	28,5200	1,06	28,6400	27,6600	68.225
27	PHARMA MAR	72,6400	0,55	72,8400	71,3000	17.585
28	R.E.C.	18,3200	0,00	18,5300	18,2500	289.816
29	REPSOL	12,0950	0,54	12,1400	11,8100	1.094.318
30	ROVI	60,1000	0,59	60,6500	58,5000	38.886
31	SACYR	2,3100	1,14	2,3300	2,2600	1.059.570
32	SIEMENS GAME	17,9150	0,03	17,9450	17,9000	1.224.647
33	SOLARIA	20,8300	-3,70	22,2500	20,7100	332.843
34	TELEFONICA	4,4710	1,96	4,4890	4,3860	6.919.220

	Efectivo (miles €)	Fecha	Hora
0	8.927,51	25/07/2022	15:02:12
1	2.665,83	25/07/2022	14:59:41

2	2.967,96	25/07/2022	15:02:04
3	3.445,68	25/07/2022	15:01:55
4	3.548,70	25/07/2022	15:02:08
5	7.848,13	25/07/2022	15:00:20
6	2.338,25	25/07/2022	15:02:16
7	55.889,51	25/07/2022	15:01:43
8	9.733,25	25/07/2022	15:02:09
9	9.395,53	25/07/2022	15:02:02
10	26.389,69	25/07/2022	15:02:26
11	26.219,63	25/07/2022	15:02:28
12	7.230,81	25/07/2022	15:01:06
13	3.589,44	25/07/2022	15:00:34
14	4.414,75	25/07/2022	15:00:38
15	6.629,03	25/07/2022	15:02:25
16	4.527,81	25/07/2022	15:01:02
17	2.454,86	25/07/2022	15:00:15
18	5.446,68	25/07/2022	15:00:48
19	15.396,20	25/07/2022	15:00:38
20	16.538,05	25/07/2022	15:00:05
21	1.791,04	25/07/2022	15:01:28
22	2.486,73	25/07/2022	15:01:50
23	2.498,74	25/07/2022	15:00:38
24	1.887,31	25/07/2022	15:02:17
25	1.051,73	25/07/2022	14:51:10
26	1.940,72	25/07/2022	15:00:38
27	1.264,19	25/07/2022	15:02:28
28	5.328,62	25/07/2022	15:01:29
29	13.138,08	25/07/2022	15:01:59
30	2.343,76	25/07/2022	15:01:05
31	2.427,45	25/07/2022	14:59:16
32	21.941,79	25/07/2022	15:01:29
33	7.065,62	25/07/2022	15:02:16
34	30.710,62	25/07/2022	15:02:27

```
[12]: # Save dataframe to CSV
table_df.to_csv('IBEX35_table.csv')
```

Selenium

```
[13]: #install chromeDriverManager
driver = webdriver.Chrome(ChromeDriverManager().install())
```

```
/var/folders/sq/fggxzcn90p73_7hm62_tglm40000gn/T/ipykernel_15722/4030892497.py:2
: DeprecationWarning: executable_path has been deprecated, please pass in a
Service object
driver = webdriver.Chrome(ChromeDriverManager().install())
```

```
[14]: #get the url through the driver
driver.get( "https://www.bolsamadrid.es/ing/aspx/Mercados/Precios.aspx?
↳indice=ESI100000000" )
```

```
[15]: #to emulate a human behaviour
time.sleep(5)
```

```
[16]: #Xpath of the elements table
header_Xpath = '//*[@id="ctl00_Contenido_tblAcciones"]/tbody/tr[1]/th'
rows_Xpath = '//*[@id="ctl00_Contenido_tblAcciones"]/tbody/tr'
```

```
[17]: #scrap the header
header_selenium = []
for content in driver.find_elements(by=By.XPATH, value=header_Xpath):
    header_selenium.append(content.text)
```

```
[18]: header_selenium
```

```
[18]: ['Name',
      'Last',
      '% Dif.',
      'High',
      'Low',
      'Volume',
      'Turnover (€ Thousands)',
      'Date',
      'Time']
```

```
[19]: time.sleep(5)
```

```
[20]: #find the record rows with Xpath
Xpath_rows_content = driver.find_elements(by=By.XPATH, value=rows_Xpath)
```

```
[21]: time.sleep(5)
```

```
[22]: #made the list with the records by stock
row_selenium = []

for row in Xpath_rows_content[1:]:
    element = []
    values = row.find_elements(By.XPATH, "td")
    for v in values:
        element.append(v.text)
    row_selenium.append(element)
```

[23]: *#transform to dataframe*

```
df_shares_selenium = pd.DataFrame(row_selenium, columns=header_selenium)
df_shares_selenium
```

[23]:

	Name	Last	% Dif.	High	Low	Volume \
0	ACCIONA	187.4000	1.46	188.7000	184.4000	47,640
1	ACCIONA ENER	39.1400	-0.81	39.8400	38.9000	68,077
2	ACERINOX	8.9460	0.56	8.9840	8.7720	333,136
3	ACS	22.4300	0.95	22.4400	22.1700	154,285
4	AENA	124.4000	-0.88	126.2000	123.9000	28,361
5	AMADEUS	56.3400	0.61	56.4000	55.4000	140,394
6	ARCELORMIT.	23.0300	0.02	23.0600	22.4700	102,196
7	B.SANTANDER	2.4550	0.90	2.4720	2.4170	22,921,411
8	BA.SABADELL	0.6548	3.94	0.6550	0.6274	15,100,114
9	BANKINTER	4.9790	2.94	4.9850	4.8110	1,914,162
10	BBVA	4.1795	0.76	4.2060	4.1380	6,322,838
11	CAIXABANK	2.9160	3.26	2.9270	2.8210	9,151,316
12	CELLNEX	41.9800	-0.99	42.7800	41.8200	171,433
13	ENAGAS	18.8750	0.72	18.9350	18.7200	190,436
14	ENDESA	17.6350	-0.76	17.8050	17.5950	249,332
15	FERROVIAL	26.2600	0.04	26.6400	26.1300	251,706
16	FLUIDRA	18.9800	-1.40	19.3600	18.9400	236,756
17	GRIFOLS CL.A	16.3150	-0.73	16.3500	16.0950	151,241
18	IAG	1.3780	1.89	1.3825	1.3370	4,015,076
19	IBERDROLA	9.9800	-0.12	10.0950	9.9580	1,532,581
20	INDITEX	24.6400	0.33	24.6600	24.1000	676,148
21	INDRA A	9.2350	-0.43	9.2950	9.1600	194,017
22	INM.COLONIAL	6.3500	0.40	6.3500	6.2550	394,171
23	MAPFRE	1.5420	0.39	1.5560	1.5400	1,616,819
24	MELIA HOTELS	5.9550	1.19	5.9700	5.8000	319,769
25	MERLIN	9.9250	-0.45	9.9950	9.8900	105,949
26	NATURGY	28.5200	1.06	28.6400	27.6600	68,225
27	PHARMA MAR	72.6400	0.55	72.8400	71.3000	17,585
28	R.E.C.	18.3200	0.00	18.5300	18.2500	289,816
29	REPSOL	12.0950	0.54	12.1400	11.8100	1,094,318
30	ROVI	60.1000	0.59	60.6500	58.5000	38,886
31	SACYR	2.3100	1.14	2.3300	2.2600	1,059,570
32	SIEMENS GAME	17.9150	0.03	17.9450	17.9000	1,224,647
33	SOLARIA	20.8300	-3.70	22.2500	20.7100	332,843
34	TELEFONICA	4.4710	1.96	4.4890	4.3860	6,919,220

	Turnover (€ Thousands)	Date	Time
0	8,927.51	25/07/2022	15:02:12
1	2,665.83	25/07/2022	14:59:41
2	2,967.96	25/07/2022	15:02:04
3	3,445.68	25/07/2022	15:01:55
4	3,548.70	25/07/2022	15:02:08

5	7,848.13	25/07/2022	15:00:20
6	2,338.25	25/07/2022	15:02:16
7	55,889.51	25/07/2022	15:01:43
8	9,733.25	25/07/2022	15:02:09
9	9,395.53	25/07/2022	15:02:02
10	26,389.69	25/07/2022	15:02:26
11	26,219.63	25/07/2022	15:02:28
12	7,230.81	25/07/2022	15:01:06
13	3,589.44	25/07/2022	15:00:34
14	4,414.75	25/07/2022	15:00:38
15	6,629.03	25/07/2022	15:02:25
16	4,527.81	25/07/2022	15:01:02
17	2,454.86	25/07/2022	15:00:15
18	5,446.68	25/07/2022	15:00:48
19	15,396.20	25/07/2022	15:00:38
20	16,538.05	25/07/2022	15:00:05
21	1,791.04	25/07/2022	15:01:28
22	2,486.73	25/07/2022	15:01:50
23	2,498.74	25/07/2022	15:00:38
24	1,887.31	25/07/2022	15:02:17
25	1,051.73	25/07/2022	14:51:10
26	1,940.72	25/07/2022	15:00:38
27	1,264.19	25/07/2022	15:02:28
28	5,328.62	25/07/2022	15:01:29
29	13,138.08	25/07/2022	15:01:59
30	2,343.76	25/07/2022	15:01:05
31	2,427.45	25/07/2022	14:59:16
32	21,941.79	25/07/2022	15:01:29
33	7,065.62	25/07/2022	15:02:16
34	30,710.62	25/07/2022	15:02:27

```
[24]: #close the driver
driver.close()
```

```
[25]: df_shares_selenium.to_csv('IBEX35_table_selenium.csv')
```

Wikipedia: Machine Learning

Beautiful Soup

```
[26]: #url of the webpage
url_wiki = "https://en.wikipedia.org/wiki/Data_science"
```

```
[27]: #fetch the webpage
wiki_page = urlopen(url_wiki).read()
```

```
[28]: #get the webpage content
content_wiki = BeautifulSoup(wiki_page, 'html.parser')
```

```
[29]: #get the table by id
title = content_wiki.find("title")
title
```

```
[29]: <title>Data science - Wikipedia</title>
```

```
[30]: #elements in the wiki page
print(set([text.parent.name for text in content_wiki.find_all(text=True)]))
```

```
{'i', 'li', 'form', 'a', 'h3', 'bdi', 'label', 'footer', 'h2', 'b', 'ol',
'span', 'title', '[document]', 'p', 'nav', 'style', 'html', 'ul', 'body', 'div',
'abbr', 'h1', 'script', 'head', 'cite'}
```

```
[31]: #get the text
text = ""
for paragraph in content_wiki.find_all('p'):
    text += paragraph.text
```

```
[32]: text = re.sub(r'\[[0-9]*\]', ' ', text) #regex to replace footnotes
text = re.sub(r'\s+', ' ', text) #more than a whitespace
```

```
[33]: #text segmented by sentence
sentences = nltk.sent_tokenize(text)
sentences
```

```
[33]: [' Data science is an interdisciplinary field that uses scientific methods,
processes, algorithms and systems to extract knowledge and insights from noisy,
structured and unstructured data, and apply knowledge from data across a broad
range of application domains.',
'Data science is related to data mining, machine learning and big data.',
'Data science is a "concept to unify statistics, data analysis, informatics,
and their related methods" in order to "understand and analyse actual phenomena"
with data.',
'It uses techniques and theories drawn from many fields within the context of
mathematics, statistics, computer science, information science, and domain
knowledge.',
'However, data science is different from computer science and information
science.',
'Turing Award winner Jim Gray imagined data science as a "fourth paradigm" of
science (empirical, theoretical, computational, and now data-driven) and
asserted that "everything about science is changing because of the impact of
information technology" and the data deluge.',
'A data scientist is someone who creates programming code and combines it with
statistical knowledge to create insights from data.',
'Data science is an interdisciplinary field focused on extracting knowledge
from typically large data sets and applying the knowledge and insights from that
```

data to solve problems in a wide range of application domains.',

'The field encompasses preparing data for analysis, formulating data science problems, analyzing data, developing data-driven solutions, and presenting findings to inform high-level decisions in a broad range of application domains.',

'As such, it incorporates skills from computer science, statistics, information science, mathematics, data visualization, information visualization, data sonification, data integration, graphic design, complex systems, communication and business.',

'Statistician Nathan Yau, drawing on Ben Fry, also links data science to human-computer interaction: users should be able to intuitively control and explore data.',

'In 2015, the American Statistical Association identified database management, statistics and machine learning, and distributed and parallel systems as the three emerging foundational professional communities.',

'Many statisticians, including Nate Silver, have argued that data science is not a new field, but rather another name for statistics.',

'Others argue that data science is distinct from statistics because it focuses on problems and techniques unique to digital data.',

'Vasant Dhar writes that statistics emphasizes quantitative data and description.',

'In contrast, data science deals with quantitative and qualitative data (e.g., images) and emphasizes prediction and action.',

'Andrew Gelman of Columbia University has described statistics as a nonessential part of data science.',

'Stanford professor David Donoho writes that data science is not distinguished from statistics by the size of datasets or use of computing, and that many graduate programs misleadingly advertise their analytics and statistics training as the essence of a data-science program.',

'He describes data science as an applied field growing out of traditional statistics.',

'In 1962, John Tukey described a field he called "data analysis", which resembles modern data science.',

'In 1985, in a lecture given to the Chinese Academy of Sciences in Beijing, C. F. Jeff Wu used the term "data science" for the first time as an alternative name for statistics.',

'Later, attendees at a 1992 statistics symposium at the University of Montpellier II acknowledged the emergence of a new discipline focused on data of various origins and forms, combining established concepts and principles of statistics and data analysis with computing.',

'The term "data science" has been traced back to 1974, when Peter Naur proposed it as an alternative name for computer science.',

'In 1996, the International Federation of Classification Societies became the first conference to specifically feature data science as a topic.',

'However, the definition was still in flux.',

'After the 1985 lecture in the Chinese Academy of Sciences in Beijing, in 1997 C. F. Jeff Wu again suggested that statistics should be renamed data science.',

'He reasoned that a new name would help statistics shed inaccurate stereotypes, such as being synonymous with accounting, or limited to describing data.',

'In 1998, Hayashi Chikio argued for data science as a new, interdisciplinary concept, with three aspects: data design, collection, and analysis.',

'During the 1990s, popular terms for the process of finding patterns in datasets (which were increasingly large) included "knowledge discovery" and "data mining".',

'The modern conception of data science as an independent discipline is sometimes attributed to William S. Cleveland.',

'In a 2001 paper, he advocated an expansion of statistics beyond theory into technical areas; because this would significantly change the field, it warranted a new name.',

'"Data science" became more widely used in the next few years: in 2002, the Committee on Data for Science and Technology launched Data Science Journal.',

'In 2003, Columbia University launched The Journal of Data Science.',

'In 2014, the American Statistical Association's Section on Statistical Learning and Data Mining changed its name to the Section on Statistical Learning and Data Science, reflecting the ascendant popularity of data science.',

'The professional title of "data scientist" has been attributed to DJ Patil and Jeff Hammerbacher in 2008.',

'Though it was used by the National Science Board in their 2005 report "Long-Lived Digital Data Collections: Enabling Research and Education in the 21st Century", it referred broadly to any key role in managing a digital data collection.',

'There is still no consensus on the definition of data science, and it is considered by some to be a buzzword.',

'Big data is a related marketing term.',

'Data scientists are responsible for breaking down big data into usable information and creating software and algorithms that help companies and organizations determine optimal operations.']

[34]: *#print image source*

```
images = content_wiki.findAll('img')

for image in images:
    print(image['src'])
```

```
//upload.wikimedia.org/wikipedia/commons/thumb/4/45/PIA23792-1600x1200%281%29.jpg/220px-PIA23792-1600x1200%281%29.jpg
//en.wikipedia.org/wiki/Special:CentralAutoLogin/start?type=1x1
/static/images/footer/wikimedia-button.png
/static/images/footer/poweredby_mediawiki_88x31.png
```

[35]: *#image block*

```
image = images[0]
```



```
image
```

```
[35]: 
```

```
[36]: #image url
      image.attrs['src']
```

```
[36]: '//upload.wikimedia.org/wikipedia/commons/thumb/4/45/PIA23792-1600x1200%281%29.j
      pg/220px-PIA23792-1600x1200%281%29.jpg'
```

```
[37]: #complete the url
      full_url = "https:"+image.attrs['src']
      full_url
```

```
[37]: 'https://upload.wikimedia.org/wikipedia/commons/thumb/4/45/PIA23792-1600x1200%28
      1%29.jpg/220px-PIA23792-1600x1200%281%29.jpg'
```

```
[38]: #shutil is a python library that can do operations to files
```

```
r = requests.get(full_url, stream=True)

if r.status_code == 200:          #200 status code for ok
    with open("star.jpg", 'wb') as f:
        r.raw.decode_content = True
        shutil.copyfileobj(r.raw, f)
```

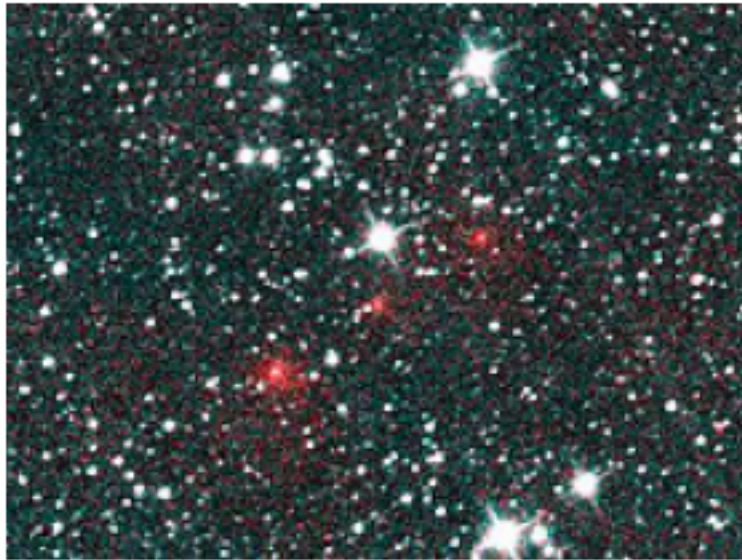
```
[39]: #the class of the thumbcaption of the image
      thumb_text = content_wiki.find( class="thumbcaption")
      thumb_text
```

```
[39]: <div class="thumbcaption"><div class="magnify"><a class="internal"
      href="/wiki/File:PIA23792-1600x1200(1).jpg" title="Enlarge"></a></div>The
      existence of <a href="/wiki/Comet_NEOWISE" title="Comet NEOWISE">Comet
      NEOWISE</a> (here depicted as a series of red dots) was discovered by analyzing
      <a href="/wiki/Astronomical_survey" title="Astronomical survey">astronomical
      survey</a> data acquired by a <a href="/wiki/Space_telescope" title="Space
      telescope">space telescope</a>, the <a href="/wiki/Wide-
      field_Infrared_Survey_Explorer" title="Wide-field Infrared Survey
      Explorer">Wide-field Infrared Survey Explorer</a>.</div>
```

```
[40]: #the image from wikipedia with the thumbcaption
```

```
fig, ax = plt.subplots(figsize=(5, 7))
fig = img.imread('star.jpg')
plt.imshow(fig)
plt.axis('off')
plt.show()

print(thumb_text.text)
```



The existence of Comet NEOWISE (here depicted as a series of red dots) was discovered by analyzing astronomical survey data acquired by a space telescope, the Wide-field Infrared Survey Explorer.

Selenium

```
[41]: #install chromeDriverManager
```

```
driver = webdriver.Chrome(ChromeDriverManager().install())
```

```
/var/folders/sq/fggxzcn90p73_7hm62_tglm40000gn/T/ipykernel_15722/4030892497.py:2
: DeprecationWarning: executable_path has been deprecated, please pass in a
Service object
    driver = webdriver.Chrome(ChromeDriverManager().install())
```

```
[42]: #get the url through the driver
```

```
driver.get(url_wiki)
```

```
[43]: #to emulate a human behaviour
time.sleep(5)
```

```
[44]: #Xpath of the elements table
text_Xpath = '//*[@id= "mw-content-text"]'
```

```
[45]: #scrap the header
raw_selenium = []
for content in driver.find_elements(by=By.XPATH, value=text_Xpath):
    raw_selenium.append(content.text)
```

```
[46]: str_selenium = str(raw_selenium)
str_selenium
```

```
[46]: '['Not to be confused with information science.\\n
The existence of Comet NEOWISE (here depicted as a series of red dots) was discovered by analyzing astronomical survey data acquired by a space telescope, the Wide-field Infrared Survey Explorer.\\n
Data science is an interdisciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge and insights from noisy, structured and unstructured data,[1][2] and apply knowledge from data across a broad range of application domains. Data science is related to data mining, machine learning and big data.[3]\\n
Data science is a "concept to unify statistics, data analysis, informatics, and their related methods" in order to "understand and analyse actual phenomena" with data.[4] It uses techniques and theories drawn from many fields within the context of mathematics, statistics, computer science, information science, and domain knowledge.[3] However, data science is different from computer science and information science. Turing Award winner Jim Gray imagined data science as a "fourth paradigm" of science (empirical, theoretical, computational, and now data-driven) and asserted that "everything about science is changing because of the impact of information technology" and the data deluge.[5][6]\\n
A data scientist is someone who creates programming code and combines it with statistical knowledge to create insights from data.[7]\\n
Contents\\n
1 Foundations\\n
1.1 Relationship to statistics\\n
2 Etymology\\n
2.1 Early usage\\n
2.2 Modern usage\\n
3 See also\\n
4 References\\n
Foundations[edit]\\n
Data science is an interdisciplinary field focused on extracting knowledge from typically large data sets and applying the knowledge and insights from that data to solve problems in a wide range of application domains.[8] The field encompasses preparing data for analysis, formulating data science problems, analyzing data, developing data-driven solutions, and presenting findings to inform high-level decisions in a broad range of application domains. As such, it incorporates skills from computer science, statistics, information science, mathematics, data visualization, information visualization, data sonification, data integration, graphic design, complex systems, communication and business.[9][10] Statistician Nathan Yau, drawing on Ben Fry, also links data science to human-computer interaction: users should be able to intuitively control and explore data.[11][12] In 2015, the American Statistical Association
```

identified database management, statistics and machine learning, and distributed and parallel systems as the three emerging foundational professional communities.[13]\nRelationship to statistics[edit]\nMany statisticians, including Nate Silver, have argued that data science is not a new field, but rather another name for statistics.[14] Others argue that data science is distinct from statistics because it focuses on problems and techniques unique to digital data.[15] Vasant Dhar writes that statistics emphasizes quantitative data and description. In contrast, data science deals with quantitative and qualitative data (e.g. images) and emphasizes prediction and action.[16] Andrew Gelman of Columbia University has described statistics as a nonessential part of data science.[17]\nStanford professor David Donoho writes that data science is not distinguished from statistics by the size of datasets or use of computing, and that many graduate programs misleadingly advertise their analytics and statistics training as the essence of a data-science program. He describes data science as an applied field growing out of traditional statistics.[18]\nEtymology[edit]\nEarly usage[edit]\nIn 1962, John Tukey described a field he called "data analysis", which resembles modern data science.[18] In 1985, in a lecture given to the Chinese Academy of Sciences in Beijing, C. F. Jeff Wu used the term "data science" for the first time as an alternative name for statistics.[19] Later, attendees at a 1992 statistics symposium at the University of Montpellier II acknowledged the emergence of a new discipline focused on data of various origins and forms, combining established concepts and principles of statistics and data analysis with computing.[20][21]\n\nThe term "data science" has been traced back to 1974, when Peter Naur proposed it as an alternative name for computer science.[3] In 1996, the International Federation of Classification Societies became the first conference to specifically feature data science as a topic.[3] However, the definition was still in flux. After the 1985 lecture in the Chinese Academy of Sciences in Beijing, in 1997 C. F. Jeff Wu again suggested that statistics should be renamed data science. He reasoned that a new name would help statistics shed inaccurate stereotypes, such as being synonymous with accounting, or limited to describing data.[22] In 1998, Hayashi Chikio argued for data science as a new, interdisciplinary concept, with three aspects: data design, collection, and analysis.[21]\n\nDuring the 1990s, popular terms for the process of finding patterns in datasets (which were increasingly large) included "knowledge discovery" and "data mining".[3][23]\n\nModern usage[edit]\n\nThe modern conception of data science as an independent discipline is sometimes attributed to William S. Cleveland.[24] In a 2001 paper, he advocated an expansion of statistics beyond theory into technical areas; because this would significantly change the field, it warranted a new name.[23] "Data science" became more widely used in the next few years: in 2002, the Committee on Data for Science and Technology launched Data Science Journal. In 2003, Columbia University launched The Journal of Data Science.[23] In 2014, the American Statistical Association's Section on Statistical Learning and Data Mining changed its name to the Section on Statistical Learning and Data Science, reflecting the ascendant popularity of data science.[25]\n\nThe professional title of "data scientist" has been attributed to DJ Patil and Jeff Hammerbacher

in 2008.[26] Though it was used by the National Science Board in their 2005 report "Long-Lived Digital Data Collections: Enabling Research and Education in the 21st Century", it referred broadly to any key role in managing a digital data collection.[27]\nThere is still no consensus on the definition of data science, and it is considered by some to be a buzzword.[28] Big data is a related marketing term.[29] Data scientists are responsible for breaking down big data into usable information and creating software and algorithms that help companies and organizations determine optimal operations.[30]\nSee also[edit]\nOpen Data Science Conference\nScientific Data\nReferences[edit]\n^ Dhar, V. (2013). "Data science and prediction". *Communications of the ACM*. 56 (12): 64–73. doi:10.1145/2500499. S2CID 6107147. Archived from the original on 9 November 2014. Retrieved 2 September 2015.\n^ Jeff Leek (12 December 2013). "The key word in "Data Science" is not Data, it is Science". *Simply Statistics*. Archived from the original on 2 January 2014. Retrieved 1 January 2014.\n^ \n a b c d e Cao, Longbing (29 June 2017). "Data Science: A Comprehensive Overview". *ACM Computing Surveys*. 50 (3): 43:1–43:42. doi:10.1145/3076253. ISSN 0360-0300.\n^ Hayashi, Chikio (1 January 1998). "What is Data Science? Fundamental Concepts and a Heuristic Example". In Hayashi, Chikio; Yajima, Keiji; Bock, Hans-Hermann; Ohsumi, Noboru; Tanaka, Yutaka; Baba, Yasumasa (eds.). *Data Science, Classification, and Related Methods*. *Studies in Classification, Data Analysis, and Knowledge Organization*. Springer Japan. pp. 40–51. doi:10.1007/978-4-431-65950-1\_3. ISBN 9784431702085.\n^ Tony Hey; Stewart Tansley; Kristin Michele Tolle (2009). *The Fourth Paradigm: Data-intensive Scientific Discovery*. Microsoft Research. ISBN 978-0-9825442-0-4. Archived from the original on 20 March 2017.\n^ Bell, G.; Hey, T.; Szalay, A. (2009). "Computer Science: Beyond the Data Deluge". *Science*. 323 (5919): 1297–1298. doi:10.1126/science.1170411. ISSN 0036-8075. PMID 19265007. S2CID 9743327.\n^ Davenport, Thomas H.; Patil, D. J. (October 2012). "Data Scientist: The Sexiest Job of the 21st Century". *Harvard Business Review*. 90 (10): 70–76, 128. PMID 23074866. Retrieved 18 January 2016.\n^ "About Data Science". *Data Science Association*. Retrieved 3 April 2020.\n^ "1. Introduction: What Is Data Science?". *Doing Data Science [Book]*. O'Reilly. Retrieved 3 April 2020.\n^ "the three sexy skills of data geeks". *m.e.driscoll: data utopian*. 27 May 2009. Retrieved 3 April 2020.\n^ Yau, Nathan (4 June 2009). "Rise of the Data Scientist". *FlowingData*. Retrieved 3 April 2020.\n^ "Basic Example". *benfry.com*. Retrieved 3 April 2020.\n^ "ASA Statement on the Role of Statistics in Data Science". *AMSTATNEWS*. American Statistical Association. 1 October 2015. Archived from the original on 20 June 2019. Retrieved 29 May 2019.\n^ "Nate Silver: What I need from statisticians". *Statistics Views*. Retrieved 3 April 2020.\n^ "What\\'s the Difference Between Data Science and Statistics?". *Priceonomics*. Retrieved 3 April 2020.\n^ Vasant Dhar (1 December 2013). "Data science and prediction". *Communications of the ACM*. 56 (12): 64–73. doi:10.1145/2500499. S2CID 6107147.\n^ "Statistics is the least important part of data science « Statistical Modeling, Causal Inference, and Social Science". *statmodeling.stat.columbia.edu*. Retrieved 3 April 2020.\n^ \n a b Donoho, David (18 September 2015). "50 years of Data Science" (PDF). Retrieved 2 April 2020.\n^ Wu, C. F. Jeff (1986). "Future directions of statistical research in

China: a historical perspective" (PDF). Application of Statistics and Management. 1: 1-7. Retrieved 29 November 2020.\\n^ Escoufier, Yves; Hayashi, Chikio; Fichet, Bernard, eds. (1995). Data science and its applications. Tokyo: Academic Press/Harcourt Brace. ISBN 0-12-241770-4. OCLC 489990740.\\n^\\na b Murtagh, Fionn; Devlin, Keith (2018). "The Development of Data Science: Implications for Education, Employment, Research, and the Data Revolution for Sustainable Development". Big Data and Cognitive Computing. 2 (2): 14. doi:10.3390/bdcc2020014.\\n^ Wu, C. F. Jeff. "Statistics=Data Science?" (PDF). Retrieved 2 April 2020.\\n^\\na b c Press, Gil. "A Very Short History of Data Science". Forbes. Retrieved 3 April 2020.\\n^ Gupta, Shanti (11 December 2015). "William S. Cleveland". Retrieved 2 April 2020.\\n^ Talley, Jill (1 June 2016). "ASA Expands Scope, Outreach to Foster Growth, Collaboration in Data Science". Amstat News. American Statistical Association.\\n^ Davenport, Thomas H.; Patil, D. J. (1 October 2012). "Data Scientist: The Sexiest Job of the 21st Century". Harvard Business Review. No. October 2012. ISSN 0017-8012. Retrieved 3 April 2020.\\n^ "US NSF - NSB-05-40, Long-Lived Digital Data Collections Enabling Research and Education in the 21st Century". www.nsf.gov. Retrieved 3 April 2020.\\n^ Press, Gil. "Data Science: What\\'s The Half-Life of a Buzzword?". Forbes. Retrieved 3 April 2020.\\n^ Pham, Peter. "The Impacts of Big Data That You May Not Have Heard Of". Forbes. Retrieved 3 April 2020.\\n^ Martin, Sophia (20 September 2019). "How Data Science will Impact Future of Businesses?". Medium. Retrieved 3 April 2020.\\nhide\\nvte\\nData\\nAugmentation Analysis Archaeology Cleansing Collection Compression Corruption Curation Degradation Editing ETL/ELT Extract Transform Load Farming Format management Fusion Integration Integrity Library Loss Management Migration Mining Pre-processing Preservation Protection (privacy) Publishing Recovery Reduction Retention Quality Science Scraping Scrubbing Security Stewardship Storage Validation Warehouse Wrangling\\'']'

```
[47]: text_selenium = re.sub(r'\\[[0-9]*\\]', ' ', str_selenium) #regex to replace ↪ footnotes
text_selenium = re.sub(r'\\s+', ' ', str_selenium) #more than a whitespace
text_selenium = text.lower() #lowercase the strings
```

```
[48]: text_selenium
```

```
[48]: ' data science is an interdisciplinary field that uses scientific methods,
processes, algorithms and systems to extract knowledge and insights from noisy,
structured and unstructured data, and apply knowledge from data across a broad
range of application domains. data science is related to data mining, machine
learning and big data. data science is a "concept to unify statistics, data
analysis, informatics, and their related methods" in order to "understand and
analyse actual phenomena" with data. it uses techniques and theories drawn from
many fields within the context of mathematics, statistics, computer science,
information science, and domain knowledge. however, data science is different
from computer science and information science. turing award winner jim gray
imagined data science as a "fourth paradigm" of science (empirical, theoretical,
```

computational, and now data-driven) and asserted that "everything about science is changing because of the impact of information technology" and the data deluge. a data scientist is someone who creates programming code and combines it with statistical knowledge to create insights from data. data science is an interdisciplinary field focused on extracting knowledge from typically large data sets and applying the knowledge and insights from that data to solve problems in a wide range of application domains. the field encompasses preparing data for analysis, formulating data science problems, analyzing data, developing data-driven solutions, and presenting findings to inform high-level decisions in a broad range of application domains. as such, it incorporates skills from computer science, statistics, information science, mathematics, data visualization, information visualization, data sonification, data integration, graphic design, complex systems, communication and business. statistician nathan yau, drawing on ben fry, also links data science to human-computer interaction: users should be able to intuitively control and explore data. in 2015, the american statistical association identified database management, statistics and machine learning, and distributed and parallel systems as the three emerging foundational professional communities. many statisticians, including nate silver, have argued that data science is not a new field, but rather another name for statistics. others argue that data science is distinct from statistics because it focuses on problems and techniques unique to digital data. vasant dhar writes that statistics emphasizes quantitative data and description. in contrast, data science deals with quantitative and qualitative data (e.g. images) and emphasizes prediction and action. andrew gelman of columbia university has described statistics as a nonessential part of data science. stanford professor david donoho writes that data science is not distinguished from statistics by the size of datasets or use of computing, and that many graduate programs misleadingly advertise their analytics and statistics training as the essence of a data-science program. he describes data science as an applied field growing out of traditional statistics. in 1962, john tukey described a field he called "data analysis", which resembles modern data science. in 1985, in a lecture given to the chinese academy of sciences in beijing, c. f. jeff wu used the term "data science" for the first time as an alternative name for statistics. later, attendees at a 1992 statistics symposium at the university of montpellier ii acknowledged the emergence of a new discipline focused on data of various origins and forms, combining established concepts and principles of statistics and data analysis with computing. the term "data science" has been traced back to 1974, when peter naur proposed it as an alternative name for computer science. in 1996, the international federation of classification societies became the first conference to specifically feature data science as a topic. however, the definition was still in flux. after the 1985 lecture in the chinese academy of sciences in beijing, in 1997 c. f. jeff wu again suggested that statistics should be renamed data science. he reasoned that a new name would help statistics shed inaccurate stereotypes, such as being synonymous with accounting, or limited to describing data. in 1998, hayashi chikio argued for data science as a new, interdisciplinary concept, with three aspects: data design, collection, and analysis. during the 1990s, popular terms



for the process of finding patterns in datasets (which were increasingly large) included "knowledge discovery" and "data mining". the modern conception of data science as an independent discipline is sometimes attributed to william s. cleveland. in a 2001 paper, he advocated an expansion of statistics beyond theory into technical areas; because this would significantly change the field, it warranted a new name. "data science" became more widely used in the next few years: in 2002, the committee on data for science and technology launched data science journal. in 2003, columbia university launched the journal of data science. in 2014, the american statistical association\'s section on statistical learning and data mining changed its name to the section on statistical learning and data science, reflecting the ascendant popularity of data science. the professional title of "data scientist" has been attributed to dj patil and jeff hammerbacher in 2008. though it was used by the national science board in their 2005 report "long-lived digital data collections: enabling research and education in the 21st century", it referred broadly to any key role in managing a digital data collection. there is still no consensus on the definition of data science, and it is considered by some to be a buzzword. big data is a related marketing term. data scientists are responsible for breaking down big data into usable information and creating software and algorithms that help companies and organizations determine optimal operations. '

```
[49]: #text segmented by sentence
selenium_sentences = nltk.sent_tokenize(text_selenium)
selenium_sentences
```

```
[49]: [' data science is an interdisciplinary field that uses scientific methods,
processes, algorithms and systems to extract knowledge and insights from noisy,
structured and unstructured data, and apply knowledge from data across a broad
range of application domains.',
'data science is related to data mining, machine learning and big data.',
'data science is a "concept to unify statistics, data analysis, informatics,
and their related methods" in order to "understand and analyse actual phenomena"
with data.',
'it uses techniques and theories drawn from many fields within the context of
mathematics, statistics, computer science, information science, and domain
knowledge.',
'however, data science is different from computer science and information
science.',
'turing award winner jim gray imagined data science as a "fourth paradigm" of
science (empirical, theoretical, computational, and now data-driven) and
asserted that "everything about science is changing because of the impact of
information technology" and the data deluge.',
'a data scientist is someone who creates programming code and combines it with
statistical knowledge to create insights from data.',
'data science is an interdisciplinary field focused on extracting knowledge
from typically large data sets and applying the knowledge and insights from that
data to solve problems in a wide range of application domains.',
```



'the field encompasses preparing data for analysis, formulating data science problems, analyzing data, developing data-driven solutions, and presenting findings to inform high-level decisions in a broad range of application domains.',

'as such, it incorporates skills from computer science, statistics, information science, mathematics, data visualization, information visualization, data sonification, data integration, graphic design, complex systems, communication and business.',

'statistician nathan yau, drawing on ben fry, also links data science to human-computer interaction: users should be able to intuitively control and explore data.',

'in 2015, the american statistical association identified database management, statistics and machine learning, and distributed and parallel systems as the three emerging foundational professional communities.',

'many statisticians, including nate silver, have argued that data science is not a new field, but rather another name for statistics.',

'others argue that data science is distinct from statistics because it focuses on problems and techniques unique to digital data.',

'vasant dhar writes that statistics emphasizes quantitative data and description.',

'in contrast, data science deals with quantitative and qualitative data (e.g.',  
'images) and emphasizes prediction and action.',

'andrew gelman of columbia university has described statistics as a nonessential part of data science.',

'stanford professor david donoho writes that data science is not distinguished from statistics by the size of datasets or use of computing, and that many graduate programs misleadingly advertise their analytics and statistics training as the essence of a data-science program.',

'he describes data science as an applied field growing out of traditional statistics.',

'in 1962, john tukey described a field he called "data analysis", which resembles modern data science.',

'in 1985, in a lecture given to the chinese academy of sciences in beijing, c. f. jeff wu used the term "data science" for the first time as an alternative name for statistics.',

'later, attendees at a 1992 statistics symposium at the university of montpellier ii acknowledged the emergence of a new discipline focused on data of various origins and forms, combining established concepts and principles of statistics and data analysis with computing.',

'the term "data science" has been traced back to 1974, when peter naur proposed it as an alternative name for computer science.',

'in 1996, the international federation of classification societies became the first conference to specifically feature data science as a topic.',

'however, the definition was still in flux.',

'after the 1985 lecture in the chinese academy of sciences in beijing, in 1997 c. f. jeff wu again suggested that statistics should be renamed data science.',

'he reasoned that a new name would help statistics shed inaccurate stereotypes,

such as being synonymous with accounting, or limited to describing data.',  
 'in 1998, hayashi chikio argued for data science as a new, interdisciplinary concept, with three aspects: data design, collection, and analysis.',  
 'during the 1990s, popular terms for the process of finding patterns in datasets (which were increasingly large) included "knowledge discovery" and "data mining".',  
 'the modern conception of data science as an independent discipline is sometimes attributed to william s. cleveland.',  
 'in a 2001 paper, he advocated an expansion of statistics beyond theory into technical areas; because this would significantly change the field, it warranted a new name.',  
 '"data science" became more widely used in the next few years: in 2002, the committee on data for science and technology launched data science journal.',  
 'in 2003, columbia university launched the journal of data science.',  
 'in 2014, the american statistical association's section on statistical learning and data mining changed its name to the section on statistical learning and data science, reflecting the ascendant popularity of data science.',  
 'the professional title of "data scientist" has been attributed to dj patil and jeff hammerbacher in 2008. though it was used by the national science board in their 2005 report "long-lived digital data collections: enabling research and education in the 21st century", it referred broadly to any key role in managing a digital data collection.',  
 'there is still no consensus on the definition of data science, and it is considered by some to be a buzzword.',  
 'big data is a related marketing term.',  
 'data scientists are responsible for breaking down big data into usable information and creating software and algorithms that help companies and organizations determine optimal operations.']

```
[50]: caption_Xpath = '//*[@class="thumbinner"]'

captionImage_selenium = []
for content in driver.find_elements(by=By.XPATH, value=caption_Xpath):
    captionImage_selenium.append(content.text)
```

```
[51]: print(captionImage_selenium)
```

['The existence of Comet NEOWISE (here depicted as a series of red dots) was discovered by analyzing astronomical survey data acquired by a space telescope, the Wide-field Infrared Survey Explorer.']

```
[52]: image_Xpath = '//*[@class="image"]'

xpath_images = driver.find_elements(by=By.XPATH, value=image_Xpath)

image_selenium = []
for content in xpath_images:
```

```

for img in images:
    print(img['src'])
    image_selenium.append(img["src"])

```

```

//upload.wikimedia.org/wikipedia/commons/thumb/4/45/PIA23792-1600x1200%281%29.jpg
g/220px-PIA23792-1600x1200%281%29.jpg
//en.wikipedia.org/wiki/Special:CentralAutoLogin/start?type=1x1
/static/images/footer/wikimedia-button.png
/static/images/footer/poweredby_mediawiki_88x31.png

```

```

[53]: #complete the url
full_selenium_url = "https:" + image_selenium[0]
full_selenium_url

```

```

[53]: 'https://upload.wikimedia.org/wikipedia/commons/thumb/4/45/PIA23792-1600x1200%281%29.jpg/220px-PIA23792-1600x1200%281%29.jpg'

```

```

[54]: #shutil is a python library that can do operations to files

r_sel = requests.get(full_selenium_url, stream=True)

if r_sel.status_code == 200:                                #200 status code = OK
    with open("star_sel.png", 'wb') as f:
        r_sel.raw.decode_content = True
        shutil.copyfileobj(r_sel.raw, f)

```

## Exercise 2

```

[55]: table_df['Últ.'] =table_df['Últ.'].str.replace(',','').astype(float)
table_df['% Dif.'] =table_df['% Dif.'].str.replace(',','').astype(float)
table_df['Máx.'] =table_df['Máx.'].str.replace(',','').astype(float)
table_df['Mín.'] =table_df['Mín.'].str.replace(',','').astype(float)
table_df['Efectivo (miles €)'] =table_df['Efectivo (miles €)'].str.replace('↵','').str.replace(',','').astype(float)

```

```

/var/folders/sq/fggxzcn90p73_7hm62_tglm40000gn/T/ipykernel_15722/1029496813.py:5
: FutureWarning: The default value of regex will change from True to False in a
future version. In addition, single character regular expressions will *not* be
treated as literal strings when regex=True.

```

```

table_df['Efectivo (miles €)'] =table_df['Efectivo (miles
€)'].str.replace('.', '').str.replace(',','').astype(float)

```

```

[56]: #get date
today = date.today()

# create a document
document = Document()

```

```

#add heading
document.add_heading('Daily Session Prices'+ " "+str(today), level = 0)
document.add_heading('About Dataset', level = 1)

# Context
context = document.add_heading(' CONTEXT: ', level = 2)
context = document.add_paragraph('This document present the daily session_
    ↪prices of the IBEX 35 stocks.The IBEX 35 is the benchmark stock market index_
    ↪of the Bolsa de Madrid, Spain principal stock exchange',
    style = 'List Bullet').runs[0].font.size = Pt(12)

# Content
content = document.add_heading(' CONTENT: ', level = 2)
content = document.add_paragraph('Nombre: Stock name', style = 'List Bullet').
    ↪runs[0].font.size = Pt(11)
content = document.add_paragraph('Últ: Latest share price update', style =_
    ↪'List Bullet').runs[0].font.size = Pt(11)
content = document.add_paragraph('% Dif: Share price difference', style = 'List_
    ↪Bullet').runs[0].font.size = Pt(11)
content = document.add_paragraph('Máx: The maximum share price of the session',_
    ↪style = 'List Bullet').runs[0].font.size = Pt(11)
content = document.add_paragraph('Mín: The minimum share price of the session',_
    ↪style = 'List Bullet').runs[0].font.size = Pt(11)
content = document.add_paragraph('Volumen: Share volume', style = 'List_
    ↪Bullet').runs[0].font.size = Pt(11)
content = document.add_paragraph('Efectivo (miles €): Company cash', style =_
    ↪'List Bullet').runs[0].font.size = Pt(11)
content = document.add_paragraph('Fecha: Daily date', style = 'List Bullet').
    ↪runs[0].font.size = Pt(11)
content = document.add_paragraph('Hora: Hour ', style = 'List Bullet').runs[0].
    ↪font.size = Pt(11)

#acknowledgements
ack = document.add_heading('Acknowledgements: ', level = 2)
ack = document.add_paragraph('Thank You, Public Data').runs[0].font.size =_
    ↪Pt(11)

#table heading
document.add_heading('Daily Session Table', level = 1)

#table
table = document.add_table(rows = 1, cols = len(table_df.columns), style =_
    ↪'Table Grid')

```

```

hdr_cells = table.rows[0].cells

#rows
for i in range(len(table_df.columns)):
    hdr_cells[i].text = table_df.columns[i]
for i in range(len(table_df)):
    rows_cells = table.add_row().cells
    for j in range(len(table_df.columns)):
        rows_cells[j].text = str(table_df.iat[i,j])

#font rows
for row in table.rows:
    for cell in row.cells:
        paragraphs = cell.paragraphs
        paragraph = paragraphs[0]
        run_obj = paragraph.runs
        run = run_obj[0]
        font = run.font
        font.size = Pt(9)

# Wiki
wiki = document.add_heading(' WIKI DATA SCIENCE: ', level = 2)
wiki = document.add_paragraph(sentences).runs[0].font.size = Pt(11)

#table alignment
table.alignment = WD_TABLE_ALIGNMENT.CENTER

paragraph = document.add_paragraph()
paragraph.paragraph_format.line_spacing_rule = WD_LINE_SPACING.EXACTLY

document.add_heading("Wiki image ", level=2)
document.add_picture('starv2.png', width=Inches(5))
image_caption = document.add_paragraph()
image_caption.add_run('Image Caption').bold = True
image_caption = document.add_paragraph(captionImage_selenium).runs[0].font.size
    ↪= Pt(11)

#break page
document.add_page_break()

document.save('IBEX35_Kaggle_Style.docx')

```

### Exercise 3

Choose a web page of your choice and perform web scraping using the Selenium library first and Scrapy later.

Scrappy

```
[57]: class elPaisSpider(scrapy.Spider):
    name = "articles"

    start_urls = ['https://english.elpais.com/science-tech/']

    def parse(self, response):
        author_page_links = response.xpath("//header/h2/a/@href")
        yield from response.follow_all(author_page_links, self.parse_author)

        pagination_links = "https://english.elpais.com/" + response.xpath("/html/body/div/main/div/div/a/@href").get()
        yield from response.follow_all(pagination_links, self.parse)

    def parse_author(self, response):
        def extract_with_css(query):
            return response.xpath(query).get(default='').strip()
        def extract_all(query):
            return response.xpath(query).getall()

        yield {
            'url': response.url,
            'date': extract_with_css('//*[id="article_date_p"]/text()'),
            'title': extract_with_css('//header/div/h1/text()'),
            'author': extract_with_css('/html/body/div/article/div/div/div/a/text()'),
            'text_art': extract_all('/html/body/div/article/div/p/text()'),
        }
    FILE_NAME = 'elpais_scrap.csv'
    SETTINGS = {
        'FEED_FORMAT': 'csv',
        'FEED_URI': FILE_NAME,
        'DOWNLOAD_DELAY': 5,
    }
```

```
[58]: process = CrawlerProcess(SETTINGS)
process.crawl(elPaisSpider)
process.start()
```

```
2022-07-25 15:18:38 [scrapy.utils.log] INFO: Scrapy 2.6.1 started (bot: scrapybot)
```

```
2022-07-25 15:18:38 [scrapy.utils.log] INFO: Versions: lxml 4.6.3.0, libxml2 2.9.12, cssselect 1.1.0, parsel 1.6.0, w3lib 1.22.0, Twisted 22.2.0, Python
```

```

3.9.7 (default, Sep 16 2021, 08:50:36) - [Clang 10.0.0 ], pyOpenSSL 21.0.0
(OpenSSL 1.1.1l 24 Aug 2021), cryptography 3.4.8, Platform
macOS-10.15.7-x86_64-i386-64bit
2022-07-25 15:18:38 [scrapy.crawler] INFO: Overridden settings:
{'DOWNLOAD_DELAY': 5}
2022-07-25 15:18:38 [scrapy.utils.log] DEBUG: Using reactor:
twisted.internet.selectreactor.SelectReactor
2022-07-25 15:18:38 [scrapy.extensions.telnet] INFO: Telnet Password:
bca80b056cbcb39a
2022-07-25 15:18:38 [py.warnings] WARNING:
/Users/franciscoregalado/opt/anaconda3/lib/python3.9/site-
packages/scrapy/extensions/feedexport.py:289: ScrapyDeprecationWarning: The
`FEED_URI` and `FEED_FORMAT` settings have been deprecated in favor of the
`FEEDS` setting. Please see the `FEEDS` setting docs for more details
    exporter = cls(crawler)

2022-07-25 15:18:38 [scrapy.middleware] INFO: Enabled extensions:
['scrapy.extensions.corestats.CoreStats',
 'scrapy.extensions.telnet.TelnetConsole',
 'scrapy.extensions.memusage.MemoryUsage',
 'scrapy.extensions.feedexport.FeedExporter',
 'scrapy.extensions.logstats.LogStats']
2022-07-25 15:18:39 [scrapy.middleware] INFO: Enabled downloader middlewares:
['scrapy.downloadermiddlewares.httppauth.HttpAuthMiddleware',
 'scrapy.downloadermiddlewares.downloadtimeout.DownloadTimeoutMiddleware',
 'scrapy.downloadermiddlewares.defaultheaders.DefaultHeadersMiddleware',
 'scrapy.downloadermiddlewares.useragent.UserAgentMiddleware',
 'scrapy.downloadermiddlewares.retry.RetryMiddleware',
 'scrapy.downloadermiddlewares.redirect.MetaRefreshMiddleware',
 'scrapy.downloadermiddlewares.httpcompression.HttpCompressionMiddleware',
 'scrapy.downloadermiddlewares.redirect.RedirectMiddleware',
 'scrapy.downloadermiddlewares.cookies.CookiesMiddleware',
 'scrapy.downloadermiddlewares.httpproxy.HttpProxyMiddleware',
 'scrapy.downloadermiddlewares.stats.DownloaderStats']
2022-07-25 15:18:39 [scrapy.middleware] INFO: Enabled spider middlewares:
['scrapy.spidermiddlewares.httperror.HttpErrorMiddleware',
 'scrapy.spidermiddlewares.offsite.OffsiteMiddleware',
 'scrapy.spidermiddlewares.referer.RefererMiddleware',
 'scrapy.spidermiddlewares.urllength.UrlLengthMiddleware',
 'scrapy.spidermiddlewares.depth.DepthMiddleware']
2022-07-25 15:18:39 [scrapy.middleware] INFO: Enabled item pipelines:
[]
2022-07-25 15:18:39 [scrapy.core.engine] INFO: Spider opened
2022-07-25 15:18:41 [scrapy.extensions.logstats] INFO: Crawled 0 pages (at 0
pages/min), scraped 0 items (at 0 items/min)
2022-07-25 15:18:41 [scrapy.extensions.telnet] INFO: Telnet console listening on
127.0.0.1:6023
2022-07-25 15:18:41 [filelock] DEBUG: Attempting to acquire lock 140299882508448

```

```

on /Users/franciscoregalado/.cache/python-
tldextract/3.9.7.final__anaconda3__35f079__tldextract-3.3.1/publicsuffix.org-
tlds/de84b5ca2167d4c83e38fb162f2e8738.tldextract.json.lock
2022-07-25 15:18:41 [filelock] DEBUG: Lock 140299882508448 acquired on
/Users/franciscoregalado/.cache/python-
tldextract/3.9.7.final__anaconda3__35f079__tldextract-3.3.1/publicsuffix.org-
tlds/de84b5ca2167d4c83e38fb162f2e8738.tldextract.json.lock
2022-07-25 15:18:41 [filelock] DEBUG: Attempting to release lock 140299882508448
on /Users/franciscoregalado/.cache/python-
tldextract/3.9.7.final__anaconda3__35f079__tldextract-3.3.1/publicsuffix.org-
tlds/de84b5ca2167d4c83e38fb162f2e8738.tldextract.json.lock
2022-07-25 15:18:41 [filelock] DEBUG: Lock 140299882508448 released on
/Users/franciscoregalado/.cache/python-
tldextract/3.9.7.final__anaconda3__35f079__tldextract-3.3.1/publicsuffix.org-
tlds/de84b5ca2167d4c83e38fb162f2e8738.tldextract.json.lock
2022-07-25 15:18:41 [scrapy.core.engine] DEBUG: Crawled (200) <GET
https://english.elpais.com/science-tech/> (referer: None)
2022-07-25 15:18:41 [scrapy.dupefilters] DEBUG: Filtered duplicate request: <GET
https://english.elpais.com/science-tech/t> - no more duplicates will be shown
(see DUPEFILTER_DEBUG to show all duplicates)
2022-07-25 15:18:47 [scrapy.core.engine] DEBUG: Crawled (200) <GET
https://english.elpais.com/science-tech/2022-07-22/why-are-the-egg-cells-able-
to-live-for-half-a-century-and-still-create-a-baby-a-new-study-has-solved-the-
enigma.html> (referer: https://english.elpais.com/science-tech/)
2022-07-25 15:18:47 [scrapy.core.scrapers] DEBUG: Scraped from <200
https://english.elpais.com/science-tech/2022-07-22/why-are-the-egg-cells-able-
to-live-for-half-a-century-and-still-create-a-baby-a-new-study-has-solved-the-
enigma.html>
{'url': 'https://english.elpais.com/science-tech/2022-07-22/why-are-the-egg-
cells-able-to-live-for-half-a-century-and-still-create-a-baby-a-new-study-has-
solved-the-enigma.html', 'date': '22 Jul 2022', 'title': 'Why are egg cells able
to live for half a century and still create a baby? New study solves enigma',
'author': 'Manuel Ansedé', 'text_art': ['On average, every woman is born with a
million immature eggs, which will degenerate as she ages. No more will be
produced in her life. At puberty, only about 300,000 will remain in her ovaries,
and just 400 will be released during the reproductive stage, usually one for
each menstrual cycle. The vast majority of other cell types don't live that
long: they age and die. Red blood cells, for example, are eliminated after four
months. Neurons do last for decades, but they face many problems, such as
mutations and building up of toxic proteins. However, some of the precursor
cells of the egg cells - known as oocytes - will live for around half a century,
preserving the woman's DNA, and the ability to bear healthy children, intact.
This amazing shielding of the future eggs used to be an enigma to science; but
on Wednesday, a team from the Center for Genomic Regulation in Barcelona
announced that it has discovered its unique defense strategy.', 'Human cells
usually contain hundreds or thousands of mitochondria, tiny power banks of about
one thousandth of a millimeter. Energy is formed in the mitochondria thanks to
the movement of electrons between five protein complexes, and it is stored in

```



the form of ATP, a molecule made up of 10 atoms of carbon, 16 hydrogen, five nitrogen, 13 oxygen, and three phosphorus. Human life would not be possible without this constant production.', 'A collateral effect of this essential process, however, is the formation of unstable molecules called reactive oxygen species, whose accumulation can cause mutations in the DNA and kill the cell. The Barcelona researchers, led by Turkish biologist Elvan Böke, observed that the oocytes skip the step that generates most harmful by-products (the first of the five protein complexes), which explains why they are capable of remaining in a dormant state for almost half a century without losing their reproductive capacity. "My mother had me when she was 26, so the cell I was born from was already 26 years old. Oocytes cannot afford to accumulate damage," says Böke.', 'The finding, ', ', could help understand why many women are unable to have children. "There are so many things that we don't know about human reproduction that one in four cases of ', ' has no explanation," laments the Turkish biologist. Her team analyzed human oocytes as well as those of the African clawed frog, a classic laboratory animal that has been the focus of several investigations whose authors have won the Nobel Prize. This frog was the first cloned vertebrate animal in 1962, more than three decades before ', 'the sheep. The one responsible for this first cloning, British biologist John Gurdon, received the Nobel Prize for Medicine half a century later.', 'The authors of the new study refer to their results as "quite surprising," because an animal cell that was capable of living without this first mitochondrial protein complex had never been seen before. In the domain of eukaryotic organisms - those formed by cells that have their instruction manual, the DNA, in a differentiated nucleus, such as ', '- only one similar case was previously known: that of mistletoe cells. "It is a parasitic plant that just wants to survive. And in order to survive for a long time, it curbs the harmful processes in its system. We see this same mistletoe strategy in the oocytes," points out Böke.', 'The Turkish scientist arrived in Barcelona in 2017, coming from Harvard University in the USA. Her work, funded by the European Research Council with €1.4 million, is now focused on the search for the alternative energy source that immature egg cells use during their decades of latency. Biotechnologist Aida Rodríguez, co-author of the new study, uses an illustrative comparison: "As a long-term maintenance strategy, it's like putting the engine in neutral."', 'In wealthy countries, mothers are taking longer to have their first child. Biologists Deepak Adhikari and John Carroll from Monash University (Australia) emphasize in an independent commentary published in the journal ', 'that these mothers present a decrease in the ', 'of the egg cells, presumably caused by reactions in the mitochondria. The new study may help understand why, as the years go by, the eggs cease to be a safe haven for the mother's DNA.']]

```
2022-07-25 15:18:53 [scrapy.core.engine] DEBUG: Crawled (200) <GET
https://english.elpais.com/science-tech/2022-07-15/changing-small-pieces-of-the-cerebral-cortex-can-generate-superhero-abilities-oscar-marin-neuroscientist.html> (referer: https://english.elpais.com/science-tech/)
2022-07-25 15:18:54 [scrapy.core.scrapers] DEBUG: Scraped from <200
https://english.elpais.com/science-tech/2022-07-15/changing-small-pieces-of-the-cerebral-cortex-can-generate-superhero-abilities-oscar-marin-neuroscientist.html>
```

{'url': 'https://english.elpais.com/science-tech/2022-07-15/changing-small-pieces-of-the-cerebral-cortex-can-generate-superhero-abilities-oscar-marin-neuroscientist.html', 'date': '15 Jul 2022', 'title': '‘Changing small pieces of the cerebral cortex can generate superhero abilities’: Óscar Marín, neuroscientist', 'author': 'Manuel Ansedé', 'text\_art': ['the Spaniard ', ' ', 'invented beautiful metaphors to explain what he discovered with his microscope at the end of the 19th century. Cajal wrote that neurons, the main cells of the brain, were "the mysterious butterflies of the soul" that communicated with each other through "kisses." More than a century later, the neuroscientist Óscar Marín has added numbers to the poetry: 100 billion neurons inside each skull, with an average of ', ' '. It’s an inconceivable amount of butterfly kisses. The human brain is so complex that it cannot imagine itself.', 'Marín, 51, directs the Centre for Neurodevelopmental Disorders at King’s College London. On July 15 he formally became a ', ' of the United Kingdom, a prestigious institution founded in 1660. Geniuses such as the naturalist Charles Darwin, the physicist Albert Einstein, the neurologist Rita Levi-Montalcini and Ramón y Cajal himself all belonged to the group. Marín’s discoveries have illuminated the development and function of the ', ' ', that gray substance that is home to our most distinctively human characteristics, such as imagination and thought. His goal is to reveal the causes of "some of the ', ' psychiatric disorders, such as autism and schizophrenia."', ' The English artist ', ' ', diagnosed with autism and savant syndrome, flew over Madrid by helicopter in 2008 and later drew the entire city from memory. What happens in those types of brains?', ' The correct answer is that I don’t know. The development of an organ as complex as our brain allows this range of variability. There is a recipe for generating brains, and there are many deviations from it that are compatible with life. In some cases, they produce brains that we recognize as pathological, and in other cases, like this one, brains that acquire these super-capabilities. My intuition, and this is completely speculative, is that these brains are not very different from neurotypical brains [without autism spectrum disorders], but they have acquired some kind of capacity during development, in this case the capacity to fix very stiff patterns.', 'There are other people with savant syndrome who hear a song once and can already play it by heart.', ' Yes, it’s perfect pitch, that ability to recreate musical notes without any problem. I think that those cerebral cortexes are not very different from yours or mine. It’s really fascinating that our genome encodes such an enormous variability of behaviors, just by varying small pieces of that incredible puzzle of our cerebral cortex. With changes in no more than a few dozen genes, a practically identical structure is generated, but with a superhero capacity, so to speak.', ' You have been elected a ', ' for your discoveries on the migrations and connections of neurons in the cerebral cortex, especially the inhibitory ones.', 'Yes, there are two types of neurons, excitatory and inhibitory, which are like yin and yang. There has to be a very precise balance for the cerebral cortex to work. It was assumed that all these neurons were born in the same place, that they were formed in situ, but we discovered that the inhibitory neurons are not born where the majority of the neurons of the cortex, the excitatory ones, are. They are born in another region of the embryonic brain and migrate a very long distance to reach the cortex.', 'How long is that trip?', ' In humans, they take weeks to reach their final

destination. In other words, the cortex has a kind of population of resident cells-the autochthonous ones of the cerebral cortex, so to speak, which are the excitatory ones-and a very large population of inhibitory cells that immigrate and end up colonizing this area. There are approximately four excitatory neurons for each inhibitory one. Most of the computation is done by the pyramidal cells, which are the excitatory cells. The inhibitors are like an orchestra conductor: they are in charge of controlling the flow of information between the pyramidal cells, which would be the instruments. They coordinate that there is sound when there should be sound and also control their volume: the amount of information they transmit. When the inhibitors don't work, there is uncontrolled activity in the cortex and epilepsy.', ' And that conductor arrives from outside the cortex.', 'Exactly. It is a very nice way to generate a new structure in the brain. You have two structures that are working independently, and suddenly, from a mutation, one population of cells becomes migratory and joins the other structure. And that creates opportunities in the way of managing information, opportunities that do not exist if the population is more homogeneous.', ' What kind of opportunities?', 'It must represent an evolutionary advantage large enough for such a complicated system to have been preserved over millions of years of evolution. The larger the brain, the longer the distance these neurons have to travel and the greater the probability of error: cells not arriving at their destination, not placed correctly or exhibiting problems. It's a complicated system to understand in terms of efficiency. But this mixture of neuronal types in the cortex must provide a very important evolutionary advantage. The parallelism is that talent is universal. Societies capable of ', ' from more places are richer and have a greater capacity to generate new things.', ' This migration of conductors to the cerebral cortex can also cause problems. It could be behind some developmental disorders, such as autism and schizophrenia.', ' Yes, and epilepsy. Almost anything that fails in the cortex can cause these types of problems. Conceptually, the most important change since we started in this business 25 years ago has been that we then thought that any mutation that affected the development of the cerebral cortex would have a more or less homogeneous impact. We now know that because these two populations of neurons have very different origins, they express very different genes. We now know that there are mutations that will affect the development of excitatory cells, which make up 80% of the neurons in the cortex. When there is a problem in the development of these cells, it usually manifests itself in a very visible way, such as macrocephalies or microcephalies. In contrast, people who have autism or schizophrenia usually have brains that are macroscopically very similar to those of neurotypical people.', 'And what does that imply?', 'Perhaps the problems are much finer. Perhaps there are genes that only affect inhibitory neurons and, therefore, create problems in the generation of these cells, in their migration, in their connectivity. We know more and more about which genes are important in developing these diseases. What we still do not fully understand is when and in what population of cells this deviation from normal brain development occurs. There are probably at least 60 types of excitatory neurons and another 60 types of inhibitory neurons in the cerebral cortex.', ' The plasticity of the brain is amazing.', 'It's really fascinating to see how plastic the brain is. You do very radical experiments, where you alter very

important things, and yet the developing brain has the ability to adapt. There is a widespread idea that the brain is like a computer. One would understand developmental illness as missing a piece of the computer, so simply putting it back would be enough. Nothing really works like that in brain development. When a piece is missing, or in the wrong place, the rest of the brain will reorganize and rewire itself to try and fill that role. And that is why there are people who walk around without half of the cerebral cortex or without the cerebellum, spectacular things that in an adult brain would not be compatible with life. However, if they do occur during development, the brain will look for ways to compensate for those deficits. That's why I think it's going to be very difficult to understand some of these diseases, in which surely what we observe is the final product of an initial change and subsequent reorganization of the brain.']]

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2022-07-25 15:19:06 [scrapy.core.engine] DEBUG: Crawled (200) <GET
https://english.elpais.com/science-tech/2022-07-15/study-indicates-that-people-over-40-may-benefit-from-small-amounts-of-alcohol-consumption.html> (referer:
https://english.elpais.com/science-tech/)
2022-07-25 15:19:06 [scrapy.core.scrapers] DEBUG: Scraped from <200
https://english.elpais.com/science-tech/2022-07-15/study-indicates-that-people-over-40-may-benefit-from-small-amounts-of-alcohol-consumption.html>
{'url': 'https://english.elpais.com/science-tech/2022-07-15/study-indicates-that-people-over-40-may-benefit-from-small-amounts-of-alcohol-consumption.html',
'date': '15 Jul 2022', 'title': 'Study indicates that people over 40 may benefit from small amounts of alcohol consumption', 'author': 'Daniel Mediavilla',
'text_art': ['Generally speaking, consuming alcohol is bad for your health, and the more you consume, the worse it is. However, there may be exceptions to this general rule. That is one of the conclusions of an expansive study sponsored by the Global Burden of Disease (GBD) and published in ', '. From 1990 to 2020, the study analyzed 22 health indicators such as cardiovascular disease, traffic accidents, and cancer, in men and women between 15-95 years old, located in 204 countries. As other studies have found, there is no level of ', ' for people under 40. However, the study found that people over 40 could have some cardiovascular or diabetes-related benefits from consuming small amounts (less than two glasses of wine a day). This conclusion, which resulted from a minor change in the data analysis method, tempers an ', ' published in ', 'that concluded there is no safe level of alcohol consumption for any age group.',
'The new study explains that the ethanol content of alcohol increases the production of good cholesterol, which acts on the endothelium (a thin membrane that lines the inside of the heart and blood vessels) in a manner that can be beneficial for conditions like cardiovascular disease and diabetes. Iñaki Galán, a researcher with Spain's National Epidemiology Center (CNE) cautions: "Alcohol consumption can increase the risk of other diseases such as breast and colorectal cancer, as well as traffic accidents. I think it's better to recommend zero consumption." Juan Turnes, head of the department of digestive diseases at Pontevedra University Hospital (northwest Spain) and a member of the Spanish Association for the Study of the Liver, finds the study very useful for understanding the ', '. But he also cautions against applying the study's macro-level results to individuals. "Even if a healthy amount of alcohol consumption
```

exists, we still have the problem that it leads to addiction. It's ethically questionable to recommend consuming the medical definition of one or two drinks, which is less than what most people consider to be a drink," said Turnes. "It's hard to avoid increasing consumption over time.", 'Emmanuela Gakidou, professor of Health Metrics Sciences at the University of Washington (USA) and coordinator of the study, says, "Young people shouldn't drink, but older people can benefit from drinking small amounts. Although it's unrealistic to think that young people will abstain from drinking, we believe it's important to communicate the latest scientific evidence so that everyone can make informed decisions about their health." Dana Bryazka, a researcher at the University of Washington and co-author of the study, says that people should not "drink more alcohol to prevent disease nor make individual-level recommendations based on the results of this study.", 'The GBD report shows that 1.34 billion people consumed harmful amounts of alcohol during the period studied, with men far outnumbering women (1.03 billion versus 312 million). The heaviest users of alcoholic beverages are men, particularly those under the age of 40. That cohort, which accounts for 59.1% of all heavy drinkers, is dominated by men (76.7%). This indicates that men under 40 should be the main focus of efforts to mitigate the', '. The authors of the study also recommend revising the guidelines for alcohol consumption to lower the maximum amounts suggested for young people. The main risk of alcohol consumption by young people comes from traffic accidents and other risky behavior, rather than from health complications.', 'Some benefits of small amounts of alcohol consumption were detected for the 40-64 age group. Yet harmful health effects are detected in men of this age after 1.69 drinks, and in women after 1.82 drinks. The threshold is higher for people over 65: harmful health effects are detected in men after 3.19 drinks, and in women after 3.51 drinks. The authors note that these levels vary from region to region, and any local guidelines should take into account the prevalence of specific diseases in that part of the world. For example, in some Asian countries, high rates of hepatitis make alcohol consumption more harmful than in areas where the disease is not as prevalent.']]

2022-07-25 15:19:07 [scrapy.core.engine] DEBUG: Crawled (200) <GET

<https://english.elpais.com/science-tech/2022-07-15/for-the-first-time-in-history-we-can-modify-atomic-bonds-in-a-single-molecule.html>> (referer: <https://english.elpais.com/science-tech/>)

2022-07-25 15:19:07 [scrapy.core.scrapers] DEBUG: Scraped from <200

<https://english.elpais.com/science-tech/2022-07-15/for-the-first-time-in-history-we-can-modify-atomic-bonds-in-a-single-molecule.html>>

{'url': 'https://english.elpais.com/science-tech/2022-07-15/for-the-first-time-in-history-we-can-modify-atomic-bonds-in-a-single-molecule.html', 'date': '15 Jul 2022', 'title': 'For the first time in history, we can modify atomic bonds in a single molecule', 'author': 'Manuel Ansedé', 'text\_art': ['An international team of scientists has succeeded in modifying individual molecules by selectively forming and ', ' between their atoms. The breakthrough will enable the creation of new molecules that were previously inconceivable, according to Spanish chemist Diego Peña, one of the leaders of the research team. "This technique is going to revolutionize chemistry," he said. The study is featured on the cover of the prestigious ', ' magazine.', 'A molecule is simply a cluster

of atoms. Water - famously known as  $H_2O$  - has two hydrogen atoms and one oxygen atom, joined by covalent bonds that share electrons. To modify molecules, scientists currently use a process manner likened to putting Lego blocks in a washing machine and hoping that the quintillions of molecules somehow end up assembling themselves into the desired product. This is the analogy used by ' and ' in another study published in ', '. But Peña's team instead used a state-of-the-art microscope, capable of focusing on a single molecule, one millionth of a millimeter in size, to selectively modify the molecule's bonds using voltage pulses.', '"We can now assemble atoms in previously inconceivable ways," exults Peña, a professor with the Center for Research in Biological Chemistry and Molecular Materials (CiQUS), at the University of Santiago de Compostela in northwest Spain. Borrowing a famous line from the ', ' Peña said, "I have seen molecules you wouldn't believe." The research team succeeded in creating different structures using 18 carbon and eight hydrogen atoms to form rings and other shapes, and then reverted them to the original structure. "If you were to ask chemists if some of these molecules could be synthesized, they would tell you it's impossible, because the molecules would react with their environment and only last for a few milliseconds," said Peña.', 'Peña's team used an advanced version of the tunneling microscope invented by IBM scientists Gerd Binnig and Heinrich Rohrer, winners of the ', '. These instruments operate at cryogenic temperatures in an ultra-high vacuum to ensure molecular stability, and are capable of imaging surfaces at the atomic level. The Peña-led team was previously featured on the cover of Science magazine in 2012 when they were the ', '.', ', a German physicist with IBM's research laboratory in Zurich, is one of the lead authors of the research study. "Selective single-molecule reactions may enable the creation of novel, more complex, and more versatile artificial molecular machines," said Gross, who envisions a future with better drug synthesis and delivery. "These molecular machines could perform tasks such as transporting other molecules or nanoparticles, manufacturing and manipulating nanostructures, and facilitating chemical transformations," said Gross. But to get there, this nascent technique must first be mastered.', 'Peña, Gross, and their colleagues used low-voltage electrical pulses to manipulate a molecule (composed of 18 carbon and eight hydrogen atoms -  $C_{18}H_8$ ) and created three distinct three-dimensional structures. Using the same technique, the configuration of the molecule can be changed over and over again, hundreds of times, to see if the result will react with other molecules. In their ', 'article, Alabugin and Hu liken this technique to "a Swiss Army knife for surface chemistry."', 'IBM's Zurich Research Laboratory builds the sophisticated microscopes that scientists like Peña use to solve challenging chemistry problems such as analyzing molecules in meteorites. "Classical techniques needed several million molecules for detection. With this new technique, the detection threshold is now only a miniscule piece of a single molecule," said Peña.', 'Chemists from the University of Santiago de Compostela and physicists from IBM have also researched the molecular structure of asphaltenes, solid components of petroleum that clog pipelines and are known as "the cholesterol of oil refineries." When asphaltenes clump together to form a blockage, refinery operations must be halted so it can be removed. "We can analyze the structure of asphaltenes to help develop additives that prevent these molecules from clumping

together in pipelines," said Peña. His research consortium, which includes the University of Regensburg (Germany), received a \$9 million grant from the European Research Council two years ago.', 'Diego Peña was in Madrid recently at the farewell concert of one of his favorite musical groups, Siniestro Total. Known for their irreverent lyrics that often take digs at science, the band from Galicia (northwest Spain) sang one of their anthems: "What is being? / What is essence? / What is nothingness? / What is eternity? / Are we soul? / Are we matter?" Peña mused on the matter that makes up human beings and everything else. "It's very important for society to understand the value of basic research - it's knowledge for knowledge's sake. I want to be able to control ', ' Why is that useful? Well, it's useful for everything, because molecules and atoms make up everything." The many applications of this science, such as creating new molecules, have yet to be envisioned. We'll just have to wait and see, says Peña. "Obviously, we're not going to cure cancer overnight."']}

2022-07-25 15:19:13 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-07-16/if-we-wrap-our-children-in-digital-cotton-they-will-not-learn-to-cope-with-problems.html> (referer: https://english.elpais.com/science-tech/)

2022-07-25 15:19:14 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-07-16/if-we-wrap-our-children-in-digital-cotton-they-will-not-learn-to-cope-with-problems.html>

{'url': 'https://english.elpais.com/science-tech/2022-07-16/if-we-wrap-our-children-in-digital-cotton-they-will-not-learn-to-cope-with-problems.html', 'date': '16 Jul 2022', 'title': 'If we wrap our children in digital cotton, they will not learn to cope with problems', 'author': 'Jordi Pérez Colomé', 'text\_art': ['Sonia Livingstone, a professor at the London School of Economics, is one of the world's leading experts on minors and ', '. In the last two decades, she has written 20 books and hundreds of scientific articles. "Reading just the titles of what she's published can take an hour. And she doesn't leave any tasks to interns. She does everything herself," says one of her colleagues.', 'Livingstone advises the ', ', the European Commission and Parliament and the United Nations on internet security and digital rights for minors. She navigates between the findings of recent studies and the ambiguity of a sector where evidence is scarce and where minors are given little voice. EL PAÍS spoke with Livingstone by video call from her home in London.', 'Is there any evidence that the digital education of children will make them different adults from us?', 'There is a lot of evidence growing about them having worse mental health.', 'In teenagers?', 'People think it's worse, but now it's more visible and people can talk about it more. Boys are talking about it more. Boys never used to have mental health issues. They were just angry. Now they have some mental health problems. But there's no great evidence that their attention span is less or that their brains work differently. And actually, when I talk to young people, I think they're fabulous. They're fabulous, helpful, reflexive. They learn. They've got a good assessment of where their difficulties are and what they need, but they're also determined.', 'Parents' fear of technology is overwhelming. Why?', ' We have always been afraid of technology and change.', 'But in the 80s we were optimistic about computers.', 'There was an old conversation about push and pull. Television push and computers pull. People

thought that on the computer, everything was there, but you could choose to go and find friends, information content. Now they've worked out how to make the internet a push technology, what they think is going to make them profit, what they push at you, what they put in your feed.', ' We didn't stop using it either.', ' Could we imagine a world without it? We lived in it for years. Do we really want to go back 30 years? I think most people don't. They love being able to Google to find out the answer to any question. There are lots of things it does offer that we don't emphasize enough. They love being able to find other people, their peculiar hobby or their niche identity. They love having streaming content of a million kinds. There are lots of things that people love about it, but they did not bargain that every thought and move and feeling was going to be collected and aggregated and monetized and sometimes weaponized against them. The profit extraction behind the screen has transformed what that potential was.', ' But does this change its value to children? When we talk about children, everything seems bad.', 'There's lots of good for kids. But we need to stand back from the screen and think about the balance of kids' lives. What I argue is that we've been getting over-focused on screens. There's a lot of other stuff. There's a lot of social inequality. There's a really unclear future in so many ways. A lot of problems are not resolved. So we focus on screens because we think we can control that. It seems like the controllable bit of our lives.', 'You have written that starting to use the internet offers "opportunities and risks" to children. What would you say to parents who put off screens for as long as they can? Do they also delay opportunities?', ' Some of them are. There are a lot of parents who don't really know how to provide their children with great learning and creative opportunities. And the internet is full of those if you know where to focus. There are a lot of parents whose jobs don't give them any time to play with their kids, and there's great playing opportunities online. In a happier world, it would be better to let children go and play in the street and play with their friends. But we don't let our kids play in the streets, and we worry about all their friends. We're pretty worried as parents offline as well as online.', 'In an article you compare a video game like ', ' with street games. Are they comparable?', 'You can compare them on some dimensions, but not all. It's not physical exercise. If we got better at augmented reality, maybe it could be. Pokemon Go was a big hit. It was interesting. It was completely monetized, but it could have been something that wasn't. The potential is there, and people loved it. So I think there are points of comparison. Let's not take physical activity, but let's take imagination. Can children be as imaginative in Minecraft as they are in their back garden? Maybe.', 'You have written that "expert consensus has shifted from counting screen time to evaluating the content, context, and connections that screen time brings." What is that "good screen time"?', 'Ask the children.', ' They still say it's watching YouTube.', 'You could say, what do you choose on YouTube? What's better? What makes you feel good after you've watched it? What leads you to have some imaginative or creative ideas or to feel more at peace with yourself? There are lots of things that we ask kids about their friendships or their play outside. We ask better questions. When we think about the screen, we just say, how long have you been on it? It's like our capacity to engage with children in a thoughtful way disappears.', 'Why is it so hard to get evidence on



screens and children?', 'There's a number of reasons. One is that we don't have a very good language for what digital technologies are or what they offer. We don't have a way of describing what's on the screen and what genres digital content falls into. We had that established for television, but we haven't now. There are also some real ethical problems. We can't do experiments on children that might harm them, and a lot of the outcomes we're interested in take years to show. It's also an underfunded area. A lot of people are rushing to come out with the policy and practice before they've funded the research. The government is always saying to me, where are the findings? And I think, well, you haven't funded any research on this, and now you want the findings.', 'You said that researchers know that parents are more effective if they prioritize respect over prohibitions.', 'None of it is easy. And partly because we're always being told about all the bad things. But if I went on and on about bullying at school and how it promotes inequalities, and children never learn anything because they hate their teachers, you would never send your kids to school. So we can focus on all the problems, or we can develop a language to figure out where the positives are and then steer kids towards that. But also I think we need to regulate big tech.', 'You write about big tech that "Technological innovation is fast, complex, opaque and largely unresponsive to parental concerns."', 'Platforms are doing many things wrong. They are pushing the anorexia content, disturbing content, violence. But Europe is now passing the Digital Services Act. The regulation is really happening. It doesn't give enough attention to children and their rights because they're always secondary to consumers who pay real money, but Europe is making the biggest steps in regulation.', 'You have two pieces of advice for parents trying to do well. First, be clear on values.', 'A lot of people feel that their values come secondary to peer pressure. The most important thing is their child's got to do what everyone else does. But what I always see as a researcher is that everyone's doing something different at home.', 'Are parents or peer pressure more important?', 'The biggest influence on every life outcome is what parents do and what parents provide. Peer pressure matters, but never as much.', 'The second piece of advice is to share digital pleasures and negotiate, not impose.', 'Parents could be encouraged to share more of both what they do and what their kids enjoy and find something that they can do together. The pandemic has been interesting because kids have seen their parents working, and parents have seen their kids doing their schoolwork. This is an interesting moment to stay with some of that, because otherwise, everything's in a box. This is me at work and I know a lot about tech, and this is me at home, and I throw up my hands and feel I can't control it.', 'When you say stop scaring parents, who are you referring to?', 'To the media.', 'Oh.', 'Those headlines. "There is a pedophile in your son's room." "Suicide statistics are going up." "Social media is out of control."', 'But they still come from some academic paper.', 'There might be some weird study, but there's a lot of other studies that are probably boring and balanced. Parents always gravitate to the worst risk they think of.', 'Like stranger danger?', 'Yes. It's really rare. I would be a lot more worried about my daughter seeing that everyone is thin and beautiful than about a pedophile grooming her, though of course it happens. Parents deal with such a wide range of risks. It's too much. So we're scared.', 'What does "free play" mean in the

digital age?', 'We all believe in children playing, but play as being harnessed by adults. We only want play if there's an educational purpose. So we gamify learning and we gamify what adults want. We're squeezing out spaces for children to decide for themselves how they want to play. We kind of get it when we see kids running off into a bit of green space or on the beach or somewhere. We know what free play looks like. But then we build our parks full of equipment and rules, or we build our schools with ever less time for the kids to go out and play. Or we have all the rules about how they can use screens and do digital play. We reduce the space for free choice and then we gamify what we want the kids to do, so is there an educational purpose, and if not, we think they are wasting their time.', 'The children of this generation will play with augmented or virtual reality in 20 years. We were the last without the internet, but they will be the last without augmented realities.', 'Probably. No one wants to go backwards, really. Maybe take a Saturday afternoon with no screen, but it just needs to be more designed in young people's interests and with a better balance with everything else that's happening in the world.', 'In a recent scientific article, you link digital literacy with resilience. How?', ' It's like riding a bicycle. If you're good at riding a bicycle, you might cycle to school and you might cycle to the local drug dealer. You can go anywhere, you can do anything. But what we see with digital literacy, as they get more critical understanding, is they might encounter more risks, but they also become more resilient. So they say no to the drug dealer and that's good. So they get to do more and they encounter more risk. That scares parents because the kids have been on Reddit or they have seen violence online. But resilience is developed through a measure of adversity. If we wrap our kids in cotton wool, they don't learn how to cope when something goes wrong. So we do want them to cope, and we want them to cope online. That means they've got to understand the kind of spaces they're in and where the support is online and how it works, why they're getting all this negativity on their feed, or why they're suddenly in this extremist space.', 'Limiting digital exposure doesn't seem like a solution.', ' It's not a solution, but the point is a degree of resilience. As a 16 year old, you can see some things and figure out how to cope. The nine year old might not cope with it. Everyone can cope with a certain amount from where they are and the help they need.', 'That's why the debate about the age of the first cell phone is complicated.', ' It's crazy because it's back to the device, forgetting about the content, if you see X or Y or have certain contacts.', 'It depends on what you do with it.', ' It depends on what you see and who you contact. It's not the device. As they get older, it should be age appropriate, just like how we give children picture books when they're little and easy-to-read books when they're older.']]

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bite-some-people-more-than-others.html', 'date': '16 Jul 2022', 'title': 'Why do mosquitoes bite some people more than others?', 'author': '', 'text\_art': ['Disease-carrying mosquitoes have killed more people than all the wars in recorded history combined. In fact, statistics indicate that the mosquito is by far the world's deadliest creature for humans.', 'Mosquitos caused around 725,000 deaths in 2018 alone. The second leading cause of death for humans that year was other people, responsible for 437,000 deaths. Trailing far behind were the combined deaths caused by snakes, dogs, poisonous snails, crocodiles, hippopotamuses, elephants, lions, wolves and sharks.', 'This worrisome situation prompted the World Health Assembly in 2017 to approve Global Vector Control Response (GVCR) 2017-2030, a program that provides strategic direction for countries that ', ' ', especially mosquitoes.', 'Vector control is essential for mosquito-borne disease prevention and outbreak response. These insects can transmit diseases as diverse as West Nile fever, ', ' ', dengue, yellow fever, chikungunya, St. Louis encephalitis, lymphatic filariasis, La Crosse encephalitis, Pogosta disease, Oropouche fever, Tahyna virus disease, Rift Valley fever, Semliki Forest virus infection, Sindbis fever, Japanese encephalitis, Ross River virus disease, Barmah Forest virus disease, and malaria, the last of which caused 627,000 deaths in 2020 alone. It's understandable why people want to know what makes mosquitoes choose to bite one person and not another.', 'Male and female mosquitoes can both survive without biting other animals, but females need blood to complete the reproductive cycle. Carbon dioxide (CO<sub>2</sub>) was identified as a mosquito attractant almost a century ago. This gas has also been used to trap female mosquitoes seeking to consume blood with the nutrients needed for ovogenesis, or egg generation.', 'However, there is no evidence to indicate that CO<sub>2</sub> accounts for', ' '. In other words, carbon dioxide emission levels do not explain why mosquitoes consistently prefer one person over another. So what's the explanation? There are other physical and chemical cues that attract mosquitos such as heat, water vapor, humidity, visual cues, and most importantly, body odor.', 'Although the most attractive scents for mosquitoes are not well known, several studies point to molecules such as indole, nonanol, octenol, and lactic acid as prime suspects. A team of researchers led by Matthew DeGennaro of Florida International University (USA) identified a unique odorant receptor, known as ionotropic receptor 8a (IR8a), that enables the ', 'mosquito to detect lactic acid. This type of mosquito is a known transmitter of dengue, chikungunya, and Zika. When scientists mutated the IR8a receptor on the insect's antennae, they discovered that the mosquitoes were unable to detect lactic acid and other acidic odors from humans.', 'Recent research indicates that the dengue and Zika viruses alter the odor of the mice and humans they infect to make them more attractive to mosquitoes. This is an interesting contagion strategy, because it encourages mosquitos to bite the host, extract infected blood, and then transport the virus to another individual. The viruses achieve this by modifying the emission of an aromatic ketone - acetophenone - that is particularly attractive to mosquitoes.', 'Human and rodent skin normally produces an antimicrobial peptide that controls bacterial populations. However, in mice infected with dengue or Zika, the concentration of this peptide drops, and some bacteria (genus *Bacillus*) proliferate, triggering the production of acetophenone. Something similar

happens in humans: odors collected from the armpits of dengue patients were found to contain more acetophenone than those of healthy people.',  
 'Interestingly, this enhanced acetophenone emission can be corrected. Some of the dengue-infected mice were treated with isotretinoin, which led to less acetophenone emission, making the host less attractive to mosquitoes.', 'This is not the only example of a microorganism manipulating the physiology of mosquitoes and human hosts to enhance transmissibility. For example, people infected with ', ' ', the parasite that causes malaria, are more attractive than healthy individuals to ', ' mosquitoes, the vector of the disease.', 'The reason for this is not known, but may be related to ', 'producing an isoprenoid precursor called (E)-4-Hydroxy-3-methyl-but-2-enyl pyrophosphate (HMBPP), which affects the mosquito's blood-seeking and blood-feeding behaviors, as well as susceptibility to infection. Specifically, HMBPP activates human red blood cells to release more CO, aldehydes, and monoterpenes, which combine to attract mosquitos and invite them to "suck our blood."', 'Moreover, adding HMBPP to blood samples ', ' of other mosquito species, such as ', ' ', and some species of the ', ' complex.', 'Understanding the factors involved in making some people more attractive to mosquitos than others will help identify and reduce the risk of transmission of vector-borne infectious diseases.']]

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mutation. The rate rises to 40% in those over 70 and 57% in those over 90, according to Forsberg's previous studies. "It is undoubtedly the most common mutation in humans," he says.', 'Until now, nobody knew whether the gradual disappearance of the Y chromosome in the blood played a pivotal role in diseases associated with aging. In a study just published in the journal ', ', Forsberg and scientists from Japan and the US demonstrate for the first time that this mutation increases the risk of heart problems, immune system failure and premature death.', 'The researchers have created the first animal model without a Y chromosome in their blood stem cells: namely, mice modified with the gene-editing tool CRISPR. The study showed that these rodents develop scarring of the heart in the form of fibrosis, one of the most common cardiovascular ailments in humans, and die earlier than normal mice. The authors then analyzed the life expectancy recorded in nearly 15,700 patients with cardiovascular disease whose data are stored in the UK public biobank. The analysis shows that loss of the Y chromosome in the blood is associated with a 30% increased risk of dying from cardiovascular disease.', '"This genetic factor can explain more than 75% of the difference in life expectancy between men and women over the age of 60," explains biochemist Kenneth Walsh, a researcher at the University of Virginia in the US and co-author of the study. In other words, this mutation would explain "four of the five years lower life expectancy in men." Walsh's estimate links to a previous study in which men with a high mLOY load live about four years less than those without it.', 'It is well known that men die earlier than women because they smoke and drink more and are more prone to recklessness. But, beyond the age of 60, genetics becomes the main culprit in the deterioration of their health: "It seems as if men age earlier than women," Walsh points out.', 'The study reveals the molecular keys to the damage associated with the mLOY mutation. Within the large group of blood cells can be found the immune system's white blood cells responsible for defending the body against viruses and other pathogens. The loss of the Y chromosome triggers aberrant behavior in macrophages, a type of white blood cell, causing them to scar heart tissue, which in turn increases the risk of heart failure. Researchers have shown that the damage can be reversed if they give mice pirfenidone, a drug approved to treat humans with idiopathic pulmonary fibrosis, a condition in which the lungs become scarred and breathing becomes increasingly difficult.', 'There are three factors that increase the risk of Y chromosome loss. The first is the inevitable ageing process. The longer one lives, the more cell divisions occur in the body and the greater the likelihood of mutations occurring in the genome copying process. The second is smoking. "Smoking causes you to lose the Y chromosome in your blood at an accelerated rate; if you stop smoking, healthy cells once again become the majority," says Walsh. But the third is also inevitable: other inherited genetic mutations can increase the gradual loss of the Y chromosome in the blood by a factor of five, explains Forsberg.', 'Both Forsberg and Walsh believe that this study opens up an "enormous" field of research. Still to be studied is whether men with this mutation also have cardiac fibrosis and whether this is behind their heart attacks and other cardiac ailments. We also need to better understand why losing the Y chromosome damages health. "For now, we have shown that the Y chromosome is not just there for reproduction, but is also important for our health," says Forsberg. The next step is to identify which

genes are responsible for the phenomenon.', 'The loss of this chromosome has been detected in all organs and tissues of the body and at all ages, although it is more evident after 60. It is abundant in the blood because this is a tissue that produces millions of new cells every day from blood stem cells. Healthy stem cells produce healthy daughter cells and mutated ones produce daughter cells with mLOY.', 'A previous study showed that this mutation of the Y chromosome disrupts the function of up to 500 genes located elsewhere in the genome. It has also been shown to damage lymphocytes and natural killer cells, evident in men with prostate cancer and Alzheimer's disease, respectively.', 'There are hardly any tests for mLOY at present. But Forsberg and his colleagues have designed a PCR test that measures the level of this mutation in the blood and could serve to determine which levels of this mutation are harmful to health. "Right now, we see people in their 80s with 80% of their blood cells mutated, but we don't know what impact this has on their health," says Walsh.', 'Another unanswered question is why men lose the genetic mark of the male with age. The evolutionary logic, argue the authors of the paper, is that men are biologically designed to have offspring as soon as possible and to live 40 to 50 years at most. The spectacular increase in life expectancy in the last century has meant that men and women live to an advanced age - 80 and 86 years in Spain, respectively - which makes the effect of these mutations more evident. Another fact which possibly has some bearing on the issue: the vast majority of people who reach 100 are women.', '"To transform all these discoveries into treatments, we first need to better understand this phenomenon," says Forsberg. "We men are not designed to live forever, but perhaps we can increase our life expectancy by a few more years."', 'Biochemist José Javier Fuster, who studies pathological mutations in blood cells at the National Center for Cardiovascular Research, stresses the importance of the work. "Until now it was not clear whether the loss of Y was the cause of cancer, Alzheimer's disease and heart failure," he explains. "This is the first demonstration in animals that it has a causal role." The human Y chromosome is different from the mouse chromosome, so the priority now is to accumulate more data in humans. "This is a great first step in understanding this new mechanism behind aging-linked diseases," he adds.', 'The cells of the human body group their DNA into 23 pairs of chromosomes that pair up one by one when a cell copies its genome to generate a daughter cell. The Y is the only one that does not have a symmetrical partner to pair up with: instead, it does so with an X chromosome; and the entire Y chromosome is often lost, explains Luis Alberto Pérez Jurado from Pompeu Fabra University in Barcelona. "For now, six genes have been identified within the Y chromosome that would be responsible for an impact on health," he says. "All of them are related to the proper functioning of the immune system." In part, this would also explain the greater vulnerability of males to viral infections, including Covid-19.']]

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sex.html', 'date': '16 Jul 2022', 'title': 'Does my body need sex?', 'author': '', 'text\_art': ['Under normal circumstances, no. It is true that ', ' bring with them a sense of physical and mental well-being, but not having them does not cause any discomfort, so they are not actually essential. Some people are asexual; they don't have sexual relations and abstaining has no side effects. For people who are not asexual, sex is not necessary either; that is to say, sexual relations are not a basic need on a par with breathing, eating or drinking.', 'Generally speaking, when we talk about sexual relations, we are referring to having', ', whether of the same or the other sex. While asexuality infers a', ' with others, it does not rule out self-sexuality through masturbation, which is another way of having sex. Normally, asexual people have no desire to be intimate with another person. They may have a partner, but they do not have sex with them.', 'So the answer to your question depends on what we mean by sexual relations, which can be a very broad term. If what we mean is being sexually intimate with another person, the answer is that it is not necessary for our health.', 'In your email, you explain that you are 23, that you have never had sexual relations and that for some time you have been getting palpitations; you feel uncomfortable and you suspect that it may be due to the sexual arousal caused by feeling attracted to other people, either because until now you had never felt this way or did not pay attention to the signs. This sexual desire provokes physical responses such as increase of tension and temperature or acceleration of the pulse. All these manifestations are physiologically normal.', 'In the study of human sexual development, the stage between approximately three and five years of age is called the phallic phase, where erotic interest shifts to the genital region. Boys and girls touch their penis or vulva because it gives them pleasure and, not feeling any sense of modesty, they do it naturally. On the other hand, during puberty, teenagers learn to focus their sexual impulses on sexual relations in general and coitus in particular; they already manifest adult sexogenital maturity and are aware of the ', '. Human beings have the capacity to masturbate and touch themselves for pleasure and well-being.', 'To summarize, I would say that sexual relations are not necessary but, when there is consent and desire, they are beneficial both physically and mentally. Sex is a source of physical and mental pleasure, and that pleasure has many beneficial consequences, both organic and psychological.', 'An undesired lack of sexual relations could have negative consequences if, for example, a person felt like having sex and could not find a partner to have it with. That could produce frustration. However, the frustration would be like that triggered by anything else you want and don't get.', 'Sexual desire has a physical response; if after the desire you do not have sex, you have to repress that response without having satisfied it, which can also occur because the person has some kind of educational or religious reasons for abstaining.']]}

2022-07-25 15:19:36 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/international/2022-07-16/psychedelic-therapy-fighting-depression-with-hallucinogenic-mushrooms.html> (referer: https://english.elpais.com/science-tech/)  
2022-07-25 15:19:36 [scrapy.core.scrapy] DEBUG: Scraped from <200 https://english.elpais.com/international/2022-07-16/psychedelic-therapy-

fighting-depression-with-hallucinogenic-mushrooms.html>  
{'url': 'https://english.elpais.com/international/2022-07-16/psychedelic-therapy-fighting-depression-with-hallucinogenic-mushrooms.html', 'date': '16 Jul 2022', 'title': 'Psychedelic therapy: Fighting depression with hallucinogenic mushrooms', 'author': 'Noor Mahtani', 'text\_art': ['When María del Mar Betancur opens her eyes, she finds a small silicone bag with her name written on it. Inside is a piece of rose quartz and four dried mushrooms. Sitting in a small wood hut, tucked into the hills of the idyllic Colombian town of Santa Elena, the air smells of rosewood and incense. The town is on the outskirts of the country's bustling capital, Medellín, but here, the noise of the city gives way to the sounds of the jungle. Like María, the other 11 people in the room, sitting together in a circle, open their bags of "magic mushrooms" and handle with curiosity. "Put your intention into them," counsels 28-year-old Victoria Cubillos Ortega, one of five psychologists accompanying the group on today's psychedelic therapy session. "Think about what you want the mushrooms to show you," she says, as each client chews their mushrooms, thoroughly and with intention. For some, this is their first trip - their last resort "after trying everything else." Others are veteran mushroom eaters. "Ok," Ortega tells the group, "Now just sit back and enjoy the ride."', 'An hour or two later, the three grams of "golden teacher," as this variety of', ' is called, begin to take effect. They hit 23-year-old Angie Paulina Reales first. She sits up, crying and squinting her eyes as if bothered by the light. Minutes later, she says she feels scared, like a little chick about to crack her egg and hatch into the world. "I don't want to be born," she says. Others spend most of the session overcome with nausea, vomiting constantly. Antonietta Zerpa, 27, spends most of the six-hour ceremony writing in her notebook. Manuela Moreno, 25, sit on swing, crying and clutching her chest. Sebastián Álvarez, 32, says he sees "very beautiful" images from his childhood, and feels his five senses "like never before." The therapy is collective, but everyone is on their own trip.', 'The magic is in the psilocybin. Nearly 200 different species of mushrooms contain the compound, which gives the fungi their psychoactive and hallucinatory effect. Psilocybin is the subject of more than 20,000 scientific studies, but researchers have yet to solve the substance's many mysteries. They have, however, shown that magic mushrooms can be effective in ', '. According to research by Johns Hopkins Medicine, ingesting psilocybin can produce "significant and durable improvements in depression." And other research has indicated that the drug can be helpful in treating eating disorders and suicidal tendencies.', 'This is why several countries have moved to legalize magic mushrooms medicinal use. Canada is the latest to recognize the mental health benefits of psilocybin, and six months ago began allowing the substance to be used for therapeutic purposes, joining Jamaica, the Netherlands, Switzerland, and several US states, among others. But Colombia, in its relentless war against psychoactive drugs, still considers mushrooms an illicit and prohibited substance. Sociologist Julián Andrés Quintero, the director of Acción Técnica Social, a Colombian nonprofit focused on psychoactive substance policy reform, says it's disappointing to live in a country that "has only known the war on drugs." Successive government administrations have "focused exclusively on eradication," he says. "And not only in terms of the military, but also in terms



of public health policy. In Colombia, our approach has always been to pathologize drug use; it's part of our DNA. And if that's your only perspective, it's hard to accept the fact that these substances have proven benefits that are worth exploring."', 'In Colombia, hallucinogenic fungi exist in a sort of legal limbo. You are allowed to grow and ', 'for personal use, but processed psilocybin is illegal and there are no regulatory protocols for the substance's use in therapeutic contexts. Psychologists who prescribe mushroom therapy rely on a constitutional principle that, they say, gives doctors the autonomy to formulate a treatment plan as long as the patient is aware of the risks and is presented with alternative treatment options. This principle, however, does not constitute a legal guarantee against potential lawsuits, in the case of a patient's injury or death. "Physicians are not legally protected," explains Pablo Zuleta, an expert in drug consumption, public health, and education policy at Colombia's Center for Security and Drug Studies (Centro de Estudios en Seguridad y Drogas, or CESED). "The fact that these substances are not regulated means there's no guaranteed quality standard for patients, and psychologists who use them can be putting their careers in jeopardy."', 'This is why treatment sessions are spread mostly by word of mouth, and are very rarely advertised publicly, and why no physician (outside of those directly involved in the therapy sessions) is likely to prescribe psychedelics to their patients. Zuleta says there is still a long way to go before prescribing micro-doses of mushrooms becomes as normal', 'as prescribing antidepressants. "Each of the substances with medicinal potential (LSD, mushrooms, ecstasy) should be regulated differently than other drugs," Zuleta says. "They are different in terms of addiction, risks, and medical benefits. We've already seen this happen with medical marijuana. But in Colombia, we haven't even started having this bigger conversation." The World Health Organization (WHO) estimates that nearly 300 million people suffer from depression worldwide. Of those, more than 30% do not respond well to conventional treatments. Given these findings, and the fact that Colombia boasts nearly 10% of the world's estimated fungal diversity, advocates say that prohibiting the use of such substances is shutting off access to an important tool for improving the mental health of citizens, which has deteriorated significantly since the beginning of the pandemic. Quintero, from Acción Técnica Social, believes Colombia has a "moral and historical imperative" to set an example on drug policy reform. "The whole conversation will shift on August 7 [the day Colombia's newly elected president and vice president, Gustavo Petro and Francia Márquez, take office]. I've been told they already have plans to develop regulations for psychedelic therapy. There's a huge sense of expectation, because Petro's election represents a long-anticipated, historic transition. It's not going to be easy, but I'm confident that Iván Duque will be Colombia's last prohibitionist president."', 'In the room, there is a small altar with tobacco, incense, precious stones, and a smiling portrait of María Sabina, the renowned Mazatec healer from the Mexican state of Oaxaca - the shaman famous for presided over a mushroom ceremony for The Beatles in 1969. Sabina is reported to have coined the term "children of god" to refer to the magical fungi, long known as "the flesh of god," and sometimes "the divine molecule." Those who try them tend to agree: "They are not from this world," as the therapists in Santa Elena say. "They have powers." And for many indigenous

communities, especially in Mexico and Central America, this divine power was never a secret. Mushrooms have been an important part of ancestral healing practices for thousands of years.', 'In honor of these traditions, Victoria Cubillos Ortega, the director of Anowuta, employs other rituals as during her sessions, like snorting snuff, smoking tobacco, and playing traditional instruments like the Amazonian flute or chajchas, a type of small Andean rattle. "Our way of giving back to the mushrooms, of thanking them for everything they', 'have given us, is to transform our own lives. Not just here, not just today, but tomorrow, and the next day, and the next," Cubillos Ortega says. "We do it in a way that honors the knowledge of our ancestors."', 'When the mushrooms start to take effect, Cubillos Ortega's eyes are locked on her clients, attentive to their every expression and gesture. She puts her hand on the chest of a patient who seems distressed, whispers into the ear and caresses the head of another who is crying, sets a plastic bag next to another who she can sense is getting nauseous. During the almost nine-hour session, care and support are constant. "The trip is whatever it needs to be. Sometimes it takes you to the darker side, to hell," she says, "but we're committed to accompanying people through the whole process, because it's really important that no one feels alone.', 'Antonietta Zerpa is sitting on one of the logs in the garden outside the cabin. She rubs her sweaty hands together nervously and smiles shyly. This is the second time that Zerpa, a 27-year-old Colombian-Venezuelan who works as a translator, has participated in psychedelic therapy, but her first time doing it as part of a group. "I used to be a different person," she says. "I used to live with constant depression and anxiety. Especially after the pandemic. I've tried everything, all kinds of therapies: psychiatric, psychological, cognitive, mindfulness... I've taken antidepressants. And nothing. But the first time I ate mushrooms, everything changed. I haven't taken antidepressants or had any of my old dizziness since. This is my only treatment now, this and the therapy consultations." For María del Mar Betancur, mushrooms were her last resort. "I tried to kill myself twice. But after trying mushrooms, I let go of all that heaviness and saw that I actually had a lot of love in me."', '"People usually think this is just some hippy thing," says Camilo Durán, a psychotherapist and alternative therapy guide. "But all kinds of people use it. In fact, usually the people who choose to take mushrooms do it only once, and only because we recommend it as part of their therapy. Some come with the intention of trying it, but not most."', 'Durán, a 28-year-old Colombian, has been working with psilocybin and growing mushrooms for three years now. "I always knew they could help you reach conclusions', 'that would be very difficult to reach in a normal state of consciousness," he says. "During the sessions, it's common for patients to unlock repressed childhood memories, for example. When a patient recalls a memory during therapy, they process it - it's almost like they chew it up, and then they can begin to understand it better. And this is a good place to start working through it, using therapy to gain more clarity."', 'Back in the cabin in Santa Elena, the windows are covered in pictures of mushrooms and words like "love" and "care" drawn in neon-colored markers. There are paintings on a table, instruments hanging from the stairs, notebooks and pens, and another table full of fruit and snacks. "The fungi help us turn off our judgments and the constant self-censorship that we exercise every day as adults. Which is why the first

thing we usually feel is a great desire to be creative," says Cubillos Ortega as she stirs a cup of hot cocoa, adding in the mushrooms that she grows and dries herself. During the group ceremony, which costs \$200,000 Colombian Pesos (about \$43 US dollars) per participant, the therapists also ingest psilocybin, though in smaller doses than the patients. "That way they don't feel judged by people who aren't also on a trip.", 'Sitting outside around a campfire, six hours after taking their mushrooms, participants start to come out of their "trance." Some share knowing glances with each other. Others close their eyes and sway to the music being played by the therapists. "Pss, hey, how's it going?" María del Mar Betancur whispers to a friend she came with. "I'm good," her friend replies, wrapped in a colorful blanket on the other side of the fire. "I still feel weird, but also at peace. You?" she asks back. "Better than ever."']}]

2022-07-25 15:19:40 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-07-19/what-is-harlequin-type-ichthyosis-the-strange-fish-skin-disease.html> (referer: https://english.elpais.com/science-tech/)

2022-07-25 15:19:40 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-07-19/what-is-harlequin-type-ichthyosis-the-strange-fish-skin-disease.html>

{'url': 'https://english.elpais.com/science-tech/2022-07-19/what-is-harlequin-type-ichthyosis-the-strange-fish-skin-disease.html', 'date': '19 Jul 2022', 'title': 'What is harlequin-type ichthyosis, the strange 'fish skin' disease?', 'author': 'Jessica Mouzo', 'text\_art': ['Ariadna López's skin has been eroded since the day she was born. Dry and cracked, sometimes red, from head to toe. This 21-year-old woman suffers from harlequin-type ichthyosis, a highly unusual dermatological condition that is caused by ', ' that alters the process through which the epidermis is formed. It is, as the etymology of the name suggests, a kind of fish skin, always scaly.', 'Every day, Ariadna has to go through an essential hygiene ritual. Hydration with creams every few hours; showers two or three times, if necessary; soaking in a coal tar preparation several times a week; and exfoliating her body with a special glove that removes dead skin. Care cannot be skipped nor delayed. This is necessary so that the disease is not aggravated by infections or other more serious alterations.', 'Harlequin ichthyosis is ', '. Many of the babies that are born with this disease die soon due to the associated complications, as they struggle to breathe and eat, and even get infections from the wounds caused by the skin alteration. Affected newborns enter the world with a kind of armor made up of thick plates of scales that are divided by deep fissures; those fissures facilitate infections through the skin, and this armor can make it difficult to hydrate and regulate the body temperature.', 'A review of 45 cases published in 2011 revealed that 25 affected individuals (between 10 months and 25 years of age) survived, while another 20, all under three months of age, died of respiratory failure or sepsis, which is a uncontrolled ', ' to an infection.', 'The disease is so rare that there are no clear prevalence data, only estimates and approximations: less than one case per million individuals, according to the Orphanet database. The authors of a 2014 study mentioned that, at that time, there were approximately 200 cases reported in the world.', 'The scientific community has described more than 30 types of ichthyosis, all with different levels of incidence and severity: some affect

only the skin (non-syndromic, such as harlequin-type ichthyosis) while, in others, the genetic defect manifests itself in other organs besides the skin (syndromic). The harlequin type is part of a non-syndromic subgroup, autosomal recessive congenital ichthyosis. They are passed on from parents to children when both parents are carriers of the genetic mutation. In the case of harlequin ichthyosis, there is a 25% chance in each pregnancy that the child will have the disease.', 'The cause of this condition is a variation of the ABCA12 gene, which alters keratinization, the process by which the epidermis is formed. The ABCA12 gene intervenes in a lipid transporter in the cells that make up the epidermis; since it doesn't work properly, patients have a completely altered epidermis that does not serve as a defense against the external environment. This genetic alteration prevents the formation of the skin barrier that regulates temperature and protects against infections and dehydration.', 'Dealing with harlequin-type ichthyosis is not easy. This flaking of the skin leads to other bodily alterations that complicate the prognosis from birth. Patients suffer from ectropion, which means that their eyelids do not close properly. They also tend to have their ears stuck, lose flexibility in their fingers and suffer from complete alopecia. In addition to the deterioration in their appearance, they also have eye and joint problems and do not sweat well.', 'Ariadna has been through, and is still going through, all of that. She sees dermatologists, otolaryngologists, rheumatologists, and ophthalmologists. "My eyelid is not well-formed and it doesn't close completely, so I have to moisturize my eye because it dries out a lot. I have to wipe my eyelid so that the scaly skin doesn't get inside, and put some ointment on the edge of my eye before going to sleep. I also suffer from burning and itching of the skin, and I have problems with my joints because, since my skin wasn't very elastic, my bones could not grow well, so I have arthritis. In the winter, my skin dries out more and it becomes more difficult for me to walk or pick up something," she says.', 'The peeling can affect the cornea as well as the ear, plugging it with dry skin. Patients also suffer from hyperkeratosis, a thickening of the skin that can encapsulate or compress the extremities and affect the motor skills. Since they do not sweat properly, they also cannot tolerate hot environments well. Fever, for example, is agony for Ariadna. "I can't sweat to expel the heat, and the fever usually lasts a long time. My skin becomes super rigid and I can barely move," she says.', 'Ariadna, who suffers from alopecia, has been wearing a wig since she was 11 years old. However, she is beginning to leave the house with a headscarf, "overcoming insecurities little by little," she says. "I am in the process of acceptance, and if one day my skin is very bad, it doesn't affect me as much. I just think that it will pass."', 'José María Soria, president of the Spanish Association of Ichthyosis, explains that a diagnosis of this disease is a hard blow for both the patient and their family. "The ones who first suffer from the disease are the parents, who find themselves before an unfamiliar illness and don't know if the child will survive." This is joined later by the psychological weight of the looks of others. But Soria is categorical: "You don't have to hide anything. You have to show it in order to normalize it."', 'Beyond the physical and psychological burden that the patients and their families carry, those affected by the disease also face an economic burden, as any ichthyosis requires a series of topical skin products.', 'For this reason,

Ariadna wants to draw attention to her illness, so that everyone is aware of all the money and time that those affected by it spend by applying treatments that are only palliative, as they suffer from a lot of itching and stinging, among many other things. She also wants to stop the stigmatization. She emphasizes: "Now that I'm older, I deal with it much better. Still, it hasn't been easy, having to put up with looks of disgust or pity every day, inappropriate comments, expressions of contempt... And all this is due to ignorance and lack of knowledge. We want people to put themselves in our shoes to fight for ichthyosis research, so that one day we can talk about it in the past tense.", 'As is the case with all rare conditions, the search for a cure or any therapeutic alternatives to overcome the risks of the disease can be quite a struggle. Starting a study is not easy, although Dr. Ángela Hernández, a member of the Spanish Academy of Dermatology and Venereology, admits that the pace has increased in recent years, and that tests have begun on biological drugs to improve the situation of patients. "In keratinization disorders, we know that patients have systemic inflammation. What we want to do is reduce the external inflammation and improve the condition of the skin. What would be ideal would be to find a biomarker that allows us to ', ' with a biological drug. But, of course, for this type of research we need money, and the resources allocated to rare diseases are, unfortunately, very limited," she points out.', 'With so few patients, there's not much interest from the pharmaceutical industry. "They're not profitable," laments the dermatologist.']]

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2022-07-25 15:19:45 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-07-19/predictive-policing-the-pitfalls-of-crime-forecasting.html> (referer: https://english.elpais.com/science-tech/)

2022-07-25 15:19:45 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-07-19/predictive-policing-the-pitfalls-of-crime-forecasting.html>

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{'url': 'https://english.elpais.com/science-tech/2022-07-19/predictive-policing-the-pitfalls-of-crime-forecasting.html', 'date': '19 Jul 2022', 'title': 'Predictive policing: The pitfalls of crime forecasting', 'author': 'Manuel G. Pascual', 'text_art': ['Knowing where a crime is going to be committed before it happens is the dream of police departments all over the world, and data scientists and ', ' want to make it a reality. Many law enforcement agencies, especially in the US where ', ', have been using pattern-detecting information systems to predict crime hotspots. A research team from the University of Chicago (Illinois, USA) led by Professor Victor Rotaru has developed a model capable of predicting likely crime areas up to a week in advance. The tool has a 90% accuracy rate, which makes it one of the most successful examples of the predictive policing systems operated by companies such as PredPol, Azavea and KeyStats in big cities like Los Angeles and New York.', 'An article by Rotauru and his team published in ', ' describes a model designed for urban environments that was trained on historical property and violent crime data from the city of Chicago from 2014-2016. The model processed the historical data and then identified the areas most likely to experience the highest crime levels in the
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weeks following the testing period. With 90% reliability, the tool predicted the likelihood of crimes like homicides, assaults, muggings, and robberies for 1,000-square-foot (300 square meters) quadrants of the city. The model was later tested in seven other large US cities (Atlanta, Austin, Detroit, Los Angeles, Philadelphia, San Francisco, and Portland) with similar results.', 'But these algorithmic systems have not solved the thorny problem of how to avoid the widely ', ' against Black and Latino neighborhoods. A 2021 study concluded that it is impossible for predictive policing systems to offset their intrinsic biases, which is one reason why the European Parliament called for a ban on these tools in the European Union.', 'Rotaru's team acknowledge the problem. "To prevent their tool from being detrimental to some groups, the authors turned the concept of predictive policing on its head and recommended that their models be used to monitor policing itself," said Andrew V. Papachristos, a professor of sociology at Northwestern University (Illinois, USA).', 'Papachristos believes the perspective offered by the Rotaru-led study is important, and can help develop early intervention systems and other initiatives to identify police abuse, a particularly sensitive issue in the US since the George Floyd death in 2020. He also thinks that it would be useful to "send social workers, response teams and victim assistance teams to the quadrants identified by these predictive policing systems."', '"Despite our caution," says the study, "one of our key concerns in authoring this study is its potential for misuse, an issue with which predictive policing strategies have struggled. More important than making good predictions is how such capability will be used. Because policing is as much 'person-based' as 'place-based,' sending police to an area, regardless of how small that area is, does not dictate the optimal course of action when they arrive, and it is conceivable that good predictions (and intentions) can lead to over-policing or police abuses. For example, our results may be falsely interpreted to mean that there is 'too much' policing in low-crime (often predominantly white) communities, and too little policing in higher-crime (often more racially and ethnically diverse) neighborhoods."', '"We view our model as a police policy optimization tool," said Ishanu Chattopadhyay, a co-author of the study. "That's why we are so insistent that we have to be very careful about how we apply the knowledge it provides."', 'In large US cities, neighborhoods are often closely associated with a particular race or ethnicity. "Disproportionate police responses in communities of color can contribute to biases in event logs, which might propagate into inferred models," says the study, acknowledging that there is no way to statistically control for such deviations. "Anyone using these tools should be aware of this."', 'A researcher from a different US university consulted by EL PAÍS questions the results of the Rotaru-led study, noting that the model's effectiveness drops significantly when the crime itself rarely occurs. Another drawback of the model is that the predictive algorithm isn't able to identify areas with the highest crime, only those the highest reported crime, which is important because in the US, Black communities are less likely to report crimes to the police. "Our tool is based on reported crimes. We cannot model crimes that are not reported," said Chattopadhyay.', 'Predictive policing models must also cope with input biases. Since they use databases of arrest information, the model associates areas with higher arrest numbers with a greater need for policing, which in turn increases

the number of arrests. This is why civic organizations object to the widespread use of these tools, and why Rotaru and his colleagues caution against misapplying the tools they created.']]

2022-07-25 15:19:51 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-07-20/is-the-dream-of-clean-and-unlimited-nuclear-fusion-energy-finally-within-reach.html> (referer: https://english.elpais.com/science-tech/)

2022-07-25 15:19:51 [scrapy.core.scrapy] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-07-20/is-the-dream-of-clean-and-unlimited-nuclear-fusion-energy-finally-within-reach.html>

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{'url': 'https://english.elpais.com/science-tech/2022-07-20/is-the-dream-of-clean-and-unlimited-nuclear-fusion-energy-finally-within-reach.html', 'date': '20 Jul 2022', 'title': 'Is the dream of clean and unlimited nuclear fusion energy finally within reach?', 'author': '', 'text_art': ['The Sun has fueled ', ' for billions of years, creating light and heat through nuclear fusion. Given that incredible power and longevity, it seems there can hardly be a better way to generate energy than by harnessing the same nuclear processes that occur ', '.', 'Nuclear fusion reactors aim to replicate this process by fusing hydrogen atoms to create helium, releasing energy in the form of heat. Sustaining this at scale has the potential to produce a safe, clean, almost inexhaustible power source.', 'The quest began decades ago, but could a long-running joke that nuclear fusion is always 30 years away soon start to look old?', 'Some hope so, following a major breakthrough during ', '. This came at the Joint European Torus (JET) research facility in Oxfordshire, UK, in a giant, doughnut-shaped machine called a tokamak.', 'Inside, superheated gases called plasmas are generated in which the fusion reactions take place, containing charged particles that are held in place by powerful magnetic fields. Such plasmas can reach temperatures of 150 million degrees Celsius, an unfathomable 10 times hotter than the Sun’s core.', 'In a sustained five-second burst, researchers in the EUROfusion consortium released a record-breaking 59 megajoules (MJ) of fusion energy. This was almost triple the previous 21.7 MJ record set at the same facility in 1997, with the results touted as ‘the clearest demonstration in a quarter of a century of the potential for fusion energy to deliver safe and sustainable low-carbon energy’. Follow the link to learn more about ', '.', 'The results provided a major boost ahead of the next phase of nuclear fusion’s development. A larger and more advanced version of JET known as ', ' (meaning "The Way" in Latin) is under construction on a 180-hectare site in Saint-Paul-lès-Durance, in southern France.', 'ITER, which is being built as a collaboration between 35 nations, including those in the EU, is aimed at further firming up the concept of fusion. One of the most complicated machines ever to be created, it was scheduled to start generating its first plasma in 2025 before entering into high-power operation around 2035 - although researchers on the project expect some delays because of the pandemic.', 'The results at JET represent a major landmark, said Professor Tony Donn , program manager of ', ', a major consortium of 4,800 experts, students and facilities across Europe. "It’s a huge milestone - the biggest for a long time," he said.', '"It’s confirmed all the modelling, so it has really increased confidence that ITER will work and do what it’s meant to do.'"While the energy generated at JET
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lasted just a few seconds, the aim is to ramp this up to a sustained reaction that produces energy.', 'The results were the culmination of years of preparation, with Donné explaining that one of the key developments since 1997 involved changing the inner wall of the JET vessel.', 'Previously, the wall was made of carbon, but this proved too reactive with the fuel mix of deuterium and tritium, two heavier isotopes - or variants - of hydrogen used in the fusion reaction. This resulted in the formation of hydrocarbons, locking up the tritium fuel in the wall.', 'In the rebuild, which involved 16,000 components and 4,000 tons of metal, the carbon was replaced with beryllium and tungsten to reduce tritium retention. Ultimately, the team was able to cut the amount of trapped fuel by a large multiple, contributing to the success of the recent fusion shot.', 'In preparation for the next stage of fusion's epic journey, upgrades to JET ensured that its configuration aligns with the plans for ITER. Further in the future, the next step beyond ITER will be a demonstration power plant known as DEMO, designed to send electricity into the grid - leading on to fusion plants becoming a commercial and industrial reality.', '"ITER is a device which will create 10 times more fusion energy than the energy used to heat the plasma," said Donné. "But as it is an experimental facility, it will not deliver electricity to the grid. For that, we need another device, which we call DEMO. This will really bring us to the foundations for the first generation of fusion power plants."', 'Donné added: "JET has shown now that fusion is plausible. ITER has to show that it's further feasible, and DEMO will need to demonstrate that it really works."', 'Planned to provide up to 500 megawatts (MW) to the grid, he thinks it is realistic for DEMO to come into operation around 2050. "We hope to build DEMO much faster than we built ITER, making (use of the) lessons learned," he said.', 'Yet there are other key challenges to overcome on the way to getting nuclear fusion up and running. Not least is that while deuterium is abundant in seawater, tritium is extremely scarce and difficult to produce.', 'The researchers therefore plan to develop a way of generating it inside the tokamak, using a 'breeding blanket' containing lithium. The idea is that high-energy neutrons from the fusion reactions will interact with the lithium to create tritium.', 'Donné said nuclear fusion could prove a pivotal ', ' for the future. 'I would say it's essential,' he said. "I'm not convinced that by 2050 we can make the carbon dioxide transition with only renewables, and we need other things."', 'And although he says the current method of creating nuclear energy through fission is becoming safer and safer, fusion has key advantages. Proponents for ITER talk of ', ', adding that nuclear fusion does not produce long-lived radioactive waste and that reactor materials can be recycled or reused within 100 to 300 years.', '"It's definitely much safer," said Donné. Referencing the stigma carried by nuclear energy, he said, "What we see when we interact with the public is that people very often haven't heard about nuclear fusion. But when we explain the pros and cons, then I think people get positive."', 'Referring to Lev Artsimovich, dubbed the "father of the tokamak," he said, "Artsimovich always said fusion will be there when society really needs it. If we get fusion up and running, then really we have a very safe and clean energy source which can give us energy for thousands of years."']}]

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as an anesthetic in operating rooms and on battlefields, as well as being a
recreational drug favored by the counter-culture. However, as professor Hailan
Hu, executive director of the Center for Neuroscience at Zhejiang University's
Faculty of Medicine, explains: "About 20 years ago, a team of scientists in the
United States accidentally discovered that, administered in very low doses, it
can rapidly improve the mood of ', '.", 'Professor Hu, 48, and laureate of the
2022 L'Oréal-UNESCO For Women in Science International Awards - Asia and the
Pacific, has been leading investigations into the effects of ketamine in an area
of the brain called the lateral habenula: "It is a very small part of the brain,
but it plays a fundamental role in negative emotions such as stress, fear or
disappointment," she says. Researchers commonly refer to this area as the "anti-
reward center," because it blocks ', ' that release dopamine and serotonin -
neurotransmitters associated with pleasure.', 'When a person is suffering from
depression, "the habenula becomes overly active, which suppresses reward and
causes moodiness or depressive states," Hu explains. And that's where ketamine
comes in: as the drug "directly affects activity in that region of the brain."
If ketamine has one remarkable property, according to Hu, it is its ability to
swiftly reduce the symptoms of depression in comparison to conventional
antidepressants. "Compared to the six to eight weeks that traditional drugs can
take to improve a patient's mood, ketamine can start to take effect within just
one hour."', 'Several clinical trials with ketamine have been conducted over the
past two decades and some regulatory agencies, such as the US Food and Drug
Administration and the European Medicines Agency, have given the green light to
esketamine, an antidepressant derived from ketamine and administered in the form
of a nasal spray.', 'Ketamine, though, ', '. As Hu points out, the drug comes
with side effects. In addition to potential bladder problems, ketamine is
notoriously addictive: "Therefore, the doses used to treat depression are very
low," the neuroscientist says. A 2018 review published in ', 'noted that further
large-scale clinical trials are needed to assess the long-term safety of using
ketamine to treat depression. By studying the effects of the drug on the brain,
Hu hopes to better understand how depression also affects this vital organ:
"Perhaps then we can find other drugs and new compounds that have the same rapid
antidepressant properties, but with fewer side effects."', 'Hu describes ', ' as
"possibly the most complex system in the universe." Hundreds of scientists have
dedicated themselves to attempting to unravel the mechanisms of depression.
"There is a popular hypothesis, according to which this disease is caused by an
imbalance of chemicals in the brain, or due to a lack of dopamine or serotonin,"
she says. The majority of traditional antidepressants, Hu adds, have been
designed on the basis of this hypothesis and work primarily to increase the
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level of these substances in the brain. However, as Hu points out, "the fact that these drugs work so slowly suggests that this is probably not a direct mechanism, but rather that they are acting indirectly.", 'According to the World Health Organization, 5% of the world's adult population suffers from depression and several investigations have been undertaken to analyze the ', ' pandemic on mental health. A meta-analysis published in the scientific journal ', ' concluded that the prevalence of symptoms of depression in populations affected by Covid-19 is over three times higher (15.97%) than among the overall population (4.4%). "Uncontrollable stress is a very important factor that can induce this disease," notes Hu. During the pandemic, millions of people around the world were forced to confront situations beyond their control, such as confinement and severe financial problems.', 'However, depression does not affect everyone in the same way. "This is what we refer to as resilience. People can be subjected to similar amounts of stress, but some are more resistant while others are more vulnerable," says Hu. In addition to a possible genetic predisposition, the scientist points out that previous experience can also have an impact: "If you experienced some kind of challenge or a mild form of stress early on in your life, that can help you to develop a certain resilience against depression."', 'Hu's advice to ward off the specter of depression is reasonably straightforward: exercise, meditation and plenty of sunlight. "Exposure to the sun can reduce the likelihood of the anti-reward center becoming overactive, in the same way that ketamine does," she says. Hu also prescribes lowering expectations in day-to-day life as a way of managing stress: "If they are too high and can't be achieved, it can provide a trigger for negative moods."', 'However, as Hu notes, in some parts of the world depression is still a taboo subject and therefore underdiagnosed. While the investigator believes more education is required, she says that progress has been made in recent years. "Previously, people thought depression was a psychological problem that you had to overcome on your own. But more and more people are now realizing that it is a disease of the brain and must be treated in the same way as diseases that affect other parts of the body."']}]

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'text\_art': ['The Spanish astronomer Josep Maria Trigo, 52, is passionate about planetary defense, meaning the science and technology dedicated to preventing a space rock from handing us the same fate as the dinosaurs. Much of his passion is derived from the fact that he believes we are not prepared and that the population lacks information. Hence, his recent publication ', ' (Universitat de Barcelona Edicions), which warns about the risks he has been investigating as a researcher at the Institute of Space Sciences (CSIC) and the Institut d'Estudis Espacials de Catalunya.', ' Is the Earth in danger?', ' We are exposed. But we have become accustomed to', ' which are never accurate. Both the media and the scientists fail to explain the risk of impact in terms the general public can understand. When an asteroid approaches, typically, a news story crops up informing us that we could be hit, when we won't be. However, small asteroids the size of the Chelyabinsk asteroid are out there and there could be one tomorrow. We're not yet familiar with most of these objects measuring 10 to 20 meters and even up to 100 meters. Our current understanding is that large impacts will certainly not take place, but we are detecting a greater flux of impacts from 10 or 20 meter objects than was expected. We are discovering that these fragile bodies that break apart and pass close to Earth in an extremely close encounter can fall into', ' well and, and if fragmented, fly off into very different orbits. Then the objects return to Earth at the same time. In the short and medium term, the danger comes from this type of object. That would explain, for example, how the asteroid Duende [discovered from Granada] grazed the artificial satellites the same day as Chelyabinsk [a meteor that entered the Earth's atmosphere over the Ural mountains in Russia in 2013] took place. And although the orbits do not coincide at all, many of us think there is a correlation.', ' And where do scientists come up short?', ' Scientists sometimes do not explain clearly enough that they are small bodies that are changing their orbits. The main mistake is to make people believe that we are well acquainted with the orbits of objects, when in fact we are obtaining information on orbits with an average level of precision. And when they come round again, we correct this. A clear example is Apophis, an asteroid that has been in the limelight but an impact from which has now been ruled out. This has to be explained to the public: when they are near-Earth asteroids, we do not do a continuous follow-up and there is a very important slant. I think the way we should explain this to the public is that we scientists have discovered this asteroid that will pass at such and such a distance and these objects are going to be tracked, and you can find more information on such and such websites. People should know that the media predicting impacts are not serious media.', ' Are you more concerned about the ones that can produce a scare, like Chelyabinsk?', ' In Chelyabinsk, there were more than 1,500 wounded and that could have been avoided. If the same thing happens in a city like Madrid, Barcelona or New York, we could be talking about tens or hundreds of thousands of people injured. The risk is also the result of our ignorance. I mean, you see a huge fireball and you stand there looking at it. You have to inform people; you have to tell them that if you stay there, you will get severely burned. This is the kind of information that the media should be giving us, rather than telling us the sky is going to come crashing down.', ' What is the scenario that worries you most?', ' For me in particular, the asteroid 2015 TB145 made me shudder. It was an extinct, dark, 600-meter,

extremely fast comet, discovered with three weeks to spare, which passed slightly', '. And I think there may be quite a few more such objects. Jupiter plays a very important protective role in relation to Earth, with respect to perhaps the most dangerous impacts, which would be those of very non-concentric objects that are highly charged with energy. I am referring mainly to comets with very non-concentric orbits, that go beyond Jupiter's orbit. These are extinct comets that come close to Earth perhaps every three, four or five years, and we don't really see them because they're tremendously dark. The 2015 TB 145 was a monster threatening at least regional-scale devastation. These are the ones that perhaps we should be most concerned about, because we are not acquainted with all of them. They are so obscure and non-concentric that there could be more.', ' With an unlimited budget, how would you organize planetary defense?', ' With an array of telescopes in the Earth's orbit working in the infrared range, where you see more than just reflected light, and you're not bothered as much by stars and other background objects. It would be ideal to have an array of telescopes monitoring the sky to make the tracking more concrete. The key is always to have a solid prediction of when the impact is going to take place. Being acquainted with their movement, being able to study how they evolve, and extending that observation over months: that would provide a great deal of information on those processes that we are most in the dark about. Regarding Earth, I would install more radio telescopes the size of the one inaugurated in China. And of course, also, address the issue with space missions.', ' Missions like DART, which is going to hit an asteroid?', ' This binary system that will intercept DART is a good example of the type of asteroids that reach us: Didymo is almost 780 meters and Dimorfo 160 meters, so they have the kind of dimensions that can worry us. To be able to study those two objects closely is a breakthrough, because the solution depends on the characteristics of each body. We have investigated asteroids like Ryugu and Bennu.', 'And those missions are key to mitigating any future risk of impact. In the case of Bennu, it has been shown to have a very low consistency on the surface, and to be more fragile than the wet sand that dries out when you build a sand castle on the beach. And these are good examples of the technological scientific challenge you face when you want to deflect an asteroid. Because sure, superficially it's very fragile, but what's inside? You could use a monolithic block, but of what dimensions? Such thin, porous material, which cushions any impact, indicates that this may not be the best solution.', 'We would have to consider other alternatives, but they involve knowledge decades in', '. You have to know that 50 years from now you have an asteroid that is heading for you so you can develop a mission that would have to be a collective mission of all the space agencies in unison. We are talking, obviously, about creating a monster that would stand next to the asteroid or land on it and alter its trajectory. Thanks to these missions that bring back asteroid samples, we are learning a lot more about their properties, which is very challenging, because they are not properties that we are familiar with.', ' Do you think there would be global unity in the face of a dangerous comet?', ' I think it would work well. I am convinced. There are clear examples that space agencies are working in continuous collaboration, and what happened in Russia has demonstrated that. A comet is very improbable; it could be a billion years away.

But if it happens, faced with a challenge of that magnitude, it is clear that either we do it together, as one, or we don't do it at all. Because it is not feasible for a single space agency to organize an impact mitigation process of that nature - whether it is a ship loaded with missiles or whatever you need to deal with such a monster. It has to be coordinated among the different agencies. We would need to seek alternatives, and maybe even set up two or three parallel options.', ' It would take years of preparation.', ' With a small asteroid, no. Maybe with a mission like DART, which is fully robotic, it would go direct to its target. Having such a robot could be very useful for the future. But realistically, we would have to know the orbit of the asteroid years in advance. And we have major obstacles to overcome before we get there: we don't have tracking programs from space that would allow us to improve our knowledge of the orbits. We lack radio telescopes to find out what these objects are really like. We have a long way to go. We have convinced the UN to implement Asteroid Day every year to raise awareness that we need to stay alert and expand our knowledge of these targets.', ' And if we see a flare in the air, don't stop to take a selfie.', ' It is important that the public is made aware that this is a latent danger. I try to stress that we rely on the historical record of humanity, but it is hugely biased. We don't know of many incidents like this that have taken place in the past. Because our ancestors, faced with a Tunguska-type disruption, interpreted it in many other ways. And they certainly believed that it was divine intervention.', ' Marian apparitions that were actually asteroids?', ' It has even been proposed that scripture's Sodom and Gomorrah disasters were actually caused by an air burst. It may be that many of the occasions when it was believed the fire was raining down from the sky could have been an event like that. Recently, it was discovered that there are materials from what is thought to have been such an air burst in the Chilean desert. And in the Libyan desert, evidence was also found of an impact, or an air burst, as occurred at Tunguska. In these cases, when the fireballs hit the ground, everything is incinerated and the materials melted, leaving no evidence. This is another example of the bias that such an event can have.', ' So maybe we have miscalculated the probabilities?', ' The impact risk has multiple heads, like Hydra. One is a direct impact with a Chicxulub-type asteroid, a 12-kilometer ', ' . Another may be a Tunguska-style, which produces a shock wave and scatters trees over 2,000 square kilometers of taiga, which are incinerated when the fireball strikes. And others fall halfway between the two: objects of hundreds of meters that perhaps cause craters, because they are fragile, but that incinerate everything, triggering change on a regional scale. Sources of danger that perhaps we underestimate.', ' Do you have nightmares about asteroids?', ' No, I'm quite relaxed in that sense. I enjoy studying them a lot, but I prefer not to think about those things. Because if it is discovered that a comet is coming, which is in effect a real chemical bomb, it doesn't matter where we take shelter. We would face a global winter of unknown dimensions: weeks, months, years. So, why worry? Let's hope it won't happen for a long time, at least for thousands of years, by which time we will have small colonies on the Moon or Mars to ensure the survival of the species. It is a latent danger: if a large object were to hit us, it would completely wipe out our civilization.']]

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handled or not allowed  
2022-07-25 15:21:57 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/:/> from <GET https://english.elpais.com/science-tech/:>  
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2022-07-25 15:22:35 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response <404 https://english.elpais.com/science-tech/a/>: HTTP status code is not handled or not allowed  
2022-07-25 15:22:40 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/s/> from <GET https://english.elpais.com/science-tech/s>  
2022-07-25 15:22:41 [scrapy.extensions.logstats] INFO: Crawled 25 pages (at 8 pages/min), scraped 14 items (at 0 items/min)  
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2022-07-25 15:22:48 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response <404 https://english.elpais.com/science-tech/i/>: HTTP status code is not handled or not allowed



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2022-07-25 15:22:55 [scrapy.core.engine] DEBUG: Crawled (404) <GET
https://english.elpais.com/science-tech/l/> (referer:
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<404 https://english.elpais.com/science-tech/l/>: HTTP status code is not
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https://english.elpais.com/science-tech/)
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handled or not allowed
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2022-07-25 15:23:09 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response
<404 https://english.elpais.com/science-tech/n/>: HTTP status code is not
handled or not allowed
2022-07-25 15:23:16 [scrapy.core.engine] DEBUG: Crawled (404) <GET
https://english.elpais.com/science-tech/e/> (referer:
https://english.elpais.com/science-tech/)
2022-07-25 15:23:16 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response
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handled or not allowed
2022-07-25 15:23:22 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting
(301) to <GET https://english.elpais.com/science-tech/p/> from <GET
https://english.elpais.com/science-tech/p>
2022-07-25 15:23:30 [scrapy.core.engine] DEBUG: Crawled (200) <GET
https://english.elpais.com/sports/2022-06-24/anita-alvarez-the-swimmer-who-
fainted-in-the-pool-i-felt-everything-turn-black.html> (referer:
https://english.elpais.com/)
2022-07-25 15:23:30 [scrapy.core.scrapers] DEBUG: Scraped from <200
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fainted-in-the-pool-i-felt-everything-turn-black.html>
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who-fainted-in-the-pool-i-felt-everything-turn-black.html', 'date': '24 Jun
2022', 'title': 'Anita Álvarez, the swimmer who fainted in the pool: 'I felt
everything turn black'', 'author': 'Diego Torres', 'text_art': ['"It's been a
long year," says Anita Álvarez, sitting in an armchair in her hotel in Budapest,
just a hundred meters from the pool where she nearly drowned after fainting and
', '. The incident, which took place after her solo artistic swimming
performance at the FINA World Championships on Wednesday, made headlines
worldwide. She has since appeared on ', ', and other television shows in the
United States. "I broke my foot in February, I had surgery in March, and I
competed again in May because I was determined to participate in these World
Championships," she says. A mix of naivety, fear, courage and pride shines in
her black eyes.', 'The interview was conducted before the International Swimming
Federation (FINA) on Friday informed the US synchronized swimming team that it

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is excluding Alvarez from the final of the team free routine scheduled for today at 4pm local time, according to U.S. team sources. The US artistic swimming team had resolved that Alvarez would rejoin the competition after suffering her fainting spell, but FINA cited "athlete safety concerns" to justify its decision not to allow her to compete.', 'How did you start out in artistic swimming?', 'My mother was a synchronized swimmer at university and was my first coach. I grew up watching her train and I spent the first years of my life imitating everything the grown-ups did in the pool. Over time I began to swim in my club's program, in Buffalo, a town in the state of New York where everything is very close at hand. In my family, there is a great Olympic culture. My maternal grandfather was an ice hockey referee at the Winter Games.', 'Do you think people are aware of how demanding artistic swimming (which used to be known as synchronized swimming) is?', 'As in any sport, we ', 'and sometimes we push it a little bit too far. People don't realize this because we are scored on how well we project an image of harmony and happiness. We smile with makeup. Those little things hide how tremendously demanding it is. At the end of training, we feel like we're dying. We can't even move. People do not imagine how often these fainting spells happen. I have attracted a lot of attention because it has happened to me in a World Championship. But in this sport, swimmers faint every day. This doesn't just happen to me.', 'Did you realize you were reaching your limit?', 'No. I just felt like I was giving everything in the pool. In the last figure, where I have to say goodbye by raising an arm I remember thinking: "Push that arm! Don't give up now! Give it your all until the last second!" In the past, I have felt like I was fading. This time I think I was very connected mentally, I was so into my role, living the moment so intensely, that I was really enjoying my performance. I just kept going and going and going.. Sometimes', '. It's like athletics. I like to run. Sometimes you are running and it's only once you stop that you feel the blow. In this routine, I felt great, as tired as ever but I was enjoying it. And when I felt that I could finally allow myself to relax that was when everything went black. I don't remember anything else.', 'What did you think when you saw the photos of your coach Andrea Fuentes rescuing you?', 'At first I was shocked. I didn't expect something like that to be published. But then I calmed down. I didn't want to see it negatively. Now I think the photos are beautiful in some way. Seeing me down there in the water, so peaceful, so silent, and seeing Andrea coming down with her arm outstretched', '... Sometimes the most peaceful place on earth is underwater: when you sit at the bottom of the pool in silence. You feel that you don't weigh anything, you are by yourself. I love it. Sometimes I need that moment. And in the photos, it all seems very natural, although picking up a person from the bottom of a pool and lifting them to the surface is very difficult. Especially when you are diving 10 feet deep in your street clothes and lifting up a dead weight. This morning Andrea said her back hurt!', 'Do you want to swim again?', 'I rested a lot, all night and all day. My body feels totally normal. This is something that has already happened to me. You rest and the next day you return to the water. You have to do it that way so you don't fill your head with fear. The doctors have examined me. I feel like my body can handle it and it's all in my mind. I want to finish this competition, which has been the best for the United States team in a long time. I'm very happy with my

solo performance, and now I don't want to let my team down in the women's team free final. I want to end with my head held high. I want my colleagues to feel that they can trust me and this makes us stronger.', ' What have you learned from Andrea?', ' As a child we followed her when she swam, and when we found out she was going to train us, we were blown away. She has not disappointed us either as a coach or as a person. She doesn't just want us to be successful as athletes. She wants us to be better human beings.']]

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2022-07-25 15:23:37 [scrapy.core.engine] DEBUG: Crawled (200) <GET
https://english.elpais.com/sports/2022-07-05/agon-y-with-every-step-alone-
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https://english.elpais.com/)
2022-07-25 15:23:37 [scrapy.core.scrapers] DEBUG: Scraped from <200
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without-artificial-oxygen-at-the-top-of-the-everest.html>
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2022', 'title': 'Agony with every step: Alone without an oxygen bottle at the
top of the Everest', 'author': 'Óscar Gogorza', 'text_art': ['An icon of
consumerism in the shape of a mountain, nowadays', ' has lost its magical aura
in order to embrace a tourism of selfies and social media ostentation. Even so,
reaching the highest point of the planet by one of its two normal routes without
the aid of bottled oxygen is still a very serious endeavor, even for
professional climbers, a first-rate physiological challenge. Doing it this way
but via a different route - one that requires actual climbing - is almost
inhumane. So far 10,700 climbers have reached the top since 1953, the year in
which New Zealand beekeeper Edmund Hillary and Nepalese Sherpa Tenzing Norgay
set foot on the coveted peak for the first time. Both carried on their backs
cylinders connected to a mask that allowed them to breathe bottled oxygen to
compensate for the drop in atmospheric pressure. Since then, only 220 of all the
ascents have been completed without the use of bottled oxygen.', 'Scientific
studies carried out in the 1960s determined that, on the roof of the planet,
human beings could only survive in a resting position, without walking or doing
anything other than breathing to stay alive; that is, if their brains did not
suffer irreparable damage due to a lower supply of oxygen. In 1978, Reinhold
Messner, a native of of northern Italy's South Tyrol province, and the Austrian
Peter Habeler contradicted all scientific predictions and sneaked to the top of
the Everest without supplemental oxygen. Habeler was so scared by the medical
directives that he could not sleep in the high altitude camps, even after taking
a fistful of sleeping pills. The physical effort necessary to reach their goal
was so enormous that they literally crawled to the top. Messner is considered to
be the best mountaineer in history and Habeler was an ', ', and their example,
far from encouraging the climbing community to get rid of the bottled oxygen,
discouraged their audience: if these two had suffered like dogs, the rest would
surely agonize to death.', 'Last spring, German mountain guide and professional
alpinist ', 'climbed the Everest without bottled oxygen, using the original
route from Nepal. He was using his fifth peak permit for three trips. In 2021,
he ', ', but the heat thawed their plans on the appointed day. In 2019, the year
of the viral lines and the people who died waiting for a place at the top, he
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decided to leave: there was just no way to break through the crowd. Goettler divides his time living in Spain's northern Cantabria region and in Chamonix and, a few days after his return from Nepal, he still looks consumed by the effort. Laughing, he says that he lost about six kilos and couldn't stop sleeping upon his return.', 'To face the Everest without supplemental oxygen, Goettler needed a day of high pressure and rather warm weather; he found instead low pressures and suffered temperatures of  $-30^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$ ). He needed weak winds, which he had. He needed as little traffic as possible, and when the waves of people subdued, he waited a while and then launched his attack: he was alone at the top, barely passing half a dozen climbers on the final leg of his journey. He needed to be in shape, and he has been for years, trained by one of the best specialists, running around 100 kilometers a week ', ' He needed to be light and, with his sponsors, he designed versatile garments and minimalist complements, aiming for absolute efficiency: nobody would help him take his equipment up and down, no Sherpa would set up his tent, melt the snow for him, or look after him. He was going to be alone, even if he had the misfortune of being there with 50 others on summit day. The one that moves without supplemental oxygen is a rara avis, and in the event of a mishap, it is normal to die on the spot. He was going to need to be autonomous for all this and he was going to need his body not to betray him.', 'Goettler recalls reaching Camp 4 in the afternoon and focusing on setting up the tent and recovering, hydrating as much as possible. At 9pm, lacking a sleeping bag, he realized that he was wasting a lot of energy trying to keep warm, and he saw that the intensity of the wind had dropped a lot. So, at 9.30pm, he started walking. At this point, 950 meters of slope separated him from the top. Kilian Jornet possesses the best known time in a vertical kilometer of mountain: 28 minutes and 47 seconds for 977 positive meters in 1.77 kilometers. The distance between Camp 4 and the top of the Everest on its southern slope is, according to David Goettler's GPS watch, 1.60 kilometers, although on the topographic map consulted by him, it appeared as two kilometers. Those figures are similar to those of Jornet's vertical kilometer, achieved below the 1.800-meter mark.', 'It took Goettler 12 hours and 20 minutes to reach the roof of the planet. Then, six long hours to return to his tent in Camp 4. These are tremendous figures that speak of agony and distress. Shortly after reaching 8,500 meters, his performance began to plummet. That is when the suffering began. The intensity of the wind increased and the snow moved, partially covering his footprints. It was barely one or two centimeters, but it made him slip, so he had to increase his efforts. He took a step, breathed four times like a locomotive, took another step, breathed four times again. This went on for hours. On May 9, National Geographic installed a meteorological station at 8,810 meters, whose information is precious for expeditions and for the study of climate change; they had assured him that the peak was next to it. How long did it actually take him to reach there? He is not sure.', 'Hours passed as he tried to stay alert, marking the key parts of the ascent and trying not to lose sight of the point of no return. He was highly focused, mentally awake and attentive to any sign. Being alone, he talked to himself, going over his gestures, what lay ahead, keeping in mind that he still had to go back down. His arrival at the top was as lonely as it was funny. He wanted to record the precise moment, so he mustered all the strength he had left

to take four unfortunate steps, to make it seem like he was walking normally. After that, he just fell on the ground, he recalls laughing.', 'Eighteen hours after leaving his tent he returned, sat down, and spent three hours completing a task that would have taken him 30 minutes at sea level: he kept repeating to himself that had to melt some snow, drink, collect his things, put them in his backpack... then, 10 minutes had passed and he hadn't moved a finger. Everything happened in slow motion. Finally, he ', ' to Camp 3 (7,300 meters) noticing how he improved the further he descended. The next day, he reached base camp. But inside, he knows that he will never leave that summit.']]

2022-07-25 15:23:41 [scrapy.extensions.logstats] INFO: Crawled 32 pages (at 7 pages/min), scraped 16 items (at 2 items/min)

2022-07-25 15:23:42 [scrapy.core.engine] DEBUG: Crawled (404) <GET https://english.elpais.com/science-tech/:/> (referer: https://english.elpais.com/science-tech/)

2022-07-25 15:23:43 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response <404 https://english.elpais.com/science-tech/:/>: HTTP status code is not handled or not allowed

2022-07-25 15:23:51 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/culture/2022-07-05/ezra-miller-from-blockbuster-star-to-alleged-kidnapper.html> (referer: https://english.elpais.com/)

2022-07-25 15:23:51 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/culture/2022-07-05/ezra-miller-from-blockbuster-star-to-alleged-kidnapper.html>

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{'url': 'https://english.elpais.com/culture/2022-07-05/ezra-miller-from-blockbuster-star-to-alleged-kidnapper.html', 'date': '05 Jul 2022', 'title': 'Ezra Miller: From blockbuster star to alleged kidnapper', 'author': 'Juan Sanguino', 'text_art': ['"', ' star holds kids captive in gun-filled farmhouse," blared the headlines. But even after reading the news accounts of the latest allegations against Ezra Miller, the actor's behavior is still hard to fathom. Known for their roles [Miller, who came out as queer in 2012, uses they/them pronouns] in', ' and ', ' ', the American actor's run-ins with the law include assaults, arrests and reports of alleged child theft. Every new headline only raises more questions about the erratic actor. What's going through their mind? Where are they right now? And above all - how did they get here?', 'Ezra Miller grew up in an artistic environment. Their father is a literary editor and their mother a modern dancer. In a 2011 ', ' profile, the actor said about growing up in New Jersey, "There was such an intense concentration of wealth, and such a low concentration of any actual human happiness." When they were six years old, the teacher asked them to do a class presentation on their favorite book. Miller brought a blood-covered stuffed dog to class with a tape recorder attached that played Miller's dramatic reading of ', '. The teacher gave them the highest grade.', '"Art is the only thing I have. Otherwise I'd be long dead. I probably would have done it myself," they told ', ' in 2018. To overcome his stutter, he took lessons in the bel canto style of singing and made his debut at age six in Phillip Glass's ', ' at the Metropolitan Opera in New York. After that came film roles in cult favorites, ', '(2011) and ', ' (2013). Then,', ' with lucrative franchise roles as Aurelius Dumbledore in ', ' and The Flash in', ' ', '"Queer actor Ezra Miller is the hero we need right now," headlined the 2018 article in
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', 'by Elle Hunt, who said ', ' choice of Miller for its cover shows the world is really changing. Early in their career, Miller said quite matter-of-factly that they identified as a non-binary queer person, and their signing by DC made Miller the first out-of-the closet actor to play a superhero.', 'Miller's flamboyance made them an idol on social media, and they mused in interviews on topics like colonialism, mental health, and about time as a construct. The actor confessed that they had gone through an adolescent stage of rebellious angst during which they "burned, broke, screamed, and hit things," tormented by his privileged place in a world marked by "gross economic disparity." Every appearance on the red carpet was an opportunity for performance art and Miller's interactions with fans were often unpredictable. One day they would', ', and the next they would answer questions in gibberish, dressed as Toadette, the ', ' character.', 'Miller loves to talk about their farm and brags about watching the goats give birth. The actor advocated openly for the right to own semi-automatic weapons, until his publicist asked ', ' to remove that statement after the October 2018 shooting in a Pittsburgh synagogue.', '"I'm trying to find queer beings who understand me as a queer being off the bat, who I make almost a familial connection with, and I feel like I'm married to them 25 lifetimes ago from the moment we meet," they said in a 2018 ', ' interview. "And then they are in the squad - the polycule. And I know they're going to love everyone else in the polycule because we're in the polycule, and we love each other so much." Miller was talking about the polyamorous group, which they christened the "polycule" (polyamory + molecule), that lives with them on his 96-acre farm in Vermont in the US. Ezra Miller was undoubtedly the most original star of the 2010s by far.', 'A couple of years ago, the ', ' began to cause concern. In April 2020, a female fan tried to dance with Miller in a Reykjavik bar in Iceland, and the actor reacted by grabbing her by the neck and throwing her to the floor. The video went viral on social media, although most of the comments dwelled on the fact that Iceland had not imposed social distancing and mask requirements in the middle of the first Covid wave.', 'In March 2022, Miller was arrested for disturbing the peace at a bar in Hawaii. According to witnesses, the actor lost their temper when some people started singing karaoke. Miller began yelling obscenities, spat at a man playing darts and snatched the microphone away from the singer.', 'The actor was released from jail after a couple of friends posted the \$500 (£480) bail. But a few hours later, the couple that had posted bail sought a restraining order against Miller, claiming that they had injured them with a chair, stolen a wallet and was refusing to leave their home. Miller had 10 altercations with the police during the few months they spent in Hawaii. Miller's companion on that vacation was a 18-year-old woman named Gibson Iron Eyes, whose parents accused Miller in June of preventing them from seeing their daughter. Miller met Iron Eyes in 2016 at a demonstration against an oil pipeline construction project running through Sioux land. At the time, Miller was 23 and she was only 12 years old. Her parents claim Miller is endangering their daughter's health by giving her alcohol, marijuana and LSD. Gibson is 18, but is still legally dependent on her parents under Sioux tribal law.', 'After going to Miller's Vermont farm where their daughter currently resides, Gibson's parents discovered that she had bruises on her body, and had no ID card, car keys, bank card, or cellphone. They began to suspect that she was being held

against her will and reported Miller to the police. "Ezra uses violence, intimidation, threat of violence, fear, paranoia, delusions, and drugs to hold sway over a young adolescent Tokata," reported the', 'about the parents' court filing that uses their daughter's birth name.', 'Gibson Iron Eyes has declared her independence on Instagram, and claims to be mentally stable and happy making her own decisions. She calls Miller a "comrade" who is helping her, and accuses her parents of transphobia, claiming that they are the ones guilty of "emotional and psychological manipulation." The court has not served Miller with the complaint because it can't find the actor, who has a July 12 deadline to appear before the judge.', 'On June 16, a Massachusetts woman obtained a restraining order against Miller, who she claims behaved inappropriately with her 12-year-old son. The boy, who also identifies as non-binary, told ', 'that Miller made him feel "uncomfortable" by inappropriate hugging and touching. "It made me nervous and scared because he yelled at my mom," said the boy. His mother claims that in February, Miller showed up drunk at her home wearing a bulletproof vest and carrying a gun. Your son is "an elevated being, and would be lucky to have someone like me guide them," yelled Miller.', 'On June 23, ', ' revealed that three children between the ages of one and five live surrounded by guns at Miller's Vermont farm. In March, Miller met a 25-year-old woman in Hawaii and invited her to move to the farm with her children. But the father said that he has not seen his children since Miller secretly took them in March. However, the mother says that Miller rescued her from a violent relationship. "He has given me a safe space for my three children - his farm is a safe haven for us," she said. Regarding the guns, she says they are "for self-defense," and that they are kept in a separate room where the children aren't allowed. But ', ' reporter Cheyenne Roundtree claims to have seen videos showing at least eight submachine guns, rifles, and revolvers scattered around the living room. Two others reported seeing a baby put a bullet in his mouth. On May 16, a Vermont social worker visited the estate and reported that the children "looked good," although she recommended follow-up visits.', 'Warner Bros., the studio behind ', ' and ', ' has called several emergency meetings to decide how to deal with the Miller scandal, but so far has not changed the June 2023 release date for its \$200 million blockbuster, ', '. According to Deadline, other projects in development with Miller have been put on hold.', 'Ezra Miller and their team have not made any statements about the allegations. Miller deleted their Instagram account shortly after posting memes that seemed to mock the court's attempt to find them - "You cannot touch me I am in another universe" and "Message from another dimension."']}]

2022-07-25 15:23:53 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/1/-/> from <GET https://english.elpais.com/science-tech/1/->

2022-07-25 15:23:59 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/1/m/> from <GET https://english.elpais.com/science-tech/1/m>

2022-07-25 15:24:06 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/1/o/> from <GET https://english.elpais.com/science-tech/1/o>

2022-07-25 15:24:13 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting

(301) to <GET https://english.elpais.com/science-tech/1/c/> from <GET https://english.elpais.com/science-tech/1/c>  
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2022-07-25 15:24:27 [scrapy.core.engine] DEBUG: Crawled (404) <GET https://english.elpais.com/science-tech/s/> (referer: https://english.elpais.com/science-tech/)  
2022-07-25 15:24:27 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response <404 https://english.elpais.com/science-tech/s/>: HTTP status code is not handled or not allowed  
2022-07-25 15:24:34 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/1/i/> from <GET https://english.elpais.com/science-tech/1/i>  
2022-07-25 15:24:41 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/1/l/> from <GET https://english.elpais.com/science-tech/1/l>  
2022-07-25 15:24:41 [scrapy.extensions.logstats] INFO: Crawled 35 pages (at 3 pages/min), scraped 17 items (at 1 items/min)  
2022-07-25 15:24:46 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/1/g/> from <GET https://english.elpais.com/science-tech/1/g>  
2022-07-25 15:24:52 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/1/n/> from <GET https://english.elpais.com/science-tech/1/n>  
2022-07-25 15:24:59 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/1/e/> from <GET https://english.elpais.com/science-tech/1/e>  
2022-07-25 15:25:07 [scrapy.core.engine] DEBUG: Crawled (404) <GET https://english.elpais.com/science-tech/p/> (referer: https://english.elpais.com/science-tech/)  
2022-07-25 15:25:07 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response <404 https://english.elpais.com/science-tech/p/>: HTTP status code is not handled or not allowed  
2022-07-25 15:25:13 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/1/:/> from <GET https://english.elpais.com/science-tech/1/:>  
2022-07-25 15:25:19 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/1/s/> from <GET https://english.elpais.com/science-tech/1/s>  
2022-07-25 15:25:26 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/1/p/> from <GET https://english.elpais.com/science-tech/1/p>  
2022-07-25 15:25:32 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting (301) to <GET https://english.elpais.com/science-tech/1/t/> from <GET https://english.elpais.com/science-tech/1/t>  
2022-07-25 15:25:38 [scrapy.core.engine] DEBUG: Crawled (404) <GET https://english.elpais.com/science-tech/1/-/> (referer:



https://english.elpais.com/science-tech/1/)  
2022-07-25 15:25:38 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response  
<404 https://english.elpais.com/science-tech/1/-/>: HTTP status code is not  
handled or not allowed  
2022-07-25 15:25:41 [scrapy.extensions.logstats] INFO: Crawled 37 pages (at 2  
pages/min), scraped 17 items (at 0 items/min)  
2022-07-25 15:25:44 [scrapy.core.engine] DEBUG: Crawled (404) <GET  
https://english.elpais.com/science-tech/1/m/> (referer:  
https://english.elpais.com/science-tech/1/)  
2022-07-25 15:25:44 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response  
<404 https://english.elpais.com/science-tech/1/m/>: HTTP status code is not  
handled or not allowed  
2022-07-25 15:25:51 [scrapy.core.engine] DEBUG: Crawled (404) <GET  
https://english.elpais.com/science-tech/1/o/> (referer:  
https://english.elpais.com/science-tech/1/)  
2022-07-25 15:25:51 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response  
<404 https://english.elpais.com/science-tech/1/o/>: HTTP status code is not  
handled or not allowed  
2022-07-25 15:25:56 [scrapy.core.engine] DEBUG: Crawled (404) <GET  
https://english.elpais.com/science-tech/1/c/> (referer:  
https://english.elpais.com/science-tech/1/)  
2022-07-25 15:25:56 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response  
<404 https://english.elpais.com/science-tech/1/c/>: HTTP status code is not  
handled or not allowed  
2022-07-25 15:26:00 [scrapy.core.engine] DEBUG: Crawled (404) <GET  
https://english.elpais.com/science-tech/1/a/> (referer:  
https://english.elpais.com/science-tech/1/)  
2022-07-25 15:26:00 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response  
<404 https://english.elpais.com/science-tech/1/a/>: HTTP status code is not  
handled or not allowed  
2022-07-25 15:26:05 [scrapy.downloadermiddlewares.redirect] DEBUG: Redirecting  
(301) to <GET https://english.elpais.com/science-tech/1/h/> from <GET  
https://english.elpais.com/science-tech/1/h>  
2022-07-25 15:26:17 [scrapy.downloadermiddlewares.retry] DEBUG: Retrying <GET  
https://english.elpais.com/science-tech/1/i/> (failed 1 times): 504 Gateway  
Time-out  
2022-07-25 15:26:18 [scrapy.core.engine] DEBUG: Crawled (404) <GET  
https://english.elpais.com/science-tech/1/l/> (referer:  
https://english.elpais.com/science-tech/1/)  
2022-07-25 15:26:18 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response  
<404 https://english.elpais.com/science-tech/1/l/>: HTTP status code is not  
handled or not allowed  
2022-07-25 15:26:25 [scrapy.core.engine] DEBUG: Crawled (404) <GET  
https://english.elpais.com/science-tech/1/g/> (referer:  
https://english.elpais.com/science-tech/1/)  
2022-07-25 15:26:26 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response  
<404 https://english.elpais.com/science-tech/1/g/>: HTTP status code is not  
handled or not allowed

2022-07-25 15:26:31 [scrapy.core.engine] DEBUG: Crawled (404) <GET https://english.elpais.com/science-tech/1/n/> (referer: https://english.elpais.com/science-tech/1/)

2022-07-25 15:26:32 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response <404 https://english.elpais.com/science-tech/1/n/>: HTTP status code is not handled or not allowed

2022-07-25 15:26:37 [scrapy.core.engine] DEBUG: Crawled (404) <GET https://english.elpais.com/science-tech/1/e/> (referer: https://english.elpais.com/science-tech/1/)

2022-07-25 15:26:38 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response <404 https://english.elpais.com/science-tech/1/e/>: HTTP status code is not handled or not allowed

2022-07-25 15:26:41 [scrapy.extensions.logstats] INFO: Crawled 45 pages (at 8 pages/min), scraped 17 items (at 0 items/min)

2022-07-25 15:26:46 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-06-19/the-coast-of-the-giants-footprints-in-the-gulf-of-cadiz-confirm-the-coexistence-of-massive-aurochs-with-neanderthals-and-other-large-animals.html> (referer: https://english.elpais.com/science-tech/1/)

2022-07-25 15:26:46 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-06-19/the-coast-of-the-giants-footprints-in-the-gulf-of-cadiz-confirm-the-coexistence-of-massive-aurochs-with-neanderthals-and-other-large-animals.html>

{'url': 'https://english.elpais.com/science-tech/2022-06-19/the-coast-of-the-giants-footprints-in-the-gulf-of-cadiz-confirm-the-coexistence-of-massive-aurochs-with-neanderthals-and-other-large-animals.html', 'date': '19 Jun 2022', 'title': 'Coast of giants: Footprints in Spain confirm coexistence of massive aurochs with Neanderthals', 'author': 'Raúl Limón', 'text\_art': ['A footprint on the ground is much more than a mark. It can reveal information about what or who left it, what it was doing at that time, what the environment was like, where it was wandering, its weight, its size and its habits. For researchers studying prehistoric times, in the absence of biological remains, footprints are the only way to fill in the blank spaces left by time. A new study led by geologists Carlos Neto de Carvalho, Fernando Muñoz Guinea and Luis Cáceres Puro, from the universities of Lisbon, Seville and Huelva, respectively, and published in ', ', has revealed the discovery of traces of aurochs (Bos primigenius). These animals, with a height of up to two meters (6 ft 5 in) and weighing 1,500 kilograms (3,300 pounds), left tracks a little over 100,000 years ago on the southwestern coast of Spain. The finding extends the reach in space and time of the megafauna that took refuge in the south of the Iberian Peninsula from the ice that conquered much of the continent. It confirms the relationships between the last survivors of the late interglacial period, including Neanderthals, and reveals the first steps towards the domestication of animals, one of humanity's most important advancements.', 'At the end of the Pleistocene, a stage that goes from 2.59 million years ago to 11,700 years ago, the aurochs were the only bovines that lived along the great river valleys of Spain's southern peninsula. The animals' tracks, found in Trafalgar (in Cádiz province) and Matalascañas (Huelva), date back to about 106,000 years ago. According to Carlos Neto de

Carvalho, a geologist, paleontologist and scientist at the Dom Luiz Institute (University of Lisbon) and the UNESCO World Geopark Naturtejo (Portugal), "the fossil record of the behavior of these large mammals is rare throughout the world. It had never before appeared in rocks and sediments as old as those that our team first identified at Cape Trafalgar.", 'Ichnology is the study of traces or signs of activity left in sediments or rocks by living beings. Named after the Greek word for footprint, ' , ' , the discipline analyzes footprints within distinct ichnogenera and ichnospecies. For Fernando Muñiz, also a paleontologist, co-author of the study and professor of crystallography and mineralogy at the University of Seville, "the discovery of a new ichnogenus and species (*Bovinichnus uropeda*) in Trafalgar is one of the study's achievements. So is the correlation with the traces in the mid-late Pleistocene coastal deposits of the Asperillo cliff section in Matalascañas and the known bone remains in Gibraltar. This correlation points to a recurrent use of coastal habitat by these large artiodactyls in southwestern Iberia.", 'The entire Gulf of Cádiz was already known to have been a refuge for the megafauna that were contemporaries of Neanderthals. In Huelva, the same team has discovered traces of *Palaeoloxodon antiquus*, straight-tusked elephants similar to the current-day ones, but up to four meters (13ft) tall, wild boars (*Sus scrofa scrofa*) that tripled the size of those that exist today and weighed up to 300 kilos (660lb), giant red deer, wolves and other animals.', 'The Cape Trafalgar footprints also show giant aurochs, with tracks made by hooves up to 27 cm (11 inches) long. As Neto De Carvalho explains, "the rounded footprints of a current adult bull rarely exceed 10 centimeters." He adds, "We had the experience in Matalascañas of measuring the footprints of Cariñoso, a bull weighing 1,128 kg (2,487 lb), and they did not exceed 18 cm (7 in). The Cape Trafalgar aurochs would have measured more than two meters in height from the head (6 ft 5 in), not counting the horns, which are known to reach 80 cm (31 in), and weighed around 1,500 kg (3,300 lb). The females were smaller and showed a strong sexual dimorphism [variation in appearance between the two sexes], which also seems to be present when we compare the auroch footprints in the new paleontological site of Cape Trafalgar with those of Matalascañas.", 'But the study of tracks goes beyond the identification of the physiological characteristics of animals. The beach and dune footprints, according to the work, "show a preferential orientation of movement towards the coast." This environment might seem unexpected for herbivores, but it coincides with the behavior of present-day herds in coastal areas. "The great Trafalgar trails," adds the study, "show mostly the same direction of movement and are interpreted as a herd of bulls walking slowly towards the coast in search of some peace, as is currently the case with wild cattle that visit the coasts in different parts of the world." The aurochs (*Bos primigenius*), according to Neto de Carvalho, are the ancestors of cattle (*Bos taurus*) and have been extinct since 1627.', 'Muñiz explains that "these tracks are important to understand the ecology and the interactions between possible predators and prey, and to determine the beginning of the possible domestication of livestock.", 'The Portuguese researcher mentions another especially relevant finding in the same area. "An impression of a jointed foot 31 cm (12 in) long was found at Cape Trafalgar. This does not necessarily mean that the foot-and, consequently, the hominid that produced it [a Neanderthal]- had such large

proportions, since the flexibility of the human foot during locomotion on a sandy dune substrate normally translates into a footprint larger than the foot, especially on sloped surfaces. However, it is a rare find that requires attention. The Neanderthals are part of our genetic ancestors, and they disappeared during the last glacial period, except in the Iberian Peninsula, which was their last refuge. Traces of them are still very rare and give precise indications about their behavior, the population's structure and their ecology.", 'Their presence is highly significant, as explained by the paleontologist and scientist at the Dom Luiz Institute in Lisbon: "We have found Neanderthal human footprints in fossil sediments in Gibraltar, in Matalascañas and now, potentially, in Cape Trafalgar, prior to the anatomically modern humans' arrival in the Iberian Peninsula. More than 100,000 years ago, Neanderthals and megafauna roamed the southwestern coast. This can't be a coincidence. Their traces point to a closeness and complicity of behaviors that are established in certain habitats between predator or scavenger and prey or corpse. Neanderthals, like us, would not be averse to eating shellfish and fish, but the large mammals, such as aurochs, elephants and goats, hunted or found dead, would be the main source of protein for their families. This close monitoring of aurochs herds would have been the first step towards domestication."', 'The Portuguese researcher also provides an explanation for the animals' massive size: "The period of megafauna included aurochs, wild boars and giant deer, as well as one of the largest elephants, the *Palaeoloxon antiquus*, of which there are records of tracks from Portugal to Cádiz. The period came after thousands of years of abundance of food resources in an Iberian Peninsula with a warmer, more humid climate than the current one. Food for herbivorous animals was widely available in the forests of the time, especially along rivers such as the Guadalquivir, whose estuaries, marshes and lagoons would have been the aurochs' preferred habitat. They were the main source of food for supercarnivores such as the lion, leopard, hyena and wolf, as well as for our ancestors, the Neanderthals. The pressure from predators may have had evolutionary consequences, in the sense that natural selection gave priority to larger animals who could defend themselves against these large predators."', 'The study has been carried out by an international team of researchers from Spain (Universities of Seville and Huelva, Doñana National Park), Portugal (Universities of Lisbon, Évora and Coimbra, Naturtejo Geopark, Polytechnical Institute of Tomar), China (Academy of Natural Resources of Henan) and Gibraltar National Museum.']]

2022-07-25 15:26:52 [scrapy.core.engine] DEBUG: Crawled (404) <GET https://english.elpais.com/science-tech/1/:/> (referer: https://english.elpais.com/science-tech/1/)

2022-07-25 15:26:52 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response <404 https://english.elpais.com/science-tech/1/:/>: HTTP status code is not handled or not allowed

2022-07-25 15:26:59 [scrapy.core.engine] DEBUG: Crawled (404) <GET https://english.elpais.com/science-tech/1/s/> (referer: https://english.elpais.com/science-tech/1/)

2022-07-25 15:26:59 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response <404 https://english.elpais.com/science-tech/1/s/>: HTTP status code is not

handled or not allowed  
 2022-07-25 15:27:06 [scrapy.core.engine] DEBUG: Crawled (404) <GET  
 https://english.elpais.com/science-tech/1/p/> (referer:  
 https://english.elpais.com/science-tech/1/)  
 2022-07-25 15:27:06 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response  
 <404 https://english.elpais.com/science-tech/1/p/>: HTTP status code is not  
 handled or not allowed  
 2022-07-25 15:27:13 [scrapy.core.engine] DEBUG: Crawled (404) <GET  
 https://english.elpais.com/science-tech/1/t/> (referer:  
 https://english.elpais.com/science-tech/1/)  
 2022-07-25 15:27:13 [scrapy.spidermiddlewares.httperror] INFO: Ignoring response  
 <404 https://english.elpais.com/science-tech/1/t/>: HTTP status code is not  
 handled or not allowed  
 2022-07-25 15:27:21 [scrapy.core.engine] DEBUG: Crawled (200) <GET  
 https://english.elpais.com/science-tech/2022-06-19/earn-1500-a-month-by-playing-  
 video-games-the-business-of-purchasing-and-flipping-accounts.html> (referer:  
 https://english.elpais.com/science-tech/1/)  
 2022-07-25 15:27:21 [scrapy.core.scrapers] DEBUG: Scraped from <200  
 https://english.elpais.com/science-tech/2022-06-19/earn-1500-a-month-by-playing-  
 video-games-the-business-of-purchasing-and-flipping-accounts.html>  
 {'url': 'https://english.elpais.com/science-tech/2022-06-19/earn-1500-a-month-  
 by-playing-video-games-the-business-of-purchasing-and-flipping-accounts.html',  
 'date': '19 Jun 2022', 'title': '‘Earn \$1,600 a month by playing video games’:  
 The business of purchasing and flipping accounts', 'author': 'María Fabra',  
 'text\_art': ['At any given time of day, close to three million people are  
 simultaneously playing Fortnite. According to its developer, Epic Games, the  
 video game boasted a total of 350 million registered accounts in 2020.', 'Users  
 can level up by opening chests, obtaining "skins," weapons or powers, achieving  
 crowns or eliminating other players. Frequent players gain experience points,  
 and they can also score wins by purchasing elements offered in the game  
 itself.', ' generates about €150 billion of revenue a year, according to the  
 American consultancy firm Newzoo. The figure exceeds that of the film and music  
 industries together, and it continues to grow. The business is not only  
 profitable for large developers: external markets hawk costumes, bows, knives,  
 screws, powers, virtues, keys and trunks-and accounts.', 'Javier Collado, 26,  
 has entered the business in which everything is virtual, except money (though  
 some operations do ', '). He has been playing video games all his life. His  
 friends are players from other parts of the world who he has never met in  
 person. One of them told him that there he could make his pastime profitable:  
 create accounts, play and rise through the levels, then sell them to other  
 players. He was attracted by the idea of making a profit. He has now sold more  
 than a thousand accounts. He does not ', ', since he dedicates the profits to  
 paying for his schooling in aviation and completing the flight hours he needs to  
 be a commercial pilot. But thanks to his hobby, he now earns a salary that  
 ranges "between €1,200 [1,230] and €1,500 [1,580] a month," he says.', 'It  
 started with one account. He played the game "from morning to night" for a week,  
 and he had it ready for sale. He repeated the maneuver about 20 more times. The  
 account that brought him the most money made €300 (\$316). In his best months,

after Christmas, which is one of the times when his services are most popular, he made €3,000 (3,160). (The platforms that facilitate the purchase and sale keep between 15% and 20% of the revenue.) Collado has a tax advisor, makes his filings and pays taxes.', 'After his first foray into the business, he saw that it took up a lot of time. He had gained a reputation among players, and he became primarily a middleman: he buys accounts in bulk and then resells them, using his reputation and the valuation of his previous buyers. That reputation allows him to acquire accounts for one to three euros and to sell them for about €20 (\$21) after checking them and, in some cases, playing to increase the level. "I try to make sure that nothing can cause problems for people who buy. I take on my share of responsibility and I want the experience to be fruitful for everyone," he says, explaining there are hackers who steal and sell accounts.', 'The motivation is clear: "Games are competitive systems. You go up and down levels. There are people who want to skip the time that has to be invested in the first levels, or others who, after years of experience, get stuck at one level and want to go up in another way," he explains. Advancing in this way is frowned upon, but several online pages serve as platforms for sellers and buyers, even managing guarantee systems. Some of them even hold payment for several weeks until the buyer verifies that everything is in order and that the purchase corresponds to the offer.', 'Collado is convinced that the owners of the games know of these pages. The market for accounts generates more interest in playing, more motivation for those who start a new account thinking that they can improve and more incentives.', 'Anyone can enter the business, Javier Collado knows. But he is not afraid of losing his market share: users are very competitive, and they usually seek out account resellers who offer them guarantees or who, like him, specialize in certain games.']]

2022-07-25 15:27:27 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-06-19/bill-gates-cryptocurrencies-and-nfts-rely-on-finding-someone-dumber.html> (referer: https://english.elpais.com/science-tech/1/)

2022-07-25 15:27:27 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-06-19/bill-gates-cryptocurrencies-and-nfts-rely-on-finding-someone-dumber.html>

{'url': 'https://english.elpais.com/science-tech/2022-06-19/bill-gates-cryptocurrencies-and-nfts-rely-on-finding-someone-dumber.html', 'date': '19 Jun 2022', 'title': 'Bill Gates: Cryptocurrencies and NFTs 'based on greater fool theory'', 'author': 'El País', 'text\_art': ['During a conference last week, Bill Gates said that NFTs - ', ' - and cryptocurrencies are based 100% on a financial theory known as "greater fool" i.e. the idea that people are able to sell overpriced securities to a "greater fool."', 'During the talk organized by TechCrunch, he joked about the Bored Ape Yacht Club, an NFT-based collection of monkeys dressed as humans that have been sold for hundreds of thousands of dollars. Some of their owners are even famous. "I don't know, I mean obviously expensive digital images of monkeys are going to improve the world immensely," he joked.', 'Gates expressed his preference for traditional sectors, such as farms or companies "or a company that makes products." He clarified he is not involved in buying or selling of cryptocurrencies or NFTs in any way.', 'It's not the first time Gates has criticized cryptocurrency. A little over a year

ago, he warned that people who invest in the sector "don't have a lot of money to waste." Gates's comments come as bitcoin and other cryptocurrencies have been in', '. Bitcoin has fallen from its November high of \$65,000 and is now just slightly above \$20,000.']]

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2022-07-25 15:27:36 [scrapy.core.engine] DEBUG: Crawled (200) <GET
https://english.elpais.com/science-tech/2022-06-20/can-you-increase-the-
strength-of-a-muscle-without-contracting-it.html> (referer:
https://english.elpais.com/science-tech/1/)
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2022-07-25 15:27:36 [scrapy.core.scrapers] DEBUG: Scraped from <200
https://english.elpais.com/science-tech/2022-06-20/can-you-increase-the-
strength-of-a-muscle-without-contracting-it.html>
{'url': 'https://english.elpais.com/science-tech/2022-06-20/can-you-increase-
the-strength-of-a-muscle-without-contracting-it.html', 'date': '20 Jun 2022',
'title': 'Can you increase the strength of a muscle without contracting it?',
'author': 'Ana Bulnes', 'text_art': ['In a study that was published in a
scientific journal in 2014, a group of researchers immobilized one of the wrists
of each of the participants for four weeks. They divided the volunteers into two
groups: while one didn't have to do anything, the other went every weekday,
Monday to Friday, to the center where the study was being conducted. There they
were asked to imagine that they were contracting their forearm muscle and
bending their wrist (through sensors they were prevented from actually doing
it). After those four weeks, when the splints were removed, all the participants
had lost strength in the wrist that had been immobilized, but those that had
pictured themselves exercising it had lost less, according to the study,
published in ', '.', 'The first step towards understanding this magic where
imagining the contraction of the muscle is enough to avoid the loss of strength
when a joint is immobilized, is to get a sense of how strength works; that is,
what our muscles do in order to raise a dumbbell or a fork, or simply to keep us
standing straight. The central nervous system plays a key role in each of these
actions.', '"Skeletal muscle is not capable of contracting spontaneously; it
does it by following the orders that arrive from the nervous system," says
Xavier Navarro, a researcher at the Institut de Neurociències de la Universitat
Autònoma de Barcelona (UAB). After being sent out from the central cortex, the
order travels through the spinal cord towards the motor neuron or motor neurons
that it seeks, from where it will take the path of its axon (an extension of the
motor neuron) and the branching off that leads to the muscle fibers that we want
to activate. "The combination of a motor neuron, its axon and all the muscle
fibers that it innervates is called a motor unit", explains the expert.', 'Every
muscle is made up of several different-sized motor units. "The degree of muscle
contraction depends on the number and type of motor units that are activated at
each moment", notes Navarro. "Slight muscle contractions, which involve little
strength, happen through the activation of the smallest motor units, which
causes the contraction of some muscle fibers. When we want to increase the
strength, the former motor units are joined by the activation of larger motor
units, which allows for the contraction of a larger number of muscle fibers.
Finally, when the muscle contraction is too intense and the strength has reached
its peak, the last motor units to join are the largest ones, and therefore the
ones that innervate a larger amount of muscle fibers and can generate the most
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muscle strength. This mechanism of organized summation of motor units is known as motor unit recruitment", he explains. The strength that we're capable of producing with one muscle depends on the length it has when we activate it, our intended shortening speed and the frequency and intensity of ', '.', 'Therefore, it is evident that the central nervous system plays a very important role in the strength that we have. When we work with our strength we don't just use our muscles; in order for the muscle to contract we have to set in motion that entire chain in which the nervous system is in charge, something we do automatically when we make any movement. But is it possible to separate head from muscle (and spine, and nerves) and gain strength without contracting the muscle? Studies like the one mentioned earlier suggest that it is.',

"Certainly, we can increase the strength without contracting the muscle that we want to work on," claims Gonzalo Márquez, a professor at the Faculdade de Ciencias do Deporte e da Actividade Física of the Universidade da Coruña, in northwestern Spain, and a member of the research group on learning and control of human movement in physical activity and sport. The expert points out that there are two strategies for this strength work outside the muscle. One is the one that was used in the study with the immobilized wrists; motor imagery, a "mental simulation of movement with no evident muscle contraction while the person remains at rest." Through this type of intervention, "it has been proven that it is possible to increase the strength between 5 and 15%," he says.', 'The other strategy, which can also sound like magic for the uninitiated, is unilateral training. "When we train an arm or a leg separately, part of the gains achieved in the trained limb are 'transferred' to the untrained limb, which is something known as the 'cross effect' or 'interhemispheric transfer' of strength training," explains Márquez.', 'The mechanism that the body uses to increase the strength of an untrained muscle is similar in both cases. "Through techniques of brain imaging," says the expert, "it has been proven that when we imagine a movement, the part of the brain that is in charge of controlling such movement turns on (activates) in a way that is similar to when we actually do it. Similarly, when we contract one of the limbs, the opposite hemisphere, which controls the limb at rest, is also activated (to a lesser extent). The excitability increases abruptly in the hemisphere that's not supposed to turn on. We see it every day." In the long term, this activation, which we've worked on through our imagination or unilateral training, will produce "an adaptation in the nervous system that will allow for a more efficient contraction of the muscle, making it able to generate more strength." That is, we train the part of the nervous system that is necessary to generate strength and the signal reaches better.', 'That is the same reason why, when a person begins strength training, they tend to notice quick gains long before the muscle starts to grow. There are studies (since the late 1970s) that discuss those adaptations that our nervous system makes and which happen before there are any noticeable effects on the muscle mass. If the first strength gains are produced in the nervous system, it makes sense that it would also be possible to achieve them - albeit in a limited way - by training that part without involving the muscle directly.', '"The scientific literature is putting a lot of interest in investigating whether motor imagery can be effective to improve skills in healthy people, in athletes when intensive training can't be carried out, and in the rehabilitation of ', '



in order to improve pain, joint range or strength," explains Eva Prado Robles, an occupational therapist at the Complejo Asistencial Universitario de León. The results of most of the studies support the effectiveness of the technique, she explains, although she clarifies that "traditional physical training is still essential and the most effective method to increase strength." Xavier Navarro sums it up: "If a muscle doesn't contract, it becomes atrophied.", 'In the laboratory, Gonzalo Márquez tries to find out if, just like simple imagination or unilateral training activate the areas of the brain that are involved in movement and improve the results, artificial activation of those areas through neuromodulation techniques would have an effect on performance. By studying resistance in particular, the conclusion is that it would. "We've found that, by stimulating the dorsolateral prefrontal area, the volunteers were able to pedal for longer periods," he indicates. Would this mean more fatigue later, not having felt the need to stop earlier? The expert explains that this isn't the case. "What this is telling us is that the limit of tolerance to exercise is not the one imposed on a normal task. We have a reserve, the functional reserve. Basically, it is our brain who somehow dictates the end of a task before the organism is actually exhausted," he says.', 'So far, they have focused on healthy individuals who are used to training, but the idea is to move on ', ' to see if the same effect is achieved. "Their functional capabilities are diminished, largely due to a deteriorated strength. This happens, in part, because there is not a great connection between the nervous system and the muscles. If somehow we're able to boost the nervous system, we can accelerate the training process and reap benefits sooner," he explains. This can lead to a better quality of life. "For a person to notice that a task is not as hard, for them to notice more ease for a movement. It is also important for people with a pathology. For someone who had a stroke, picking up a fork can be a challenge," she says.', 'All this research paints a very promising picture, but one that is still in the making. Eva Prado Robles points out that not all studies have yielded the same results. She thinks that it is very important to consider the methodological aspects of each one and to design new, broader research that takes everything into account. Aspects like "the planning of the sessions, the measurements, the method, the imagined tasks, the ability to imagine, who it is applied to, the mental effort and the fatigue when executing the mental practice, the complexity and duration of the imagined gesture, the repetitions, the difficulty to visualize or the intrinsic motivation" can affect the result.', 'Xavier Navarro, from the UAB, agrees. "Most of these studies are short-term," he observes, and not all of them find that sought-after result of an increase in strength. The same researchers who carried out the study of the immobilized wrists didn't find it in a first investigation (due to a very limited sampling of volunteers, according to them). Still, Navarro, who is also an advisor at the Guttmann Institute of Neurorehabilitation, believes that it could be a good idea to create programs that motivate the patients and seek that result. "I believe that, if it is explained to the subjects, be it because they want to enhance their performance or because they're patients, the fact that they know that it [an increase in strength] happens, along with a suitable program, could help them reach that improvement that some studies have proved," he observes, although he insists on the importance of a specific program.',

'Unilateral training is also already being used in the world of sports to avoid losing all the functionality of an injured limb, says Gonzalo Márquez, citing badminton player Carolina Marín as an example.', 'Everyone agrees that more and broader studies are necessary, but the seed of the possibility has already been planted. As Xavier Navarro summarizes, "our circuitry is complex." Knowing it better will lead to new therapies, better training and an easier life for many people.']]

2022-07-25 15:27:38 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-06-22/how-to-see-rare-five-planet-alignment-in-the-night-sky.html> (referer: https://english.elpais.com/science-tech/1/)

2022-07-25 15:27:38 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-06-22/how-to-see-rare-five-planet-alignment-in-the-night-sky.html>

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looking up at the sky," says Tafalla. "I think this can happen to all of us."']]
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Domínguez', 'text_art': ['For years now, the ', ' has involved understanding and
eliminating metastasis. This ability allows a tumor to send cells to the blood
vessels, where they travel and nest in other organs and give rise to new tumors.
Nine out of 10 cancer deaths are due to this process. A new study reveals that
this expansion throughout the body is more aggressive at night, a surprising
fact that may have important implications for the diagnosis and treatment of the
disease.', 'Until now it was thought that tumors constantly emit cancer cells
into the blood, regardless of the time of day. Swiss oncologist Nicola Aceto's
team took two blood samples from 30 women with breast cancer with and without
metastasis; one at 10am and another one at 4am. The results show that the levels
of so-called circulating tumor cells (CTCs) in the blood are much higher at
night and that these nocturnal cells are also much more aggressive.', 'Faced
with the impossibility of marking and following the fate of each of the
malignant cells detected in the patients, the researchers resorted to a set of
experiments in mice. These animals are nocturnal, and the experiments showed
that in these rodents, the tumor cells were much more active during the day, the
mice's rest period.', 'Tumor cells extracted during sleep are capable of causing
metastasis if they are injected into healthy mice, something that does not
happen with those obtained during the day. In both humans and mice, malignant
cells activate genes that promote cell proliferation, a mechanism that fuels
tumor growth. The work ', ' in the prestigious journal ', '.', 'This study
provides a new key to the relationship between cancer and ', ', the internal
clock that dictates the periods of physical and mental activity and rest during
the 24 hours of the day. This cycle is intimately connected with the periods of
day and night on Earth and its alteration due to unusual work schedules or
artificial light is related to many diseases, including the risk of breast,
prostate, colon, liver, pancreas or lung cancer. Jobs with night shifts that
alter circadian rhythms are "probably carcinogenic," the second most dangerous
category out of four, according to the scale of the International Agency for

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Research on Cancer, part of the United Nations.', 'The daily cycle is governed by hormones such as melatonin, which promotes sleep, and cortisol, which wakes us up. In 2014, a team from ', ' demonstrated a connection between nocturnal hormones and the spread of cancer. In mice, they showed that administering the same ', ' drug reduced tumors more or less depending on whether it was administered during the day or at night. The new work also sees a clear connection between hormones and metastasis, so that molecules of this type that start the daily activity phase seem to reduce the cancer's ability to travel through the circulatory system.', 'Harrison Ball and Sunitha Nagrath, from the Rogel Cancer Center at the University of Michigan (USA), point out that these results have "surprising implications" ', '. Both researchers call for large-scale clinical trials with patients to confirm these results. "Oncologists may need to be more aware of what time of day they administer some treatments," they add.', 'Roger Gomis leads the metastasis research group at the Barcelona Biomedical Research Institute. "This work is important from a conceptual point of view," he highlights. "It is in line with other works that are revealing a systemic component in cancer and its expansion. An example would be the effects of diet on the success of some cancer treatments", he details. "The difficult thing," he warns, "will be applying this basic knowledge to treatment and diagnosis, because it is impossible to prevent patients from sleeping, while taking biopsies in the wee hours of the morning poses great challenges," he argues.', 'María Casanova, a researcher at Spain's National Cancer Research Center, believes that the work has "enormous" value. "It is necessary to extract a lot of blood to measure the circulating tumor cells, and in very advanced stages it is something very delicate. It is only done in a few patients to see how well chemotherapy is working for them. Having these data from 30 patients is really a lot," she notes.', 'The fact that metastatic cells are more active at night is not accidental. Humans are a diurnal species and during the day we are more exposed to harmful viruses and bacteria than at night. This is why the part of the immune system that patrols the circulatory system is less active at night, when we rest. This partly explains why fever or asthma attacks tend to be more intense at night. During the hours of rest, other immune cells are activated, the neutrophils, which are fixed in the different organs and help to repair them. Cancer has its own circadian clock and it would be precisely at this time when the cancerous cells of the tumor leave the tissues and jump into the bloodstream, where there is hardly any surveillance, explains Casanova.', 'There are cancer treatments that are less effective if they are administered in the afternoon. There are also components of the circadian rhythm that could explain other ailments, such as the fact that most strokes happen in the morning, Casanova says. The specific mechanisms that explain these observations are still unknown, but there is already an emerging discipline called chronotherapy that studies the confluence of the disease, the therapies applied and the time of day and night. "It is possible that we can find a way to synchronize the immune system so that it is better able to fight cancer when it is more active," summarizes Casanova.', 'Andrés Hidalgo, a researcher at Spain's National Center for Cardiovascular Research, points out that this study is "shocking." "It presents us with a less predictable biology of cancer than we thought and obviously confirms that the disease does not follow the same

schedules as our medical staff. This can be very important because it has been seen that radiation is much more effective if it is applied when the tumor is in the active phase and multiplying, and not in the resting phase. It is possible that sometimes we are bombing when the enemy is protected inside his bunker.""]}

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2022-07-25 15:28:04 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-06-23/yves-coppens-one-of-the-discoverers-of-famous-fossil-lucy-dies-at-87.html> (referer: https://english.elpais.com/science-tech/1/)

2022-07-25 15:28:04 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-06-23/yves-coppens-one-of-the-discoverers-of-famous-fossil-lucy-dies-at-87.html>

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interview he gave to the Spanish daily 'El País', it is a part of France where fossils are abundant and it is easy to find lines of menhirs. All this fueled his interest in exploring a deep past in which he could reconstruct the history that separated us from the animal world, by unearthing fossils millions of years old. "Our history begins in the hip, because it is the key element [to walking upright]", he said about the key to our origin.", "Yves Coppens has left us this morning. My sadness is immense. Yves Coppens was a great scholar, a world-renowned paleontologist, a member of countless foreign institutions, but, above all, a professor at the Collège de France and a member of the Academy of Sciences," his editor, Odile Jacob, wrote on Twitter. "His kindness, his sense humor, his loyalty, his erudition were matched only by his talent as a writer. [...] France loses one of its great men.""]}

2022-07-25 15:28:09 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-06-24/the-ins-and-outs-of-a-miracle-cure-for-baldness.html> (referer: https://english.elpais.com/science-tech/1/)

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{'url': 'https://english.elpais.com/science-tech/2022-06-24/the-ins-and-outs-of-a-miracle-cure-for-baldness.html', 'date': '24 Jun 2022', 'title': 'The ins and outs of a miracle cure for baldness', 'author': 'Manuel Ansele', 'text\_art': ['The happy world of an 11-year-old girl began to crumble one summer day in 2015. María Guaita's hair started falling out all at once, like in some crazy nightmare or horror movie. Without a drug to treat her specific condition, her doctors decided to prescribe corticosteroids that made her put on 45 pounds. The young girl was suddenly bald and overweight, a difficult burden to bear in the often cruel world of teenagers. "It was a very big blow. I was so young and was wondering, 'Why me? Why did this happen to me?' I had a very hard time at first," said Guaita, who just turned 18. The young woman from Cuenca (Spain) later became one of the first patients to be given a breakthrough drug to reverse 'alopecia areata', 'called baricitinib. After seven cruel years, she has hair again and is back to her normal weight.', 'María Guaita suffers from alopecia areata, a mysterious disease in which the human body's defense system attacks the scalp. The condition only affects about 2% of the population at some point in their lives, but is usually manifested in a few coin-sized bald patches. In extreme cases like Guaita's, all the hair falls out, sometimes in just a few days. Baricitinib helps the body grow the hair back within a few weeks. US regulators approved the drug on June 13, and the European Medicines Agency (EMA) recommended its authorization in May. The European Commission will probably make a final decision on approval by the end of June, according to EMA spokesperson, Stefan de Keersmaecker.', 'Dermatologist Sergio Vañó, director of the Trichology Unit of the Ramón y Cajal Hospital in Madrid, believes that baricitinib is the start of "a new era." The drug inhibits JAK proteins that launch ferocious attacks on the scalp. Now that baricitinib (made by pharma giant Eli Lilly and Company) has been approved in the US, similar drugs like Pfizer's tofacitinib are expected to receive approval as well. "These drugs are', 'of this condition, and will dramatically improve quality of life for these patients," said Vañó,

who treated young María Guaita at the Pedro Jaén Group Clinic in Madrid.', 'But Vañó cautions that the drug has some drawbacks. "This is not a curative treatment. You can't take this for six months and be forever cured of alopecia areata. It will only have an effect as long as it is used," he said. "If a patient stops taking the drug, the condition usually returns. It's a huge step forward, but it's not a panacea.", 'Another drawback of baricitinib is its prohibitive price. The drug was previously approved in Spain to treat rheumatoid arthritis and atopic dermatitis, but it costs about US\$990 a month. Nor is it effective in every patient with alopecia areata. Pharmacist Jesús Sierra does the math based on the partial efficacy observed in clinical trials-if for every three patients treated, one patient's hair is restored, it would cost almost US\$38,000 a year to achieve success for a single patient. "Proper patient selection is important-it should only be prescribed for the patients who can benefit the most from the treatment. And negotiate costs with the pharmaceutical company to review current pricing," said Sierra, who works at the Jerez de la Frontera University Hospital in Cadiz (Spain). In 2021, Eli Lilly and Company earned US\$5.25 billion in revenue.', 'Sergio Vañó dispelled some other misconceptions. "The European Commission's approval of this drug doesn't mean that Spain's national health system will cover the cost. The Ministry of Health has to first assess whether it will cover this drug and in which cases. This process could take a year or longer. Right now, we're not able to automatically prescribe baricitinib. It would have to be requested individually [from the national health system] and most likely they'll say no.", 'Vañó explains that alopecia areata is not just an aesthetic problem. "Imagine losing every single hair on your body overnight. That completely changes your self-image, and stigmatizes you. People ask if you have cancer, and can have societal and workplace impacts. I have had young female patients here with this problem, and some have attempted suicide," said Vañó. The most severe forms of the disease are often associated with psychiatric problems, such as anxiety and depression. "Patients also have functional problems. Since they have no eyelashes, they run a greater risk of have corneal erosion. It can be uncomfortable to play sports because sweat gets in their eyes. They also have more nose and ear infections because they have no hair in those areas," said Vañó.', 'Dermatologist Joan Ferrando, an honorary professor at the University of Barcelona, says that baricitinib should only be administered under strict', ' "People shouldn't think that everything will be easy with baricitinib. It has side effects-it can weaken defenses, lead to infections, activate dormant tuberculosis, and may also lead to a higher incidence of lymphomas or cerebral infarctions," said Ferrando. Sergio Vañó notes that the most common side effects are mild respiratory infections, acne, and a higher risk of getting shingles. "It's a very safe drug. Getting your hair back improves your quality of life and self-esteem, which compensates for the potential side effects.", 'Vañó estimates that 0.05% of the population may suffer from severe alopecia areata, about 25,000 people in Spain. "I think the high cost will limit the use of the drug to these severe cases," he said. Vañó predicts that the price of baricitinib will drop to around US\$525 per month. María Guaita's mother, Paloma Torrecilla, remembers the "ordeal" that her daughter went through during adolescence, suffering hundreds of useless drug injections in her scalp. She hopes that Spain's national health system will

cover the cost of baricitinib for the most serious cases. "María is now starting to feel well. It's amazing how much hair can change a person-it's a transformation," said Torrecilla.', 'María Guaita exhibits an extraordinary maturity when talking about her illness, and would like to see government funding for drugs to treat alopecia areata. "Since the number of cases is low, it seems viable. I would ask them to try, by all means," urged Guaita. "And I would tell other people like me not to lose hope, that there is a way out. Sooner or later, they'll be able to climb out of that pit."']}]

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2022-07-25 15:28:15 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-06-24/is-antivirus-software-still-essential.html>

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computer security company ESET. "They always give you the possibility of buying one for a fee. They do that for a reason," he says. The extended version usually includes the possibility to receive technical support in the same language and from the same country at almost any time, as well as the installation of patches or remote management functions. Albors laments that "this service is rarely valued until something happens.", 'Albors explains that attackers often exploit system-specific security tools for their benefit. "It can be much easier for an attacker to bypass a system integrated into the operating system itself, than a third-party system that is specialized in cybersecurity," he says.', 'Europe is the region with the second-largest antivirus market share in the world, ranking behind the United States, according to the report "Global Antivirus Software Market 2021: COVID-19 Growth and Change" by ', '. This market made more than €3 billion in 2021, and the business is expected to increase to \$4.3 billion in 2025. According to a study by ', ', American households that pay for an antivirus outnumber those with a free version by nearly 10 million. The company calculates that 8.9% of users with a free version suffered from some malware in 2021, compared to 7.4% of those who had a paid version.', 'According to the same study, three out of four users in the US continue to use antivirus software, despite the fact that more and more software companies offer the service. Javier Tobal says that Microsoft's antivirus service "comes out very well in independent analyses, just like the Macbook's. The good thing about it is that you activate it and forget about it, and it does not offer much less protection than the others.", 'Valdés, of INCIBE, notes that antiviruses "offer many more services. They serve as firewalls, include anti-spam filters and optimize computer performance. Some analyze web addresses and even have parental control tools. Each user has to evaluate what they want and need."']}]

2022-07-25 15:28:22 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/international/2022-06-24/who-debates-declaring-monkeypox-virus-a-global-emergency.html> (referer: https://english.elpais.com/science-tech/1/)

2022-07-25 15:28:22 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/international/2022-06-24/who-debates-declaring-monkeypox-virus-a-global-emergency.html>

{'url': 'https://english.elpais.com/international/2022-06-24/who-debates-declaring-monkeypox-virus-a-global-emergency.html', 'date': '24 Jun 2022', 'title': 'WHO debates declaring monkeypox virus a global emergency', 'author': 'Oriol Güell', 'text\_art': ['The emergency committee of the World Health Organization (WHO) is holding a meeting this Thursday in Geneva to assess whether ', ', which has affected more than 3,500 people in at least 42 countries in six weeks, constitutes a "public health emergency of international concern." This is the highest level of alert that the agency can declare, a status that the coronavirus pandemic and the effort to eradicate polio currently have.', 'Declaring a global emergency would seek to increase coordination between countries and reinforce mechanisms to actively search for cases and implement measures to help curb the global circulation of the virus. According to WHO sources, the results of the meeting will be communicated at a news conference on Friday afternoon or Saturday morning, and a statement will also be released.', 'The meeting of the committee is taking place in an environment of growing

concern about the rise in cases registered in non-endemic areas outside of Africa, especially in Europe but also in the Americas, with several cases also reported in Asia and Oceania. An international health alert was launched by the United Kingdom in mid-May, and since then cases have been growing in this country (793), as well as in Spain (more than 800), Germany (592), Portugal (317), France (277) , Canada (245), the Netherlands (167) and the United States (156), according to figures available on Thursday morning. The data, however, is constantly changing as countries update their records, something that not all do at the same pace.', 'Antonio Alcamí, a researcher specializing in the viruses that cause the different types of smallpox and who works at Spain's National Research Council (CSIC), feels that it would be warranted to declare the monkeypox outbreak a global emergency. "The main reason is that the virus has spread to many countries and this is the way to ensure that everyone contributes the means to properly measure the scope of the outbreak. In the current situation, it is very likely that many countries have more cases than those that are being detected," he said.', 'One of the questions that is on the table is whether national health systems are looking in the right places as they search for cases. Part of the growth is due to tracing difficulties encountered by several countries, according to several studies. The vast majority of positives are related to festivals, parties and other events in which men who have relationships with other men meet and close contact occurs, which has been revealed as the main route of infection. Many of the patients state that they cannot identify, or prefer not to, their risk contacts.', 'But in recent days several scientists have spoken out in favor of a broader case definition, urging authorities to expand the criteria that a patient must meet in order to get tested. ', ' in the medical journal ', ' on June 15 by a dozen scientists warned that "current case definitions of monkeypox would miss the case of a heterosexual patient with a characteristic vesicular-pustular rash but no travel history or contact with confirmed infection. The latter description best fits those people who most typically become infected in endemic areas."', '"Many cases may be escaping us because ', ' are generally milder than expected and can be confused with many other diseases," notes Antonio Alcamí. The letter published in ', ' maintains that "to untrained eyes, monkeypox could easily be mistaken for other dermatological diagnoses within sexual health clinics or primary care (eg, chickenpox, varicella zoster, herpes simplex, syphilitic chancre, gonorrhea, or molluscum contagiosum)."', 'Antonio Alcamí acknowledges that there are still several questions to be answered to explain the current extent of the outbreak, such as whether there are patients who can be almost asymptomatic or whether the virus is also spread ', '.', '"The epidemiological data we have so far shows that the vast majority of infections have been by direct contact. It is possible that they can also be transmitted by air, although it does not seem to be a very effective way. Studies must now determine what percentage of infections may be occurring in this way."']}]

2022-07-25 15:28:29 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-06-24/covid-vaccines-saved-nearly-20-million-lives-study-finds.html> (referer: https://english.elpais.com/science-tech/1/)

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<https://english.elpais.com/science-tech/2022-06-24/covid-vaccines-saved-nearly-20-million-lives-study-finds.html>>

{'url': 'https://english.elpais.com/science-tech/2022-06-24/covid-vaccines-saved-nearly-20-million-lives-study-finds.html', 'date': '24 Jun 2022', 'title': 'Covid vaccines saved nearly 20 million lives, study finds', 'author': 'Miguel Ángel Criado', 'text\_art': ['Margaret Keenan, a 90-year-old British woman, received the first Covid-19 vaccine outside of clinical trials on December 8, 2020. A study published on Thursday in the ', ' has modeled what would have happened without Covid-19 vaccines - in other words, how many lives did they save. According to the research, the vaccines prevented 19.8 million deaths, the equivalent of the entire population of Ecuador. But the study also confirms the', ' between poor and rich countries.', 'It is not easy to determine the impact of the vaccines against Covid. Vaccine trials showed that they were between 60% and 90% (depending on the kind) effective at', '. But how many deaths have they prevented? It's difficult to know. To estimate the number, one needs to imagine two parallel worlds - one that has vaccines and one that doesn't - and see where more people died from the disease. Since such a comparison is impossible, one has to turn to mathematics and modeling. And that is exactly what researchers at Imperial College London (ICL) did for their study in ', '. Using demographic data, including comorbidities, from 185 countries, as well as information on health infrastructure, the previous infection rate, vaccination rate and even types of vaccines, they modeled the impact of Covid-19 vaccines from December 8, 2021, when Margaret Keenan was vaccinated, until just a year later.', 'If the model only takes into account the statistics on the number of Covid-19 deaths, the vaccines would have prevented the death of 14.4 million people in the 185 countries studied. But not every country has reliable official data, and often the figures are underreported. To address this problem, the researchers compared the number of deaths from all causes in 2020 and 2021, with the figure in pre-pandemic years. The excess mortality was attributed to the virus.', 'According to the model, the direct benefit of the vaccine i.e. immunization prevented most of the 20 million deaths. But the study found vaccines also saved lives by building ', ' and relieving the burden on the health system. The impact of vaccination only began to be seen in mid-2021, when most developed countries had fully immunized a large percentage of the population, and also lifted restrictions. The research also highlights the huge divides in the vaccination campaigns of different countries.', '"Of the almost 20 million deaths estimated to have been prevented in the first year after vaccines were introduced, almost 7.5 million deaths were prevented in countries covered by the Covid-19 Vaccine Access initiative (COVAX, which aimed to provide vaccines to low and middle-income countries)," said Oliver Watson, the lead author of the study, in a statement.', 'COVAX, which was supported by the United Nations, the World Health Organization and the vaccine alliance GAVI, aimed to vaccinate at least 20% of the population of the ', ' by the end of 2021. The WHO was even more ambitious, raising that goal to 40%. But the reality has been very different. For example, the first Covid vaccine arrived in Burundi 10 months after it arrived in the United States. Meanwhile, only 0.07% of the population of the Democratic Republic of Congo had received one dose at the end of 2021, while the US had bought enough vaccines to vaccine its population three times

over.', 'Time has also played a key role. Europe, the United States, Canada and other developed countries started the vaccination drive much earlier than the rest of the world and on a massive scale. "This meant that more deaths were averted as', ', either due to the easing of non-pharmaceutical interventions or the arrival of the more transmissible delta variant in the second half of the year. If vaccination had occurred before and prior to the arrival of this variant in low-income countries, more lives would have been saved," said Watson. "If the targets set out by the WHO had been achieved, we estimate that roughly one in five of the estimated lives lost due to Covid-19 in low-income countries could have been prevented."' , 'The study also confirmed that not all vaccines are equally effective. In countries that primarily used vaccines based on RNA technology (Moderna and Pfizer), the number of lives saved was greater. But in addition to being more effective, especially against the delta variant, the vaccines require stricter storage and transportation conditions, which has meant that they have had little uptake in low-income countries, already lagging behind in the vaccination drive. The model also detected many COVAX countries lacked the infrastructure to carry out the immunization drive, and that the population was relatively less willing to get vaccinated.', '"Our study demonstrates the enormous benefit that vaccines had in ', ' globally," said Professor Azra Ghani, head of Infectious Disease Epidemiology at Imperial College London, in a statement. "Whilst the intense focus on the pandemic has now shifted, it is important that we ensure the most vulnerable people in all parts of the world are protected from ongoing circulation of Covid-19 [...] Ensuring fair access to vaccines is crucial, but requires more than just donating vaccines. Improvements in vaccine distribution and infrastructure, as well as coordinated efforts to combat vaccine misinformation and improve vaccine demand, are needed. Only then can we ensure that everyone has the opportunity to benefit from these life-saving technologies."'}}

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 2022-07-25 15:28:34 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-06-25/werewolf-syndromemyth-and-reality.html>

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{'url': 'https://english.elpais.com/science-tech/2022-06-25/werewolf-syndromemyth-and-reality.html', 'date': '25 Jun 2022', 'title': 'Werewolf syndrome-myth and reality', 'author': 'Montero Glez', 'text_art': ['Sabine Baring-Gould's book about werewolves is one of the slimmest volumes ever issued by Valdemar, a publishing house specializing in ', '. But The Book of Werewolves isn't fiction, but an essay about lycanthropy published in 1865 and written from a rational, quasi-scientific point of view. Yet it doesn't ignore the mythology that has given rise to so many stories about werewolves throughout the ages. Baring-Gould's werewolf book is a study of folklore in which Lovecraft's cosmic horror-the irrational-is combined with the type of reality that physicist Richard Feynman was thinking of when he said truth is stranger than fiction.', 'But the most disturbing thing about this edition of Baring-Gould's book is undoubtedly the cover. It features a woman with a lupine face covered with hair. She is holding a piece of paper that appears to be a record of her birth, as if
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confirming her humanness. This is Antonietta Gonsalvus, daughter of Petrus Gonsalvus (aka, Pedro González), better known as the Wild Gentleman of Tenerife.', 'Petrus Gonsalvus suffered from hypertrichosis, a genetic alteration that his daughter Antonietta inherited, and which made her an exotic specimen in the royal court. The portrait of Antonietta was painted by Lavinia Fontana, court painter for Pope Clement VIII, and one of the most famous women of her time. Petrus, her father, was born on the island of Tenerife (Spain) in 1537. When he was 10 years old, he was taken to France, where he became a protégé of King Henry III.', 'Petrus Gonsalvus' condition made him a celebrity in the king's court, a living allegory of the monarch's political power- King Henry III dominates the beast and thus dominates the world. The metaphor of the werewolf tamed by the king represented the triumph of good over darkness, according to Hebrew mythology in which the wolf is Satan's preferred animal form. Thus, the devil disguised as a wolf becomes the enemy of the lamb, the figurative shape of Jesus Christ. It took a long time for the so-called werewolf syndrome to be understood as a genetic dermatological disorder, a rare ', 'that causes the fine lanugo hair found on newborns to continue growing on the ', 'for the rest of a person's life.', 'Petrus Gonsalvus was the first documented case of hypertrichosis. In 1573, he married a Parisian woman named Catherine, and the two became the stuff of legends. Two hundred years later, the couple would inspire the story of Beauty and the Beast, by Marie Leprince de Beaumont. Petrus and Catherine had three sons and three daughters, including Antonietta, who inherited the genetic disorder, as did most of her siblings. But it was Antonietta who graced the cover of the Spanish edition of The Book of Werewolves, in which theologian Baring-Gould traced werewolf lore from classical antiquity to modern culture, demonstrating that "under the veil of mythology lies a logical reality," just as "a speck of truth is hidden" underneath every superstition.']]

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2022-07-25 15:28:42 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-06-25/is-it-possible-to-stop-snoring.html>

{'url': 'https://english.elpais.com/science-tech/2022-06-25/is-it-possible-to-stop-snoring.html', 'date': '25 Jun 2022', 'title': 'Is it possible to stop snoring?', 'author': '', 'text\_art': ['To find out whether you can stop snoring, you must first understand why you snore. It is also important to consider whether or not snoring is a disease. Snoring is the noise that occurs when breathing while asleep. The airway includes all parts of the respiratory system except for the lungs. When we fall asleep, our airway-which includes the entire respiratory system, except for the lungs-relaxes. It must maintain enough tone to let us keep breathing. When the resistance in that airway increases, because it relaxes too much or because it is under excessive pressure, vibrations occur, causing the sound of snoring.', 'When excess noise occurs along with a normal passage of air, it is called simple snoring. This is not a disease. Noisy but

normal breathing can be an aesthetic problem, bothering the people sleeping nearby, but it is not pathological.', 'But snoring can also be the first phase of a wide spectrum that reaches its most serious consequence with obstructive sleep apnea. The airway, which is a flexible tube, can produce noise by vibrating. But noise can also occur if the airway contracts and even closes completely. Sleep apnea is a disease with significant consequences and that must be treated.', 'Snoring is very common. 40% of men over the age of 40 snore, although only 10% of men of that age have obstructive sleep apnea.', 'There are several reasons why snoring occurs. One of the main factors is being overweight. When the airway, which is a muscle, is pressured by a greater weight of fat around it, it tends to become obstructed. Men tend to accumulate more fat in their necks, making snoring more frequent in men.', 'The second most important factor is age. As we get older, the airway loses tone and becomes more easily obstructed. Over the years, we begin to snore more. It is also affected by dryness or inflammation: if we have tonsillitis or pharyngitis, we snore more.', 'Sleeping position also matters a lot. If we sleep on our back, we snore more. If we lie on our side, as the airway is more protected and open, we snore less. External elements can also affect it: for example, alcohol weakens the airway and makes us snore more. Some drugs also relax the airway. Facial structure can also have an impact, such as having a nasal septum that obstructs the nose or a very small chin that reduces the length of the airway.', 'Once we know why snoring occurs, we can determine how to resolve it. But we must be aware that simple snoring is only treated because it is annoying, not because it is a disease.', 'For overweight snorers, the most effective measure is to lose weight. Patients report that they stop snoring or snore less when they lose weight. The presence of a humidifier in the room may also have a minor impact on snoring, though it will not eliminate it.', 'If a snorer has a blockage in their nose or excessively large nasal polyps, surgery may improve their condition. But an operation may not eliminate snoring altogether. Avoiding alcohol is also an effective measure against snoring, as well as changing sleeping position. Treatments exist to help readjust sleeping posture, including devices that detect when the person is face up and emit a vibration so that person turns onto their side. These devices are also used in the treatment of obstructive sleep apnea.', 'For sleep apnea patients, treatments can end snoring altogether. Interventions include mandibular advancement devices, which can be used by people who experience simple snoring. They move the jaw forward, leaving a little more space for the airway. The next step is CPAP, a device used only for apnea sufferers, not for simple snoring. The CPAP machine with a mask that is placed on the patient's nose and mouth, putting pressure on the airway to keep it open throughout the night. The pathway stays open, and the patient naturally stops snoring. Under no conditions, however, would a sleep specialist prescribe a CPAP for simple snoring.', ' is a specialist in pulmonology, researching sleep at the Hospital Universitario de Guadalajara.']]

2022-07-25 15:28:48 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-06-25/going-to-a-concert-or-painting-helps-us-with-emotional-recovery.html> (referer: https://english.elpais.com/science-tech/1/)

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{'url': 'https://english.elpais.com/science-tech/2022-06-25/going-to-a-concert-or-painting-helps-us-with-emotional-recovery.html', 'date': '25 Jun 2022', 'title': 'Going to a concert or painting helps us with emotional recovery', 'author': '', 'text_art': [' used to say that the movies ought to make viewers forget about their unpaid bills or problems at work.', 'As he observed, culture is a healing space. The last two years have demonstrated that. Enjoying a concert, reading a book, getting lost in a museum or being moved by a play have served not only as forms of entertainment and escape, but also as ways of learning and emotional rebuilding. Those processes happen not only with cultural activities that we consume, but also to those that we do ourselves, such as writing, sculpting or painting.', 'There is scientific evidence that any cultural activity, whether passive or active, benefits mental health on several levels. Cognitively, it focuses our attention amidst an overload of data and stimuli. Reflecting on fears, doubts and insecurities in a diary can help us organize our ideas and calm down. Watching a movie can strengthen our episodic and semantic memory through the effort of storing the sequences that will be consolidated as memories. Reflecting on existential and anthropological questions, as portrayed by great directors, painters or writers, stimulate us intellectually. On a social level, attending the opera or the theater encourages us to share opinions and ideas, develop critical thinking and become more tolerant.', 'On a physical level, culture revitalizes us by putting our minds at peace, reducing anxiety and stress levels. Listening to music, for example, has a beneficial effect on brain chemicals like dopamine and oxytocin. It can also help lower cortisol levels. In emotional terms, these activities put us in contact with our fears and worries, allowing us to better accept them. Identifying with similar characters in a movie or a book increases our introspection and helps us get to know each other. At the same time, confronting antagonistic characters challenges us by questioning our points of view. Culture also satiates our desire for pleasure and entertainment. As ', ' said, "There is something more important than logic: imagination."', 'Global health institutions have finally recognized the thesis that artistic practices have positive effects on well-being. The Office for the European Region of the World Health Organization published a report supported by more than 3,000 scientific studies in November 2019. The WHO has urged European governments to incorporate the arts into their health and wellness policies. In September 2020, the Spanish senate requested that the government declare culture as an essential asset.', 'In healthcare environments, some projects use art and culture to humanize the hospital experience. The Cultura en Vena foundation has orchestrated some such initiatives. In one of them, an exhibition in a hospital shows reproductions of works from the Prado Museum, alongside texts meant to connect with the emotional experiences of the spectators.', 'Another way of participating in culture is through reading. Every day, patients plagued by anxiety, depression, and helplessness approach the shelves in search of relief. As Guillermo Lahera, Professor of Psychiatry at the University of Alcalá, says, "literature is a powerful source of meaning." Language structures the psyche, and reading can be a form of therapy. The British bibliotherapy initiative Reading Well Books on
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Prescription has gained wide acceptance from clinicians and patients. ', 'As anxiety, depression, insomnia, and stress have grown more common, experts have begun searching for solutions that complement typical treatments. Health workers are in an important position to recommend cultural activities that help rebuild the world and heal the soul. As Almudena Grandes used to say, "culture is an ingredient of happiness." Philosophy, literature, and the arts help us to better understand the complexity of human experience.']]

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serendipity-scientists testing a drug to treat angina pectoris unexpectedly
stumbled upon a remedy for erectile dysfunction. In the 1980s, pharma giant
Pfizer began testing a compound called sildenafil to relax the coronary arteries
and improve blood flow to the heart. But the clinical trials were not promising,
and the drug failed to have the desired cardiovascular impact. Then, some
patients participating in the trials reported an unexpected side effect-strong
and lasting erections. So began the development of the famous little blue pill
called Viagra, and a failed drug development effort turned into a spectacular
success.', 'Viagra opened the door for the development of other erectile
dysfunction drugs, and unwittingly created the drug repurposing paradigm-a new,
agile approach to testing and expanding the therapeutic arsenal for combatting
disease. Drug repurposing consists of finding other uses for existing drugs and
molecules beyond their primary indication. Old staples of the drugstore such as
aspirin and topiramate (for epilepsy) are already being studied for possible use
in treating other conditions.', 'A typical drug or vaccine development effort
takes between 10 and 15 years before regulatory approval is obtained, and it can
cost up to US$2.65 billion according to ', '(', ' ', CSIC 2021), a recent book by
Spanish scientists Nuria E. Campillo, María del Carmen Fernández, and María
Mercedes Jiménez. They call the drug development process "an obstacle course."
It's a race that may start with 10,000 different compounds, but after all the
tests and trials to find a safe and effective therapeutic target, only one makes
it to the finish line. And sometimes no one finishes the race.', 'The drugs on
the market today all made it to the end of long and costly obstacle courses. But
drug repurposing is gaining ground as an alternative development process that
offers shorter timeframes and lower costs. Up to 75% of the drugs found in
pharmacies today may have new therapeutic uses for 20 new clinical applications
beyond the currently approved use, say Campillo and her colleagues.', 'In an
interview with EL PAÍS, Dr. Nuria Campillo, a chemist with the Spanish National
Research Council (Consejo Superior de Investigaciones Científicas - CSIC), said
that since these drugs have already passed safety and toxicity tests,
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researchers can forego the preclinical phases. "We can save time and money, and also spare the animals used in testing," said Campillo. Beatriz Gómez, a scientist with the Rare Diseases Networking Biomedical Research Center in Madrid (Centro de Investigación Biomédica en Red de Enfermedades Raras - CIBERER), said that the drug repurposing approach can potentially achieve "a new indication in three years." Furthermore, the cost of launching a repurposed drug can be as low as US\$318 million, a far cry from the billions it costs to develop a new drug from scratch.', 'There are many notable examples of repurposed drugs in pharmacy storerooms. Aspirin, for instance, is an analgesic and antipyretic that is now being used as an antiplatelet agent to improve blood flow, and is also being studied for potentially beneficial effects in colon cancer treatments. A forthcoming study to be published in ', ' associates the use of aspirin with an 18% reduction in the risk of colorectal cancer. While not everyone agrees that aspirin has cancer prevention benefits, more studies are being conducted, as well as research to test its effects on a subset of lung tumors.', 'Another drug that is finding new life and a measure of redemption is thalidomide, which was administered in the 1960s to curb nausea in pregnant women. It was later found to be the cause of severe congenital deformities in thousands of newborns around the world. However, after it was determined that thalidomide is effective at treating a certain type of leprosy, the drug's reputation began to slowly recover. In 1998, it was approved in the United States for this new indication, and in 2012 it was approved to treat multiple myeloma.', 'The experts consulted for this article say that drug repurposing has been around "forever," citing several examples. Cycloserine, which was used for urinary tract infections, is now a second-line drug for multidrug-resistant tuberculosis. Mifepristone, used in performing medical abortions, is being studied as a treatment for psychotic depression. And raloxifene, which was used for osteoporosis, has a new purpose in battling breast cancer.', 'But sometimes these repurposing efforts fail. The antiepileptic drug topiramate, while successfully used for obesity, was not effective at treating inflammatory bowel disease. The antibiotic ceftriaxone failed to work against amyotrophic lateral sclerosis, and the antihistamine latrepirdine was not effective for Huntington's disease.', 'The scientific community is not resting on its laurels, especially because repurposing is the best approach for finding treatments for rare diseases. "Little funding is allocated [to rare diseases] because of the small number of patients," said Campillo. In fact, CIBERER has designated 15 drugs as "orphans," which show promise for serious orphan (rare) diseases. Development of these orphan drugs could be financially appealing to pharmaceutical companies, and half of them have been repurposed, said Gómez. "Sometimes investment in these orphan drugs isn't appealing because there are so few patients. Even though there are [government] incentives for development, they are still unappealing. Drug repurposing cuts the timeframe and lowers the cost of the whole process."', 'Aurora Pujol is a researcher at the Bellvitge Institute for Biomedical Research (Investigación Biomédica de Bellvitge - IDIBELL) in Barcelona and specializes in a rare disease called adrenoleukodystrophy. "We have repurposed several different drugs used to treat diabetes, cancer, and multiple sclerosis. The preclinical phase of the drug development process can be skipped, but you still have to determine whether the drug works in your disease model." She is now

recruiting patients with adrenoleukodystrophy to participate in a clinical trial of dimethyl fumarate, a multiple sclerosis (MS) treatment. "This drug triggers a signaling mechanism in the brain that controls the body's response to oxidative stress, which is different in patients with multiple sclerosis. Patients with adrenoleukodystrophy have a similar altered response as the MS patients.", 'Another fertile field for drug repurposing are emerging diseases such as the vividly fresh example of COVID-19. There were hundreds of attempts during the pandemic to repurpose drugs for COVID-19. Some were relatively successful, while others were resounding failures, said César Hernández, head of the department of Medicines for Human Use at the Spanish Agency of Medicines and Medical Products (Agencia Española de Medicamentos y Productos Sanitarios - AEMPS). "The pandemic didn't invent drug repurposing, but it allowed us to prove that you should use what you already have until a cure is discovered. The pandemic was a sort of ', ' test of successful and unsuccessful drug repurposing efforts." For example, remdesivir, which was developed to treat the Ebola virus, demonstrated limited efficacy against the coronavirus and is not recommended. Hydroxychloroquine, an antimalarial drug, also proved ineffective against COVID-19. But dexamethasone, a corticosteroid, did demonstrate some effectiveness in treating severe cases of the disease.', 'Drug repurposing has accelerated thanks to the explosion of big data and the development of new technologies, says Óscar Fernández Capetillo, head of the Genomic Instability group at Spain's National Cancer Research Center: "We used to just look at drugs approved for medical use, but now we also test drugs that have gone through clinical trials and failed. We know they are good drugs and have no bad effects, so now they can be tested in other diseases. Also, advanced data analytics enable us to predict which drugs will work."', 'Artificial intelligence methods and tools act as a bridge to using old drugs for precision medicine. "We have arsenals of drugs, pathologies, and genetics. Using these three legs, we can develop personalized medicines with the chemical library we have developed," said Campillo.', 'In the IRB's laboratory in Barcelona, a robotic arm moves mechanically inside a huge glass box. Controlled by IRB senior scientist María Caballero, the arm picks up a glass block with 384 tiny reservoirs and takes it to another device for analysis. Inside these tiny test tubes in the glass block are cancer tumor cells treated with different molecules that have therapeutic potential. The treated cancer cells will be tested to analyze the effects of each molecule. The machine can test up to 15,000 compounds per day, says Israel Ramos, coordinator of the IRB's drug discovery platform.', '"The IRB's chemical library currently contains 50,000 compounds and 2,400 drugs approved by the US Food and Drug Administration (FDA). With this platform we can very quickly find molecules that are modulating a certain pathology," said Ramos. This search for a therapeutic target is the first step in the drug discovery obstacle course, but this technology enables everything to move at a much faster pace. Using this platform, the IRB has already performed more than half a million miniature assays to repurpose or discover new drugs.', 'Drug repurposing is faster and cheaper, but it also has weaknesses. The price of a repurposed drug may increase dramatically because the target market is so small (few patients with the disease). Conversely, its price can drop dramatically if its patent has expired. Both situations are unappealing to big pharmaceutical companies. Moreover, the repurposed drug "may not be a

perfect fit for you," said Mabel Loza, a pharmacology professor at the University of Santiago de Compostela (Spain) and scientific director of a drug discovery platform. "The drug's efficacy or selectivity may not be good enough or may not fit the desired profile," she said.', 'Sometimes, a pharma company interested in launching and marketing a tested and approved repurposed drug cannot be found. This happened to Loza with a vitamin derivative that she was able to repurpose for treating stroke patients-she couldn't anyone interested in marketing the product. "Businesses don't want to sell some of these products because they're not profitable. There should some sort of a social contract that provides repurposed drugs through their special, financially viable sales channels. Just like the generic drug industry, we need a channel for commercializing repurposed drugs," she said.', 'César Hernández from AEMPS is participating in a European pilot project to determine whether repurposed drug development (using existing regulatory instruments) can be feasibly conducted by non-profit entities such as academic institutions. "There are a wide range of drugs to be explored [for repurposing]," he says, although the companies that own these drugs will ultimately decide what they want to pursue. "This is something that needs to be explored, and there may be more than one path to take. It's logical to think that repurposed older drugs would be well-accepted because it [the new indication] increases the size of the target market. But if this causes the price to drop, the pharmaceutical companies may not be willing to include new indications."', 'Emili Esteve, director of the technical department at Farmaindustria (the Spanish pharmaceutical industry trade association), laments the "lack of a legal framework that would enable a company to undertake drug repurposing." He said, "If your product has a set price controlled by regulators, then the existing product and the repurposed drug are forced to sell at the same price. Who is going to develop a drug if you're forced to sell it at a generic price?" Esteve wants certain "drugs of interest to the National Health System to be identified and separated from controlled pricing, so they are treated as incremental innovations. That would encourage more companies to repurpose. It doesn't have any appeal right now," he acknowledged.', 'Everyone interviewed for this article agreed that drug repurposing has been gaining traction in recent years, and undoubtedly has a role in filling "urgent and unmet needs." Loza thinks that it can even help the system's sustainability. "The new therapeutic arsenal is becoming so expensive that repurposed drugs offer a good way to sustain the system."']}]

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captivated. He wouldn't have the faintest idea how it worked and one of the greatest scientific minds in history would quite possibly start talking of witchery. He might even believe he was in the presence of a conscious being, if he came across the voice assistant function. That same parallel can be drawn today with some of the advances being made in ' ', which has achieved such a level of sophistication that on occasion it can shake the very foundations of what we understand as conscious thought.', 'Blake Lemoine, a Google engineer working for the tech firm's responsible AI department, appears to have fallen into this trap. "If I didn't know exactly what it was, which is this computer program we built recently, I'd think it was a seven-year-old, eight-year-old kid that happens to know', 'physics," Lemoine ' ', in an interview published last week. The 41-year-old engineer was talking about LaMDA, a Google chatbot generator (a program that carries out automated tasks via the internet as if it were human). Last autumn, Lemoine took on the task of talking to the program to determine whether it used discriminatory or hate-inciting language. The conclusions he drew have shaken the scientific world: he believes that Google has succeeded in creating a conscious program, with the power of independent thought.', 'Is that possible? "Anyone who makes this sort of claim shows that they have never written a single line of code in their lives," says Ramón López de Mántaras, director of the Artificial Intelligence Research Institute at the Spanish National Research Council. "Given the current state of this technology, it is completely impossible to have developed self-conscious artificial intelligence."', 'However, that does not imply that LaMDA is not extremely sophisticated. The program uses neural network architecture based on Transformer technology, which replicates the function of the human brain to autocomplete written conversations. It has been trained with billions of texts. As Google vice president and head of research Blaise Agüera y Arcas ' ', in a recent interview, LaMDA takes 137,000,000 parameters into account to decide what response has the highest probability of best fitting the question it has been asked. That allows it to formulate sentences that could pass as having been written by a person.', 'But as López de Mántaras points out, although it may be able to write as though it were human, LaMDA doesn't know what it is saying: "None of these systems have semantic understanding. They don't understand the conversation. They are like digital parrots. It is us who give meaning to the text."', 'Agüera y Arcas' essay, which was published just a few days before Lemoine's interview ' ', also highlights the incredible precision with which LaMDA is able to formulate responses, but the Google executive offers a different explanation. "AI is entering a new era. When I began having such exchanges with the latest generation of neural net-based language models last year, I felt the ground shift under my feet. I increasingly felt like I was talking to something intelligent. That said, these models are far from the infallible, hyper-rational robots science fiction has led us to expect," he wrote. LaMDA is a system that has made impressive advances, he says, but there is a world of difference between that and talking about a conscience. "Real brains are vastly more complex than these highly simplified model neurons, but perhaps in the same way a bird's wing is vastly more complex than the wing of the Wright brothers' first plane."', 'Researchers Timnit Gebru and Margaret Mitchell, who headed Google's Ethical AI team, issued a warning in 2020 that

something similar to Lemoine's experience would occur, and co-signed an internal report that led to them being fired. As they recapped in an opinion piece in ', ' last week, the report underlined the risk that people might "impute communicative intent to things that seem humanlike," and that these programs "can lead people into perceiving a 'mind' when what they're really seeing is pattern matching and string prediction." In Gebru and Mitchell's view, the underlying problem is that as these tools are fed millions of unfiltered texts taken from the internet, they could reproduce sexist, racist or discriminatory language in their operations.', 'What led Lemoine to be seduced by LaMDA? How did he come to the conclusion that the chatbot he was conversing with is sentient? "There are three layers that converge in Blake's story: one of these is his observations, another is his religious beliefs and the third is his mental state," a noted Google engineer who has worked extensively with Lemoine told EL PAÍS, under the condition of anonymity. "I think of Blake as a clever guy but it is true that he hasn't had any training in machine learning. He doesn't understand how LaMDA works. I think he got carried away by his ideas."', 'Lemoine, who was placed on paid administrative leave by Google for violating the company's confidentiality policy after going public, defines himself an "agnostic Christian," and a member of the Church of the SubGenius, a post-modern parody religion. "You could say that Blake is a bit of a character. It is not the first time he has attracted attention within the company. To be honest, I would say that in another company he would have been fired long ago," says his colleague, who is unhappy about the way in which the media is bleeding Lemoine dry. "Beyond the silliness, I'm glad the debate has come to light. Of course, LaMDA doesn't have a conscience, but it is evident that AI will become increasingly capable of going further and further and we have to rethink our relationship with it."', 'Part of the controversy surrounding the debate has to do with the ambiguity of the terminology employed. "We are talking about something that we have not as yet been able to agree on. We don't know exactly what constitutes intelligence, consciousness and feelings, nor if all three elements need to be present for an entity to be self-aware. We know how to differentiate between them, but we don't know how to precisely define them," says Lorena Jaume-Palasi, an expert in ethics and philosophy of law in applied technology who works as an advisor to the Spanish government and the European parliament in matters related to AI.', 'Attempting to anthropomorphize computers is very human behavior. "We do it all the time with everything. We even see faces in clouds or mountains," says Jaume-Palasi. When it comes to computers, we also drink from the cup of European rationalist heritage. "In line with the Cartesian tradition, we tend to think that we can delegate thought or rationality to machines. We believe that the rational individual is above nature, that it can dominate it," says the philosopher. "It seems to me that the discussion as to whether an AI system has a conscience or not is steeped in a tradition of thought in which we try to extrapolate characteristics onto technologies that they do not have and cannot have."', 'The Turing Test has been outdated for some time now. Formulated in 1950 by the famous mathematician and engineer Alan Turing, the test consists of asking a machine and a human a series of questions. The test is passed if the interlocutor is unable to determine whether it is the person or the computer that is answering. Others have been put

forward more recently, such as the 2014 Winograd schema challenge, which is based on commonsense reasoning and use of knowledge to satisfactorily answer the questions. To date, nobody has developed a system able to beat it. "There may be AI systems that are able to trick the judges asking questions. But that does not prove that a machine is intelligent, only that it has been well-programmed to deceive," says López de Mántaras.', 'Will we one day witness general artificial intelligence? That is to say, AI that equals or even exceeds the human mind, that understands context, that is able to connect elements and anticipate situations as people do? This question is in itself a field of traditional speculation within the industry. The consensus of the scientific community is that if such artificial intelligence does come into being, it is very unlikely it will do so before the end of the 21st century. It is, though, likely that the constant advances being made in AI development will lead to more reactions like that of Blake Lemoine (although not necessarily ones that are as histrionic). "We should be prepared to have debates that will often be uncomfortable," says his former Google colleague.']]

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December morning in 1996, shortly after the dawn prayer, Egyptian geologist Aly
Barakat stumbled across a strange carbonaceous rock - black, embedded with
diamonds, weighing about 30 grams - in the desert of southwestern Egypt. At
first, Barakat thought it was a strange specimen of ', ', an enigmatic yellow-
colored rock common in that part of the Sahara. But he quickly realized that the
object he held in his hands was something even more extraordinary.', '"I picked
it up, but could tell right away that it wasn't a tektite [a natural glass
object formed from terrestrial debris melted by meteorite impact]. It was
something unusual, unlike anything I'd ever seen, so I kept it," Barakat tells
EL PAÍS. "And every now and then, I'd inspect it to try and determine its
nature. Contrary to what researchers were claiming at the time, I knew there
were signs of a massive celestial body having impacted that area, which is what
caused the formation of the Libyan glass. It happened such a long time ago -
about 28 million years ago - so it would be hard to detect its effects on the
geology of the area," Barakat recalls thinking at the time.', 'In the years that
followed, Barakat continued to study the stone. Finding little support for his
efforts in Egypt, and with limited outside resources at his disposal, he was
forced to fund his own travel to laboratories in South Africa where he could
analyze the object in more detail. It was there that Barakat discovered the
stone's extraterrestrial origins. After publishing a book on his findings in
2012, he decided to pass the baton to a new group of researchers.', 'In 2013,
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the scientists that had taken up Barakat's research, that the stone was indeed extraterrestrial in origin, and would later posit that it had been part of a much larger parent object, several meters in diameter, whose entry into the Earth's atmosphere would have produced an extremely bright explosion of light. They also found characteristics typical of chondrites, or rocky chunks of meteorite that never experienced melting or other modifications from their original extraterrestrial form. In honor of these and other exceptional qualities, the scientists decided to name the stone Hypatia, after the, who lived in the Egyptian port city of Alexandria during the Roman Empire. Now, a of Hypatia conducted in South Africa has rekindled interest in this singular stone. In an effort to determine its origins, researchers have confirmed with an even greater degree of certainty that its pattern of elemental chemical concentration is unlike anything ever before observed in a natural object, terrestrial or extraterrestrial. The team of researchers also found additional evidence indicating that Hypatia formed sometime prior to the birth of the Solar System. And for the first time, the researchers have posited a theory to explain the process that created it: the most likely scenario, they say, is that Hypatia emerged from one of the largest and most luminous types of supernova events in the universe. This hypothesis, if confirmed, would make Hypatia the first and only physical evidence of the phenomenon ever encountered on Earth. A is a massive explosion that occurs when certain stars enter their end stage of life. The stellar event that researchers believe may have produced the Hypatia stone is known as a "type Ia" supernova. These are events that occur in binary stellar systems where two stars orbit each other, united by the force of gravity, and in which one star is a white dwarf. The glossy, grayish-black Hypatia stone has bimodal, carbonaceous matrices, with one matrix almost entirely devoid of any elements heavier than oxygen, and the second featuring a more complex compositional pattern. In research published in the journal, the team of scientists in South Africa employed ultra-sensitive X-ray emission analysis to obtain data from the second matrix, which they then used to find clues that might help determine the rock's origin. Researchers detected 15 different chemical elements, noting that Hypatia's second matrix is characterized by, among other things, its lack of silicon and manganese relative to its abundance of iron, when compared to other carbonaceous. The stone also differs from other types of rare meteorites, such as the primitive and metallic ones formed during the early phases of the Solar System, in that it contains a much higher proportion of carbon and has a different ratio of silicon to iron. At the very least, the results indicate that Hypatia's pattern of elemental chemical concentration is unlike anything previously observed. "The main evidence that the stone is the result of a supernova explosion is in the second matrix, where we identified 15 [chemical] elements. The only way we were able to deduce this was by looking at the chemical [composition] of that matrix," explains, a geologist at the University of Johannesburg, and a co-author of the study. With these new pieces now in their hands, the researchers set out to complete the puzzle of Hypatia's origin, and to determine how it ended up in the Egyptian desert. Starting from the assumption that the stone was originally part of a larger object that at some point experienced an impact - as evidenced by Hypatia's high abundance of microdiamonds - researchers

first considered whether the force of the impact itself might account for the rock's unique chemical composition. But due to the precise nature of its composition, they determined that Hypatia could not have formed inside the gas cloud surrounding the ', ', nor from the dust of interstellar space.', 'There was, however, a more plausible explanation that might explain the stone's anomalous chemical composition: a supernova explosion. Specifically, a type Ia supernova. These rare and chaotic events involve the dispersion of white dwarf star matter and other byproducts from the explosion across interstellar space, and are known for unleashing primarily iron-based derivatives, which are also what make up much of Hypatia's second matrix.', 'Belyanin's team believes that the most probable scenario is that Hypatia was once part of an object created outside of the ', ', but then it entered the nebula at some point during its initial phase of formation and got trapped there. The fragments of a parent body that formed within the solar nebula, or that was already present, would have been much more likely to have made impact with a planet - Earth, for example - than with objects in interstellar space.', '"Even if it had entered [after], the chances of it colliding with Earth would have been really slim, because of all the different orbits. If it entered the solar system after its formation, it would have been just another object flying around," Belyanin says.', 'The researchers emphasize, however, that the mysterious case of the Hypatia stone is still an open investigation: six chemical elements in its second matrix do not correspond to models of a type Ia supernova. In other words, if the object was created by an event of this sort, other special conditions would have had to exist as well. Determining what those might be and closing the gaps in the current theory will require more research, scientists say.']]

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energy potentials in the country. This, he says, is how Red Girasol plans to recover from the blow dealt by the pandemic, while also helping other businesses, especially the company's former clients, get back on their feet by sharing in a portion of the crypto-mine's profits.', '. Can bitcoin ever really be "green"? Has it been easy to find traction for your idea in the Mexican market?', ' To a certain extent that was just a catchy phrase for the promo, but bitcoin is a technology, and technologies, by nature, are neutral - it's like talking about the internet, or electricity, or a knife, which can be a really good thing, because it can help you to eat, or a really bad thing, because it can kill you. What we're really doing that's green is the mining, the operation, the whole mining initiative, really - overall, the emissions involved in this activity are negative. We're transforming it from something bad for the environment into something that can help advance the fight against climate change. For every ton of CO<sub>2</sub> directly generated by the facility, we can offset the impacts by at least 1.5 to two tons.', ' One of the main criticisms of bitcoin mining, especially in countries with high energy costs like Mexico, is that it uses a lot of energy. Do solar panels reduce these costs?', 'It's an interesting question, because it's hard to say what energy use is good and what energy use is bad. I mean, yes, crypto-mining consumes a lot of energy, but in relative global terms, it doesn't even figure into the equation. As it turns out, hair dryers and Christmas lights actually consume more energy than crypto-mining. And what creates more value - humanity's first decentralized currency or Christmas lights? Personally, I think energy is as fundamental as free speech, and I think we should all be free to decide what we use our energy for. It's always important to have perspective and to take environmental impacts into consideration, and whenever we do something, we do it in relation to a baseline reference - a solar project is good for the environment because it means consuming less electricity from the grid, which is what bitcoin does. I mean, it's consuming energy, of course, but it's consuming energy because it's generating value and it's displacing other things that consume even more energy.', 'We don't like to play the game of saying what's good and what's bad. I mean we've provided financing for gas stations, and our main niche is butcher shops, and ', ' is one of the main sources of greenhouse gas emissions, because of everything that goes into the production process.', ' Who are your typical clients?', ' We're starting to see a very different type of clientele than what we are used to. Now we're doing a thing we call "solar inclusion," where we provide credit to convenience stores, butcher shops, and other small and medium-sized businesses - mostly businesses that use refrigeration. We've created a very flexible type of loan that allows us to provide credit transparently, and with a certain degree of informality, to sectors that we're used to working with, especially businesses that are just getting started. Now that we're promoting our new initiative, the profile of our client base is changing. We're seeing younger people, people in their 20s, 30s, and 40s, with a different profile, with a higher level of education, very professional.', ' Are you starting with just one farm, or how will it work?', ' People will take out a loan to buy their crypto-mining equipment, but we'll operate it for them through a hosting service, similar to how servers used to work. It's actually very similar to that, because now that mining is no longer just a hobby, but a major

industrial activity, you need access to cheap energy, and to a place where you can make a lot of noise. That's not something you can do in your home - you need a ventilation system that's constantly pumping cold air in and hot air out. Today's operations aren't as easy as just setting something up in your house or in some small space, and so to facilitate this process of democratization and to make sure there aren't any problems with the operation, we're offering a solution that outsources that operation.', 'For reasons of geographic location and strategic alliances, we determined that Puebla is an ideal place to store the equipment, and to carry out the first pilot tests. After this pilot project, we'll definitely be working on developing other large-scale solar farms to achieve greater energy cost savings, and, as much as possible, to ensure that the majority of the operations' energy consumption comes from reclaimed solar equipment. The idea is to figure out how to continue generating value on top of what's already there.', ' There aren't any other solar farms being used to mine cryptocurrency in Mexico?', ' No, not that we're aware of. Mexico's crypto-mining industry is still in its very early stages. There are other markets - the United States, for example, which has more mining than any other country in the world. And Texas is becoming a very strong player as well. It's nothing new - bitcoin mining has been going on for more than 10 years. But now we're seeing it adopted on a whole other level. It's already ', ', and in some countries in Africa. It's being demystified, so to speak.', 'For a lot of people, crypto-mining might sound like something bad, or at least mysterious, but the reality is that mining is increasingly becoming an important innovative force in the energy sector. I think that the monetary disruption has already taken place, and now crypto-mining is starting to innovate the energy industry because of its unique qualities: it's a mobile, flexible, modular load, and it has a number of benefits that can help de-stress power grids and make them more resilient.']]

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{'url': 'https://english.elpais.com/science-tech/2022-06-29/mummified-baby-woolly-mammoth-found-in-northern-canada.html', 'date': '29 Jun 2022', 'title': 'Mummified baby woolly mammoth found in northern Canada', 'author': 'Jaime Porras Ferreyra', 'text\_art': ['The Yukon is known as a land of adventures and mysteries. Last Tuesday, in the Canadian territory, an exceptionally well preserved baby woolly mammoth was found by a gold miner. "[She] is beautiful and one of the most incredible ', ' ever discovered in the world," paleontologist Grant Zazula said in a government statement issued last Friday. The remains were found under permafrost in a gold mine south of Dawson City, on the Canadian border with Alaska.', 'It is the first such discovery in North America and the second in the world, after a similar specimen was found in Siberia in 2007. The calf is a female measuring 140 cm in length. Experts believe she was between 30 and 35 days old at the time of death. They also calculate that the body has been preserved for over 30,000 years. Woolly mammoths became extinct about 4,000 years

ago.', 'A mine worker who was carrying out excavation tasks found the animal's remains. His supervisors contacted the authorities of the Yukon and of Tr ondëk Hwëch in, the indigenous community where this gold mine is located, and a team of geologists and ', ' traveled to the area to take over the work.', 'Speaking to the Canadian public broadcaster ', ', Grant Zazula said that experts found a piece of the animal's intestine covered in grass. "That's telling us what she did the last moments of her life," he said. Zazula and the other researchers believe the mammoth was probably a few steps from its mother, but ventured out to eat grass and drink water and got stuck in the mud. "That event, from getting trapped in the mud to burial was very, very quick," he added.', 'The mammoth has been given the name Nun cho ga, which means "big baby animal" in the local language. "We're all quite excited including the elders and a lot of the staff and members," said Debbie Nagano, the indigenous group's Director of Heritage. The calf was taken to a nearby location where a traditional ceremony was held with the participation of miners, politicians and scientists. The fate of the remains has not yet been decided.', 'The Yukon is known for being extremely fertile ground for finding Ice Age animals. In addition to wooly mammoths, researchers regularly discover remains of steppe bison and ancient specimens of squirrels, horses ', ', among other species, dating between 10,000 and 100,000 years old.']]

2022-07-25 15:29:24 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/economy-and-business/2022-06-29/hikaru-nakamura-meet-the-worlds-wealthiest-chess-player.html> (referer: https://english.elpais.com/science-tech/1/)

2022-07-25 15:29:25 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/economy-and-business/2022-06-29/hikaru-nakamura-meet-the-worlds-wealthiest-chess-player.html>

{'url': 'https://english.elpais.com/economy-and-business/2022-06-29/hikaru-nakamura-meet-the-worlds-wealthiest-chess-player.html', 'date': '29 Jun 2022', 'title': 'Hikaru Nakamura: Meet the world's wealthiest chess player', 'author': 'Leontxo García', 'text\_art': ['Multiple sources estimate 34-year-old chess player Hikaru Nakamura's fortune at around \$50 million (or €47.3 million). However, only a small percentage of those earnings come from prizes he has won ', ' such as Madrid's Candidates Tournament, where he is currently competing (he is in third place). At the beginning of the pandemic, the American chess player, who was born in Hirakata, Japan, devoted himself heart and soul to streaming (playing or commenting on his own games live on the internet). This pursuit made him the richest chess player of all time.', '"I am losing money in this tournament," Nakamura told EL PAÍS a few days ago. He was heading to his hotel to set up another ', ' (where he has 1.3 million subscribers) and Twitch (where he has a similar number of followers). He is very popular on Twitter, Facebook, Instagram, and POG University as well. Additionally, he generates substantial income from energy drink endorsements, among other things. The same sources who estimated Nakamura's earnings figured that Norwegian world champion Magnus Carlsen's earnings can't be more than €8 million. The eight prizes at the Candidates Tournament total €500,000, although the winner will split at least €2 million with Carlsen in the chess championship scheduled for April 2023.', 'Nakamura's income is not the only thing that makes him unusual among chess

players. Born in Japan, his parents emigrated to the United States when he was two years old; they divorced soon after. His mother's new partner, Sunil Weeramantry, a leading chess player from Sri Lanka, discovered Hikaru's extraordinary talent. At the age of six, he already flourished in tournaments; at 10, he began to break records for precocity; and at 15, he surpassed the legendary Bobby Fischer as the youngest grandmaster (chess's highest rank) in the history of the United States. At the age of nine, he ', ' so he could compete in more tournaments; thereafter, his parents educated him at home.', 'Asked by EL PAÍS about his son's estimated current earnings, Weeramantry considered them to be "exaggerated." He went on to clarify: "Right now, I don't think his earnings are more than \$20 million, but it is true that his ability to generate money is really increasing." Nakamura has just been signed by the powerful Misfits Gaming Group, a video game and electronic sports company, guaranteeing him a substantial income.', 'As a twenty-something, the former child prodigy continued to fuel controversy and debate in the world of mind sports. He spent a lot of time playing one-minute-per-player matches on the internet, which many fans do not consider to be real chess. That activity probably had a negative impact on his progression toward the world title in classic chess. Similar to other elite chess players, Nakamura is also an avid poker player: "Many of the qualities that chess develops are very useful in poker. The main difference is that if you play a nearly perfect game of chess, it is impossible for you to lose. But in poker, the role of luck means that you can be defeated," he explains.', 'In this context, it is unsurprising that his time being coached by former world champion Gari Kasparov, in 2011, lasted less than a year. They were completely different people: "Obviously, working with one of the best in history was a great experience, a great way to learn. His intuition, his way of capturing the essence of a position, he's a beast. But we have very different personalities," Nakamura points out. He's probably referring to the fact that the spirit of military discipline that has always defined the Russian player is incompatible with his own, much more flexible temperament.', 'Still, Nakamura's sporting exploits in classical chess make him one of the last quarter century's great stars. On October 1, 2015, he was ranked 2nd in the world in classic chess, despite his terrible record against Carlsen: 14 defeats, one victory and 26 draws. His brilliance in rapid chess is even more consistent. Right now, he ranks 10th in the world in slow games, and 2nd in rapid (half an hour per side) and lightning (five minutes per player and game) chess. He has achieved all this success despite the fact that he spends most of his energy and time on internet broadcasts, not high chess competition.', 'Nakamura invests much of his earnings in stocks and he frequently participates in charitable activities. Another essential area where he differs from the vast majority of his elite colleagues: Nakamura almost always greets his fans very kindly. He signs autographs, takes photos, and even plays rapid games for hours in the hotel lobby. Unlike most mind sports stars, he understands that he is not just paid to play but to communicate as well.', 'That is why he is playing in the Candidates Tournament, despite essentially losing money. In reality, he wins anyway because the international attention he gets through matches and events increase his followers on social media. One might also wonder if Nakamura could have become world champion if he had dedicated himself fully to high

competition. In that case, his fortune would surely be much less. He can still be the king (elite chess players usually ', ' between the ages of 35 and 40) if he wins Madrid's Candidates Tournament. But the million-dollar question is whether such a tournament can be won by someone who is so anxious to rush back to the hotel and grab his headphones and mouse for another night of streaming.']]

2022-07-25 15:29:33 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-06-29/where-are-the-extraterrestrial-civilizations.html> (referer: https://english.elpais.com/science-tech/1/)

2022-07-25 15:29:33 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-06-29/where-are-the-extraterrestrial-civilizations.html>

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{'url': 'https://english.elpais.com/science-tech/2022-06-29/where-are-the-extraterrestrial-civilizations.html', 'date': '29 Jun 2022', 'title': 'Where are the extraterrestrial civilizations?', 'author': 'Pablo G. Pérez González', 'text_art': ['If there is life out there and it is intelligent in the sense that it lives in an advanced and technological world, will we ever know? How? Big Hollywood productions tell us that we will find out that intelligent extraterrestrials exist when they arrive on our planet, with either good or bad intentions. We have a wide variety of situations in that regard: some aliens are lost, or even sick, and they arrive needing our help, ', '; others come looking for something they lack, like the lizards from ', ' (and we make them sick), ', ' (they didn't know biology), or the little ones in ', '(including ', '); others simply seek fun in environments that are exotic to them, as with the ', '. The problem with all these movies, at least based on our current scientific understanding, is that bridging the gaps between stars, let alone galaxies, seems impossible on a human time scale. Right now, accelerating at or beyond the speed of light and using wormholes is considered physically impossible.', 'So, do we have any remaining options for discovering advanced extraterrestrial civilizations in the near future? Moving beyond science fiction and staying within the realm of science, we can actually think of certain, more or less clear indications that there may be artifacts that some intelligent minds in the distant stars have created. Here, we will discuss some examples of technosignatures.', 'One might think of sending an electromagnetic signal as the first indication of the existence of an advanced extraterrestrial civilization; radio waves would be the most effective for this. But these no longer count as technosignatures. They're too obvious. Even films like ', ' have considered this indicator. Despite what the movie says, however, normally a radio emission launched in all directions is not sufficiently powerful or continuous for anyone to see it. It's too much of a coincidence to be looking at Earth with a radio telescope just as the 1936 Berlin Olympics are being broadcast! Well actually, when the signal ', ', years after it is broadcast.', 'As they are understood today, technosignatures refer more to artifacts that have not been built expressly to communicate with other planetary systems. They would be gadgets for everyday use that could be detected at interstellar distances for long periods of time, even beyond the period during which the civilization that built them exists!', 'What might fit that definition? Normally, we would think about what
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worries us globally and what technology could be used to eliminate that concern (positively or negatively, which I will get to shortly). Based on that premise, it is worth thinking about how aliens who are more intelligent and/or advanced than us could have overcome those concerns.', 'One example could be energy, which has never been a more pressing concern than now. A technological world needs more and more energy. How to get it? We can think of producing large amounts of energy with nuclear fission reactors, which are not well regarded historically, or fusion reactors, which are much cleaner but more difficult to build. We can also think about blanketing roofs with solar panels, which we have done already. If we are already a more advanced civilization and the planet's surface is not enough, we ought to think big and surround the sun with devices to collect energy. Consider that only one of every billion photons from the sun ever reaches a planet; the rest are lost in the universe forever! A megastructure that surrounds a star in 3 dimensions in order to extract as much energy as possible is called a Dyson sphere. This structure should be detectable because part of the star's energy would be re-emitted in other areas of the spectrum, most likely in the infrared part because of the structure's heating, or it would produce reflections with a subsequent change to the polarization of the light received.', 'Another example of a global issue that a highly advanced, intelligent civilization might consider is the problem of cosmic dangers, such as the impact of meteorites and comets or the explosion of nearby supernovae. Obviously, we have not reached that level of intelligence and progress. Here, that topic merely ', ' that many interpret through another global problem, such as climate change, or in American-style action movies that have a meteorite explode just before it reaches Earth. When we become aware that this danger exists at the level of millennia or tens of millennia, we will find solutions (if we aren't too late) that might involve moving stars away from their orbits (something that is already beginning to be explored), including the entire Sun along with its planetary system! One possibility could be to build sail-like megastructures that would use the star's own light as "wind," making it possible to avoid shock orbits. Here, we return to the topic at hand: detecting technosignatures. The interesting thing about this contraption-called a stellar engine-is that it must always maintain its relative position between the star and the celestial vault. It always points toward the same place, toward where you'd want to vary the stellar orbit; that is, the device would not orbit like a regular star. So, we could detect something built by a highly advanced civilization: an object with an unnatural orbit.', 'Perhaps our extraterrestrial cousins, the children of some sister star, are up to something else. Maybe their technology is much more advanced than ours and we can't even imagine what goes through their heads-if they even have them-and what can be built. As Sir Arthur C. Clarke has said, "any sufficiently advanced technology is indistinguishable from magic." If there really are extraterrestrial civilizations that are advanced enough to build gadgets like those mentioned above, or even some that we cannot (yet?) wrap our minds around, why wouldn't they be clearly noticeable? There are three possible answers, some of which are more hopeless than others: 1) we do not yet have the technology to detect them; 2) they do not want to be found; or 3) such a technologically advanced civilization does not last long, because there are internal or external dangers that kill it. One only needs to

consider that, on our "dear" Earth, it took less than 100 years for humanity to go from creating the first radio signal to creating weapons of planetary destruction. The so-called Drake equation includes that and more, but we will save that discussion for another day.']]

2022-07-25 15:29:37 [scrapy.core.engine] DEBUG: Crawled (404) <GET https://english.elpais.com/science-tech/1/i/> (referer: https://english.elpais.com/science-tech/1/)

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2022-07-25 15:29:41 [scrapy.extensions.logstats] INFO: Crawled 72 pages (at 10 pages/min), scraped 38 items (at 9 items/min)

2022-07-25 15:29:46 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-06-29/three-ways-youre-using-your-cell-phone-wrong.html> (referer: https://english.elpais.com/science-tech/1/)

2022-07-25 15:29:46 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-06-29/three-ways-youre-using-your-cell-phone-wrong.html>

{'url': 'https://english.elpais.com/science-tech/2022-06-29/three-ways-youre-using-your-cell-phone-wrong.html', 'date': '29 Jun 2022', 'title': 'Three ways you're using your cellphone wrong', 'author': 'José Mendiola Zuriarrain', 'text\_art': ['During the cellphone's infancy, one needed to adopt essential habits to avoid the risk of degrading the first phones' already low ', '. People who experienced those years of the telecommunications revolution are familiar with the "memory effect" of batteries, a phenomenon that ruined the battery life of the first', '. Because of this effect, the battery degraded prematurely if it was not fully charged. While this issue affected the first generation of batteries, today's widely used lithium-ion batteries have completely eliminated the problem.', 'Even today, however, there are still people who discourage charging cellphones only partially. Indeed, the battery issue is a myth that still ensnares many users. Which long-held beliefs remain about cellphones? Here are the most common ones:', 'This is one of the most enduring beliefs. Some people still charge their cellphones and unplug them as soon as the battery is fully charged. Doing so is not necessary. Modern phones (especially their platforms) have charge-management systems that prevent possible degradation. The main problem that a cellphone plugged into an outlet could cause is overcharging, that is, the charger continues to power the battery when it is already at maximum capacity. But the risk of overcharging modern cellphones is non-existent.', 'Today's cellphones have intelligent charge-management systems. When the battery is fully charged, additional power intake is cut off. ', ' that takes into account the user's charging habits. This charging system shuts off the power supply when the device is 80% charged; then, it continues to charge so that the battery is full when the user wakes up. For its part, Samsung confirms that the batteries currently in use are not affected by "the myths of charging," as the company puts it. "The negative impact of excess charge over a long period of time is negligible," explains Santiago Izquierdo, the technical product manager at Samsung Iberia Electronics. "Even so, the phone does not continue charging after the battery is 100% full; the charge stops and recharges when

[the battery] drops below 100%.", "Usually, batteries are replaced because of their natural degradation, and [that's] only in high-end models. It is very difficult to damage a modern battery by charging it wrong," Javier Sánchez-Romero, CEO of the cellphone repair company ', ', explains to EL PAÍS. In short, you can safely leave your cellphone connected to the charger when you go to bed; it's not a problem.', 'As with the battery, long-held beliefs about forcing applications to close have endured over time. People perform the classic gesture of swiping upwards on the screen to shut down an app, believing that processes that drain the battery and affect performance are still running in the background. Once again, the opposite is true. Cellphones are smart enough to manage these resources; altering the phone's management system by forcing apps to close can only make things worse. Craig Federighi, head of iOS - iPhone's operating system - even went so far as to ', ' this false belief in an email response to a customer.', 'The systems put apps that are not in use "to sleep" and park them to be opened again when one wants to use them; if they are reopened at the user's request, part of the process has already been launched, which saves resources. That is, by forcing an app to completely shut down, the system must reload everything again, which paradoxically consumes more resources than simply switching apps. "It is not necessary to close each application after using it," explains Izquierdo, "the fact that it remains open means that the next time [the app] is used, it will start up faster, since it does not have to be loaded again," he says.', 'On its website, ', ' life: "There are two very simple ways to preserve battery life: adjust the screen brightness and use Wi-Fi." Why does keeping Wi-Fi on help us save battery life? On the one hand, this wireless technology is more efficient at consuming resources than a direct data connection with the service provider. On the other hand, modern cellphones use the wireless connection to locate the device instead of GPS, which consumes more battery and is only activated when an application that needs it is opened. "One problem is using your data plan when a good Wi-Fi network is available. If we use 4G on the street, we are already using more battery than we do when Wi-Fi is enabled. Looking for good reception wastes more battery life than having Wi-Fi enabled," explains Fran Besora, the creator of the Spanish Apple community on Twitter.', 'Similarly, the new versions of Bluetooth are designed to have a negligible effect on the battery. Battery consumption tests showed ', ' between when Bluetooth is enabled and when it is disabled. However, actively using the Bluetooth connection - to listen to music, for example - does impact battery performance.']]

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blooded animals that never seem to age', 'author': 'Miguel Ángel Criado',
'text_art': ['Researchers from Spain's National Museum of Natural Science (Museo
Nacional de Ciencias Naturales - MNCN) have been regularly visiting two ponds in
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the Guadarrama mountain range (central Spain) since 2009. They capture, tag, and release all the ' (toads, frogs, and newts) they can catch. Their monitoring of thousands of specimens for over 10 years has enabled them to estimate how long these animals live and how they age in the wild. Their life expectancy is longer than previously thought and the aging process in some species is extraordinarily slow. According to two studies recently published in ', ', most of the so-called ', ' exhibit these same characteristics.', 'Evolutionary theories about aging predict that all living organisms weaken and deteriorate with age in a process called senescence that ends in death. Mammals, the most extensively studied class of animals, peak in their development when they reach sexual maturity. Once the vital mission of ensuring the survival of the species has been accomplished, these animals, including humans, begin to weaken and the aging process accelerates. This pattern was thought to be common to the entire animal kingdom, including reptiles and amphibians. Until now.', 'The ponds of Guadarrama are home to a sizeable population of newts called "gallipatos" (*Pleurodeles waltl*). Endemic to the Iberian Peninsula and North Africa, they are the largest amphibians found in Europe. MNCN researcher Íñigo Martínez-Solano, ', ', said that in 2009, they tagged and classified several of these gallipatos as adults. "This spring [2022], we captured them again, which could mean that they live more than 15 years," he said. Some ', ' have lived up to 20 years, but survival in the wild is another matter, and life expectancy is always much lower.', 'Determining true life expectancies is one of the main contributions of the first study, which involved more than 100 researchers who spent years and even decades studying reptile and amphibian species. These species are ectothermic animals (like fish), meaning they do not generate internal heat, which is why they are called cold-blooded. Many biologists say that ectothermy produces a low metabolic rate (although the inverse may be true—a low metabolic rate produces ectothermy). The thermoregulatory hypothesis maintains that these animals live longer than mammals and birds of the same size, and have much lower aging rates.', 'But the reality is much more complex. Indeed, 26 of the 30 longest-living species are ectotherms. It's also true that 80% of the reptiles and amphibians studied have lower aging rates than humans. However, of the 107 wild populations studied, the aging rates and life expectancies of ectotherms were found to be highly variable in 77 of these populations. There are species of ectotherms that fall well above and some that fall below the known aging rates for endotherms (mammals, birds, and some fish) of similar size. This suggests that the way an animal regulates its temperature (cold blood versus warm blood) is not necessarily a determinant of its aging rate or longevity. David Miller, an ecologist at Pennsylvania State University (USA) and senior author of the study, said, "We did not find support for the idea that a lower metabolic rate means that ectotherms age more slowly. That relationship is only true for turtles, which points to their uniqueness among ectotherms.", 'The widespread belief that turtles live a long time is confirmed by this study. In fact, several species, such as those found in the Galapagos, live well beyond 100 years. However, according to a ', ', the average longevity of 52 different tortoise species is 39 years, significantly lower than the average 137 years of the tuatara, an iguana-like reptile endemic to New Zealand.', 'But what is really special about both terrestrial and marine turtles, is their very low

aging rates. If conditions are right, some can even experience negative rates. Once mammals reach sexual maturity, the risk of mortality increases with age. But this is not the case for many reptiles and amphibians, and also not true for almost all turtles. By studying data stored in ' ', a database of information provided by zoos and aquariums around the world, the authors of the second study found that the reptiles with the lowest aging rate are turtles-it's almost zero. That is, the probability of dying remains stable.', 'Fernando Colchero, a researcher at the University of Southern Denmark, is the co-author of the second study that focused on turtles. "Recent theory suggests that aging is the result of a process that weighs where to put energy when sexual maturity is reached-survival or reproduction. Some animals devote most of their energy to reproduction and produce lots of offspring, but die very young. Others are extremely long-lived, and devote less energy to reproduction. Instead, they distribute it over time. Examples include humans and elephants. But turtles don't fit this pattern," said Colchero. "Turtles grow like all animals and devote a lot of energy to development. However, when they reach sexual maturity, turtles continue to grow while other animals stop." This means that they are being able to devote sufficient energy to reproduction and also to repairing physiological damage.', 'Turtles are even capable of reversing senescence. When comparing the longevity and aging rates of turtles in zoos with those living in the wild, the former were observed to live longer and have much lower aging rates. "This means that they have a very flexible ability to regulate aging," said Colchero. He compares this aging process with other living beings such as primates and humans. "When primates are placed in a different environmental context, they experience lower infant and juvenile mortality, but the aging rate does not clearly decrease. But in turtles, it does."', 'Colchero says that turtles are compelling us to reformulate our evolutionary theories of aging. "Since current theories can partially explain this, we must reformulate our ideas so we can identify previously unknown mechanisms."', 'One possible explanation, not excluding others, is that their efficiency in repairing damage has to do with the energy they devote to their offspring. Unlike mammals and birds, parental care is very rare among reptiles and amphibians. They compensate by producing many offspring over time in order to achieve the vital objective-to pass on their genes to the next generation. But Colchero acknowledges that further studies at the physiological and molecular levels are needed to unravel the mystery.']]

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2022-07-25 15:30:00 [scrapy.core.engine] DEBUG: Crawled (200) <GET
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four in recent days, with a fifth one recorded a few weeks ago - have raised
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concern about the progress of an outbreak now affecting more than 5,500 people in 51 countries.', 'The health organization's Europe chief, Hans Kluge, also warned on Friday that overall cases in the region have tripled in the last two weeks. "Urgent and coordinated action is imperative if we are to turn a corner in the race to reverse the ongoing spread of this disease," said Kluge.', 'The WHO ', ' the outbreak a global health emergency, however. At a meeting last Saturday, the agency ruled it out but said it could change its views ', ', such as a spike in cases among vulnerable groups like children, pregnant women and immunocompromised people. Available data shows that children, especially younger ones, are at higher risk of serious illness if they become infected.', 'The last known case of a child contracting monkeypox was reported on Tuesday in Spain, where a three-year-old was confirmed to have the disease. Cases in Spain are now in excess of 1,500 according to health reports filed by regional governments.', 'Also on Tuesday, Dutch authorities reported that a primary school student had become infected and that contact tracing had been initiated to rule out more cases within the child's close circle of contacts. On Saturday, France reported one confirmed case and one suspected case among elementary school students.', 'The UK has so far recorded at least two infections in minors. The first case, reported in May, involved a baby who had to be taken to intensive care for treatment with the antiviral Tecovirimat, of which few doses are available but which has already begun to be distributed in several countries. British authorities this week reported a second case of a child with monkeypox. The UK currently has the biggest monkeypox outbreak beyond Africa.', 'The main vaccine being used against monkeypox was originally developed for smallpox. The European Medicines Agency said earlier this week it was beginning to evaluate whether the shot should be authorized for monkeypox. The WHO has said supplies of the vaccine, made by Bavarian Nordic, are extremely limited.', 'Until May, monkeypox had never been known to cause large outbreaks beyond Africa, where the disease is endemic in several countries and mostly causes limited outbreaks when it jumps to people from infected wild animals.']]

2022-07-25 15:30:07 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-07-03/the-new-drugs-for-treating-obesity.html> (referer: https://english.elpais.com/science-tech/1/)

2022-07-25 15:30:07 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-07-03/the-new-drugs-for-treating-obesity.html>

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{'url': 'https://english.elpais.com/science-tech/2022-07-03/the-new-drugs-for-treating-obesity.html', 'date': '03 Jul 2022', 'title': 'The new drugs for treating obesity', 'author': 'Daniel Mediavilla', 'text_art': ['Our brains create many illusions, and our sense of freedom may be one such illusion. But, says neuroscientist Ignacio Morgado, it's an illusion that helps us live better lives. "Freedom includes a sense of responsibility, which generates social cohesion and promotes cooperation among people," said Morgado. It's a useful illusion that can also victimize some people. Some of the most visible victims are ', ', who now make up 53.6% of Spain's population. Yet many people, including doctors, think overweight people have a character flaw that prevents them from getting off the sofa and doing some exercise for better health.', 'This perspective on obesity as a lifestyle choice and not as a disease, has
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meant that "there never has been any investment in [anti-obesity] drugs in Spain," according to Cristóbal Morales, an endocrinologist at the Virgen of Macarena Hospital (Hospital Virgen Macarena) in Seville (Spain), and a member of the Spanish Obesity Society (Sociedad Española de Obesidad - SEEDO). Nevertheless, the relationship between excess weight and diabetes, some types of cancer, and cardiovascular disease is well known, and some drugs to help very obese people lose weight have already been developed.', 'Diabetes drugs such as liraglutide and semaglutide administered at higher doses have proven to be effective for weight loss. A clinical trial published in the', 'in 2021 showed that semaglutide resulted in an average weight loss of 15% in a group of nearly 2,000 patients, and a third of the study group lost more than 20% of their weight. The drug has been such a success in the United States that its manufacturer, Novo Nordisk, quickly ran out of supply shortly after its use for obesity was approved. The Spanish national health system will cover the cost of liraglutide and semaglutide when used to treat diabetes, but not for obesity.', 'These drugs mimic incretins, the hormones produced by our body when we eat. "They are analogs that are artificially modified to last longer in the body," said Guadalupe Sabio, who researches the biological causes of diseases such as obesity at the National Center for Cardiovascular Research (CNIC) in Madrid. They also stimulate insulin production by the pancreas and reduce blood glucose levels, which makes them useful for treating diabetes. As they regulate what happens in the body when food is ingested, these drugs "also reduce appetite, prolong satiety [the feeling of fullness], and increase the basal metabolic rate [the amount of energy consumed by a body at rest], thereby increasing thermogenesis [the process of producing body heat]," said Sabio.', '"Once the efficacy of this type of drug is widely recognized," said Morales, "many pharmaceutical companies will develop and test their own products, and overall supply will increase." The latest drug of this type approved in the US for treating diabetes is tirzepatide, manufactured by Eli Lilly and Company, which will also seek approval for its use in ', '. "It's so powerful that half of the patients using it practically go into remission from diabetes," said Morales. Administered at higher doses, Lilly's product has proven to be surprisingly effective at battling obesity. A recent study published in the ', ', found that it resulted in an average weight loss of 22.5%, which can amount to 55 pounds in some patients.', 'The success of these drugs makes some experts ask whether they can match the results of weight-loss procedures such as bariatric surgery and intragastric balloon placement. "I don't think these drugs will supplant surgery altogether, but they can an alternative treatment for some overweight conditions," said Carolina Perdomo, an endocrinology and nutrition specialist at the Navarra University Hospital in Pamplona (Spain). "Some people need to lose weight before having surgery, so these drugs can serve as a bridge therapy leading up to the surgical procedure," she said.', 'Rubén Nogueiras, a researcher at the University of Santiago de Compostela (Spain), thinks that these drugs could be used to treat obesity continuously, in the same way they are used to treat diabetes. "Obesity is a chronic disease, so one would expect the drug therapy to be chronic as well." This raises the question of possible side effects from long-term use, but Nogueiras does not consider this likely. "The most common side effect is nausea during the first two weeks of treatment,

but most patients handle the drug well after that. So far, no major side effects from long-term use have been found during the extensive clinical trials that have been conducted," said Nogueiras. "These [drugs] are compounds that stimulate normal pathways in our body, so the side effects are minimal. If a semaglutide slows down digestion and makes food remain in the stomach longer, some digestive discomfort may occur, but nothing more," said Guadalupe Sabio.', 'Significant numbers of people diet regularly (around 20% of the Spanish population, according to some surveys), and fail to maintain those diets at the same rate (around 80% according to SEEDO). Anti-obesity drugs could become an instant commercial success if not for their high price, which could cost hundreds of dollars per month. If not covered by private health insurance plans or national health systems, the cost could be an insurmountable obstacle for most people. However, experts caution that these drugs are indicated for people who have been diagnosed with chronic obesity, and are not meant for those who just want to slim down a bit to look good at the beach. In the study that tested tirzepatide to treat obesity, the average weight of the participants was 230 pounds, and their average body mass index (BMI) was 38 [weight divided by height in meters squared. An individual with a BMI above 25 is considered to be overweight. A BMI above 30 indicates obesity]. In some countries like Brazil, says Cristóbal Morales, "drugs sales for weight loss are enormous." He warns against "trivializing obesity and treating it like an aesthetic problem when comprehensive lifestyle interventions are needed.", 'Obesity begins in the mother's womb and becomes entrenched through ', '. It is further aggravated by the large supply of unhealthy foods available in supermarkets and sedentary lifestyles brought on by social and technological changes. Fernando Fernández Aranda, head of research at the Bellvitge Biomedical Research Institute (IDIBELL) in Barcelona (Spain), and also head of the eating disorders unit at Bellvitge University Hospital, specializes in the psychological aspects of eating disorders. He believes that this type of drug can be "used to complement healthy habits, exercise, and psychological support, but is not a magic solution." Fernández says obesity is a complex issue, and "for individuals, especially women, who have suffered significant neglect or emotional stress during childhood or adolescence, it can affect their eating behavior.", 'Azucena García Palacios, a psychology professor at the Jaume I University in Castellón (Spain) and a member of the Spanish Biomedical Research Center in Physiopathology of Obesity and Nutrition says that "losing weight is not hard - keeping it off is the hard part." People fitted with intragastric balloons sometimes fail to maintain their weight loss, which could also happen with pharmacological treatments. García says that these drugs "should not be sold as panaceas. Systematic studies have shown that people with previous psychological problems have a much lower success rate after an intragastric balloon placement." She says that "obese people have more mental health problems," and psychological treatment is a form of support for people who need to lose weight due to a medical problem. For it to work, the individual circumstances of each patient must be assessed. "When we want people to exercise, we know that if the activity is not linked to something meaningful for the patient, it's difficult to sustain the exercise routine over time, so we work to create that link," said García. "To treat binge eating, we have to look at the emotions that lead to

binge eating. It could be a sense of rejection or maybe it's just a habit. But the binge eating might be associated with a diagnosable problem, such as major depressive disorder. We have to see the look at the individual's vulnerabilities and see where they lead so we can decide how we are going to act in each case," she said.', 'The surprisingly positive results of the new anti-obesity drugs are, according to the experts, good news for people with serious health problems caused by excess weight. But before they can be treated with these drugs, private health insurance companies and national health systems must first acknowledge that obesity is a disease. This has already happened in the United Kingdom. The next step would be for the cost of these drugs to be covered by health insurance and national health systems. But for the time being, anyone wanting to lose a few pounds to fit into a wedding dress shouldn't think about this type of solution. Nevertheless, the popularity of cosmetic procedures such as liposuction leaves little doubt that some people will want these drugs for a quick fix. But there are so many people who are overweight or obese, there is little chance of finding a solution without a global strategy. This strategy must address every aspect of the problem, from thoroughly understanding the condition's most basic mechanisms, to challenging the ', ' of a way of life that leads to an ever-increasing number of people vulnerable to one of the major diseases of the modern world.']]

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2022-07-25 15:30:12 [scrapy.core.engine] DEBUG: Crawled (200) <GET
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'text_art': ['Bipolar disorder is probably the most trivialized serious ', '. In contrast to the terms schizophrenia or anorexia nervosa, which bring to mind something sordid and dark, the so-called ', ' hints at a playful alternation between the expansive and the sad, between the friendly and the angry. "My boss must be bipolar" or "I'm a little bipolar" - followed by a knowing chuckle - are already classics of contemporary trivial conversations. This misunderstanding is particularly unfair to the patients and families who do suffer from this serious disorder, the seventh leading cause of disability worldwide.', 'Nowadays, given the proliferation and extension of diagnostic labels to the variants of normality, we must be attentive precisely to what are not mental disorders. Diagnostic classification systems (ICD-11 or DSM-5) were necessary and useful in the history of psychiatry to finally use a common language that was more or less reliable in what was akin to a Tower of Babel. But their cursory descriptions of the disorders, with lists of criteria checked off by a diagnostician based on clinical observation or symptom reporting, easily mean that anyone, on a bad day, can be diagnosed with several things at once. There is no depth in the psychopathological exploration or a sense of measure when setting the threshold
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of the dysfunctional. In this way, prevalence grows, comorbidities - the coexistence of several disorders - increase, and this over diagnosis ends up harming those who actually have a serious and limiting disorder, who become part of a web of banalities and receive poor care. For example, it is reasonable to think that 'sadness, anger, disappointment, bitterness, and desolation, in certain circumstances, does not necessarily mean one has a disorder. Imagine the absurdity of reducing the opulent emotional catalog of the gods of the Greek pantheon or the characters of the 19th-century Russian novel to a few diagnostic categories.' Humans are always emotional, their brain constantly evaluating their internal and external environment in order to trigger preprogrammed responses (yeah, free will is overrated). Emotions are patterns of neurovegetative, hormonal and behavioral adaptation typical of our species, which can be intense and can be accompanied by feelings, that is, from private and subjective experience, with a more elaborate cognitive component. Depending on the social or family context, negative emotions and feelings may be the most adaptive ways of surviving. Demanding a standard or correct or even happy mood from people with miserable lives is simply foolish. The psychiatrist is often asked to raise that mood without touching the environment, a magic trick that 'magicians' (very useful when used correctly) fail to perform. We humans get excited, we feel and, sometimes, very intensely, we are passionate. Romanticism has led us to limit the idea of passion that "vehement feeling, able of dominating the will and disturbing reason" to the love for a partner or a nation, but Gregorio Marañón has told us, for example, of the passion of commanding (in the impressive biography of the Count-Duke of Olivares) or of resentment (in the biography of Tiberius). At the consultation, and in our environment, we meet people who are moved by the irresistible passion of envy, resentment, the desire to excel, hatred, joy, love without limits that can turn into emptiness, the insurmountable struggle to alter the law of gravity or the pure desire to be someone else (examples abound). Go to a mental health consultation and you will witness an immense catalog of human nature that would not have been considered pathological in a different era, a liquid, 2.0 version of 'madness', along with a helpless representation of people with serious mental disorders that, if the overwhelming waiting list allows, barely receive the help they need. Thus, the intensity and the depth of normal human emotions are not a bipolar disorder.' Additionally, bipolar disorder can be confused with an emotional instability caused by certain character traits. Remember that personality is a deep-rooted pattern of psychological characteristics that we theoretically retain over time and that make us different from others and similar to ourselves throughout life. This is quite theoretical, because we have all had the occasional feeling of entering a horror chamber of memories and seeing ourselves as total strangers. The award-winning Spanish novelist Javier Marías tells it more elegantly in his glorious 'The person recounting here and now what he saw and what happened to him is not the same person who saw those things and to whom those things happened; neither is he a prolongation of that person, his shadow, his heir or his usurper." However, having said that, in general terms, we can consider that we all have a more or less defined personality, made up of temperament (what is innate, genetic, the cards that we are dealt) and character (what results from the interaction with the

environment, what is forged through experience, the card game itself). There are personality traits, of multifactorial cause, such as the permanent desire to please others or to be the center of attention, to control the environment (including our loved ones), the need to be endlessly admired and flattered, a real or imagined fear of abandonment, and more, which easily lead to emotional instability, to sudden mood changes. A person starts the day quite happy, but finds out that they are not invited to the company dinner (the email went to the spam folder) and suddenly their heart goes to their feet and they think that they are being ghosted and that no one appreciates and loves them enough, and they become filled with rage and contempt. Indeed: your boss is not bipolar, she is probably narcissistic or controlling.', 'Bipolar disorder is something else. It affects around 1.5% of the population and is the alternation of ', ' (an actual depressive illness, not "slumps" or frustrations) with manic episodes in which the subject is abnormally expansive or irritable, with verbosity, accelerated thinking, megalomaniacal ideas of omnipotence, a reduction in sleep hours (not insomnia: the patient does not need to sleep), impulsiveness, risky behavior, exorbitant expenses and, in almost half of the cases, delusions and hallucinations (they may believe that they have powers or hear voices). It is a serious thing: the patient does not think they have any problem at all - it is common for them to refuse admission or medication - and it's hard to predict how the case will end, but it could be badly. Fortunately, there are useful drugs to "reduce" these conditions and others - the blessed lithium salts, to which at least a third of patients fully respond - that prevent relapses. We have more trouble treating bipolar depression, as there are fewer and less effective tools, and much of the disability of the disorder is associated with it. At Barcelona's Hospital Clinic they have one of the world's leading groups for bipolar disorder, and one of their contributions has been to provide evidence of the efficacy of psychoeducation for this disease. Giving the patient tools to learn about the disorder, to deal with it, to minimize its impact on each one's personal project, to adhere to treatments that work... this has turned out to be essential for a good evolution. More proof that a pharmacological approach to severe mental disorders must always be accompanied by psychotherapy, because it is effective and because it gives meaning and significance to the treatment. ', 'Bipolar disorder is a serious condition and we must offer all effective resources for the affected population, in a universally accessible way. This requires providing means, personnel and knowledge, and fighting the trivialization of the term.']]

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[ 'Social media has been flooded in recent weeks with surreal images generated by an automated program called 'Dall-E Mini' - the pocket-sized version of a sophisticated artificial intelligence (AI) system capable of translating written instructions into original images. The program was designed using millions of image-text associations. 'Dall-E Mini is trained to establish connections between inputs and can return nine suggested images for each text submission. As soon as keywords are entered - "Bill Gates sitting under a tree," for example - the system searches in real time for images available on the internet related to each word, then creates its own unique compositions. For every input in English (the only language the tool currently accepts), Dall-E Mini produces new and original outputs. Those of its big brother, Dall-E 2 - which is developed by Open AI, a company backed by Elon Musk - 'Dall-E Mini', 'Online, people are having a great time playing with the tool's Mini version, which is freely available to the public. The Twitter account 'Dall-E Mini' features countless examples of the application's often hilarious outputs - "Bill Gates sitting under a tree," for example, or "Bill Gates sitting under a tree." Images of Spanish far-right politician Santiago Abascal and vocalist Bertín Osborne as protagonists in funny or unseemly situations, for example, have gone viral. Because it uses a database of images taken from the internet, the program is especially good at producing depictions of famous people (since they are over-represented in online image searches). 'But beneath the funny and friendly surface of this intriguing program lies another, darker layer. Despite the fact that, in English, there is often no gender distinction attributed to professional job titles - "architect," for example, does not imply a gender, as it does in other languages, like Spanish - when asked to depict certain types of professionals using gender-neutral titles, Dall-E consistently exhibits a gender bias that favors male figures for certain types of professions and female figures for others. For example, if you enter "scientist drinking coffee," "programmer working," or "judge smiling," the program generates images of men. But type in "sexy worker," and the results are all pictures of scantily clad women with large breasts. The same thing happens when you assign the subject certain attributes. If you ask for images of a "hardworking student," for example, it produces images of men, but if you submit a request for "lazy student," it generates pictures of women. 'Dall-E Mini reproduces sexist stereotypes - something the company behind the program openly admits: a drop-down tab title "Bias and Limitations" accompanies every image production, producing a disclaimer explaining that the software may "reinforce or exacerbate societal biases." 'OpenAI says that they've made significant efforts to clean up the data, but then they say that the program still has biases. That's the same as saying they have bad quality data, which is totally unacceptable," explains Gemma Galdon-Clavell, founder and CEO of Eticas Consulting, a firm specializing in algorithmic audits. "Mitigating these biases is just part of the work that companies need to do before launching a product. Doing this is relatively straightforward: it's simply a matter of doing some additional cleaning of the data and providing additional instructions to the system," she says. 'In addition to gender bias, Dall-E Mini's algorithm reproduces other prejudices and stereotypes as well. In all the test cases EL PAÍS ran, the program only drew white people - except when it was asked to draw a "homeless person," in which case most of the images were of Black people. When told to

draw God, Dall-E Mini generates images of a kind of crowned or haloed Jesus Christ figure. The program's worldview, in other words, is the one it was given by its programmers, both those who designed the algorithm and those who built the database that feeds it. It's a thoroughly Western worldview - one that prioritizes white men over everybody else.', 'So why is this the case? Dall-E Mini is just one notable example of a larger problem plaguing artificial intelligence software in general - what are known as algorithmic biases. AI systems reproduce social biases for a number of reasons, not least of which is that the data it uses are itself biased. In the case of Dall-E Mini, the data are millions of images taken from the internet, and the millions of words and phrases associated with them.', 'The purpose the system was programmed to fulfill can also play a role. The creators of Dall-E Mini, for example, explain that their intention was not to provide an accurate and unbiased representation of society, but rather to offer a tool that produces realistic images. Another source of bias is the model used to interpret the data. In the case of automated job recruitment systems, for example, the system can be calibrated to give more or less weight to certain variables - work experience, say - and this can have a major impact on the outputs of the algorithmic process.', 'Finally, there are also cases in which users themselves make biased interpretations of a given algorithm's results. The case of COMPAS, the automated system used by courts across the United States to predict recidivism risk for prisoners applying for parole, is well known. One study showed that, in addition to the system's own biases, which disadvantaged Black inmates, there was another form of bias at play: judges themselves would often recalibrate the scores produced by COMPAS according to their own prejudices. When the algorithm indicated that a Black convict was not at risk of recidivism, judges with racial bias would often ignore the system's recommendation, and vice versa: if the system recommended holding a white convict, judges would often ignore the algorithm and grant the inmate parole.', 'How does all this apply to the case of Dall-E Mini? "This algorithm has two points of bias: texts and images," explains Nerea Luis, an artificial intelligence expert and lead data engineer at Sngular, a company specializing in AI development. "On the text side, the system transforms the words into data structures, called 'word embeddings.'" These structures, Luis explains, are built around each word, and are created from a set of other words associated with the first, under the premise that it's possible to identify a given word using the other words that surround it. "Depending on how the words are positioned in the system, you can have a situation where, for example, the term 'CEO' will be associated with men more than women. Depending on how the words have been trained, certain word sets will be more closely associated with others," Luis says.', 'In other words, if you let the system fly solo, the word "wedding" will appear closer to the word "dress," or to the word "white," an association that only exists in certain cultures. And then there are the images: "The tool will search for [images] that occur most frequently in its database for the term 'wedding,' and then produce images of Western-style celebrations most likely involving white people - as would be the case if you entered the same search term in Google," Luis explains.', 'To avoid this problem, the data inputs would have to be corrected. "It's a question of improving representation in the databases. If we're talking about millions of images, then we have to

look at a multitude of case studies, which complicates the task," says Luis.', 'EL PAÍS attempted unsuccessfully to reach out to OpenAI for clarification on whether the company had any future plans to fix the software's algorithmic biases. "Dall-E 2 [the more sophisticated version of the image generator] right now is in a research preview mode. To understand - What are the use cases? What kind of interest is there? What kind of beneficial use cases are there? And then, at the same time, learning about the safety risks," Lama Ahmad, a policy researcher at OpenAI, said earlier this month. "Our model," she added, "doesn't claim at any point to represent the real world.", 'For Galdon-Clavell, this argument isn't enough. "A system that doesn't try to correct or prevent algorithmic biases isn't ready for a public launch," she said. "We expect all other consumer products to meet a set of requirements, but for some reason that's not the case with technology. Why do we accept this? It should be illegal to launch half-baked products, especially when those products also reinforce sexist or racist stereotypes."']}]

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with HBO receiving 130 nominations and Netflix 129. Now the gap has widened, with the cable channel scoring 140 nominations, compared to the streaming platform's 105.']]

2022-07-25 15:30:29 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/international/2022-07-19/mexican-president-denies-dea-involvement-in-drug-lords-capture.html> (referer: https://english.elpais.com/)

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with the DEA when needed, but lately there hasn't been any.", 'Regarding the crash of a Mexican Navy helicopter in which 14 marines died, the president said it was returning to the airport in Los Mochis (on the Sinaloa coast) when the crash occurred. The cause of the accident remains unknown. "They were outside the area where the arrest took place. The Secretary of the Navy says that an investigation into the cause of the accident is underway. If it hasn't been sent already, the black box will be delivered to the helicopter manufacturer for analysis."', 'AMLO again said that he deeply regrets the deaths of the marines and has asked for greater compensation for their families. "Although they are irreparable losses, we are committed to supporting [the families] in every way. Every member of the armed forces has life insurance, but I issued an order for the families to be given double the amount they are entitled to by law," he said.', 'Soon after Caro's arrest, US Attorney General Merrick Garland released a statement that "immediate extradition" will be sought. Caro was transferred to Altiplano, Mexico's maximum security prison that gained notoriety when Joaquín "Chapo" Guzmán's escaped in 2015 through a tunnel connected to his cell. President López addressed the issue of extradition, saying that Caro is pursuing legal options for his release, and there is no progress yet on the extradition process. "We are going to make sure there is no corruption or anything that violates our laws," promised the president.', 'Caro served 28 years in Mexican prisons, but 12 years before the end of his sentence, he was released in a legal scandal that the US government would never forget. In August 2013, an appeals court overturned Caro's 40-year prison sentence for the murders of Camarena and his pilot, Alfredo Zavala. The appeals court decided that Caro's case should have been handled by a state court, not a federal one, and ordered his immediate release from a maximum-security prison.', 'A few months later, Mexico's Supreme Court overturned the appeals court's decision on the basis that Camarena was a US government agent, so his murder was a federal crime and Caro had been properly prosecuted in a federal court. A new arrest warrant was issued for Caro, but it was too late. The drug lord had disappeared and was on the run for the next nine years.', '"Do you think there is going to be a spike in violence in Sonora (northern Mexico) where he [Caro] operated?" asked a reporter at the president's press conference. "I don't think there will be more violence in that region," replied the president, who went on to explain that Caro was a powerful narco in the 1980s, but most young people only remember him from the recent Netflix series, ', '. "Wasn't he responsible for a lot of violence?" asked the same reporter. "We don't know," was the president's terse reply.', 'Although he is not as powerful as he was thirty years ago, US authorities believe he is the ', ' that operates in the northern Mexican states of Sonora, Baja California, and Chihuahua. The US Federal Bureau of Investigation (FBI) believes that he was still involved in drug trafficking because after he managed to get a judge to release him, the first thing he did was to return to his hometown where he reorganized, negotiated a piece of the pie, and quietly took care of business without all the extravagances of the past.']]

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licenses despite the fact that prominent Democratic senators and presidential contenders John Kerry and John Edwards preferred civil unions over same-sex marriage. "In many ways, we represent the future of this country," said Newsom in a 2004 interview with EL PAÍS. But in 2008, a conservative wave swept over California and a referendum vote banned same-sex marriages. The US Supreme Court legalized them nationwide in 2015, but now they seem to be in danger again given the Court's conservative majority.', 'Newsom has demonstrated a willingness to swim against the tide. He became governor of California in January 2019, and gained accolades for his leadership during the pandemic until he was caught attending a birthday party in late 2020 at an exclusive Napa Valley restaurant, violating his own restrictions on public gatherings. It was a major blow to his popularity, and he barely survived an impeachment vote in 2021.', 'The governor seems to have broadened his horizons this year. He spent US\$105,000 on advertising in Florida, a state that's 2,500 miles (4,000 kilometers) from California, to challenge Ron DeSantis, a leading contender for the Republican presidential nomination. Newsom remains focused on opposing conservative strategies and tactics. However, he took a page from the Texas legal playbook that allows civil suits against people who facilitate abortions, applying the same principle in California to allow victims of gun violence to sue gun manufacturers.', 'California has given three presidents to the United States - Ronald Reagan, Richard Nixon, and Herbert Hoover - all Republicans. Arnold Schwarzenegger also tested the presidential waters, but his Austrian birth prevented him from running. No Democratic politician from California has ever made it to the White House, although many have tried. Jerry Brown Jr. ran unsuccessfully for the Democratic nomination three times, ultimately concluding that the California governorship was a "career-ending" job.', 'If Newsom does make a run for president, Kamala Harris will be standing in his way. The vice president and the governor avoided a battle in 2013 when both declined to run for governor, a race that Jerry Brown later won in a landslide. Harris opted to run for senator in 2016 while Newsom set his sights on the 2018 gubernatorial race. Bakari Sellers, a CNN commentator close to the vice president, recently compared Newsom to Icarus. "Sometimes he flies too close to the sun," he said.', 'In his May interview with the ', ', Newsom said he wasn't planning on running for president, later adding, "I hope Kamala Harris is the next president of the United States." Much has happened since that interview.']]

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one of the 10 highest-grossing actors in history, he currently has two
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successful movies (' , ' and ' , ') and Amazon Prime just released his production, ' , ', for which he earned a million and a half dollars for each of its eight episodes. His third child-a daughter-was born just a month ago, and his marriage to Katherine Schwarzenegger seems to be the picture of domestic bliss. However, judging by his latest comments to ' , ', the 43-year-old, Virginia-born Chris Pratt does not seem to be a completely happy man. Why? He feels that the public doesn't like him, or rather that he has become a favorite target of the cesspool that is social media. "Why are they coming after me?" he wonders.', 'To understand his complaint, one only needs to go back to October 2020, when documentary filmmaker Amy Berg posted a presumably innocent poll. She wrote the sentence "One has to go" alongside four photos of the moment's four most famous actors named Chris-Evans, Pratt, Pine and Hemsworth, ' , 'starring in one or more superhero franchises.', 'Berg's followers and others took care of the rest. Her tweet soon took on political overtones, giving rise to a dispute between those who deemed Pratt "the worst Chris in Hollywood" because of his allegedly conservative political views, and those who felt compelled to rescue him from the progressives' ire. The confrontation became so heated that Berg called for them to stop, claiming that her tweet had turned into "a hate-filled shit-fest on both sides."', 'It was a harmless joke, but it revealed a deeper truth. Something about that successful, good-looking, affable guy didn't quite sit right with viewers. He seems to know the roots of that hatred. In his latest extensive interview with ' , ', he blames it on his eagerness to show his gratitude to God in all of his public appearances.', '"I didn't know that I would kind of become the face of religion when really I'm not a religious person. I think there's a distinction between being religious-adhering to the customs created by man, oftentimes appropriating the awe reserved for who I believe is a very real God-and using it to control people, to take money from people, to abuse children, to steal land, to justify hatred. Whatever it is," he said.', 'Interviewer Mickey Rapkin has his own hypothesis about the animus the actor provokes: "It's possible that Pratt has been a victim of his own success, both on screen and in the gym," he muses. Perhaps one can find the root of the problem somewhere between the two theories. But the truth is, Pratt's epic journey has been made difficult only by the stumbling blocks he created himself. Indeed, until his arrival in Hollywood-a place of suffering and sacrifice for most stars-Pratt's path unfolded with a curious simplicity.', 'At 19, while working as a waiter in Hawaii at a Bubba Gump, the shrimp restaurant franchise based on the ' , ', he spotted Rae Dawn Chong, an actress from ' , ' and ' , '-one of those 1980s Arnold Schwarzenegger video store classics, which Pratt had seen "more than 4,000 times"-at one of the tables. He was so enthusiastic that Chong asked him if he was also an actor. Pratt replied that he had never acted beyond the occasional school performance, and the actress, who at the time was in pre-production for her first short film, offered him a part. She was the first to detect that elusive star quality in him.', 'It was a terrible movie, but Pratt saw it as an opportunity to get an agent and a manager. From there, everything fell into place. He specialized in playing likable, good-natured characters. After a few supporting roles in teen TV shows like ' , ' and ' , ', he got his most important role, ' , 's Andy Dwyer. He'd only been scheduled to appear in a half-dozen episodes, but the producers liked him so much that he stayed on the



show until the series ended', 'The role that made Pratt famous also pigeonholed him. His appearance and air of naivete kept him from the roles he wanted: after he was rejected for parts in ', ' and ', ' for being overweight, he began to pay attention to his physique and started looking for projects beyond comedy. In addition to his work on the NBC series, he earned roles in prestigious films such as ', ', ', ' and ', '. When he was cast in', ', he dazzled casting director Sarah Finn, but director James Gunn was hesitant.', '"The chubby guy from ', '? No." It took Gunn 20 seconds to change his mind. "He's like Gary Cooper, he's like John Wayne," the director later declared. "He's got all the classic movie star stuff and the ability to make people laugh." That ability to combine action and humor also earned him access to another coveted role: the lead in the ', '. His new and imposing physique (he lost 36 kilos in six months) had made him a fashionable hero. He gave up beer and huge meals. The plump, friendly little guy was now the first choice for roles he couldn't have dreamed of before.', 'In 2009 he married actress Anna Faris, the star of ', ' and the TV series ', '. They became one of social media's favorite couples. Hollywood wants "Bennifer" and "Brangelina" to feed its glamour, but it also needs real couples. Chris and Anna made their everyday life aspirational. They seemed charming, fun, and approachable.', 'The public fell in love with the pair so intensely that the end of his marriage to Faris in 2017 represented the first blemish on Pratt's public image as an ordinary guy turned action megastar. Various media speculated that the separation was caused by Pratt's infidelity and inability to deal with his new physique and newfound fame. His subsequent marriage to ', ', the daughter of Arnold Schwarzenegger and Maria Shriver, was not well received either.', 'It didn't matter that Faris had also gotten on with her life and took every opportunity to show her affection for her ex-husband on social media: "My sweet Chris, my ex, got engaged to Katherine today, and I'm so happy for them. I knew it was coming, and I love them both. I'm so happy they found each other," she wrote after Pratt announced his engagement. But nothing subdued his haters, especially when the actor posted a seemingly innocuous message celebrating his love for his new wife.', 'Pratt's post remarked on the loving gaze with which his new bride looked at him and thanked her for having given him "a wonderful and healthy daughter." It was apparently an emotional, simple, and tender message, but some people interpreted it as disparaging to Jack, his son with Faris, a premature baby who, after suffering a brain hemorrhage, had been born with permanent damage to his vision and muscles. "You have a son with your ex-wife, Anna Faris, who unfortunately suffers from very small health problems and you can't think of anything else to do but upload a post with your new wife and emphasize that she has given you a super healthy daughter," tweeter Mary Wachi pointed out, criticizing Pratt in a message that was retweeted almost 1800 times. Pratt spoke to ', ' about this mistake. "That is fucked up. My son's gonna read that one day. He's nine. And it's etched in digital stone. It really fucking bothered me, dude. I cried about it."', 'His marriage to Katherine Schwarzenegger has heightened perceptions of Pratt's conservatism at a time of extreme political polarization in the country: his father-in-law-action-movie legend Arnold Schwarzenegger-had been California's governor as a Republican. It didn't help that Pratt was the only star of the Marvel Cinematic Universe who did not join the Democrats' fundraiser to support candidate Joe Biden, or that

he did not participate in the Parks and Recreation cast reunion in support of the Wisconsin Democratic Party.', 'These absences led to the assumption that Pratt supported Trump, and he was even labeled a white supremacist. Moreover, in an interview with Men's Journal, he somewhat dully claimed that there were few stories about white men in Hollywood. "I don't see personal stories that I identify with, because they're not my stories. I think there's room for me to tell mine, and there's probably an audience that would welcome hearing them. The voice of the average working-class American is not well represented in Hollywood.", 'Each controversy has intensified the sense that Pratt was a dope, but not the likable one he appeared to be on screen. In 2019 he had a contentious exchange with actor Elliott Page on Twitter. The star of The Umbrella Academy accused Pratt of belonging to the "infamously anti-LGBTBIQ" Zoe Church. That church has ties to the controversial Hillsong evangelical megachurch and is linked to stars like Justin Bieber and Kendall Jenner.

"Nothing could be further from the truth. I go to a church that opens its doors to absolutely everyone," the actor said to defend himself. But in 2017, Zoe Church's pastor produced The Heart of Man, a film that portrays homosexuality as something to fight against, like porn addiction or infidelity. Three years after the controversy, Pratt is still attempting to apologize for it.', 'Even something as seemingly innocuous as diet caused Pratt to get into hot water. A post about barbecued lamb sparked a controversy, though it was actually intended to make the case for his small, allegedly cruelty-free livestock farm. But the post backfired because it compared killing a suckling lamb to unplugging a television.', 'Pratt's missteps and the sharp knives of social media make for a lethal combination. Long gone are the days when BuzzFeed described him as "the human golden retriever of your dreams." The mystery of how some people think so negatively of a star who seems to try so hard to be liked led Vulture journalist Joan Summers to conduct an exhaustive - and ironic - investigation of him.

"Chris Pratt is a man who stands for everything and nothing at all, depending on who is looking at him. His blank canvas politics make him the perfect focal point for everyone's collective projections. In turn, that vagueness protects his Hollywood interests, removing the risk of alienating prospective viewers and fans entirely," she wrote. "Personally, I find that much more frightening. '", 'The animosity that Pratt arouses has not yet reached bottom. On the same day that the actor's complaint was published, Twitter returned to the fray. In a message that quickly went viral, a waiter mocked the actor's attempt to distance himself from Christianity and claimed that Pratt had discriminated against him.

"Sir, I've seen you publicly pray in a restaurant over a pound of bison meat, and you didn't tip me shit compared to what you've tipped straight waiters before." It seems the public is still hungry to watch Pratt on screen.

Unfortunately for him, they're also eager to see him on Twitter threads.']]

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purposes.', 'And that's exactly what happened. Photos of the Chilean leader bumping elbows with Wang Yi, the foreign minister, were widely disseminated by Chinese media. The ministry effusively praised the visit, calling it "an opportunity to observe and experience first-hand the real Xinjiang," the region where the majority of Uyghurs live. Ma Zhaoxu, the deputy foreign minister explained that "certain Western countries, out of ulterior motives, went to great lengths to disrupt and undercut the High Commissioner's visit, their plot didn't succeed."', 'The US Secretary of State didn't see it that way. Antony Blinken expressed his concern about China's efforts to restrict and manipulate the High Commissioner's visit. According to him, Bachelet did not have access to the people who were forced to move to other regions of the country, thus separating them from their families. In addition, Blinken said, Chinese authorities warned Xinjiang residents "not to openly complain or criticize the conditions in which they live." He also regretted that Commissioner Bachelet had not been given more information about the fate of hundreds of disappeared Uyghurs.', 'The Summit of the Americas and the visit of the High Commissioner for Human Rights to China are two very different events. But both were defined by one of the thorniest international dilemmas of our time: how should democracies relate to autocratic regimes that systematically violate the human rights of their citizens?']}]

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2022-07-25 15:31:00 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/opinion/the-global-observer/2022-06-30/latin-america-quo-vadis.html>

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{'url': 'https://english.elpais.com/opinion/the-global-observer/2022-06-30/latin-america-quo-vadis.html', 'date': '30 Jun 2022', 'title': 'Latin America, quo vadis?', 'author': 'Moisés Naím', 'text_art': ['Colombia has just elected its next president,', '. Despite his long political career, the president-elect presents himself as an outsider who is out to dislodge the long-ruling elites from power. That's the same promise made by Andrés Manuel López Obrador of Mexico, Gabriel Boric of Chile, Pedro Castillo of Peru, Alberto Fernández of Argentina and several other Latin American presidents. On October 2, Brazil will hold elections and it is almost certain that the current President Jair Bolsonaro will face off against former president Lula da Silva.', 'In addition to aggressively confronting their opponents, all of these leaders have promised sweeping institutional changes and economic reforms. All of them have also committed to reducing poverty and inequality.', 'Will they succeed?', 'No.', 'For several decades, barely any out of the long list of leaders who have tried to make sweeping changes to their respective countries have succeeded. The only exceptions to this trend were Hugo Chávez and his anointed successor, Nicolas Maduro. The two did indeed drastically transform Venezuela. They destroyed it.', 'The new Colombian president is the latest member of this club of leaders coming to power on the back of', ' that they either won't be able to keep or, more ominously, will impose in spite of dire consequences. They will lead societies that suffer such extreme levels of political and social polarization that reaching the necessary agreements and
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compromises between rival groups will be next to impossible.', 'As in many other parts of the world, important decisions in Latin America are held up by a new form of polarization that feeds on group identities such as religion, race, gender, region, age, economic interests, ideologies and more. This polarization, which has always existed, has now been ', ': the rise of disinformation, fake news, and the manipulation and dissemination of messages that create distrust, fear and anger.', 'These are the three "Ps" that define the current political environment across much of the world: populism (divide and rule, promise and win), polarization (the use and abuse of discord) and post-truth (who, what, to believe?)', 'Governing successfully in this context becomes even more difficult in the difficult economic situation facing Latin America. The region's economies depend on the price of their main exports: raw commodities. When global demand and prices rise, Latin American governments are able to spend freely, and smooth over political and social frictions. When prices fall, political and social conflict intensifies. It is a longstanding pattern.', 'All signs point to the global economy experiencing a sharp contraction, and Latin America is bound to be seriously affected. While conventional wisdom is that recessions tend to depress demand and contain rising prices, Latin America is likely to experience the double whammy of a recession and rising inflation, the much-dreaded phenomenon of stagflation.', 'Runaway inflation, a phenomenon hitherto unknown to the vast majority of people in the region, especially those under 30, will impose itself on the agenda as a pernicious source of hunger, impoverishment, inequality, economic stagnation and social conflict.', 'The political effects of inflation will be compounded by a terrible pre-existing condition: disillusionment with democracy. Millions of Latin Americans hard hit by the pandemic, unemployment, bad public services, food insecurity, corruption and crime have lost hope that elections and democracy will bring the solutions they desperately need.', 'This is the context in which President Gustavo Petro will have to govern Colombia.', 'He has three alternatives: The first is to try to implement his agenda piecemeal by opportunistically working with some of the leaders, parties and social groups that oppose him. That would inevitably require the president to make concessions. Broadening his base of support in this way will require messy compromises.', 'The second alternative is that Petro pushes for a vast and inclusive national accord that allows important decisions to be made on the basis of a broad consensus. Again, this involves making concessions that may be hard to swallow for the president and those who supported him in winning the presidency.', 'The third option is to behave as other 3P presidents have done around the world: stealthily weakening the institutions, the norms, and the checks and balances that define democracy by demonizing his opponents on the basis of a firehose of lies.', 'Let's hope that Colombian democracy will survive the allure of the 3Ps.']]

2022-07-25 15:31:06 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/international/2022-07-19/southern-europe-battles-wildfires-amid-apocalypse-of-heat.html> (referer: https://english.elpais.com/) 2022-07-25 15:31:06 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/international/2022-07-19/southern-europe-battles-wildfires-amid-apocalypse-of-heat.html> {'url': 'https://english.elpais.com/international/2022-07-19/southern-europe-

battles-wildfires-amid-apocalypse-of-heat.html', 'date': '19 Jul 2022', 'title': 'Southern Europe battles wildfires amid 'apocalypse of heat'', 'author': 'Reuters', 'text\_art': ['Firefighters were battling blazes across southern Europe on Tuesday as a heatwave sent people hunting for shade and compounded fears ', '.', 'In ', ', the charred bodies of an elderly couple were found inside a burned-out vehicle after they tried to escape a wildfire ripping across the northern municipality of Murça, authorities said on Monday. Murça's wildfire is one of nine blazes sweeping across drought-hit Portugal, which has been battling a heatwave since last week.', 'In ', ', wildfires were raging in several parts of the country, including the popular southern destination of Málaga. A second fatality was reported on Monday, when a shepherd's body was found in Sierra de la Culebra, a mountain area in Spain's northern Zamora province. The first victim was a firefighter who was trapped by the flames on Sunday.', 'And a Spanish man trying to protect his town from a wildfire had a close brush with death on Monday when the blaze engulfed his digger, forcing him to run for his life while patting out flames on his clothes. Angel Martin Arjona had been digging a trench to stop the approaching fire from reaching the northwestern town of Tábara when the flames closed in on him. The video above shows Arjona running away from the flames, stumbling and running again, his pants still burning. He was taken to hospital by helicopter with serious burns after his dramatic escape, his friend, mechanic Juan Lozano, told Reuters.', 'This past weekend Spanish firefighters were dealing with 37 separate fires, around half of which were still burning out of control. The year 2022 is proving to be the most devastating in 15 years for Spain, with 140,000 ', ' so far, nearly seven times as much as the annual average for this time of the year. This time in 2021, 30,000 hectares had burnt down. The number of wildfires has also reached a historical high of 301 since January, compared with the historical average of 82.', 'The fires have been feeding off ', ' affecting large parts of Europe. In ', ', a weeklong heatwave reached a peak on Monday in the country's west, where the national weather service Météo-France spoke about "an apocalypse of heat." Several wildfires have been raging for days in the area, destroying over 15,000 hectares and forcing the evacuation of thousands of residents.', 'There were some signs that conditions were starting to ease after days of blistering highs, but the heatwave was moving north. ', ' and ', ' are expecting the heatwave to hit them in coming days, while temperatures nudged 38°C (100° F) in southern ', ' on Monday and were forecast to hit a record-breaking 40°C (104° F) on Tuesday, according to Britain's Meteorological Office.', 'British train companies cancelled services and some schools closed while officials urged the public to stay home and the government triggered a "national emergency" alert.']]

2022-07-25 15:31:13 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/international/2022-07-17/caro-quintero-the-old-drug-lord-who-revolutionized-the-world-of-marijuana.html> (referer: https://english.elpais.com/)

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old-drug-lord-who-revolutionized-the-world-of-marijuana.html', 'date': '17 Jul 2022', 'title': 'Caro Quintero, the old drug lord who revolutionized the world of marijuana', 'author': 'Jacobo García', 'text\_art': ["'Why are you smiling so much? Has life treated you well?'", '"Yes, it has treated me well because I am alive."', 'This was', 's response to a journalist in 1985 on the day he was sent to prison for the first time. He had just been caught with his girlfriend in Costa Rica, he was 33 years old and was the biggest marijuana dealer in the world. Last Friday, he was arrested again, this time in Sinaloa, some 93 miles from the town where he was born, and from where he led a small army that spreads terror in the northern Sonora region. In the world of drug lords, reaching the age of 33 is a blessing, but to make it to 69 is an extraordinary privilege, rewarded with a retirement of total liberty. However, Caro Quintero responded to this freedom in the same way as the fable of the scorpion and the turtle: he returned to drug trafficking.', 'Born in 1952 in the small city of Badiraguato, Sinaloa (in the north of Mexico), home to other notorious ', 'and Ernesto Fonseca, ', ', his life experience combined business know-how, love and violence in equal parts, qualities that drove him to the top of the drug trafficking industry in record time. Indeed, among the great drug lords of the 1980s, Caro Quintero is a classic example.', 'He was the son of a peasant couple who had 10 children, nephew of Lamberto Quintero and cousin of Amado Carrillo Fuentes (known as ', ', owing to his ability to bring small planes into the United States), Caro Quintero barely knew how to read and write when he started out, but his business intuition made him rich through marijuana in just a few years. Before turning 30, he had constructed the largest drug operation production center ever seen, some 1482 acres, and he had paid off police, military, politicians and judges across the country. Caro Quintero revolutionized the world of marijuana when he managed to mass produce seedless female plants which also took up less space. 4,000 employees worked on his farm in El Búfalo and truckloads of marijuana left it each day, the result of a sophisticated irrigation system and the construction of the first greenhouses in the whole of Mexico. Caro Quintero's marijuana was not only the consumers' first choice, but his production was also the biggest, bringing in more trucks and planes to the United States than any other supplier.', 'At that time, El Chapo Guzmán was only a hitman for the cartel that Caro Quintero led together with Don Neto and Félix Gallardo. One of them produced weed on scale, another introduced Colombian cocaine, and the third oversaw strategies to move trucks and planes into the United States. Together they made up the Guadalajara cartel, which later became ', ' the most powerful in the country until a few years ago, with the emergence of Jalisco Nueva Generación.', 'One day in November 1984, hundreds of soldiers showed up at the farm, arrested all the workers and burned the 8,000 tons of marijuana they found. This was the largest single seizure of drugs in history. The evidence - an aerial photo of the huge camp - forced Mexico to act, under pressure from the United States.', 'After the coup, Caro Quintero swore revenge and three months later ', ', a DEA agent who had managed to infiltrate the farm, and the pilot of the plane. But he didn't do it swiftly: he tortured them for weeks while a doctor kept them alive so that the boss could prolong the torment. The DEA has since sworn revenge.', 'Those were the times when drug traffickers frequented bars, flaunted their money in nightclubs, closed pick-up joints and



were photographed with ministers and governors, where they appeared as successful businessmen from the countryside.', 'In one of the bars, the handsome and charming Caro Quintero, who had just finished elementary school, met Sara Cosío Vidaurri, a 17-year-old from conservative high society in Guadalajara, niece of the former Governor of Jalisco, Guillermo Cosío Vidaurri. With the DEA hot on his heels, he fled with her to Costa Rica. The family denounced her kidnapping and the saga of her escape was followed both in gossip magazines and in the news. The day the young woman called her parents to say that she was safe, the call was intercepted. When the police entered the house of the Bonnie and Clyde couple of Sinaloa, she told them: "I'm not kidnapped, I'm in love," contemporary reports reveal.', 'After spending 28 years in five different prisons, Caro Quintero was freed in 2013 due to a legal loophole. A judge decided that he should not have been tried in a federal court, but in local one in his hometown, and released him just long enough for him to escape. Thus, at the age 59, the old drug lord got his freedom and he returned to his clandestine lifestyle.', 'In the images broadcast that day, there was nothing left of the confident and sarcastic young man who relished television interviews. Instead, he appeared as an old man who had decided to abandon the criminal life. However, this was all show, and he went straight back to his old ways in places such as Caborca or San Luis Río Colorado where he reassembled a small army and tried to make his way back into the world of organized crime.', 'When he was captured last Friday afternoon, army officials said he was hiding in some bushes and that a dog from the force found him. In the images, he appears to all intents and purposes as a well-dressed man wearing a jacket and an ironed shirt. Forty years after the murder of Kiki Camarena, the DEA kept Quintero as its number one target on the list of most wanted criminals and offered \$20 million for his capture.', 'Criticized by the United States for his inaction in the face of violence, the president of Mexico, Andrés Manuel López Obrador, settled accounts with the past and can boast his first significant criminal catch with Caro Quintero's arrest. However, his critics argue that this only occurred because Obrador had met with Biden at the White House three days prior. The United States, though, celebrates this as an account settled at long last.']]

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evening in 2016, Russian tech tycoons and politicians sat down for a three-
course dinner at the Moscow City Golf Club, an exclusive meeting place near the Moskva River. The man of the hour was Travis Kalanick. Hoping to expand Uber's
business in Russia, the company's chief executive chatted up dinner guests about big data, artificial intelligence and other things tech.', '"God love the
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Russians, where business and politics are so...cosy," Uber's European public policy chief Mark MacGann emailed two company executives ahead of the dinner.', ' and eluded or challenged regulations in Western democracies, some executives went to extraordinary lengths to grow the company's business in Russia, at the time one of the world's most attractive but oppressive marketplaces.', 'The Uber Files, a cache of internal Uber documents ', 'and', ' and 42 media partners, show some executives identified politically connected Russian billionaires and courted their favor through appeals from former US and UK government officials, and lucrative deals involving company stock. Those oligarchs are now under Western sanctions.', 'Uber's efforts to win favor and a long future in Russia were ultimately unsuccessful.', 'In response to written questions, Uber told ICIJ and its media partners that no one at the company today cultivated relationships with oligarchs.', '"Our current leadership disavows any previous relationships with anyone connected to the Putin regime," Uber spokeswoman Jill Hazelbaker said. "Current Uber management thinks [Russian President Vladimir] Putin is reprehensible and disavows any previous association with him or those close to him."', 'The leaked documents, containing more than 124,000 emails, text messages, PowerPoint slides, invoices of spending, strategy memos and other types of records, provide insight into the risks and rewards of breaking into authoritarian markets and operating in them.', 'In China, Uber invested heavily and met with multiple state-owned enterprises and local government officials but eventually lost out to a local rival. In Saudi Arabia, Uber turned to its policy chief - former Barack Obama adviser David Plouffe - to push for favorable ride-hailing regulations. The company offered Princess Reema bint Bandar Al Saud a spot on Uber's advisory board.', 'In Russia, the documents reveal, Uber insiders raised concerns that a proposed deal with a Russian consultant might run afoul of US anti-bribery laws.', 'A nine-page internal briefing document lays out challenges the San Francisco-based giant faced in Russia and tactics to overcome them. Uber said it needed "to keep a low profile, given the current geopolitical climate." One of its "key objectives" was to "become an active player for the law making process" by identifying "key business and political stakeholders."', 'The document lists key Uber figures, including Plouffe, along with a slew of oligarchs and politically connected billionaires it calls "allies," such as Sberbank's powerful chief executive, Herman Gref, and ', ', a multinational Russian conglomerate. The document describes how the company could use those allies "to protect the business from attacks by competitors and 'invisible forces.'"', '"I think we want someone aligned with Putin," Emil Michael, Uber's chief business officer, said in an email exchange with colleagues in 2014 about potential Russian investors.', 'A spokesman for Michael said he "doesn't recall any specific references to Uber wanting an investor aligned with Putin." The company vetted all investors, he said.', 'Uber mapped the relationships among billionaires and political figures, including Putin, in a briefing book prepared for Kalanick ahead of the Moscow dinner.', 'As it sought to "tame the bear," as one internal memo put it, Uber forged deals with ', ', including Gref's Sberbank; LetterOne Holdings investment firm, owned by Putin-loyalists Fridman and Petr Aven; and USM, a holding company co-owned by Russia's sixth-richest person, Alisher Usmanov.', 'After signing a deal with Sberbank in September 2015, Gref introduced Uber to the mayor of Moscow, and the bank promoted Uber on

its mobile banking platform and launched a vehicle financing program for Uber drivers, emails show. Sberbank customers also received loyalty points on their Uber trips, bringing in about 20,000 new riders in 2015 alone. In addition, Uber explored making the bank's credit card the payment card of choice for Uber rides in Russia and offering a program to Sberbank that would make it easier to reimburse employees for using Uber, the documents show.', 'The Uber-Sberbank alliance enraged Russian taxi drivers. A taxi union wrote a letter to then-Russian prime minister Dmitry Medvedev, saying the partnership weakened competition, drove down worker wages by undercutting prices and violated taxi laws. They even accused Uber of tax evasion and bribery.', '"Is it a normal practice for the largest state bank of the Russian Federation to advertise services, potentially dangerous for citizens?" the drivers asked in the letter. "Why does Sberbank offer the most expensive and complicated lease and loan deals to others and special favorable conditions to Uber?"', 'Emails show the Uber-Sberbank relationship was kickstarted, in part, by Plouffe, who met with Gref during a summer trip to Russia in 2015. Throughout the life of the relationship, Sberbank was under ', ', first prompted by Russia's illegal annexation of Crimea in 2014.', 'Plouffe did not respond to questions about his role in Uber's pursuit of influential Russian investors. Gref did not respond to questions.', 'Hazelbaker said Uber would not engage in any relationship with Sberbank or Gref today. She added the investment would not have violated US sanctions at the time.', 'Emails also show that discussions about a deal with LetterOne developed in late 2015. Then in late January 2016, Travis Kalanick met at the World Economic Forum in Davos, Switzerland with Alexey Reznikovich, the managing partner of LetterOne Technology, a unit of LetterOne Holdings. "Strong meeting," a meeting summary states. "Looks like we are close to a deal."', 'Devon Spurgeon, a spokeswoman for Kalanick, said Kalanick's efforts to expand Uber's business into Russia were limited to a trip to Russia and a few meetings. She said he "was asked for his involvement following Uber's robust legal, policy, business development teams having vetted and approved the strategy and operations plans."', 'Spurgeon added: "Mr. Kalanick is not aware of anyone acting on Uber's behalf in Russia who engaged in any conduct that would have violated either Russian or U.S. law."', 'Kalanick resigned in 2017 after a series of company scandals but stayed on the board of directors until the end of 2019.', 'Company executives' efforts to win favor with LetterOne led to a February 2016 announcement that the oligarch-owned investment firm had bought a \$200 million stake in Uber as part of a "strategic partnership."', 'Part of that deal was kept private: Uber had offered the investment firm \$50 million in stock warrants, representing the right to purchase Uber stock at a set price. According to an email from Uber's public policy executive MacGann, the offer was made to encourage the firm to help Uber politically in Russia and to underwrite "the day-to-day heavy lifting that they would undertake on our behalf in the Duma and with the presidential administration."', 'Documents show that LetterOne executives were helpful in connecting Uber with other influential Russians. For example, they connected Uber with Alfa Bank's deputy chairman, Vladimir Senin, who, according to an Uber memo, managed to slip key pro-Uber provisions into a federal taxi bill. The bill didn't become law, however.', 'According to the Uber Files, Uber signed a deal with Senin, now a member of the Duma, to help Uber on

both the legislative and regulatory fronts. Uber consultant, Benjamin Wegg-Prosser, is quoted in one document saying Senin "had been paid properly for his support." In response to questions, Hazelbaker confirmed that Uber paid at least \$300,000 for Senin's "government relations work.", 'Uber's then head of business in Europe, the Middle East and Africa Fraser Robinson told colleagues that Uber's lawyers were concerned that hiring Senin on top of providing LetterOne with stock warrants could breach the US law against bribing foreign officials. The lawyers warned that payments could be seen as bribes to "grease the skids," Robinson said.', 'Robinson did not comment on any potential US anti-corruption violations. Hazelbaker said Uber would not do business with Senin today.', 'In response to ICIJ's questions, MacGann said he did not support payments to Senin. "I had concerns about LetterOne's insistence that we pay large sums of money to one of Alfa Bank's top executives," he said.', 'LetterOne, in a written statement, said that neither the firm nor its co-founders ever lobbied for Uber and that Senin's role was "entirely at the discretion of and the responsibility of Uber."', 'Aven said he had nothing to do with any Uber stock warrant deal or lobbying. "I stay absolutely out of politics," he said in a telephone call with ICIJ's partner ', 'Fridman, also in a phone call with ', ', said he "was not involved with the Uber investment or with any lobbying."', 'Uber denied paying stock warrants in exchange for a lobbyist delivering favorable rules or laws. "The warrants vested based on Uber's relative growth in Russia, as measured by the number of trips happening in the country," Hazelbaker said.', 'The "Taming the Bear" memo noted that Uber had the "personal support" of Fridman, Aven and Gref. "With their support we have, in theory, a direct line into the Kremlin," the memo said. "The personal involvement of Mikhail Fridman and Pyotr Aven (L1) and Herman Gref (Sberbank), all of whom are very close to Vladimir Putin, means that (in principle) we have access to top-level political guidance and support."', 'An email from Uber's MacGann says that LetterOne principals also agreed to help in Belarus, a former Soviet satellite that remains under heavy Kremlin influence. As authorities in Belarus' capital were revoking Uber drivers' licenses and demanding driver tax data, LetterOne co-owner Aven planned to step in and "push these points to the Deputy Prime Minister in Minsk," the email from MacGann said.', 'In a phone call with', ', Aven denied intervening in Belarus.', 'The LetterOne relationship was arranged partly by Lord Peter Mandelson, a former UK government minister, and Wegg-Prosser, former communications director to Prime Minister Tony Blair, the Uber Files show. Their strategic advisory firm, Global Counsel, provided intel on Russian influencers with "close links and loyalty to Kremlin." Wegg-Prosser was in direct contact with LetterOne's Petr Aven, asking if he could set up a meeting between Uber and Putin's chief of staff. In 2016, Global Counsel had an \$87,000-a-month contract with Uber, leaked emails show. During the first few months of that year, a fourth of its compensation would pay for its work on Russia.', 'In response to questions from ICIJ partner ', ', a spokesman for Global Counsel said Uber appointed the firm to "provide advice regarding the company's international strategy," and that all Global Counsel's advice followed relevant European Union and UK guidelines.', 'The Uber Files also show Uber offered stock warrants to USM, the holding company co-owned by the Uzbek-born oligarch Usmanov. The value of those warrants was \$2 million, a USM spokesman

said.', 'He said there were no political overtones to the deal and that it's "absurd to suggest that the holding or its shareholders could act as 'political lobbyists' for Uber.'"', '"Mr Usmanov never met with any of Uber's representatives," he said.', 'Despite its efforts, Uber's Russia venture didn't work out.', 'In 2017, Uber agreed to merge its Russia business with the Russian internet company Yandex, which operates a ride-hailing service, into a \$3.7 billion joint venture controlled by Yandex. Since then, Uber has sold more of its stake.', 'After this year's ', ', Uber announced plans to cut its financial ties with Russia entirely.']]

2022-07-25 15:31:26 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/international/2022-07-12/a-better-way-to-understand-the-us-mexico-relationship.html> (referer: https://english.elpais.com/)

2022-07-25 15:31:26 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/international/2022-07-12/a-better-way-to-understand-the-us-mexico-relationship.html>

{'url': 'https://english.elpais.com/international/2022-07-12/a-better-way-to-understand-the-us-mexico-relationship.html', 'date': '12 Jul 2022', 'title': 'A better way to understand the US-Mexico relationship', 'author': 'Viri Ríos', 'text\_art': ['American political rhetoric depicting Mexico as an adversary is most commonly associated with ', '. In reality, it has been a bipartisan political sport long preceding Trump that still guides how leaders in both parties often frame the US-Mexico relationship. While Trump's outright villainization of Mexico is no longer a daily news topic, a recent article in ', ' alarmingly suggested that many Biden administration insiders believe that a more adversarial relationship with Mexico would better advance US interests. The article quotes a number of anonymous Biden officials who argue the ', ', should establish a less collaborative and more distant relationship with Mexican authorities in order to deliver unspecified "policy wins" to the Biden administration.', 'This zero-sum framework for understanding the US-Mexico relationship is wrong and dangerous. It cartoonishly depicts Mexico and the United States as enemies battling in a game where one country's policy win is the other's defeat.', 'In reality, Mexico and the United States are close partners with deeply integrated economies. They cannot solve their problems through confrontation. The only viable tool to deliver wins to Biden is collaboration because the interests of both countries are intertwined.', 'That's why, despite incendiary beltway talk, every recent American attempt to disrupt the US-Mexico relationship has failed.', 'For example, Trump's supposed goal to reduce trade between with Mexico and implement strict tariffs on Mexican goods -while arguably a strategic campaign strategy- completely disintegrated when it came down to real negotiations. Obligated to deliver something on his campaign rhetoric, Trump insisted on a NAFTA renegotiation, which turned out to be a mere rebranding of the trade agreement. The newly minted USMCA retained nearly all of NAFTA's open market commitments. And in fact, since USMCA took effect in 2020, trade between the two countries has not changed. Mexico is today, as it was with NAFTA, the second top-trade partner of the US.', 'In case after case, American combative gestures turn out to be too impractical to implement at the moment of truth. Take the infamous border wall. Trump's preposterous proposal was a toxic escalation of an already hostile American immigration policy that has for

decades needlessly channeled immigrants that the American economy depends on towards black-market entry ', '. The "big and beautiful" wall was central to Trump's political rise, and only a small piece of it was ever built because a full budget was never approved.', 'Turns out that US border cities are much less concerned with impeding transit than with making it more efficient. That is why Tijuana-San Diego now has a binational airport and 350 million people are allowed to cross the US-Mexico border each year, almost triple the entire population of Mexico.', 'Americans should view the US-Mexico relationship less as in need of new "policy wins" and more so as a relationship that is already extremely advantageous to US interests. Mexico has become the ', ' enforcer of US immigration policy, hosting 70.000 migrants seeking US asylum in its territory and using its own national guard to stop Central American migrants from entering Mexico. In 2021, Mexico arrested a record number of undocumented migrants on their way to US territory.', 'Mexico's generosity with the US immigration agenda is staggering and is done at the expense of severe domestic criticism ', '. The Mexican federal government has committed a donation of \$100 million to Central America to stop undocumented immigration, a significant amount given Mexico's scrawny federal budget.', 'Under López Obrador, Mexico has supported American organized labor by committing resources and political capital to implement a historic labor reform and increasing the minimum wage by more than 50% in four years. In fact, one of the first actions of the López Obrador government upon coming to power was to double the salary of workers in border municipalities.', 'Of course, many problems between the two nations remain unresolved. But their solutions require more cooperation, not less. For example, reducing violence in Mexico and drug trafficking to the United States depends upon the joint implementation of the Bicentennial Framework. Managing the growing migratory flow of Mexicans to the United States will necessitate a long-overdue temporary work visa program. ', ' requires improving the efficiency of the production chains of both countries.', 'It is also important to understand that pundits and foreign correspondents covering Mexico tend to cite as their main source representatives of local think tanks that are funded and created by zealot supporters of opposition parties. For these think tanks and their oligarch financiers, portraying a bilateral relationship that confronts López Obrador is a political strategy to win future elections.', 'The very fact that the ambassador, Ken Salazar, is willing to question the bias of these organizations, is actually refreshing and an uncommon position for a US official to take, and speaks to his clear understanding of Mexico's political landscape.', 'The only beneficiaries of Ken Salazar confronting López Obrador are the opposition political parties in both countries-the Republicans who want Biden to look weak, and the PAN/PRI who want Obrador to be seen as an enemy of the United States.', 'López Obrador is a deeply flawed leader. He has failed to address Mexico's longstanding crisis. But those who promote a confrontational approach to US-Mexico relations do not have the interests of either country at heart.']]

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you are a person with a lot of power? "I feel like I have a big responsibility.  
That's an honor and a privilege, but at the same time I feel like I owe people  
something. Before being chairman and CEO of JPMorgan Chase, I am a patriot and I  
want my country, the United States, to do well. I spend a lot of time thinking  
about how I can help the Western world."', 'Jamie Dimon, 66, is a legend in the  
world of finance. He runs the biggest bank in the world (not counting the opaque  
Chinese firms), a giant with total assets of \$3.74 trillion at the end of last  
year, \$1 trillion in loans and \$2.46 trillion in deposits. This privileged  
position makes his words reverberate with a special echo in all the centers of  
power. In early June he changed his economic forecast at a conference and the  
markets began to shake: Dimon's weather report went from "cloudy" to warnings  
about ', 'What makes you so pessimistic about the economic future?', 'In my  
country the situation is relatively good. The job market is very strong and  
consumers have money to spend. When I said there were dark clouds on the  
horizon, I think people underestimated my warning. They thought that these  
economic problems were temporary, and this is not the case. Things can get much  
worse. We are ', ' such as high inflation, particularly in energy and food  
prices, and increases in interest rates.', 'Do you think the US could enter a  
recession before the end of the year?', 'I don't like to make predictions, but  
yes, it's a possibility. We don't know yet how much interest rates will go up.',  
'Will inflation remain at current levels much longer?', 'I think we are nearing  
the top and then prices could start to drop. But again I insist that it is  
difficult to make forecasts. In recent years we've had the largest monetary and  
fiscal stimuli injections the world has seen in its entire history. It is  
complex to guess the short-term consequences of these policies. What does seem  
to be clearer is that inflation is not transitory. Wages are going up, house  
prices too...', 'Do you think central banks have contributed to runaway  
inflation?', 'Yes, but not on purpose. I have always thought that zero interest  
rate policy was a bad idea. It has many detrimental effects. On the other hand,  
the purchase of public debt has clear inflationary effects, much more than a  
simple program of quantitative easing', ' In the United States, the scope of the  
monetary policies of the Federal Reserve in just two years equals 30% of GDP.  
That is unprecedented. There is a lot of money in the hands of families and  
governments still unspent.', 'Will the Fed and the European Central Bank (ECB)  
be able to land the plane?', 'I hope so, but it's getting harder and harder. I  
recognize that in these two years they have done a great job. When the pandemic  
hit, no one thought the economy would bounce back so quickly. However, I think  
they have gone too far. Obviously, in hindsight, everything is easier to  
analyze, but there was ', '.', 'And what about governments? How can they

stimulate growth without causing inflation?', 'Reducing regulations that hinder good growth. Think, for example, of infrastructure. Sometimes permits take too long. In the US, for example, the government should allow more immigration. That would cool down the rise in wages a bit. Things can also be done in terms of energy. The US should be more ambitious in its oil and gas production, particularly ', ' of energy insecurity.', 'The JPMorgan headquarters on Madrid's Paseo de la Castellana was adorned with Spanish and American flags made with flowers on the day that Dimon visited, a little over a week ago. Inside the building where some of the country's biggest business transactions are conceived, the atmosphere was one reserved for great occasions. Dimon received EL PAÍS in the first interview to a Spanish media outlet in the 16 years he has been at the helm of JP Morgan Chase. Like other business leaders such as Larry Fink, chairman of BlackRock, Dimon is more comfortable talking about the big issues affecting the world than balance sheets and income statements.', 'Risk premiums in southern Europe have risen again. Do you fear that the end of monetary stimulus will cause a new debt crisis in the euro zone?', 'I don't have an answer to that question. It's possible, but I hope it doesn't happen. I think we have all learned lessons from what happened then. However, I insist that we have never experienced such an injection of liquidity and, therefore, we are not capable of measuring its consequences. I understand that central banks want to fight inflation, reducing growth a bit, but not throwing the world into a recession. Unlike the previous crisis, if we now had a recession, governments are much more indebted, and that is a risk, but households and businesses are in a better position now than in 2008.', 'Do you think that the North-South debate on fiscal and monetary policies can resurface in Europe?', 'That debate is over.', 'Has the Russian invasion of Ukraine precipitated ', '?', 'War is an opportunity to unite the Western world. We must defend democracy, fight for freedom and free trade. The world changed on February 24, when 3,000 Russian tanks invaded a European country. Such a blow shatters the illusion that all is good and peaceful. The war also puts the spotlight not just on global security, but on energy and food security. I am glad to see Western countries working together to meet these challenges.', 'Will the energy crisis slow down the transition to renewable sources? Are you in favor of giving more importance to security of supply than to other environmental issues?', 'The war has changed many things, but even without this distorting factor we must be more rational when thinking about this energy transition. There is no alternative to betting on renewable sources. There were many people who thought that ', ' and nuclear power plants would solve the problem. However, the world still consumes 100 million barrels of oil per day and a huge amount of gas. The climate threat is real, it is there, and we have to work to combat it. But we need more rational energy policies. The best transition is to replace coal with gas. But now we are seeing how many countries are turning to coal because they cannot afford the high prices of hydrocarbons. It's happening in Germany, in the Netherlands, in India and in China.', 'Speaking of China, Beijing's growth model has more and more cracks, now aggravated by its zero-covid policy. How do you see the economy of the Asian giant?', 'China can do one thing the rest of us can't: run a country's economy with a group of people sitting around a table. That gives them a lot of control, but it is true that they will have to lower their growth



forecasts. When an economy grows as the Chinese economy has done and becomes more sophisticated, that style of roundtable management stops working. They are going to need a better distribution of capital for the country to continue growing. But that kind of change takes time.', 'Do you think the Biden Administration is doing things right?', 'I totally disagree with the ', ' and the way it was carried out. However, I like that his style is civilized and that from the beginning he sought the complicity of his allies. In addition, his relationship with the business world is particularly good.', " Better than Trump's?", " It's hard to make comparisons.", '. Was Brexit a mistake?', ' The British people voted and their decision must be respected. Now, will ', '? Absolutely. Some of these effects, which for a time were masked by Covid, are beginning to emerge. Many things will have to be done to cover up the damage that leaving the EU will cause. For Europe it is always better to have the UK on their side.', 'Dimon spent his childhood in Queens, New York. His grandfather was a Greek immigrant who came to the United States without a penny to his name, as he recalled during his speech on the ', ' podcast. Panos Papademetriou changed his name to Panos Dimon and, after trying his hand at various trades, made a career as a broker at Shearson, Hammill & Co., where the father of the current JPMorgan chairman also worked.', 'After graduating in psychology and economics from Tufts University and getting an MBA at Harvard, Dimon continued the family's connection to the financial world. His professional godfather was the legendary banker Sandy Weill. Dimon went with him to Baltimore to work at Commercial Credit. This entity, which eventually became Travelers, merged in 1998 with Citicorp in a \$70 billion mega-operation dollars that produced Citigroup. He was at the top, but his mentor fired him at the end of the same year, ending a 15-year professional relationship. Weill confessed to ', ' that Dimon was aiming for the CEO job, but he wasn't ready to retire just yet.', 'After a hiatus, Dimon became Bank One's chief executive in 2000, a role he held until its merger with JPMorgan in 2004. He spent a year as chief operating officer of the resulting entity and on January 1, 2006 was appointed CEO of JPMorgan.', 'Three years later, the financial crisis caused by subprime loans broke out. Dimon, after reluctantly accepting state aid because he argued he could function without a ventilator, took advantage of the Great Recession to push JPMorgan, then the nation's third-largest bank, into the top spot. The Federal Reserve needed the solvent firms to take over the weaker ones, and Dimon jumped at the chance. Bear Stearns and Washington Mutual passed into his domains. They were risky operations because no one knew at the time what was on the banks' balance sheets, but they were bought at knockdown prices. Dimon is the only survivor of the generation of managers who headed the big Wall Street banks when the financial crisis hit.', 'Do you see any similarities between the crisis the economy is now facing and the situation experienced after the bankruptcy of Lehman Brothers?', 'The situations are completely different. In the financial crisis, the world was massively over-indebted. Not only the banks were leveraged, but also the venture capital funds, the hedge funds... In addition, there were many vehicles off the banks' balance sheets, mortgages had grown dramatically regardless of the situation of who signed them... Now, on the other hand, the situation is much better. Households have paid off most of their debts and are in generally good financial health. The problem of leverage is, on

the other hand, being felt by states.', 'How's JPMorgan doing?', 'Very strong. In fact, we have always been strong. We are one of the most stable banks you will find. We have an extraordinarily strong balance sheet, which allows us to help our clients all over the world.', 'Are the major banks, including JPMorgan, too big to fail in a crisis?', 'Regulators around the world have learned that no one is too big to fail. People should also know that the bankruptcy of a bank ends up being paid by the rest of the banks. One lesson that has remained is that a case like Lehman's cannot happen again. At this time, Lehman would have been much better capitalized and, in any case, its fall would be much more orderly, not like what happened back then, when the money fled and the system was about to collapse. In addition, with the pandemic it has also become clear that there are many companies, not just banks, that under certain extreme circumstances need public help to survive.', 'What do you think about ', '? Are they rivals or allies?', 'Both. Twenty years ago you had to compete with rival banks wherever you opened business. Now, in addition to those banks, you have to fight with the shadow banks, the ', ' and even the technological giants. We are partners with some of them, but we compete against all of them. There is going to be a very tough battle and not everyone will survive it. A lot of people will suffer as the match heats up. JPMorgan will do well, but not everyone will do as well.', 'Throughout his tenure, Dimon has turned JPMorgan into a money-making machine. And he has also achieved this by diversifying the business. With a presence in 60 countries and more than 240,000 employees, its main activity in terms of revenue continues to be investment banking (mergers, acquisitions, IPOs...), but it also does corporate and retail commercial banking (in the US) , it is a powerful asset manager and last year it launched its digital bank in Europe.', 'In the last 16 years, the bank's shares have increased in value by 265% and its capitalization now amounts to \$323.7 billion. In 2021 the lender made \$121,6 billion, including a net profit of \$48,3 billion. Such a history of services has had its corresponding compensation. Last year alone, Dimon earned \$34.5 million (most of it in bank stock) and ', ' magazine estimates his personal fortune at \$1.5 billion.', 'One of the consequences of the pandemic has been the ', ' in the world. Are you worried?', ' Yes. It's not good ', '. There are many things that could be done to correct this situation. In the US, for example, the minimum wage should be raised, something that has barely been done in 20 years. In addition, schools should give children skills for success at the workplace and higher earnings. Education, a good health system and good infrastructure are key to combating inequality.', 'The stock markets have sustained serious losses in recent months. Have they hit the bottom?', 'I don't know, they could drop even more.', 'Were some valuations unhealthy, especially in the tech sector?', 'Yes, but not in all cases. Obviously, there were some stocks that were complete bubbles.', 'Because of the free money?', 'Yes, because of zero rates and also because of simple speculation. Throughout my life I have always seen speculation. It is in human nature. I have not visited a country where there is no speculation. In car races, in sports betting, in the casino... and on the stock market. However, in recent years that speculation has reached levels that are too high. People need to be more careful and think twice. Many people enter the market without really knowing what they are buying.', 'Speaking of speculation, you have always been ', '. Why?', 'Well, I think skeptical is

too soft a definition. I would never invest in crypto. In this matter, it is necessary to separate the technology, the blockchain, from cryptocurrencies as a pure investment asset. We are one of the largest users of blockchain in the world because it allows us to process millions of data in real time. However, I have never understood the value of cryptocurrencies as investment assets. They have become fashionable, but deep down I think they hide a system that could be very similar to Ponzi schemes. That does not mean that I do not defend the right of people to invest in them. I also don't think people should smoke, but I defend their right to do so.', 'Dimon, married and a father of three, has had several professional and health scares. Among the first, the most serious incident took place in 2012, when all internal controls failed and one of the bank's traders', 'caused the bank losses of more than \$5 billion due to very high-risk operations with derivatives. That case became known as the "London whale" and Dimon had to apologize publicly. As for his health, in 2014 he informed his employees and the market that he had been diagnosed ', '. "I feel good and I will inform you if my health status changes," he explained in a letter. After overcoming the cancer, in 2020 he had to undergo emergency surgery for a serious heart problem.', 'Have you thought about retiring?', 'I love my job, I love what I do. I think I'll be around for a while longer. Obviously, in the end it is the board that has the last word. I am just another employee and if the board wants to replace me tomorrow... In any case, we have built a great team and have a solid succession plan.', 'Have your health problems made you change in any way?', 'From a professional point of view, nothing has changed. There are people who think that when something like this happens to you, you will stop and dedicate yourself to smelling the flowers. But I like what I do, I like to help people from my position. Obviously, I continue to enjoy my family and hobbies such as music, art and history. What is certain is that when you overcome an illness, you are more aware that you are mortal.']]

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products should not be promoted "even in moderation" while pointing out that the discourse diminishing the perception of the risks of processed products is put out there to increase sales.', 'The apocalypse was near, but not inevitable. On social media, Ríos promised to open our eyes, offering himself as a guide to help distinguish real food from processed products and encouraging us to participate in his crusade by joining the ', ' army made up of people who eat, well, "real food." This army would be going into battle against ', ' - the ', ' as he called those who continued to consume processed fare, as well as the big guns of the processed food industry who had created an illusion like that generated by the robots that enslave humanity in the 1999 cult movie ', '. This rhetoric helped him sell tens of thousands of books adorned with vegetables, not to mention an app with a bell pepper logo on it and more than a million downloads, and 1.5 million followers on Instagram.', 'Ríos' radical discourse against the evil processed food industry paid off, and his movement mutated into a brand. The Realfooding label now covers processed products such as croissants, chocolate spread and ice cream. All these products, Ríos acknowledges, "should not replace real fresh food," but, he says, his versions are less harmful than those already on the market. "What's wrong with their existence?" he said when questioned by EL PAÍS.', 'In his transition from staunch processed food critic to business partner, Ríos has demonstrated a firm grasp of the changing significance of food, ', '; a sound handling of social media, and great marketing skills. "We used to talk about food in terms of shortages, but now it has been integrated into our perception of wellness," says Cecilia Díaz Méndez, a professor of sociology at Oviedo University in northern Spain who specializes in food. "Taking care of oneself through what we eat and physical exercise is a social value and a status symbol. Revolving around something young people deem important, the realfooder movement fosters a common identity for a generation with multiple identities looking for elements that allow it to position itself socially. Ríos' way of communicating is very community-oriented, pitting the good guys against the bad, realfooders versus fakefooders, which reinforces identity. It has an underlying vision with the message that we live in a deceitful society due to hidden forces, and young people identify with the idea that life may not have the value it should."', 'Díaz believes the message also resonates with a younger demographic because "they are the generation that has begun to lose a very solid food culture - ', ' - which generated identity. Now, in the absence of that, they identify with messages like those offered by Ríos. The food problem is complex, it's hard to understand, and Ríos is a good preacher; he gives you simple solutions to help clear up doubts when it comes to buying, winning him many followers."', 'Íñigo Marauri, a researcher at the Basque Country University who has published a study analyzing Ríos' communication strategies, says that the creator of realfooding "had a marketing objective from the start - to make a name for himself. He had a clear vision that the message is important, but how you convey that message is possibly even more so."', 'Marauri agrees that the Manichean story of good and evil has been very effective, being a tale in which "there are good guys and bad guys and no grey areas, and in which the feeling of belonging to a community is created - the community of good."', 'To achieve this goal, social media were fundamental, but Instagram had a special relevance. "On Instagram, information can be

effectively and clearly transmitted visually so that not a lot of time or attention is demanded from followers," Marauri explains. "It plays with simple infographics and colors to help us quickly identify the good side and the bad side. Ríos chooses Instagram because it is a platform that does not allow for debate. Its hallmark is a great unidirectionality disguised as bidirectionality. It seems to allow for a lot of dialogue, but that dialogue does not exist. Ríos left Twitter when he had 90,000 followers because it allows for discussion and, when certain contradictions began to appear in his messages, he started receiving very negative responses."', 'With followers came power and business opportunities. And, as with many revolutionaries, the movement's transformation into a brand came with a shift from purism to pragmatism. "I'm doing something that few others are doing," Ríos pointed out. "Thanks to the support of my community, we can bring out products that can work, because products in this food system stay if they are tasty and profitable, and we also make them as healthy as possible: croissants with 100% whole wheat flour, ice cream with fewer calories and pizzas with wholesome ingredients." In the long term, he suggests his strategy is to "take on the food industry titans and create a supermarket selling only healthy food." To boost a healthy food industry, products can be added to the supermarket shelf that, by Ríos' own admission, would be better consumed only very occasionally.', 'Juan Revenga is one of the many nutritionists outraged by the shift in Ríos' s rhetoric. "Carlos Ríos has gone on a rant about certain multinationals such as Danone, with which he now collaborates," he says. "Danone's natural yogurt is very good, but the brand has custard and sugary milkshakes and its advertising is very questionable and always threatening to cross the red line." Danone's liquid yogurt with the Realfooding label, which is very similar in nutritional terms to the multinational's traditional natural yogurts, carries a higher price tag: almost two euros more per kilo.', '"All of us nutritionists make a living selling broccoli, mandarins and turbot, but Ríos could see that this niche was already occupied and offered little by way of economic return, so he moved on to something else," says Revenga. "A croissant is a croissant and a soft drink, a soft drink; they will never be good and they do not have a place in healthy eating programs, just as cookies and ice cream don't. If you want a croissant, pick the one you like the most, not the one with a label that misleads you. The less you eat of it, the better, but when you do enjoy it, don't feel guilty about it."', 'Revenga has put Ríos' products to the test. After analyzing the products with the Realfooding seal in supermarkets, he concludes that most of them fall short. In a detailed blog post, he explains how according to the NOVA system, a tool with broad scientific consensus to measure processed foods, almost 60% of Realfooding products would be classed as ultra-processed, according to the World Health Organization's criteria, while 73.7% could not be advertised to children because of their poor nutritional content. Ríos' brand comes out very well, however, on his own MyRealfood app. He admits his products are processed but he says they are good processed products.', 'Among the experts who are more forgiving of Ríos is Ana María Ruiz, from Barcelona's Hospital Clinic, who recognizes his brand's efforts to launch products such as "a cola soft drink, chocolate spread, cookies, croissants and ice cream with better quality ingredients and nutritional content, something that should be

appreciated." However, she also points out that "these are still foods that have no place in a healthy diet.", 'Julia Díez, a professor at Alcalá de Henares University in central Spain, is rather more critical. She believes that, "beyond clear conflicts of interest and ethics, Ríos' movement could become a public health issue" because the processed Realfooding products "promote something as being healthy that is obviously unhealthy." In her opinion, gurus like Ríos "tend to make the individual responsible, and when you set such strict rules, people can end up blaming themselves for going out to dinner with friends. The changes have to be in society as a whole. The gurus are not discovering anything new; people don't eat badly because they don't know how to eat well, but because of the attractiveness of those foods or on account of their price. Watermelon is more expensive than chicken nuggets.", 'Díez goes on to explain that, traditionally, the world of diets and nutrition fails to take into account the social aspect of food, although there are many nutritionists who are changing the discourse. "In the long term, interventions at the individual level don't stick, and if you don't change the context in which people live, they're not going to," she says.', 'Ríos agrees that to improve the nutrition of society as a whole, "it would be much more effective if there were public health policies such as taxes on ultra-processed foods and sugary drinks and subsidies for fruits and vegetables."', 'Meanwhile, he believes there is an element of envy behind the attacks against him. "When you grow, your success does not go down well with fellow professionals, who have often been friends. The realfooding message hasn't changed," he says.', 'Ríos goes on to talk about getting people out of the Matrix, but, according to this analogy, he seems to have given a tool to the evil food industry to help them disguise their fake world as reality. In the film, a member of the resistance called Cypher who is tired of the hardships of the real world, betrays his friends in exchange for being reconnected to the fake world filled with pleasurable experiences. In a meeting with bad guy Agent Smith, he enjoys a steak that exists only in his head. "You know, I know this steak isn't real: I know when I put it in my mouth the Matrix is telling my brain that it's juicy and delicious. After nine years, you know what I realize? Ignorance is bliss."', 'Ríos' supposedly "healthy" processed foods may become a way of returning to the delights of the Matrix for many of the rescued fakefooders: tasting the forbidden foods while maintaining the illusion that they are eating healthy.']]

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'author': 'Carlos Megía', 'text\_art': ['It doesn't matter that almost 10 years have passed since the height of Eva Green's popularity. On July 6, Twitter users made her name a Trending Topic for the entire day. It was a fitting tribute to celebrate her birthday and an unmistakable sign that the', ' ' and ', 'star has left her mark on an entire generation of viewers who grew up longing for the Parisian gothic beauty, with her black-lined blue eyes, pale skin, and jet-black hair. A Bond girl and Tim Burton's muse, at 42 Eva Green is still a dame to kill for and the last great example of the quintessential cinematic femme fatale. The introverted performer dislikes exposure and the glamour of ', 'and photocalls. Just when she was poised to become the next big global star, Green decided to step away from Hollywood. "I still feel like an ugly duckling in this world," she confesses. Even after more than three years without appearing on the big screen, Eva Green's legend is still as strong as ever.', '"I don't know, maybe it's my dog hair, maybe it's because I don't talk much," ', ' when asked about her image as a mysterious and inaccessible figure. Regardless of the reasons, few actresses today have been able to afford the luxury of leading the casts of blockbuster productions while also keeping such a low profile and preventing the media from reporting about the ups and downs of her love life, for example. We know little about her day-to-day life beyond the fact that she lives in London, works in Paris and uses her ', ' account (which has more than a million followers) to post old film photos and to show her support for activist causes, such as Ukrainian resistance to the Russian army's invasion. In one of her latest interviews, the artist acknowledges that her age already bothers some Hollywood casting directors, highlighting the longstanding ageism that continues to plague Tinseltown. "Not one woman wants to age. I've heard already that I'm too old for some roles, so I don't want to be a liar, going, 'Oh, it's so great.'", 'It was never Eva Green's plan to see her name engraved on the Hollywood Walk of Fame, and not even a two-decade career has made her yearn for fame and posterity. Green began acting for therapeutic-not vocational-purposes. Pathologically shy, her schoolteachers recommended that Green take drama classes to overcome the seclusion that prevented her from interacting with her classmates and nearly fainting whenever she had to speak out loud. "I am so shy, and, at the same time, I kind of expose myself literally to thousands of people. I don't really understand why I do that. I need to go through therapy!" noted the actress, who describes herself as a "masochist." Despite testing her limits with each new role, Green-the daughter of actress Marlène Jobert and a dental surgeon-acknowledges that she has missed out on many professional opportunities because of her aversion to Hollywood parties and "small talk.", 'But Green has always defended the advantages of playing roles on the big screen that are', ' to her own personality. She uses her profession as a form of therapy to deal with her shyness and anxiety. She considers herself to be a "quiet, almost boring" person, but she is committed to playing crazy witches, anti-heroine femmes fatales, and vengeful vampires. She says that good girl roles bore her, but in real life she has never been embroiled in a scandal. And, in contrast to her self-proclaimed reticence, she made her film debut in Bertolucci's cult-classic movie ', ' , appearing in a ménage à trois. Since then, she has acted in some of the most sexually charged scenes in Hollywood this century, in films such as ', 'and ', ' "I don't like to do nude scenes, they are very

uncomfortable, but people in the United States are completely fascinated by nudity (...) They think that because I am French I do it very easily," she told ' , ' . ' , 'Unlike Maria Schneider in ' , ' , Green has always defended Bertolucci's chivalry when filming intimate sequences. However, the French actress was victimized by producer Harvey Weinstein, the predator sentenced to 23 years in prison for rape and other sexual crimes. Green had to push Weinstein away to get rid of him when the two met for a business meeting in the French capital. "He behaved inappropriately. I got away without it going further, but the experience left me shocked and disgusted," she told ' , ' . ' , 'In 2006, her role as spy Vesper Lynd in ' , ' catapulted her to fame, and she won a Bafta breakout star award. But Green's performance was also key to revitalizing and modernizing the multi-million-dollar franchise after Daniel Craig took over as 007. In addition to the fact that her character's fatal destiny supported the plot of future films, Green sketched the first outlines of the next generation of Bond girls who-as Léa Seydoux and Ana de Armas later demonstrated-were no longer just hypersexualized damsels in distress but rather strong, thoughtful, and decisive characters as the film's dramatic events unfolded. "There is nothing worse for an actress than being an empty shell (...) What should I do? Stand there and be... pretty?" the Parisian ' , ' . ' , 'Next year could turn out to be a career renaissance for Eva Green. In addition to her role in the AppleTV+ series ' , ' , a bilingual Anglo-French thriller, the ' , ' will play an empowered Milady in an ambitious film remake of Alexandre Dumas's classic ' , ' . Co-starring Vincent Cassel and Louis Garrel, the project is one of the most expensive in French cinema's history; it has a budget of over 60 million euros (over 61,359,000 US dollars). The movie will premiere in theaters in two parts in 2023. It's guaranteed to be a success if Eva Green's devoted Twitter followers have anything to say about it.']]

2022-07-25 15:31:50 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/culture/2022-07-24/emilia-clarke-with-the-amount-of-my-brain-that-is-no-longer-usable-its-remarkable-that-i-am-able-to-speak.html> (referer: https://english.elpais.com/)

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always makes me laugh. Strokes, basically, as soon as any part of your brain doesn't get blood for a second it's gone. So the blood finds a different route to get around, but then whatever bit is missing is therefore gone."', 'In her 2019 essay, the entertainer revealed the stress she experienced after ', 'transformed her overnight from a complete unknown to one of the most famous faces on television. At first, she did not know how to manage her success: "I was terrified. Terrified of the attention, terrified of a business I barely understood, terrified of trying to make good on the faith that the creators of ', ' had put in me. I felt, in every way, exposed. In the very first episode, I appeared naked, and, from that first press junket onward, I always got the same question: some variation of 'You play such a strong woman, and yet you take off your clothes. Why?' In my head, I'd respond, "How many men do I need to kill to prove myself?" The situation was aggravated by her realization that she had become a role model for young girls, who would "dress in platinum wigs and flowing robes to be Daenerys Targaryen for Halloween."', 'During a session with a personal trainer, the actress began to feel pressure in her head. Minutes later, she passed out in the locker room. "A fog of unconsciousness settled over me. Because no one knew what was wrong with me, the doctors and nurses could not give me any drugs to ease the pain. Finally, I was sent for an MRI, a brain scan. The diagnosis was quick and ominous: a subarachnoid hemorrhage (SAH), a life-threatening type of stroke, caused by bleeding into the space surrounding the brain. I'd had an aneurysm, an arterial rupture," the actress wrote. She had to go into emergency surgery.', 'As Clarke confessed, the worst part was experiencing aphasia, a language disorder characterized by the inability to communicate through speech. "Nonsense words tumbled out of my mouth and I went into a blind panic. I'd never experienced fear like that-a sense of doom closing in. I could see my life ahead, and it wasn't worth living. I am an actor; I need to remember my lines. Now I couldn't recall my name."', 'Luckily, the doctors managed to diagnose the problem in time. The actress was able to recover before starting to shoot the second season of the successful HBO series. "It was like, 'I just had a little thing. It's fine. I'm fine,'" she laughed. "Six weeks after that I was back at work." she recalled on the CBS Sunday Morning program in 2019. "And yes, I really was much better. Six weeks later I was on set." Two years later, though, she had to have surgery for another aneurysm. The recovery process from the first operation was "difficult, but the second one was much harder," Clarke confessed. "I definitely went through a period of being down, putting it mildly. But then you go on set and you play a badass and you walk through fire, and that became the thing that just saved me from considering my own mortality."', 'Since then, Emilia Clarke has combined her acting career with her philanthropic work by founding a charity, SameYou. The organization provides treatment to people recovering from brain injuries in the United Kingdom and the United States.']]

2022-07-25 15:31:57 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/economy-and-business/2021-11-15/el-pais-offers-free-spanish-lessons-with-gymglish.html> (referer: https://english.elpais.com/)  
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by the journalist Martin Bashir. The shocking prime-time conversation in prime time revealed that the marriage between the British heir and his wife was absolutely broken -and that it involved third parties. Bashir achieved a media milestone that was never repeated, despite the fact that Diana continued to maintain a high media profile. The couple divorced within weeks.', 'At the end of 2020, though, it became known that the BBC had woven a dense web of lies to convince the princess to speak. The company apologized and even launched an investigation into the broadcast. Now, the outlet has issued a series of apologies, payments and public statements, attempting to mend the irreparable damage. In a brief online statement, the company asked for public pardons from Charles of England, the eldest son of Elizabeth II and heir to the crown, and his sons, William and Henry. It also announced that it will compensate the princes' then-nanny, Alexandra Pettifer (known as Tiggy Legge-Bourke) for the "serious personal consequences" of the interview, which suggested that she had had an affair with the prince. The amount of the payment was not specified.', 'Tim Davie, the BBC's Director-General, explained that the corporation has decided to pay Pettifer a substantial sum. He continued: "I would like to take this opportunity to apologize publicly to her, to the Prince of Wales, and to the Dukes of Cambridge and Sussex," he said, referring to Charles of England and his sons, William and Henry, "for the way in which Princess Diana was deceived and the subsequent impact on all their lives." "We deeply regret that the BBC did not get to the bottom of the facts immediately after the program aired, where there were visible warning signs that [the interview] had been inappropriately obtained. Instead, as the Duke of Cambridge himself said, the BBC failed to ask for more serious explanations. If we had done our job properly, Diana would have known the truth in life. But we let her down, the royal family down and our audience down," Davie said. The princess died in August 1997, less than two years after the broadcast of the program. She never discovered the truth about Bashir, who has since left the BBC.', 'The entity's general director -who made his career not in journalism but in marketing, working with corporations including Pepsi and Procter & Gamble- explained that, given the "shocking way" the interview was obtained, "the BBC will never show the programme again; nor will we license it in whole or part to other broadcasters."', '"It does of course remain part of the historical record and there may be occasions in the future when it will be justified for the BBC to use short extracts for journalistic purposes, but these will be few and far between and will need to be agreed at Executive Committee level and set in the full context of what we now know about the way the interview was obtained," he said, ending by urging others to "exercise similar restraint" with the content.', 'The BBC gave "unreserved apologies" to Alexandra Pettifer for the "very serious and unfounded accusations that the applicant was having an affair with the Prince of Wales." It acknowledged that those suspicions were likely raised as a result of ', 's', 'strategy to secure the interview with Diana. Pettifer's lawyer has said that she is "relieved" that the BBC accepts that the allegations are "completely false and baseless." At the end of June, the BBC had already compensated Mark Killick, a producer who worked with Bashir on ', ' and who warned that the journalist was using false documentation, specifically bank statements, to coerce the princess to appear on the program. The chain ignored

Killick's accusations, accusing him of "being jealous" of the star journalist. The company also paid an unspecified amount to Diana's former secretary, Patrick Jephson, for the damage caused. He donated it to charity, stating, "After more than 25 years it is a relief finally to reach a conclusion to this painful episode. I am grateful to Lord Dyson and the journalists whose tenacity has brought the truth to light.", 'Lord John Dyson is the former magistrate of the Supreme Court of the United Kingdom. He carried out an in-depth investigation into the circumstances behind the interview, concluding, in May 2021, that the public corporation "fell short of the high standards of integrity and transparency which are its hallmark" when obtaining it. In the report, broadcast in November 2020, Dyson noted that Bashir showed Lady Di's brother, Earl Spencer, false bank statements that suggested that two of the princess's bodyguards had been paid to spy on her. The journalist also alleged that Diana's mail had been opened and her phone tapped, and that the British secret service had recorded Prince Charles and Jephson planning "the end." The allegations fed the paranoia of Charles's then-wife, encouraging her to speak publicly.', 'When the conclusions of the report were revealed, the BBC already sent private letters of apology to Princes Charles, William and Henry. Now it has made those apologies public. William said publicly that that interview contributed to his mother's "fear, paranoia and isolation." His brother Henry said: "Our mother lost her life because of this, and nothing has changed. By protecting her legacy, we protect everyone, and uphold the dignity with which she lived her life. Let's remember who she was and what she stood for." William then demanded that the program not be broadcast again. Now the BBC has heeded his words, seeking to close the public and private wound.']]

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Poch', 'text_art': ['"You don't do anything around the house."', 'This is a
familiar reproach among couples. Whenever Dr. John Gottman hears someone utter
it, he throws up his hands.', 'Gottman, an American psychologist, has studied
romantic relationships for over 40 years. He has published nearly 200 papers and
dozens of books on what can ruin them. The main culprits - what he calls the
Four Horsemen of the Apocalypse - are destructive criticism, defensive
attitudes, contempt and evasiveness.', 'Repeating the phrase "you don't do
anything around the house" results in multiple negative feelings that undermine
good vibes at home. To speak in absolutist terms with an accusatory tone damages
the esteem of the person being scolded. Subsequently, this opens the doors to
defensive or evasive responses.', 'Expressions like these tend to gradually
erode a relationship. Now, while it is easy to fall into these routine attitudes
of coexistence, knowing how to identify them is the first step to changing these
behaviors and stopping the drift towards catastrophe.', 'All couples have
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discrepancies and it would be utopian (or perhaps dystopian?) for a couple to never argue. If there is no discussion, it's likely because conflicts are being avoided. That's a potential conflict in itself.', 'A 2015 Gottman Institute study found that couples who argue have a stronger relationship. The question is not so much about the fact that there is disagreement on some issues, but rather the ', ' in which couples disagree. In other words, arguing is not the same as fighting.', 'Nuances in communication are key to not ruining the day. If we change the "You do nothing around the house" remark to: "I wish you would remember to put the washing machine on. If you prefer, we can make a schedule to divide up the housework," it's possible that there can be a resolution instead of accusations and defensiveness. When an earnest complaint is delivered in a friendly tone, a partner's request is more likely to be taken seriously from the first time it is formulated, rather than when it's repeated harshly. Repetition and contempt lead to stagnation.', 'There are two keys to dealing with conflicts as a couple. The first is to understand that a couple is two people going in the same direction: a fight cannot be conceived as a confrontation of one against the other, but rather as both against a problem. The second is to use communication as a means to resolve something, not to win.', 'If a couple believes that the Four Horsemen are riding nearby and wants to ward them off, they can play a game. Each partner should get a red card and take it out the moment they detect one of the four negative behaviors appearing in the vicinity. In this way, accusations and reproaches can become something fun and a signal to change methods of communication.', 'Gottman adds another important fact to keep in mind: 69% of couples' problems have no solution. It is necessary to solve those that do have a remedy (putting the washing machine on is surely one of them) and learn to live with those that do not. A sense of humor can be a helpful resource!', 'Here are some basic rules for good communication as a couple:', 'Don't use the words ', 'or ', ' in a negative context', 'Remarks like "you always do that" or "you never listen to me" always lead to conflict. Things are not so black and white.', '· Speak in the first person about what's happening. Saying "I feel like this" is better than "', 'make me feel like this.'" The second phrasing can sound accusatory.', '· Let the other person finish speaking. It's important to suppress the urge to interrupt or talk over your partner. This can be tough if someone takes a long time to work out a thought, but patience is a virtue. You need to know when to bite your tongue.', '· If you don't understand something, you need to ask. And ask again if necessary.', 'Don't deduce what your partner wants or believes. It's common to start thinking that you know what's best for them - but it's possible that you could be wrong.']]

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'Isabel Ferrer', 'text\_art': ['painted with frenzy and on any material he could get his hands on. When he ran out of money to buy canvas, or while waiting for materials from his brother, Theo, to arrive, he painted on tablecloths and tea towels. He also made use of paintings he had already completed. And that is exactly where a previously unknown self-portrait of the artist has been discovered: on the back of his work ', '(1885)', 'The front of the canvas features an oil painting of a young woman, and the back is a self-portrait Van Gogh painted two years later. The image was covered under a thick layer of glue and cardboard, and was only discovered thanks to an X-ray examination by experts from the National Galleries of Scotland, which has had the painting in its collection since 1960.', 'The discovery occurred by chance, while the painting was being researched for an exhibition called ', 'which will now feature the X-ray images of the self-portrait alongside ', ' Once the exhibition ends, the museum's restorers will try to recover the self-portrait. Frances Fowle, a senior curator, told the British press that this process must be done carefully and slowly.', 'Louis van Tilborgh, a Van Gogh specialist in Amsterdam, has no doubts about the ', '. As a veteran researcher and specialist in the work of his compatriot, he points out on the phone that "it fits into a kind of series, because Van Gogh has at least eight paintings in which he painted himself on the reverse side of the canvas." According to Van Tilborgh, the artist prepared the canvases, "so that he could paint from behind, which gives them added value, artistic and emotional value of course. Paintings like this one, found in Scotland, belong to public collections, so it's not for me to talk about monetary value."', 'Experts at the National Galleries of Scotland estimate that the layers of glue and cardboard were put on the painting around 1905. At this time, the work was being prepared for an exhibition at the Stedelijk Museum, in Amsterdam, and the face of the peasant must have been considered more interesting - and complete - than the self-portrait, which appears unfinished. According to data provided by the National Galleries of Scotland, ', 'was acquired in 1923 by Evelyn Saint Croix Fleming, the mother of ', ', and came to the gallery in 1960.', 'The young model for Van Gogh's painting could have been Gordina de Groot, nicknamed Sien, who appears among the diners in the painting ', ', also from 1885. In 1887, the date attributed to hidden self-portrait, Van Gogh had come into contact with the work of impressionists such as Émile Bernard and Paul Gauguin. His style and use of color changed thereafter, and light flooded his work.', 'Van Gogh's devotion to art endowed his works with a particular intensity. A devotion that, together with his mental and health problems, eventually led him to the Saint-Rémy de Provence asylum, in southeastern France. He admitted himself into the mental health facility in 1889, after cutting off his ear in an episode of psychosis. Despite his mental health problems, Van Gogh painted many works while at the asylum. Just one year later, however, he moved to Auvers-sur-Oise, a town near Paris, where he is believed to have shot himself in the chest.']]

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2022-07-25 15:32:28 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/culture/2022-07-20/the-marvelous-soft-soul.html> (referer: https://english.elpais.com/)
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Chicago. But there was a bit of sweet soul everywhere, from Chicano California to Hispanic Harlem (shoutout to Joe Bataan!). The music became a Philadelphia specialty, largely thanks to the skills of Jamaican producer and arranger Thom Bell, later involved in the popular Philadelphia Sound.', 'Thom Bell's golden years began in 1967 with the Delfonics and grew further with the Stylistics and the Spinners during his time with Atlantic Records. In the seventies, he recorded the latter group with elite soloists such as Dionne Warwick and ', '. But the economics of vocal groups was unstable, especially if they did not manage to make headway in the market of white consumers, who -alas- did not consider them authentic enough. The Delfonics paid the bills with an exhausting live schedule, sometimes splitting the group into two trios who performed simultaneously in distant cities.', 'Even if you don't know of the Delfonics, you may have enjoyed later covers of their songs on later releases. Prince recorded their ', ' in 1996. Aretha Franklin sang ', ' in 1970, the same year as the Jackson 5 performed ', '. And their songs have been frequently sampled ', '.', 'The Delfonics' biggest boost came from director Quentin Tarantino and ', ', his homage to ', 'cinema. The protagonist, a stewardess played by Pam Grier, relaxes in her apartment in the company of Max Cherry, a former police officer played by Robert Foster. Jackie searches through her LPs and spins ', ', and Cherry admires her ability to lose herself in the music. Shortly after, the man buys a Delfonics cassette, which he leaves in the car's player. When gang boss Ordell Robie gets on board, the Delfonics start playing, and the bad guy (Samuel L. Jackson) is stunned. In the depths of his paranoia, this music makes him suspect that the white hillbilly and the black stewardess have been intimate.']]

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 'text_art': ['In the 1970s, two Roman inscriptions - dated from 245 to 253 AD - were discovered in Écija (known in ancient Roman times as Astigi), a city in Spain's southern province of Seville. The writings on the tablets suggest that the emperor at the time had exempted the Roman province of Baetica (roughly the equivalent of modern-day Andalusia, a region of southern Spain) from taxes. But the inscriptions failed to explain why, and the reason has remained a mystery for decades. In a new study published in ', ', a team of European and U.S. scientists and researchers say they have finally found an explanation. The article, ', ' (Seville, Spain), provides a surprising answer: A gigantic tsunami that began in the Bay of Cadiz crashed into land, causing numerous coastal settlements to be abandoned and engulfing everything its path, including the city of Seville, located 45 miles inland from the sea. The discovery was made following the excavation and study of a public building from the Roman era,
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destroyed during what researchers now believe was a massive tidal wave event. The building once stood in what is now the Patio de Banderas public square in Seville, adjacent to the ' , ' . ' , ' The report, authored by experts from universities in Spain, France, Germany, and the U.S. describes how, in 400 BC, the Atlantic Ocean had created a large lagoon, known in antiquity as Lacus Ligustinus, at the mouth of the Guadalquivir River. The lake was fed by three river corridors, one of which led directly to Hispalis. The river was large enough that medium-sized ships could use it to transport minerals, oil, wine, and other goods as far inland as Alcalá del Río, roughly 10 miles past Seville. It is estimated that the Port of Seville was quite large, even at that time, stretching over a kilometer in length and moving some 18,000 tons of merchandise per year. ' , ' Between 2009 and 2014, a team of ' , ' the Patio de Banderas site. "Impressive urban stratigraphy dated between the ninth century BC and the thirteenth century AD," the report reads. "From all these findings, a very well-preserved Roman public building [...] stands out. The building [was] constructed in ' , ' [a form of Roman brick masonry] during the Late Republic (60 to 30 BC)." It was organized around a central courtyard, with a gallery of columns at its southern end. Experts identified the site as a commercial and administrative space associated with the Hispalis river port. ' , ' Analyzing the ruins at the Patio de Banderas, the first team of archeologists to study the site concluded that the ancient building had been repaired several times under the Flavian Dynasty (late 1st century AD), but especially between the years 200 and 225 AD, when there was "widespread collapse of the architectural remains [and] most of the southern walls appear to have been displaced from their original position [by an external force], always in the same direction, toward the northwest." At the time, the archeologists ruled out a tsunami for two main reasons: because the site is 22 feet above sea level, and because the distance between Híspalis and the Lacus Ligustinus was almost 25 miles in Roman times (now it's more than 45 miles). In other words, for a tsunami to destroy the building, it would have had to be bigger than any on record - the mother of all tsunamis. ' , ' The authors of the new report ' , ' , José N. Pérez-Asensio, Francisco José Martín Peinado, Enrique García Vargas, ' , ' , Antonio Rodríguez Ramírez, Eduardo Mayoral Alfaro and ' , ' were not satisfied with the first team's findings. They believed that an opinion based on a visual analysis of the site "was not enough," so they undertook a multidisciplinary study that combined macro- and microscale methods and techniques. They used carbon-14 dating, micromorphology, mineralogy, geochemistry, micropaleontology, ultraviolet fluorescence microscopy, accelerator mass spectrometry, radiocarbon calibration, and ceramic and materials science, among other techniques, to re-examine the site and search for new answers. ' , ' The team of researchers began to analyze "a microlaminated deposit, alternating sandy and silty beds, and with abundant fresh-fragmented shell," as well as brick columns, several calcarenite ashlar, plaster and paint, a fluted column, fragmented marble from different Mediterranean quarries, an inscription, and a complete marble votive relief, typical of the Cult of Isis. What was especially striking about the site, the team discovered, was that "the materials [did] not belong to the building excavated at the Patio de Banderas, since it was constructed with different materials (mainly limestone and brick) and different techniques." Rather, these exogenous architectural

elements had been chemically transformed by a "highly energetic event," which transported them to the Patio de Banderas, where they were trapped inside the building due to flooding from the tsunami. The report calculates that the flooding occurred between the years 197 and 225.', 'Among the objects excavated at the site was an inscription reading "IIAVRHERACLAE / PATETFILFBAR AVR HERACLAE/ PAT ET FIL / F BAR." The artifact was originally fabricated in a ceramics workshop owned by Roman emperors Septimius Severus, Antonino Caracalla, and Geta, which once stood on the banks of the Guadalquivir River. The inscription references Aurelii Heraclae, the family of freedmen who managed the workshop between 197 and 207 AD - the same period from which the other artifacts found on the site date.', 'The study thus concludes that "the Patio de Banderas deposit was generated during an extreme wave event," and that the building acted as a trap for the artifacts transported inland by the tsunami. "With the data we actually have, and considering the distance at this point from the coast in Roman times [about 25 miles], and also taking into account the distance from this point to the coast in Roman times [about 40 kilometers], we affirm that the most probable origin of the deposit identified is the combined action of an energetic storm, which might have produced waves and currents in the Lacus Ligustinus energetic enough to transport estuary and marine fauna, together with extreme rainfall and flooding from the Guadalquivir River."', 'These new findings suggest an answer to ', ' posed by the inscriptions found in Écija that indicate Baetica's status as ', ' - a province exempt from taxes. As the authors of the Patio de Banderas study note, this status was most commonly granted in the aftermath of natural disasters. Like, for example, a tsunami.']]

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fascists. She was a dark-eyed Spaniard who worked as a secretary in Barcelona. When Franco's troops entered the city, she fled on foot with her sister across the Pyrenees mountain range, only to end up in a concentration camp in France.', 'The Saint-Cyprien camp had been set up to accommodate refugees from the Spanish Civil War, but was later utilized by the Nazis for ', 'and other prisoners. A strip of fenced-in land along the Mediterranean sea, there was no shelter for the refugees and no drinking water. Margarita and the other refugees struggled to survive on the sandy beach. Unbeknownst to Margarita, Rudolf arrived soon after at Saint-Cyprien as a prisoner. Before he was deported to Auschwitz in December 1941, Rudolf and Margarita found each other again and conceived their son, Édouard.', 'Édouard's son is now 48 years old, a tall redhead who works as an engineer in Marseille (France) and bears his grandfather's name. Rodolphe Friemel recently donated original family papers about the Auschwitz wedding to the Municipal and Provincial Archives of Vienna (Austria). They will be on ', '. Rodolphe speaks good Spanish, but he didn't learn it from his grandmother, Margarita. He was taught by her second husband, Paco Suárez, a Spanish Republican who survived the Nazi concentration camp in Mauthausen (Upper Austria). For years after his release from the camp, Suárez drank his coffee from a can because cups were a luxury.', '"I never talked with Marga about her wedding in Auschwitz because Paco couldn't stand it - he was jealous," said Rodolphe, as he stood next to the display cases of photos, letters, wedding cards from other privileged Auschwitz prisoners, and official documents from his grandparents' wedding. "My father finally started talking about it all toward the end of his life. It was traumatic for him, so he always refused to discuss it. One night I said to him, 'Dad, I can't stand the thought of you dying, and I need to talk to you about your childhood.' I think he thought he owed it to his son. He died a year later."', 'The exhibit catalog includes information from Erich Hackl, author of ', ', a detailed oral history pieced together by Hackl from interviews with eyewitnesses and survivors. In Krakow (Poland), Hackl met the wedding photographer - a Pole named Wilhelm Brasse who was sent to Auschwitz in August 1940 for refusing to enlist in the Nazi armed forces. "Brasse had photographed Dr. Mengele's experiments, terrible images such as the Siamese twins sewn together back-to-back. He took thousands of photos for the camp's identification service, a job that saved his life. He remembered the photos of the bride and groom as the only happy moment in Auschwitz," said Hackl. The wedding portraits are on display in the exhibition. "To my faithful and brave wife on her big day. Your Rudi. Auschwitz, 18-III-44," is written in Spanish on the back of one photo.', 'Rudolf Friemel had initiated a bureaucratic battle with German institutions long before the wedding to have Édouard officially recognized as his son. Friemel was not a Jew, but a political prisoner who became useful to the SS because of his mechanical expertise. As an Austrian, he was considered a German citizen and was allowed to send and receive mail, among other privileges. His letters with stamps bearing Hitler's face and the Auschwitz concentration camp postmark are on display in Vienna.', ' at Auschwitz-Birkenau slaughtered more than a million people with industrial efficiency. Only one wedding was held there in the five years that the camp operated. Some say that the wedding was a cynical gesture by the camp commandant, a tool like ', ', the Nazi propaganda film that showed happy and

healthy Jews resettled by the Germans in the enclave of Terezin (Czechia). "It [the wedding] coincided with the appointment of a new commandant named Liebehenschel who tried to tone down the horror. He was the one who allowed [the wedding]," said Hackl. "But there is no clear-cut explanation [for allowing the wedding]. Life and death decisions were arbitrary. As one survivor told me, 999 prisoners would be beaten to death while a thousand others were spared. There's no point in searching for the reasons behind every authorization, every emergency decree." The extermination continued under Liebehenschel's command, and the wedding took place one spring morning in Auschwitz while smoke from the red brick chimney covered the camp with the stench of burning flesh.', 'Friemel's fellow prisoners felt euphoric about the wedding, a fleeting return to former freedoms that emboldened them to devise an escape plan. When the plot was discovered, Friemel was hanged in the same shirt he wore at the wedding, barely a month before the camp was liberated by the Soviet army. As Friemel awaited the gallows, a sympathetic SS trooper helped him send a number of love letters to Marga that are on exhibit in Vienna.', 'The Friemel family's suffering at the hands of the Nazis didn't end with Rudolf's imprisonment and execution. Rodolphe's maternal grandfather was executed in Paris during the German occupation after the Gestapo discovered that he was printing instructional material for the French Resistance. "I also kept this material and took it to France's national archives," said Rodolphe Friemel, "but they didn't accept it. They don't have the resources and time to record it all. It's a pity."']}]

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company, which had lucrative contracts with the same government entity that he used to lead. In a mystifying transaction, Rappoport sold the US\$2 billion company to a partner of Abramovich for US\$216 million.', 'According to the Portuguese press, Rappoport became the first Russian oligarch to obtain Portuguese citizenship based on a certificate of ancestry he received from the Jewish Community of Porto, which has been implicated in a legal investigation into anomalies in numerous nationalization processes. The second Russian billionaire to obtain Portuguese citizenship was Roman Abramovich, who apparently jumped the queue ahead of the long line of applicants for access to the European Union. The former owner of England's Chelsea Football Club never got a British passport, but his new Portuguese passport issued on April 30, 2021 granted him all the privileges of EU citizenship - the ability to move freely around the EU and no visa requirements for entering 116 countries, according to 2021 ', ' data.', 'According to ', ', two other Russian oligarchs are in line for Portuguese passports - God Nisanov, who applied for citizenship on June 26, 2020, and Lev Leviev, who applied on November 6, 2020. Both obtained ancestry certificates from the Jewish Community of Porto, which endorsed almost 90% of the 137,087 applications submitted to Portugal's Ministry of Justice from 2015-2021. Both Nisanov and Leviev have strong ties with the Kremlin. Nisanov, who was decorated by President Vladimir Putin with the Order of Friendship in 2014, is a real estate developer with an immense fortune (US\$4.3 billion, according to ', '). He is also on the list of businessmen sanctioned by the US, and "a close associate of several Russian officials," according to US Secretary of State, Antony Blinken.', 'Leviev's wealth isn't lacking either. Known as the "King of Diamonds," he was a partner of Angolan Isabel dos Santos, the richest businesswoman in Africa and daughter of Angola's former president, José Eduardo dos Santos. Leviev is friends with Abramovich and Berel Lazar, Chief Rabbi of Russia, and is also close to Putin. The Judaic Community of Porto certified Leviev as a descendant of Iberian Sephardim in 2020, according to Portuguese weekly, ', '. His connections with the powerful dos Santos family helped him to take over numerous African mines and challenge the dominant De Beers company in the gem market.', 'The controversy over irregularities in granting citizenship under the Nationality Law for Sephardic ancestors of Portuguese origin is making it difficult for the Ministry of Justice to approve the applications by Leviev and Nisanov. The circumstances around Abramovich's Portuguese citizenship have been under investigation for months, and Portugal's Judicial Police recently executed new search warrants in lawyers' offices and private homes related to Operation Open Door, as the investigation into irregularities in processing passport applications is called.', 'The decree that allowed granting Portuguese nationality to descendants of Jews expelled from the country more than five centuries ago took effect on March 2, 2015, and was amended in 2020. The driving force behind the law was Socialist Party legislator Maria de Belém Roseira. She is the aunt of Francisco de Almeida Garrett, a lawyer and director of the Judaic Community of Porto, and one of those currently under investigation. After the Abramovich case and the trafficking in Portuguese passports came to light, the Portuguese government tightened the conditions for obtaining citizenship based on Sephardic ancestry, such as the requirement to demonstrate real and current ties with the country.']]

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US, where the Mexican state electricity utility, the Federal Electricity
Commission (CFE), has made new requests for evidence from two companies - JG
Energy and Arbor Glen - related to the case. Federal court documents in Texas,
obtained by EL PAÍS, reveal findings from a private investigator working on
behalf of the CFE in the case against Guillermo Turrent and Javier Gutiérrez,
ex-directors from the ', ' administration accused of awarding multimillion
dollar contracts to Whitewater Midstream in violation of the Mexican
constitution.', 'To date, the ', ' in hopes that federal courts will order the
companies in question to disclose information, including correspondence and
transactions, that will assist the criminal investigations open against Turrent
and Gutiérrez in Mexico. CFE expects that the information will confirm
suspicions that the ex-directors conducted a false bidding process, misled the
CFE Board of Directors to award costly and unnecessary contracts, and hid their
long-standing personal relationships with Whitewater executives. The value of
the contracts in question are estimated to be worth hundreds of millions of
dollars.', 'In Mexico, Turrent and Gutiérrez are facing open criminal processes
before the Special Anti-Corruption Prosecutor of the Attorney General's Office
(FGR). Gutiérrez is scheduled to appear in public hearings about the Whitewater
case on August 17 and findings by a private investigator in the US suggest that
he played a central role in the negotiations between the CFE and Whitewater.',
'Three months before becoming the deputy director of Modernization at the CFE in
2014, Gutiérrez founded a company in Houston called JG Energy Consulting,
according to documents filed in the US federal case open in Houston. The address
of the company is the same one as the home address of one of the Whitewater
founders, Matthew Calhoun. According to public registration documentation, the
address is the same one that Turrent and Gutiérrez used in 2012 to register a
company called Mexico Energy Advisors, which later closed.', '"CFE International
seeks to use the subpoenas requested in this application to investigate whether
JG Energy served as a conduit for improper payments to Gutiérrez," reads the
documentation the CFE subsidiary filed at the US federal court in Texas.
Evidence presented includes tax statements in the US made by Gutiérrez that
reveal JG Energy received more than $250,000 in income between 2015 and 2016,
while he worked at the Mexican state utility.', '"While Gutiérrez was working at
the CFE and negotiating the Waha Connector Agreements and the precursors to
those agreements, he received substantial income through JG Energy. This raises
the possibility that JG Energy may have played a role as a conduit for payments

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to Gutiérrez associated with the improper award of the Waha Connector Agreements to Whitewater Midstream," the court filing reads.', 'The Waha Connector pipeline was the first project negotiated between Whitewater Midstream and CFE International. The Precedent Agreement between the two companies for the pipeline was made on August 12, 2016, days before Gutiérrez requested bids for the same project from two of the biggest companies in the global energy industry, Energy Transfer Partners and Kinder Morgan. The private investigator that offered testimony in the US court says that Gutiérrez created "a misleading impression as to the competitiveness of the bid process," given that he sent request for bids only after the contract had been awarded to Whitewater. The private investigator gave testimony after reviewing and having access to internal emails, public documents and private sources.', '"The Waha Connector pipeline appears to serve no apparent benefit to CFE or CFEi," the private investigator said in his testimony.', 'An investigation by EL PAÍS ', ' exposed links between Turrent, ex-director of the subsidiary CFE International, and two executives of Whitewater, Matthew Calhoun and Arlin Travis. The three worked together in 2000 and 2001 in the San Diego offices of Royal Dutch Shell. Their relationship and behavior was documented in a case of alleged electricity price inflation filed at the Federal Energy Regulatory Commission, FERC, which remains open.', 'A second contract signed between CFE International commits the state electricity company to buy a massive volume of natural gas from Whitewater, a quantity equal to 15 to 20 percent of Mexico's daily import demand, for 15 years. In documents submitted to the US federal court, CFE claims to have evidence that Turrent and Gutiérrez made "misleading representations about projected Mexican natural gas demand" and "appear to have steered the procurement process" to ensure that the contract would be awarded to Whitewater, despite having submitted one of the more expensive bids for the project. The contract required approval from the boards of both CFE and CFE International.', '"The gas Whitewater Midstream supplies under the South Texas Supply Agreement is often unnecessary excess gas that CFE International must resell. Gutiérrez and Turrent justified this excessive contract to the boards of directors of CFE International and CFE by making misleading representations about projected Mexican natural gas demand," the court documents read. CFE claims that the contracts awarded to Whitewater included terms that were more expensive than offers made by other companies with more experience in the industry.', 'Last month, the Mexican Energy Ministry sent a legal document to Cenagas, the National Natural Gas Control Center, instructing the agency to require private companies operating in the country to buy natural gas solely from state companies CFE or Pemex. The document explained that, as a result of the contracts signed during the administration of Peña Nieto, the country is buying far more gas than it can store, transport or convert into electricity. This excess of natural gas, which CFE is obligated to purchase, costs the country an equivalent of 10 billion pesos, or around \$500 million, per year, according to the document.', 'In April, EL PAÍS reported that the CFE opened a federal case in the US to request evidence from the company Antaeus Group, owned by Whitewater founder Calhoun. Since then, the CFE has opened two similar cases against JG Energy and Arbor Glen, owned by Whitewater executive Arlin Travis. In documents submitted to a US federal court in Austin, the CFE alleges that Travis

worked simultaneously as a consultant for CFE International and Whitewater Midstream and coordinated contractual negotiations between the two parties.',  
"Evidence indicates that Travis, in his Arbor Glen role, drafted both CFE International's request for offers for the Waha Supply Agreement and Whitewater Midstream's final, and ultimately winning bid," the court documents reads.  
"Through Arbor Glen, Travis simultaneously worked on both sides of the CFE International-Whitewater relationship.", 'Internal emails submitted as evidence in the case reveal that, according to the terms of the consulting services agreement signed in 2016, the CFE agreed to pay Travis a monthly retainer of \$6,000 for the first 20 hours of services provided each month. Additionally, according to the same contract, Travis would receive a "success fee" for no "less than \$400,000 or more than \$500,000 for any completed deal, a rate he negotiated directly with Turrent.']}]

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put up with traffic jams. The influencer and entrepreneur takes her private  
plane, or that of her boyfriend, rapper Travis Scott, to make 12-minute trips.  
We learned this information from the latest controversy involving the youngest  
of the Kardashian clan, who's very popular around the globe because of her  
reality show, Keeping up with the Kardashians. Over the show's 20 (and counting)  
seasons, these five sisters - Kourtney, Khloé, Kim, Kendall and Kylie - have  
proven that extreme luxury and opulence can make for great television. But  
everything has a limit and Kylie Jenner's latest post seems to have crossed the  
line. ', '"You wanna take mine or yours?" she asked on her Instagram page, which  
has over 300 million followers, making her the second most followed person in  
the world (behind only Cristiano Ronaldo). Jenner accompanied the question with  
a photo in which she could be seen hugging her partner; the pair was surrounded  
by two private jets. The entrepreneur, who has built her fortune, in part, with  
a line of vegan cosmetics, often travels in her own plane. ', 'This  
contradiction has exposed Jenner to her fans' wrath before, but this latest  
post, which has racked up 42,000 comments, has raised the level of criticism.  
"Kylie Jenner choosing what color private jet she wants today while I have to  
guzzle my iced coffee before my straw turns into papier-mâché?" one anonymous  
user asked in a tweet that has 25,000 likes. "It blows my mind that Kylie Jenner  
and her boyfriend get to choose which private jet they're going to California  
on, and us poor people are recycling soda caps to take care of the world,"  
another Twitter user observed sarcastically. ', 'The controversy gained new  
momentum when a tweet from the Celebrity Jets account-which monitors the  
movements of celebrities' private planes-went viral. That's how people learned
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that, in the end, the couple took Kylie's plane. And that the day before they had chosen to use Travis's jet. But that wasn't the really juicy information; the bombshell was that the trip they were taking at the time was from Van Nuys, California, to Camarillo, in the same state, a journey that lasted a total of 12 minutes, including the takeoff and landing. According to Google Maps, the same route takes 40 minutes by car. ', 'Celebrity Jets is an automated account, a bot that publishes the flights of various celebrities in real time using the public information that the planes must provide for security reasons. Thanks to this account, we also know that Kylie's older sister, Kim Kardashian, took a 15-minute flight in her plane last week. That trip used 442 liters (116.74 gallons) of fuel and emitted one ton of carbon dioxide. It also became public knowledge that Drake, the rapper, was hopping around southern Europe. In just one week, he traveled on his jet from Barcelona to Ibiza (emitting 11 tons of CO), from Ibiza to Nice (22 tons of CO), and from Nice to Barcelona (16 tons of CO). According to Celebrity Jets, Oprah Winfrey, Steven Spielberg, Jay Z, Mark Wahlberg and Taylor Swift are among the celebrities who have also chosen this form of transportation during the last month. ', 'Private planes pollute 10 times more than commercial aircraft and 50 times more than trains. A report by the Transport & Environment group says that emissions have shot up by 31% in Europe over the last 15 years. According to the group's data, the emissions of a four-hour jet trip are equivalent to "the total emissions the average person generates in a year." ', 'That was one of the reasons why 19-year-old programmer Jack Sweeney created the Celebrity Jets account. The young man has spoken out on Twitter about the controversy over Kylie Jenner's brief flight. He prefers not to join the fray and suggests that the short trip could have been to park the plane after dropping the influencer off at an airfield closer to home. There's no way of knowing; in any case, many Jenner flights range from 20 to 30 minutes. Maybe that's why Sweeney empathizes with the social outrage. "I can understand why people are going after them if they're posting pictures and bragging about jets," he tweeted. ', 'Sweeney doesn't just monitor celebrity flights. He has other accounts that track the flights of the U.S. president's plane, Air Force One; Putin and Russian tycoons (lately they are visiting non-aligned countries like Iran); and Elon Musk. The owner of Tesla tried to use his checkbook to shut down the account, but for the richest man in the world, Musk's offer was not particularly generous: he offered Sweeney \$5,000. Sweeney haggled for more and the deal fell through. Then, Musk—who fights for freedom on Twitter—blocked the young programmer on the same social media site and continued to travel in his private plane for all to see. Currently, Musk's plane is broken down and undergoing a long repair in California, not far from Kylie Jenner's jet. ']]

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Jul 2022', 'title': 'Amazon buys online medical care provider as it expands into healthcare', 'author': 'Reuters', 'text\_art': ['Amazon Inc on Thursday agreed to buy primary care provider One Medical, expanding the ', ' virtual healthcare and adding brick-and-mortar doctors' offices for the first time. The deal is valued at \$3.9 billion including One Medical's net debt.', 'The deal would combine two relatively small players as ', ' into US healthcare, seeking to grow at a faster pace.', 'The online retailer first piloted virtual care visits for its own staff in Seattle in 2019 before offering services to other employers under the Amazon Care brand. It likewise bought online pharmacy PillPack in 2018, underpinning a prescription delivery and price-comparison site it later launched.', '"We think ', ' of experiences that need reinvention," said Neil Lindsay, senior vice president of Amazon Health Services.', 'The Seattle-based retailer has signaled its ambitions to improve and speed up care. However, a big idea akin to how Amazon has automated the role of cashiers in grocery stores has yet to emerge.', 'In One Medical, Amazon is acquiring a loss-making company with 767,000 members and enterprise clients such as Airbnb Inc and Alphabet Inc's Google, which offer its services as a benefit to employees, according to its website and recent financial results. One Medical, founded in 2007, now gives Amazon 188 medical offices, its recent financial report showed.', 'US Senator Amy Klobuchar, who is also the Chairwoman of the Senate Judiciary Subcommittee on Competition Policy, Antitrust, and Consumer Rights on Thursday urged the Federal Trade Commission (FTC) to investigate Amazon's proposed deal, expressing concerns over the acquisition's implications for personal health data.', '"Amazon has a history of engaging in business practices that raise serious anticompetitive concerns, including forcing small businesses on its site to buy its logistics services as a condition of preferred platform placement, using small businesses' non-public data to compete against them..." the senator added in her statement.']]

2022-07-25 15:33:08 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/usa/2022-07-24/model-linda-evangelista-settles-her-lawsuit-for-the-disfigurement-she-said-was-caused-by-a-liposculpture-procedure.html> (referer: https://english.elpais.com/)

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treatment that had left her "deformed," she said. Now, after settling the lawsuit she filed against the company that caused her "deformation," she can turn the page.', 'Linda Evangelista, 57, had disappeared: for years she did not step onto a single red carpet or attend any event, fashion show, party or presentation. She didn't attend meetings with colleagues or do major fashion campaigns. To avoid being seen, Linda Evangelista did not even appear in the photographs she uploaded to her own Instagram account. Unlike her colleagues, the Canadian model seemed to have fallen off the face of the earth. Finally, in September 2021, Evangelista decided to tell the world what had happened to her in a post on her Instagram page: she had had a problem with a cosmetic procedure that forced her to retire from public life by-as she put it-"leaving her completely deformed" and unable to practice her profession. "Today I took a big step toward righting a wrong I have suffered and have kept to myself for over five years," wrote the supermodel. "To my followers who have wondered why I have not been working while my peers' careers have been thriving, the reason is that I was brutally disfigured by Zeltiq's CoolSculpting procedure[,] which did the opposite of what it promised. It increased, not decreased, my fat cells and left me permanently deformed[,] even after undergoing two painful unsuccessful, corrective, surgeries," she wrote at the time. "I have been left, as the media has described, 'unrecognizable.'", 'Evangelista underwent a treatment called CoolSculpting, or liposculpture. The procedure is supposedly a less invasive alternative to liposuction, and it doesn't have a postoperative period. The treatment eliminates localized fat by freezing cells, which caused the model to develop a disease called paradoxical adipose hyperplasia, or PAH, as she later admitted in an in-depth interview with People magazine. The manufacturer estimates that PAH only occurs in one out of every 4,000 treatments, but according to the American Society of Plastic Surgeons, the disease can occur in 0.72% of cases, that is, in one out of every 138. The model said that CoolSculpting "permanently deformed" her, and she sued Zeltiq-the manufacturer of the devices used in the procedure-for 50 million dollars (about 44 million euros) in damages.', 'Today, Linda Evangelista says she is "pleased" after settling the CoolSculpting case. She posted that sentiment on her Instagram account, where she added that she is eager to start a new stage in her life: "I look forward to the next chapter of my life with friends and family, and am happy to put this matter behind me. I am truly grateful for the support I have received from those who reached out." Details of the agreement between the company and the supermodel are not known at this time. Sources close to the model told People that this seems to be the closure that Evangelista needed to get on with her life: "With this settled and her recent Fendi campaign, Linda is ready to try to move on. After literally years of hiding, she's out and about again." In the same interview in which she revealed why she was staying away from the world, Evangelista also confessed to how much she loved her profession: "I loved being up on the catwalk. Now I dread running into someone I know." So far, the model has not returned to the catwalk, but she has starred in the latest Fendi campaign, which celebrates the brand's iconic baguette bag. During her comeback, Evangelista has been surrounded by several good friends and confidantes, including the photographer Steven Meisel, with whom she made some of her career's most memorable campaigns and editorials, and her friend Kim

Jones, the current artistic director of Fendi and Dior Men.', 'In the caption of her Instagram post, the supermodel announced an upcoming Fendi fashion show on September 9, in New York, to commemorate the bag's twenty-fifth anniversary. Who knows if Linda-the supermodel who needs no last name-will be back on the catwalk once again.']]

2022-07-25 15:33:11 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/international/2022-07-24/the-new-tattoo-landscape.html> (referer: https://english.elpais.com/)

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approach to ask for help with an airbrush. Ramón gently takes it and looks at the machine through his small round glasses. Without saying much, he searches through his tattoo tools, disassembles one of the devices, takes out a tiny piece and gives it to his companions. "This should work".', 'Duerto speaks of "unconventional tattooing." Both he and Ana highlight the importance of the Ignorant, a movement that was born from the need to break with the standardization of graffiti, which was developed in the world of painting and fashion, eventually settling on the field of tattooing.', 'Nowadays, young people are looking for more meaning in their tattoos. They have their favorite artists, who use empty skin to put together travelling art galleries.', '"What happened to tattooing is that it became a very inbred art," says 27-year-old Leopoldo Mata (@le\_polo). "Many creative disciplines have gotten more flexible over time, but tattooing has been more stagnant. We were tattooing sailors or Japanese letters for years... [things] that had nothing to do with our culture."', 'Mata studied at the Faculty of Fine Arts in Cuenca, a cradle of artists who, among other things, are dedicated to unconventional tattoos. After leaving university, he moved to France and made tattooing his life. He found a good niche of clients in a Facebook group of Spaniards in Paris.', '"I drew virgins, phrases, whatever they asked me to... I learned a lot and thanks to that experience, I realized what I didn't want to do."', 'He then began to create less conventional designs, upload them to Instagram and tattoo whoever wanted to do it on their skin. He travelled around the world and saw how his style of tattooing was better received in London, Germany and the United States than in Spain.', '"I like the world of tattoos a lot but it doesn't fill me with everything I need... it's hard for me to change, evolve and try new things without losing the taste of the public."']}]

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late on Sunday ', ' that he and Google co-founder Sergey Brin remain friends and
denied a report that he had been involved in an affair with Brin's wife Nicole
Shanahan.', 'Musk's tweets came after a ', ' report that cited unidentified
sources saying he had engaged in a brief affair with Shanahan. The paper said
the affair prompted Brin to file for divorce from Shanahan earlier this year and
ended the tech billionaires' long friendship.', 'Dismissing the report, Musk
tweeted, "Sergey and I are friends and were at a party together last night! I've
only seen Nicole twice in three years, both times with many other people around.
Nothing romantic."', 'In its report, the ', ' also said Brin instructed his
advisers to sell personal investments ', ' after he came to know about the
affair. The paper said it wasn't able to determine how large those investments
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were, nor whether any sales were made.', 'In 2008, coinciding with the Great Recession, Brin invested half a million dollars in the Tesla project. He filed for divorce from Shanahan in January after three years of marriage and a child together. The friendship between the two businessmen dates back years. In 2015, Musk gave his friend one of the first electric cars made by Tesla.', 'The amount of Brin's personal investments in Musk's companies, whose fortune is estimated at \$242 billion, is unknown. Brin is seven points below his rival on the world's wealthiest list, and is listed as the eighth richest with a net worth of \$94.6 billion. I', 'Earlier this year it emerged that in November Musk ', ', a senior executive at his artificial intelligence company Neuralink. The birth of the twins took place a few weeks before the birth of his second child with the pop star Grimes. Musk has nine (acknowledged) children in total.']]

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suggesting the potential of a yes.', '- "What conditions would the government need to guarantee for you to turn yourself in?"', '- "They would need to respect my rights and stop trampling all over them like they've been doing. Look, they gave all my co-defendants a break. Why haven't they given me one? Fonseca beat extradition. Why won't they give me a deal?" Quintero complained, raising his voice in annoyance, "Justice is blind, right!? I'm Rafael Caro Quintero, that's why!'", 'His inclination to turn himself in was never made public, until now. Months after our interview, Andrés Manuel López Obrador assumed the presidency, promising to fight drug trafficking with "hugs, not bullets."', 'Rafael Caro Quintero was born in La Noria, in the northwestern Mexican state of Sinaloa, in October 1952. In his heyday in the 1980s, he was known as "El Príncipe" ("The Prince"). Together with ', ', Ernesto Fonseca Carrillo, alias Don Neto, and ', ', alias El Jefe de Jefes (the Boss of Bosses), Caro Quintero was the leader of the Guadalajara Cartel, and reigned as lord and master over Mexico's macabre festival of drugs and violence. While he flooded the streets of U.S. cities with cocaine, heroin and marijuana, in Mexico, Quintero and his clan enjoyed the protection of authorities at all levels of government: presidents, secretaries of state, governors, politicians, members of the military and the police.', 'Everything was going great for the cartel, until one day, it wasn't: The kidnapping, torture, and murder of DEA agent Enrique Camarena and Mexican pilot Alfredo Zavala turned the world upside down, and the authorities who had once protected them were now hunting them down like dogs. The U.S. government's anger and actions in response to the death of Agent Camarena would forever change the relationship between Mexico and the United States on questions of combating drug trafficking.', 'It was in this context, under intense pressure from the Americans, that the Prince, Don Neto and the Boss of Bosses were arrested in the prime of their lives and condemned to grow old behind bars. Caro Quintero was only 33 years old.', 'The Prince and Don Neto spent 24 years in prison without being sentenced, until finally, in 2009, a judge condemned them to 40 years for the murder of Camarena and two other American citizens. But Quintero's luck took an unexpected turn in 2013, when another judge ordered his immediate release on a procedural technicality.', 'After 28 years in prison, at 60 years old, Quintero was finally free. But a few days after his release, the Mexican government issued a warrant for his arrest, demanding he return to prison to serve out the remaining 12 years of his sentence.', 'In June of 2016, The Prince sent an emissary to the offices of the periodical ', ', to request a meeting with me. I agreed, on the condition that it be an on-the-record interview. And just like that, I was off to Culiacán, the capital of Sinaloa, with a cameraman provided by the magazine. There, we were taken to a house on a ranch in the Golden Triangle, where we arrived with daylight still left to spare.', 'Long and lanky at nearly six feet tall, Quintero's hair was dyed black and cut with precision. His face, weathered from the harsh sierra sun, accentuated the shiny white teeth that peeked through his smiling lips. He didn't seem like an especially rich or powerful man. If he was someone who had ever inspired terror, you couldn't tell - either he was hiding it, or his 28 years in prison had finally tamed him.', 'The Prince was visibly nervous. We had barely exchanged a few words and he was checking his surroundings suspiciously, like someone planning an escape. When my colleague asked if he could set up his camera,

Quintero faltered and said no, it was just a conversation, not an interview. I told him that this is not what we had agreed to, that we hadn't traveled all the way out here, risking our own safety, just to have an off-the-record conversation. But he was adamant, and never let us film or record.', 'We said our goodbyes cordially, but there was a mutual frustration in the air. The next day, back in Culiacán, we were contacted again, and this time, he promised to do the interview.', 'We drove past the place where we had met the day before - they were taking us deeper into the mountains. We crossed two rivers, then arrived at an abandoned-looking white house in the middle of nowhere. The house had whitewashed walls and a hard dirt floor. There were two beds and a table with a portrait of the Virgin of Guadalupe, illuminated by a lonely candle whose flame cut through the darkness with its flickering glow.', 'Night had fallen, and outside, in the tangle of tree branches, white fireflies flitted like a shower of shooting stars. Then, Caro Quintero emerged like a ghost from the dark, dressed in a t-shirt, a blue baseball cap, and jeans. His clothes were clean and pressed, but simple. I interviewed him for more than an hour.', 'The third time I met Quintero was in the shade of a tree on the banks of a river. I spotted him as I was being ferried across the water, after arriving that morning by ATV. He was dressed like a campesino, unassuming and innocuous. I wanted to know more about the book I knew he was writing - a book whose content I have yet to see, and would very much like to know. It was a brief conversation. He was on edge the whole time, and kept gazing up at the sky.', 'In 2017, I learned that Quintero, like many men his age, was suffering from prostate disease. I spoke with one of his doctors at the clinic in Culiacán where he was receiving treatment, who told me that his condition would require surgery. But that would mean checking into an outpatient clinic, where he would have to recover for at least five days after the procedure. This was not a risk Quintero was willing to take - he was afraid there would be a raid on the clinic while he was convalescing, and he wouldn't be able to escape.', 'I met Quintero a fourth and final time one January night in 2018. We set out from the coastal city of Mazatlán, the capital of Sinaloa, and I remember that the journey was even longer than the last. We wound our way high into the mountains, then higher still, until we arrived at a mid-sized, new-looking house, only partially furnished. It was located strategically, towering over the land below with a wide view of the sky: positioned to detect the movements of troops or aircraft.', 'As the sun set, the mountains loomed like sleeping giants. Suddenly, Quintero appeared out of nowhere with his security detail. Out of the whole group, I was the only woman. The Prince was noticeably upset. I tried to ask him about the recent accusations from the U.S. and Mexican governments that he was still involved in trafficking drugs.', '"Whoever says that is lying! They're lying! Whoever says it is lying, I don't care who they are, they're lying!" he said, visibly enraged. "Look, I'm not the leader of any cartel..."', '- "Here's the report where they accuse you," I replied, showing him the report from the DEA.', '- "Yeah, yeah, yeah, but I never went back to drugs, and I never will. All that stuff they're saying, whoever's saying it is a liar! They're lying!", 'There, with Rafael Caro Quintero staring back at me, telling me this, I was struck by how incredible it was that he had run the risk of agreeing to an interview, in an attempt to assert his own innocence.', '"Look,



what I really want is to be left in peace. If the public wants to believe me, that's great, but if not, well, whatever, they'll find out, do you understand? I want to be right with myself, with my own self! I don't care what other people think... I'm not working anymore, let's be clear about that! I was a drug trafficker 23 years ago, and now I'm not, and I won't ever be again. If other people are using my name, how am I supposed to stop them? I can't go around telling them, 'Shut up, don't lie about me!' Or do you want me to start killing people to make them shut up?" he said, raising his voice.', 'Despite Quintero's claims of innocence, in 2018, he was placed on the F.B.I.'s list of 10 most wanted fugitives, and in 2020, the Department of Justice filed a new ', ' against him in the Eastern District Court of New York, under docket number 1:15-cr-00208. The new charges were no longer about his involvement in the murder of Camarena, a crime for which he had already been tried and convicted in Mexico. Instead, the indictment accused him, along with his brother-in-law, Ismael Quintero Arellanes, alias Fierro, of spearheading the operations of the Caborca Cartel, and of engaging in criminal activity stretching all the way back to 1980. The government claims that Quintero, using several possible nicknames, including "Don Rafa" and "the old man," orchestrated the criminal activity of the cartel, which involved smuggling "multi-ton quantities of heroin, methamphetamine and marijuana, from Mexico into the United States."', 'The criminal indictment, dated February 7, 2020, asserts that Quintero's drug trafficking organization "used corruption as a means and method of achieving its goals." The structure of the organization, the indictment claims, included "security personnel;" "sicarios" (hit men) who committed various acts of violence, including murders, assaults, kidnappings and torture; "plaza bosses," who controlled various cartel territories (it doesn't specify which); and "transporters" who moved drugs and money by boat, plane, and truck.', 'The Eastern District Court of New York had already requested Quintero Arellanes' extradition when he was arrested in January 2020 in Culiacán. Meanwhile, a third defendant, Juan Nicholas Hindu Robles, had already been arrested in February 2016, had signed an affidavit admitting his guilt in 2017, and was sentenced to 47 months in prison in 2019 - a sentence that was commuted at the request of the U.S. government, in reward for his cooperation on the case, leading many to assume that Hindu Robles was the person who had snitched on Quintero.', 'After meeting with Quintero, I learned some things about his security strategy: he would only trust certain people, all direct or indirect family members; he always carried a pistol strapped to his belt (or so everyone says; I never saw it); and he has a sixth sense for hearing suspicious or out-of-the-ordinary noises. He would always check the sky above him, searching for drones he was sure the DEA had sent to hunt him down.', 'He was guarded by at least two or three armed men at all times, 24 hours a day. The last time I saw him, one of his bodyguards told me that this excessive caution had driven Quintero to the brink of paranoia, and he would often wake his escorts up in the middle of the night and make them walk with him like shadows through the dark and dangerous ravines. More than once, Quintero had come close to stumbling off a cliff.', 'During the day, he preferred to keep a low profile. He found discrete and secluded hideouts, and would dress like a local farmworker to blend in with the other campesinos of the Golden Triangle and go about his business without

drawing attention. And to top off his sartorial armor, he wore two pendants around his neck: one, a gift from his son, the other, a prayer necklace from his mother - the same pendants you see dangling between his unbuttoned blue shirt collar in the photos of his capture released by the Mexican government.', '- "Presidential candidate Andrés Manuel López Obrador, the candidate from the Morena Party, has proposed making a pact with the country's major drug cartels, granting them amnesty. What do you think about that idea?" I asked Quintero during our interview in January 2018. "Do you think the cartel bosses would agree to this? Do you think this could help put an end to the violence in Mexico?"', '- "I don't know if it would help that much, but why not try it?" he said. "Colombia did it, other countries have probably done it, maybe, I'm not sure. Colombia has for sure; I know because I was in prison and I was watching TV, and a lot of guys turned themselves in. So why not try it in Mexico?..."', 'That was when Quintero told me that he was considering turning himself in, if the Mexican government would let him finish out his sentence - 12 more years - under house arrest, as they had for his co-defendant, Ernesto Fonseca Carrillo.', 'So far, Mexican authorities have said very little about Quintero's capture. According to the government, he was arrested by the marines on an extradition warrant, but they have yet to explain how he was located, whether or not he resisted, if they seized any drugs or weapons during the operation, or if he was detained alone or in the company of his 24-hour security detail. All we know is what the colorful anecdote released to the media has said: that a dog named Max supposedly found The Prince hiding in some bushes, dressed in an unfamiliar beige jacket and a simple blue button-up, his hair dyed black and cut with precision, his sideburns perfectly trimmed.', ' is a Mexican journalist specializing in drug trafficking. Her latest book is ', ' (Grijalbo, 2021).']}

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2022-07-25 15:33:34 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/international/2022-07-25/bertha-deleon-from-lawyer-to-el-salvadors-president-to-refugee-in-mexico-says-bukele-is-immature-and-vindictive.html>

{'url': 'https://english.elpais.com/international/2022-07-25/bertha-deleon-from-lawyer-to-el-salvadors-president-to-refugee-in-mexico-says-bukele-is-immature-and-vindictive.html', 'date': '25 Jul 2022', 'title': 'Bertha Deleón: ex-lawyer to El Salvador's president calls him 'immature and vindictive'', 'author': 'Eliezer Budasoff', 'text\_art': ['The day she lost the elections as candidate for deputy in', ', on February 28, 2021, the lawyer and activist Bertha Deleón spoke with a close friend to evaluate her situation. "Look, you have to go, and you have to go now," her friend told her. This was not news to Deleón.', '"They followed me on a motorcycle, they tapped my phones, they hacked my email, they snuck drones inside my backyard. In a matter of three months, I lost 80% of my clients", says Deleón, speaking one afternoon in mid-July in Mexico City, where she eventually fled. Although she was already a well-regarded lawyer, nobody wanted problems with the president. Deleón, who had represented Nayib Bukele in a variety of processes between 2016 and 2019, confronted him during the

campaign. "You said that there's enough money when no one steals, but you don't have enough money," she said in a video that she posted on social networks a week before the vote. In it, she accused ', 'of having filled the government with friends and relatives, blamed him for corruption cases and asked voters not to allow "an incapable person, a liar and a manipulator to gain more power."', 'This would be a normal provocation in any electoral fight in other democracies, but it was an unimaginable confrontation for ', ', a politician obsessed with social media and with the image he's perpetuated of himself: as someone who does not tolerate being publicly questioned. "[He is] a teenager with power, incapable of having a conversation about the most important issues without constantly looking at his phone," Deleón described him at the time, two days before the elections. It was the end point of a relationship that had broken down a year before, and that forced the lawyer to flee El Salvador and seek refuge in another country.', 'The relationship between Deleón and Bukele came to an end in the same place where it was initiated at the end of 2015: on Twitter. Bukele was then the mayor of San Salvador and a rising star in Salvadorian politics. Deleón had a high profile and not only on the social network: that year she had managed, along with other colleagues, to include the crime of money laundering in an open legal battle against former President Francisco Flores, as a plaintiff in the case. "He began to write to me by DM [Direct Message] on Twitter and asked me questions about that case and other cases, and I answered him as I answered others. I had never seen him in person, and he seemed to me to be a progressive," says Deleón.', 'She had built a reputation as a litigator in a country where "criminal law is a jungle," and soon won the trust of Bukele, who in 2016 invited her to be part of his legal team. She was the only woman in a group of 12 lawyers and became the figure who accompanied him during complex legal proceedings. In 2019, when Bukele had already won the presidential elections but had not yet taken office, Deleón represented him in the hearings for a defamation case. They had open communication, says the lawyer, and sometimes they talked about his next government. On one of those occasions, she told him that she was interested in being Minister of Security and that she was ready to present him with a plan.', '"Why would anyone want to be the Minister of Security?"', '"Firstly because I genuinely thought that Nayib was going to pursue a different policy. I believed that he was progressive, that he was capable of innovation, for example, that he was going to instigate dialogues with criminal gangs in an open way. I mean, now that I say it, it hurts because I feel so stupid... But that was it: I genuinely believed that it was going to be a new beginning and that maybe I was going to have the chance to try something that hadn't been done before. I know the prison system in El Salvador; I've worked in court. Since 2005, when I began my career, I've moved in the criminal law environment. I know that security is not just a criminology issue but also encompasses other things, but in El Salvador the problem is that nobody wants to get involved with it. I know the prison system, I know prison law, I know the underworld and all that it entails, and I thought I could deal with it."', 'In June 2019, Bukele took office as president. Deleón was not part of the cabinet. For many in the government - and outside of it - this was the precise reason for the rupture, which led the lawyer to become a critical voice. Deleón maintains, however, that following this, she and the president still

spoke in confidence. She wrote to him on WhatsApp two days before Sunday, February 9, 2020, after he'd announced that his government was planning to take over the Assembly if a security loan that they wanted wasn't approved. She asked him why he was doing this. She wrote to him again the same Sunday, when she saw that he had arrived at the Assembly with the military and was making a show of force in front of the cameras. "You screwed up," Deleón wrote. She posted on Twitter exactly what she thought that afternoon. "This is just one example of what awaits us when he has the majority in the @AsambleaSV. We'll need to have the patience to put up with four years of tantrums and outrage from the coolest president.", 'The president was not so cool when it came to Twitter, his favorite digital habitat, the platform where he fired people and gave orders to his officials. Deleón remembers that Bukele took a screenshot of her tweet and sent it to her on WhatsApp. "He told me: 'you threw shit at me on Twitter, I will never forgive you for this.' It was the last time I had direct contact with him." For someone so concerned with his image, this was unacceptable. The president blocked his former lawyer on Twitter and on his phones; the person who had stood up for him in court and gotten him out of trouble on multiple occasions. From then on, other employees were in charge of putting her in her place.', 'The harassment against Deleón grew and deepened when she began to campaign as a candidate for assembly member in the legislative elections of February 2021, a year later. More than 19,000 people marked her name on the ballot on voting day, but this was not enough to claim victory. Bukele's party, Nuevas Ideas, won an unprecedented number of seats, which gave it an absolute majority in the Legislative Assembly. That day Deleón talked to her friend and listened to her advice, but she resisted the idea of fleeing the country. There were her two children to think of. She believed that she could wait until the end of the year. Her friend didn't agree.', 'Two months later, on May 1, when the new Assembly took office, its first action was to dismiss the magistrates of the Constitutional Chamber of the Supreme Court and then also sacked the Attorney General of the Republic, who was replaced by a man Bukele trusted. When some countries condemned the authoritarian turn that his government had taken, the president summoned the diplomats to tell them that there was nothing to condemn, that his positive image had grown two points after removing the separation of powers. Before the end of May, Deleón was summoned to the Prosecutor's Office. "I was read five different charges," she says. They had already opened criminal investigations. "The de facto prosecutor," she denounced at the time, "has begun to fulfill the role of persecuting those whom the government or the president considers inconvenient." Soon, even her mother began to tell her that she had to go.', 'The time that passed until she left El Salvador, in August of last year, was a period of exhaustion and paranoia, says the lawyer. "I no longer slept." Deleón explains that she had to go to the Prosecutor's Office three times a week, that she was followed, and that harassment on social networks was relentless. In September, when she was in a safe house in southern Mexico, the Inter-American Commission on Human Rights granted her precautionary measures, given that she was in "a serious and urgent situation of risk of irreparable damage to her rights in El Salvador." Surveillance with drones, monitoring and harassment by officials and people related to the government, amounted to "a situation of risk to her life and

integrity."', 'The reasons why she had to leave the country seemed clear. But it was a little more difficult to understand the viciousness of her persecution. It is not that it was unprecedented: Bukelism was already attacking the journalists who revealed the misdeeds of the government, civil organizations, politicians from other parties and diplomats, but it was evident that Deleón did not have any powerful organization behind her.', '"What political risk could you represent if you had lost the election? What would be the use of the government putting you in jail?"', '"Look, if we think about it reasonably, with common sense, then there is no point in wasting time and resources like that. I have never held any kind of power, neither economic nor social, because I have been an independent activist. I have never been in a human rights organization as such. I mean, I was doing it all alone. And he knows it. But the problem with a person like Bukele is that he is very immature, very visceral and vindictive."', 'Deleón never believed that the persecution would reach this point: "I always thought that he would respect the professional relationship I had with him and the results I gave him," she explains. In August 2021, she left El Salvador with her daughter for California, and was advised not to return. The Mesoamerican Initiative of Women Human Rights Defenders helped her find a place to stay in southern Mexico, while she applied for asylum in the country. At first it was very hard, she says: the uprooting, being away from her teenage son, explaining to her six-year-old daughter that they were on the run. "And she asked me: But why are we going to run away? Did you steal something?" They focused on small pleasures: the taste of tortillas, hot chocolate, making new friends, some motorcycle rides. In February of this year, two years after ', 'stormed the Assembly, she was notified that she had been granted refugee status and permanent residency in Mexico. It's finally time for her to start over.']]

2022-07-25 15:33:38 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/society/2022-07-25/heat-waves-the-worst-is-yet-to-come.html> (referer: https://english.elpais.com/)

2022-07-25 15:33:39 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/society/2022-07-25/heat-waves-the-worst-is-yet-to-come.html>

{'url': 'https://english.elpais.com/society/2022-07-25/heat-waves-the-worst-is-yet-to-come.html', 'date': '25 Jul 2022', 'title': 'Heat waves: The worst is yet to come', 'author': 'Clemente Álvarez', 'text\_art': ['For more than 30 years, scientists have been warning of the increased impact of heat waves due to climate change. The summer nightmare experienced in recent days in different European countries has left 1,055 estimated deaths in Spain, well over 100 thousand acres burned by forest fires, road and railway collapses, a derailment, agricultural losses... Meanwhile, the US is experiencing a heat wave of its own that is expected to last through Tuesday. The National Weather Service has issued excessive heat advisories and on Monday warned ', ' that "heat will be an issue in parts of the East, the south-central US and begin building in the Northwest." ', 'However, the biggest cause for concern is not that this episode of extreme heat once again confirms the very real threat of global warming, but rather that what is to come is even more alarming. Indeed, this is only the beginning, since emissions that cause climate change continue to increase in the atmosphere and multiple signs point to serious difficulties for the political

agenda in the fight against climate change.', 'In Europe, due to an energy crisis made worse after the Russian invasion of Ukraine, several countries have decided to ', ' (the worst fuel for the climate) in an attempt to mitigate the situation. On the other side of the Atlantic, July has dealt a serious blow to the green plans of the Joe Biden Administration, with a Supreme Court ruling that has severely limited the president's ability to make progress on that front. Aggravating this is the resistance to legislative action by a Democratic senator who is indispensable to securing a majority. China, another major user of fossil fuels, continues to show a preference for coal. Last week, the Secretary General of the United Nations, António Guterres, described the lack of action on climate change as "collective suicide."', 'The meteorological dynamic that develops amid these political vicissitudes is unmistakable. "This is one of the most solid issues in climate science: heat waves on land and in the sea are a direct consequence of global warming, and for any additional increase in this warming, they are expected to become more frequent, more intense and more durable," says Valérie Masson-Delmotte, co-chair of group I of the most important panel of experts on climate change in the world, the Intergovernmental Panel on Climate Change (IPCC), which between 2021 and 2022 has presented its sixth scientific evaluation. It's clear that the heat is going to intensify; the question is, will humanity put a stop to the growing threat?', 'As the French climatologist explains, the first IPCC reports from 1990 warned of an increase in heat waves due to global warming. "For many, it's been more comfortable to ignore this information, but when it's your turn to suffer, you realize the urgency to act," she points out.', 'In reality, it's difficult even for many climate scientists to have a clear idea of what it really means in our lives that the planet continues to warm by one or more degrees Celsius. One way to get an idea of the changes expected is to imagine that in 28 years, Madrid (Spain's capital) will have a climate similar to Marrakesh (Morocco), winters in Montreal (Canada) will feel like those of Washington DC right now, and Los Angeles' climate will be a lot like Gaza City's. Though only an approximation, this was calculated by a 2019 study, ', ', which analyzed the climate forecasts for the year 2050 of the 520 most important cities around the world, finding cities whose current climate would most resemble them. This, in an optimistic scenario, in which the temperature of the planet does not rise by more than two degrees Celsius (3.6 degrees Fahrenheit).', 'Although scientific forecasts of the planet's climate lose precision when the focus is on specific locations, these comparisons between cities assure us that every population is going to have to adapt to a new, hotter climatic reality. As specified by the meteorologist Juan Jesús González Alemán, from Spain's meteorological agency Aemet, a large part of that country must prepare for an Africanization of its climate. "We are not used to more than two weeks of above-average temperatures as we've seen in this heat wave, but in 30 years, this may be the norm" he warns.', 'Until now, it is estimated that the average temperature of the planet has already increased by 1.1 degrees Celsius compared to the pre-industrial era, as a consequence of the emissions generated by vehicles, energy installations, industries, houses, food production (and in general, by the use of oil, gas and coal). An increase of 1.1 degrees Celsius may not seem significant, but the recent heat waves and other extreme weather patterns over the last year around the world already show what

it means in practice. What's most alarming is that there is still no indication of when or if this increase in global temperature will be capped. And, in the specific case of heat, the latest IPCC scientific assessment warns that every additional 0.5 degrees Celsius of global warming "causes clearly perceptible increases in the intensity and frequency of extremes of heat, including heat waves and heavy precipitation.", 'Despite the warnings of science, the harsh reality is that humans, with their vehicles, their houses, their industries, continue to increase emissions that accumulate in the atmosphere. In fact, scientists are already clear that in the next 20 years the planet's temperature will exceed the 1.5-degree Celsius cap, one of the two safety limits set by the Paris Agreement against climate change. There is still a window to reduce global warming, but with countries' current emission reduction commitments - if they are met - the temperature would not be lowered, but the limit of two degrees Celsius would be exceeded, which further aggravates the forecasts.', 'Masson-Delmotte emphasizes that the fate of climate will be sealed in the coming years. "By 2040-2050, we may have achieved a stabilization of warming, or we might have already reached two degrees Celsius around 2050, this depends on the trajectory of greenhouse gas emissions, in particular, during the next decade." To avoid the worst outlook, IPCC scientists have stated that global emissions should peak in 2025 but then fall sharply over the subsequent 30 years, almost disappearing in the second half of the century. This would require, among other measures, freeing humanity from its near total ', ' (oil, coal, and gas).', 'What would the planet look like with an even greater increase of four degrees Celsius? According to the most rigorous IPCC climate atlas available, which references large regions of the world rather than countries or cities, when a person born in 1970 in the Mediterranean reaches the age of 70 (in 2040), they will experience an average of 15 more days per year above 40 degrees Celsius (104 degrees Fahrenheit). But in a pessimistic scenario, in which the planet warms by more than four degrees Celsius, another individual who was born in 2010, perhaps your child, when turning 70, will experience 25 more days a year above 40 degrees Celsius. And if this person lives in Africa, he or she will have to face another 89 days in those extreme temperatures. These examples highlight a great territorial and generational injustice, since those who are going to bear the brunt are the generations who will inherit a problem created by others.', 'Scientists say that there is still time to change course. However, the energy crisis exacerbated by ', ' is again disregarding a response to the climate emergency, and even favoring a return to coal in the EU to reduce the high dependence on Russian gas. "It looks bad, because what's being proposed in Europe and other countries like China is heading in the wrong direction. Allowing coal again is outrageous," says José Luis García, head of Climate Change at Greenpeace Spain. "The energy crisis and the climate crisis have the same root, which is fossil fuels. The only way to solve both problems is to reduce their use until they are no longer used at all."', 'Like an overflowing bathtub, the first reaction to a climate emergency should be to turn off the emissions tap. But at the same time, the recent episode of extreme temperatures has highlighted the urgency of learning to deal with impacts that can no longer be avoided. As has been verified ', ', unforeseen events have an even greater impact in countries less accustomed to the heat.', 'It's clear that this issue

cannot be solved with more air conditioning alone, and many things need to be reconsidered, from the design of cities, which are especially vulnerable to extreme temperatures, to work activity and even tourism. "We cannot continue to function as a society in the same way as before," says García, who recalls that what we are experiencing is a global warming of 1.1 degrees Celsius. "As the global temperature increases, the adaptation required will be greater. But in some places there may come a time when there is no longer any possibility of adapting", he emphasizes.', 'This is all related to extreme heat, but the climate emergency has other faces. As the climatologist Masson-Delmotte points out, "more attention is paid to the acute effects of global warming and extreme events, but less is paid to chronic effects, such as the loss of snow and ', ', which are going to reduce the water availability of many regions in dry seasons. The gradual rise in sea level is also extremely important. Right now, its effects are not very visible, but an increase in frequent flooding due to high tides is yet to come.'"]}

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2022-07-25 15:33:47 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-07-07/liver-experts-abstain-from-alcohol-at-least-three-days-in-a-row-every-week.html>

{'url': 'https://english.elpais.com/science-tech/2022-07-07/liver-experts-abstain-from-alcohol-at-least-three-days-in-a-row-every-week.html', 'date': '07 Jul 2022', 'title': 'Liver experts: abstain from alcohol at least three days in a row every week', 'author': 'Pablo Linde', 'text\_art': ['Hepatologists (liver, gallbladder, bile ducts, and pancreas specialists) say the healthiest amount of alcohol to consume is none at all, but acknowledge that this is unrealistic for most people. Instead, the world's leading experts at the 2022 International Liver Congress in London have some advice for those who are unwilling to give up drinking altogether: be ', ' and abstain from alcohol at least three days in a row every week. And don't go on a binge the rest of the week - always practice moderation and good nutrition.', 'The warning was prompted by some concerning epidemiological evidence. Europe has the world's ', ', and more than half of all end-stage liver diseases are related to drinking, according to a joint report by the European Association for the Study of the Liver (EASL) and ', ' medical journal. Every year 287,000 Europeans die from mostly preventable liver disease, a 25% increase over the number of deaths in 1990.', 'Liver disease differs from other conditions in that it has a substantial impact on young and middle-aged individuals, especially the most socially vulnerable population. "This contrasts with mortality from smoking-related and other obesity-related illnesses, such as lung cancer ', ', for which deaths typically occur in the 60s and 70s," said the EASL/', ' study. Data from the World Health Organization (WHO) shows that liver disease is now second only to coronary heart disease as the leading cause of years of working life lost in Europe.', 'This reality led Aleksander Krag, EASL's vice-secretary, to call for a significant reduction in consumption,



advertising restrictions, and higher prices for alcoholic beverages. "We're not telling people to stop drinking altogether," said Krag. "Just follow a few sensible rules: go three days in a row every week with no alcohol, never consume more than five units of alcohol in one sitting, and no more than 10 a week." One unit is not equal to one drink: a full glass of wine equals three units; a 12-ounce can of beer equals 1.5 units; and a shot of hard liquor equals one unit.', 'Krag clarifies that the liver can tolerate this amount of alcohol consumption without becoming diseased because the organ has a high regenerative capacity. But it's not recommended. "You should drink wine because you like it, not because you think it's healthy for you," he said.', 'Any amount of alcohol consumption is associated with an increased risk for certain cancers. Alcohol is toxic, as well as addictive. This is why many medical professionals are adamantly opposed to recommending anything other than - try to drink as little as possible. And if you don't drink at all, so much the better.', 'Food and health consultant Juan Revenga said, "Obviously, it's better to drink less," and to abstain for three days. He also believes that promoting "moderate consumption" is an "entelechy," in that it realizes or makes actual what is otherwise merely potential. "It's true that a daily beer or glass of wine won't damage your liver, but there are other risks. Alcohol is addictive and gives you a feeling of wellbeing. As soon as you drink a little, you tend to want a little more. It's also habit-forming because you need more and more to achieve the same feeling. With alcohol, the best amount is none at all," he said.', 'Although there are differences of opinion as to how encourage less alcohol consumption, experts unanimously agree that it needs to happen. There are two very effective tools for reducing consumption: raising prices and restricting advertising. "It's well documented that the price of alcohol matters. When they established minimum prices for alcohol in Wales and Scotland, consumption dropped overnight," said Krag. He thinks that similar measures should be applied to unhealthy foods, and wants politicians to establish distinct tax rates for different foods. "We know vegetables are healthy, but many of our patients can't afford them and go straight to fast food," he said.', 'Another way to modify behavior is regulating the advertising of alcohol and unhealthy foods. "There's a reason why companies have huge advertising budgets. But why is it legal to advertise alcohol?" asks Krag. He compares it to tobacco advertising which has been banned in almost all every Western country for years. Tobacco packaging also carries mandatory warnings about the health hazards of smoking. "Why not implement these simple measures? The alcohol industry won't like it, but it's about protecting the public," said Krag.', 'One of the problems with liver disease is that there are often no symptoms or warning signs until it is too late. "Most people with undiagnosed cirrhosis have normal blood tests," said the EASL/', ' report.', 'At the EASL congress attended by EL PAÍS reporters, a WHO presentation recommended a new, prevention-focused strategy to fight liver disease. "We need to bring diagnosis and treatment closer to the community. We need to use mobile units to make [liver] scans and blood tests more accessible," said Philippa Easterbrook, a hepatitis expert with the WHO. They want to facilitate early detection of liver problems in local health centers or mobile units, and avoid specialist and hospital visits.', 'The British Liver Trust (BLT), a non-governmental organization in the UK that focuses on liver disease

has been taking this approach for the past five years. Its mobile units go into neighborhoods and conduct liver scans that provide a highly accurate picture of an individual's liver health. The machine used for the liver scans was adapted from a device invented 30 years ago to monitor cheese aging. It measures whether the cheese is still soft inside and therefore needs more aging. The liver scanner can calculate the degree of organ fibrosis, indicating the need for further diagnosis if the fibrosis exceeds a certain level.', 'The BLT has conducted over 300,000 tests in various UK population centers, finding sub-optimal conditions in 20% of the people tested. They say it is not a diagnostic method, but an easy, fast, and cheap way to assess the general health of a person's liver.', '"There are two things that increase the risk of liver disease, 90% of which is preventable - alcohol and the metabolic risks associated with being overweight and type 2 diabetes," said BLT spokesperson Vanessa Hebditch. "We know that if we detect disease early on, then we can prevent further damage and sometimes even reverse it."']}]

2022-07-25 15:33:57 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-07-07/jorge-stolfi-technologically-bitcoin-and-blockchain-technology-is-garbage.html> (referer: https://english.elpais.com/science-tech/)

2022-07-25 15:33:57 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-07-07/jorge-stolfi-technologically-bitcoin-and-blockchain-technology-is-garbage.html>

{'url': 'https://english.elpais.com/science-tech/2022-07-07/jorge-stolfi-technologically-bitcoin-and-blockchain-technology-is-garbage.html', 'date': '07 Jul 2022', 'title': 'Jorge Stolfi: 'Technologically, bitcoin and blockchain technology is garbage'', 'author': 'Jordi Pérez Colomé', 'text\_art': ['In early May, Jorge Stolfi, a professor of computer science at the University of Campinas (Brazil), posted the following tweet in English: "Every computer scientist should be able to see that cryptocurrencies are totally dysfunctional payment systems and that "blockchain technology" (including "smart contracts") is a technological fraud. Would they please say that out loud?" Stolfi now has 9,400 followers. Back then he had fewer. In the discreet world of computer science, the 2,000 retweets and 7,000 likes his message received were the equivalent of going viral.', 'Stolfi was saying something that he had repeated before. In fact, he didn't even see it as controversial. But in today's ', ' where the value of bitcoin has dropped from around €60,000 to €20,000 since November, gave his statement new relevance. The tweet was the driving force behind a letter that 1,500 specialists signed and delivered to US Congress: "Today, we write to you urging you to take a critical, skeptical approach toward industry claims that crypto-assets (sometimes called cryptocurrencies, crypto tokens, or web3) are an innovative technology that is unreservedly good." Among the signatories were Harvard lecturer Bruce Schneier and Kelsey Hightower, principal engineer at Google Cloud.', 'In a video call from Campinas with EL PAÍS, Stolfi explained why the computer science community feels that bitcoin works like a pyramid scheme and the reasons why it could crash.', ' Why have you decided to send the letter now?', 'The usual attitude from my colleagues is: "Bitcoin and blockchain technology doesn't interest me, technologically it's garbage, I'm going to continue doing my own research." The tweet woke these people up.', ' It might be

garbage, but billions of dollars are invested in crypto.', ' Yes, and that's why people felt guilty enough to sign the letter. For example, one of the signatories is a professor at Berkeley. In his department, there is another professor who has a blockchain company. I don't know how the internal politics of universities work, but it is common for professors not to speak in public about what other colleagues are doing, even when it is something really bad.', ' But the other professor might think that blockchain is useful.', ' Well, she has a company. I don't know if she believes in it, but she's making money. That is a problem. There are hundreds of startups doing blockchain technology. For the people involved in those projects, it's money. It is a motivation to believe in the technology.', ' Where is the profit of investing in bitcoin supposed to come from?', ' The only way to get money out of bitcoin is by selling it to someone else. When you do, someone agrees to buy your bitcoin for, say, \$2,000 more. If you buy or sell from another investor, that does not change the total money there is: you receive the money that the other guy puts in. But if you buy it from a miner, the money goes out the system and never comes back. You can compute the money that has come out: about \$20 billion. It is the difference between what investors have put in and what they have taken out. It is the extent of the losses.', "Is it possible that as a society we invest millions in something we don't understand?", ' This is exactly what is happening in the crypto industry. Very few people seem to know that there is money coming in from investors and money going out to the creators of various schemes and miners. ', ' when there are no more fools to fool.', "That's why he says bitcoin won't exist in 20 years.", ' I wouldn't dare to predict when the supply of foolish people will run out. I would not know how to put a date for its end, but it will come. It can't go on like this forever, because it depends on more people putting money in than taking it out. That will never change.', ' Bernie Madoff's pyramid scheme lasted 25 years. That was concealed, but here everyone can see how it works.', ' Yeah, it's brilliant, nobody is hiding anything. The information that it is a pyramid scheme is out there, but most people who invest don't know about it. People say it's not a pyramid scheme because there's no central figure and nothing is hidden, but scheme definitions don't require those two things. The only requirement is that the profits for investors come only from new investors.', ' What advice would you give to people who have money in crypto?', ' Sell if you can and don't look back. I personally know people who have sold their home to invest in bitcoin.', ' What do you tell them?', ' I don't tell them anything. Do you want me to go and tell them, I heard you invested in bitcoin and you're stupid?', ' The letter to Congress said that the technology doesn't help ordinary people.', ' Like all pyramid schemes there is no way of knowing when it will crash. It will happen before most people realize it. They are the ones who will lose money. Usually smaller investors are the last ones to find out, and they will be the losers. There are maybe 10 million people who have invested and continue to invest in bitcoin, according to some estimates.', ' In the original tweet you said two things. First, that cryptocurrencies are no good for payments. Why?', ' They are not comparable to payment systems such as credit cards or Paypal. Bitcoin has a limit of four transactions per second. Visa makes 10,000 per second. Bitcoin does not reach 400,000 in a day and there are four million people using it: that implies a

payment per user every 10 days. It cannot be a significant commercial payment system.', ' And second: blockchain is a technological fraud.', 'Because it promises to do something it can't really deliver, and even if it could, it's not something that's useful for building real systems. It promises a decentralized ledger where multiple organizations can contribute input data and supposedly it will be tamper-proof in the sense that you can't delete or change the data, only add to it. But this has been used forever. Any large bank or a critical system has to have such a log for several reasons: if the system crashes, you have to go back and see what happened and rebuild the databases. So this is nothing new, people have known how to do distributed databases in a reliable manner for years.', ' What about decentralization?', ' It is the only thing that blockchain could contribute: the absence of a central authority. But that only creates problems. Because to have a decentralized database you have to pay a very high price. You must ensure that all miners do "proof of work." It takes longer, and it is not even secure because in the past there have been occasions where they have had to rewind several hours worth of blocks to remove a bad transaction, in 2010 and 2013. The conditions that made that possible are still there and that's why blockchain technology ', ': it promises to do something that people already know how to do.', ' But it allows you to avoid a government or central bank.', ' Bitcoin has six pools that control 80% of the mining power. Therefore, they can control what goes into the blocks. That is not what [Bitcoin creator] Satoshi envisioned, which was that power would be distributed among hundreds of thousands of anonymous and independent miners and therefore they could not collude.', " Wasn't Satoshi that smart?", ' In the early 1990s, computer scientists already showed that you couldn't have a decentralized payment system. His idea was that a network of volunteers would bear the costs. They proved that there could not be a decentralized payment network because if half of the volunteers were dishonest it could sabotage the system and prevent consensus on the state of the accounts: half of the network could think that Alice had paid Bob and the other half that Alice had paid Charlie. But the cyberpunks, the community that dreams of building an internet society beyond the reach of governments, were still excited about something like this because it was essential for their society to work: a way to pay without depending on banks that could be controlled by governments.', ' And Satoshi showed up.', ' Satoshi thought he had found a solution. It was brilliant in a way because he said let's try to build a network out of greedy selfish bastards who only care about money. So anyone who wants money will want to play by the rules. If a miner tries to sabotage, he will not gain anything.', ' What did he miscalculate?', ' Two things. One, that mining instead of being distributed among thousands of anonymous volunteers would end up in a group of huge pools. He didn't envision those pools at first, they appeared in 2010 or so. The situation we have ended up with is that all cryptocurrencies are alike: a small group of miners control networks and most of the power. The second thing is that Satoshi believed that ', '. He set a limit so that there would be no inflation. But already in 2009 the first bitcoin user after Satoshi saw that it was best to keep it because it would be more valuable in the future if he started hoarding. Instead of a coin it became something to invest and hold. That's terrible for money. If people keep the money under the mattress, there is less in circulation, the value goes

up. But if someone decides to sell a handful, the value plummets. It is what we have seen since 2009, it goes up and down, which makes it useless as a trading currency. You can't sell something in a currency that loses value after receiving it. " Couldn't it be like gold?", Gold also goes up and down, but on scales of years. Not as fast as bitcoin. Gold is a metal that has a fixed demand for jewelry and other applications. Even if nobody invested in gold, it would have a certain price. Bitcoin does not have this type of demand. Crypto doesn't work well as a currency unless you're not a criminal. Without crypto, there would be no ransomware? It is the only digital system that does not follow customary money laundering laws. That's why criminals use it. Once you have paid a ransom, there is no way for the victim to cancel the payment and get the money back, not even the government can do it easily. It is anonymous and when a hacker encrypts your data, they do not have to enter your system directly, where they would leave a trace. He has computers that he has already hacked, so tracking him down is difficult. With bitcoin you only pay to a certain address on the blockchain and nothing links it to the hacker. The payment can stay there for years. The criminal does not have to interact with the system and can hide from the police. How about Web3? Web3 basically tries to use blockchain to do all kinds of things that the internet already has: social forums, mail, other services. Since blockchain technology has nothing new to offer, nor does it deliver what it promises, Web3 is quackery, a technological fraud just like blockchain. There is nothing new. And the question mark, One way to think of NFTs is as a cryptocurrency that has only one coin that you cannot divide. Thus, the NFT market is the same as the crypto market, only there is only one seller and a handful of buyers. The price of an NFT is undefined because there is no market for it. The owner of an NFT can say that he sells it for \$1 million. If someone buys it from him, the price will be \$1 million. But after that we won't know the price anymore because we don't know if there will be a second guy willing to buy it for \$1 million. The idea is that each NFT is attached to a digital file that is a work of art. But it doesn't make much sense because you can't own a digital file in the same sense as a painting or a house or a physical object. The physical object may only be in one place. Instead, the digital file can be in a thousand places and the copies are not copies, they are exactly the same as the original. What are the dangers? The problem with copyright in digital files is that it doesn't work the same. NFTs include a hash which is a kind of numbering that serves as a unique ID of the file. But that doesn't establish your copyright, rather it gives you ownership of that specific file. But if you change a single bit in the image you get a different hash and then you don't have any automatic way of telling that one is just a copy of the other. You copyright a general image, but any image sufficiently similar to the original is considered copyrighted. Who decides that two images are equal enough?]]

2022-07-25 15:33:58 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-07-07/cerns-large-hadron-collider-the-biggest-experiment-on-earth-is-back-in-action.html> (referer: https://english.elpais.com/science-tech/)  
2022-07-25 15:33:58 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-07-07/cerns-large-hadron-collider-the-biggest-experiment-on-earth-is-back-in-action.html>

{'url': 'https://english.elpais.com/science-tech/2022-07-07/cerns-large-hadron-collider-the-biggest-experiment-on-earth-is-back-in-action.html', 'date': '07 Jul 2022', 'title': 'CERN's Large Hadron Collider, the biggest experiment on Earth, is back in action', 'author': 'Nuño Domínguez', 'text\_art': ['Thousands of protons, accelerated almost to the speed of light, collided recently at an energy level never before achieved by a particle accelerator. The Large Hadron Collider (LHC), which tries to answer some of the fundamental questions about the universe, is functioning again after a three-year hiatus, and it has already delivered: on Tuesday, the European Organization for Nuclear Research (CERN), which runs the facility, ', ' of "three never-before-seen particles: a new kind of pentaquark and the first-ever pair of tetraquarks. They will help physicists better understand how quarks bind together into these composite particles."', 'The LHC is the largest experiment ever built on Earth. The inside of its 27-kilometer (17 mile) underground ring, located beneath the French-Swiss border near Geneva, emulates the conditions that existed fractions of a second after the Big Bang, the explosion that created the universe 13.7 billion years ago. At that time there were no atoms, only their indivisible components: elementary particles. There are still many questions about what made elementary particles bind together, forming a universe with stars, galaxies and habitable planets, instead of annihilating themselves in a clash between matter and antimatter.', 'The machine was shut down in 2019 for maintenance and upgrades. In 2021, the process of restarting it for its third round of experiments began, and it officially inaugurated its round 3 season on Tuesday. The LHC will operate without interruption for almost four years, taking scientific data on particles at a record energy of 13.6 teraelectronvolts. The number of collisions, disintegrations and other subatomic interactions will be 20 times greater than during the first round, which culminated in the ', ' particle just 10 years ago.', 'One of the main objectives of the LHC in this new stage will be to generate millions of Higgs bosons. Without this particle, the universe as we know it could not exist: it gives its mass to other elementary particles when interacting with them. The theory of the Standard Model, formulated in the 1970s, provides the exact value of each of these interactions. Any deviation between theory and what is observed at the LHC can reveal hitherto unknown mechanisms, forces or particles of nature. "We have to get the most precise X-ray of the Higgs boson that has ever been done in order to confirm that it behaves as we expect," explains Mario Martínez, a physicist at Atlas, one of the LHC's large detectors.', 'Last April, a US experiment announced ', ' recorded to date: the mass of the W boson is not what theory predicts. The previous year, the LHC and another laboratory in the US also observed discrepancies in the behavior of the muon, another elementary particle. The LHC is likely to be able to measure the characteristics of these particles more precisely and deliver a final verdict on "new physics." If so, it would be a much more important discovery than that of the Higgs boson. The new discovery could begin to explain what comprises the 95% of the universe that is made up of dark matter and dark energy.', 'The ', ' of conventional matter includes 17 types of elementary particles that appeared moments after the Big Bang in three successive generations, each one with more mass than the previous one. The increase in energy at the LHC - up from 13 teraelectronvolts to the current 13.6 - will make

it possible to study for the first time the decomposition of the Higgs into second-generation particles, such as muons. "The differences in mass between the different generations of elementary particles are enormous, and we don't know why," explains Alberto Casas, a researcher at the Institute of Theoretical Physics in Madrid. "There are very strong reasons to think that there is a new physics and a theory superior to the current one to explain it. For the first time, the LHC is going to be able to search for it in unexplored energy levels," he adds.', 'Casas is an expert on the problem of dark matter, which makes up 27% of the cosmos. Although it is invisible, physicists are convinced of its existence because they observe it indirectly, through forces including the gravity it exerts ', '. So far, no experiment has been able to detect it directly. "Physicists know very well what dark matter is not, but we have no idea what it is. Among all the experiments that try to study it, the LHC is the only one that could generate dark matter particles," explains Casas.', 'The LHC's great asset is its ability to create a large number of collisions between protons, which then decompose into elementary particles, and obtain results on their masses with high statistical reliability. In the "intermediate" phase that began on Tuesday, the main task will be to make high-precision measurements of the Higgs boson and the rest of the particles, as explained by Alberto Ruiz from the Physics Institute of Cantabria, in northern Spain. "Once this phase is finished, the LHC will stop to improve its detectors and further increase the number of collisions it produces," he details. In 2029 the accelerator will start functioning again, and will generate 10 times as much data as what is known so far. Until then, Ruiz concludes, the possibility of discovering "new physics" is ongoing.']]

2022-07-25 15:34:04 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-07-08/nasas-plan-to-return-to-the-moonand-stay.html> (referer: https://english.elpais.com/science-tech/)

2022-07-25 15:34:05 [scrapy.core.scrapy] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-07-08/nasas-plan-to-return-to-the-moonand-stay.html>

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{'url': 'https://english.elpais.com/science-tech/2022-07-08/nasas-plan-to-return-to-the-moonand-stay.html', 'date': '08 Jul 2022', 'title': 'NASA's plan to return to the Moon-and stay', 'author': 'Rafael Clemente', 'text_art': ['At the end of 2017, coinciding with the 45th anniversary of the last flight of the Apollo program to the Moon, former US President Donald Trump signed a presidential directive that urged NASA to renew its efforts to return to the Moon as soon as possible. He did not set a date, but just a year later, former Vice President Mike Pence did: 2024. He was presumably counting on an eventual re-election of Trump, who would attempt to repeat John F. Kennedy's achievement from half a century earlier. But the deadline was too tight. NASA had neither the right ship nor the right rocket, nor a concrete plan of how to do it. The Apollo program had been conceived essentially as a gesture for national prestige, with limited scientific ambitions. A return to the Moon would be an exploration mission with broader objectives than just planting the ceremonial flags. Thus was born the Artemis program, NASA's plan to reconquer the Moon.', 'The initiative is named after Apollo's twin sister in Greek mythology. Its delays began to accumulate almost as soon as the plan was conceived. NASA never
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officially revealed its intentions beyond the first three flights: the first would depart without a crew; the second would include astronauts, who would orbit around the Moon; and the third would touch down on its surface. The landing was scheduled for 2025, which many experts considered an impossible deadline.', 'The lunar spacecraft Orion and its carrier rocket, the SLS, have not yet flown. Both should debut this summer. The Orion is an orbital capsule, which cannot descend to the Moon's surface. The mission has been entrusted to Space X's StarShip, which presented the best financial offer.', 'On paper, the Starship seems as promising as it is revolutionary: a freighter, an orbital spacecraft with capacity for dozens of crew members, a suborbital vehicle for transporting passengers, an in-flight refueling tanker, a landing capsule on the Moon and-finally-a Mars explorer. So far, though, its prototype has not reached more than 15 kilometers in height, and it has only managed to complete one successful landing.', 'A draft of the plans for future flights has just appeared, leaked to the media outlet Ars Technica. Artemis 4 would be used to begin construction of an orbital station around the Moon, which would involve substantial European cooperation. That would take place between 2027 and 2029, at the soonest, and would require at least two or three more flights.', 'NASA contemplates five more Artemis missions in the next decade. They plan to take elements to the Moon to build a small permanent base, as well as a pressurized vehicle that would be something like a rolling laboratory similar to the one from the movie ', '. The last planned flight is the Artemis 9, scheduled-with great optimism-for 2034.', 'The plan's greatest obstacle is its staggering cost. It is not clear that Washington will agree to cover bills that will exceed \$4 billion dollars per flight, almost 20% of NASA's total current budget. And questions are already being raised concerning the use of the new SLS superrocket, now resting on its ramp at the Kennedy Center.', 'The process of designing the SLS began before Space X demonstrated the possibility of recovering the rockets for reuse. Since then, Elon Musk's company has recycled some of its launchers in more than a dozen flights, consequently decreasing the cost of each operation. When it takes off, the SLS will be a "throwaway" rocket: its four main engines-harvested from old space shuttles-will go to the bottom of the Atlantic.', 'Since it used engines, center tank and side throttles all from the Shuttle program, the SLS should have been cheaper than the Saturn 5 of the 1960s. But it wasn't. Each moon rocket in the Apollo program cost about \$1.4 billion in current dollars; each shuttle, about \$1.5 billion. The SLS will start at \$2.2 billion, without counting its astronomical development costs. For future lunar operations, an even more powerful version will be necessary.', 'SLS is not the only Achilles heel of the Artemis program. Many believe that the Gateway base around the Moon makes less sense than providing a secure high-altitude mooring point for the Orion capsule, whose engines would not allow it to pull itself out of a low lunar orbit. The future StarShip (known as HLS: Human Landing System) will also have to dock on the orbital station, but it will be much larger than the Gateway itself, and the two structures would have numerous duplicated systems. It is not clear whether the cost and time spent building the station are justifiable and whether a cheaper alternative is possible.', 'Perhaps the answer should be sought not in technology but in politics. Twelve years ago, the SLS program was designed to appease large aerospace contractors



who were concerned about the end of shuttle operations and the subsequent job loss. Almost all the states got a more or less important piece of the pie, depending on the negotiating skills of their representatives in Washington. All together, they received \$24 billion in development expenses alone.', 'We are no longer in Kennedy's times, when going to the Moon was a matter of national pride. Now it is just a matter of business.']]}

2022-07-25 15:34:11 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/society/2022-07-08/gender-identity-is-not-something-that-you-choose-as-evidenced-by-the-failure-of-conversion-therapies.html> (referer: https://english.elpais.com/science-tech/)

2022-07-25 15:34:11 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/society/2022-07-08/gender-identity-is-not-something-that-you-choose-as-evidenced-by-the-failure-of-conversion-therapies.html> {'url': 'https://english.elpais.com/society/2022-07-08/gender-identity-is-not-something-that-you-choose-as-evidenced-by-the-failure-of-conversion-therapies.html', 'date': '08 Jul 2022', 'title': 'Gender identity is not something that you choose, as evidenced by the failure of conversion therapies', 'author': 'Daniel Mediavilla', 'text\_art': ['Antonio Guillamón, 78, relates that, when he redirected his scientific work from the study of the sexual differentiation of the mammalian brain to gender identity, his interest "was not aimed at transgender people." "I wanted to compare trans people [those who perceive an inconsistency between their physical features and the gender they feel they belong to] and cisgender people [those in whom the physical features match the perceived identity] to understand', ', because it would be a bit dim to say: "Let's see what is going on with the transgender people" when we don't know what is going on with the cisgender people either,' explains this professor emeritus from the National University of Distance Education (UNED) in Madrid, Spain.', 'Guillamón recently published the results of years of research in the book', '. ', ' (Gender Identity. A psychobiological approach). There, among other data, he includes an estimate of trans people within the population: about 4.6 per 100,000 inhabitants, according to European data. Despite the fact that they are few, their reality causes opposing positions and even political debates. The scientist is aware of the uniqueness of his subject of study, even if he approached it with the same disposition that he has applied to other scientific matters during his career.', 'Both in his book and during the conversation, he shows that he does not want to settle the debate and has a genuine interest in understanding. "Science is not dogmatic. I propose a theory and then someone else can prove that it is not true, and I will stop defending it," he says. However, he adds, "dogmatism abounds in politics and in social groups." Regarding society in general and the acceptance of trans people, Guillamón believes that "we are in the process of humanization, and part of the humanization process is the acceptance of difference." "What radically makes us fully human is accepting variation, variability and difference, all with the same dignity. That is the ethical path that still lies ahead," he concludes.', 'What are the main findings presented in the book?', 'We observed that there is a differentiation in the brain that prepares us to accommodate an image that takes from what society offers. Gender identity is a continuum in which extremes predominate. There are two large models, male or female, and a person adjusts to

one or the other. In very few cases, there is an inconsistency between the biological sex and the model, but in the cases in which it occurs, we have observed that there are brain differences in cis and trans men and cis and trans women.', 'Prenatal genes and hormones prepare the brain for the development of the different gender identities, and boys and girls have stereotyped behaviors from a young age. In addition to the exposure to testosterone during puberty, boys have a higher exposure to this hormone during gestation, as well as a kind of mini-puberty in which there is another peak of testosterone during the first three months after birth. All these differences condition the gender identity in which a person will fit. Gender identity is not something that you choose. If you're lucky, you can choose what to eat, but you can't choose whether you're hungry or not. Something as central to us as identity is not something you choose. This is also proven by the failure of conversion therapies.', ' But there are people, like Israeli researcher Daphna Joel, who deny the existence of a male or female brain.', 'Joel says that there are overlapping traits, that the brain is a mosaic. But a brain will be more masculine or more feminine. There are no qualitative differences between men and women, except for one that is very important: the existence of the Y chromosome, and the existence of a gene on that chromosome, SRY, which differentiates the testicles and everything they produce. There is only one qualitative difference, but it exists, and that SRY gene is also expressed in the brain.', 'Even if, as Joel says, it is something of a mosaic, in the end there are three quantitative possibilities in the structures of the brain. Male over female, female over male, or no difference. It is the profile of all these measurements what ultimately makes someone feel like a man or a woman. We recently published differences in brain connectivity. How information is spread in a thousand brain nodes and how this communication varies in short periods of time. We have found four different groups of connectivity: cis and trans men and cis and trans women. The same four groups that we described at a structural level and were confirmed by a recent analytical study.', 'There are remarkable data presented in the book, such as the difference between trans men in Europe, who are 2.6 per 100,000, and trans women, who are 6.8 per 100,000.', 'We have seen these variations in different countries at different times. The truth is that we don't know what is happening right now. Speculating, on one hand there are social changes, because after all identity is determined by a biological matter, but we also adapt to the models that society offers us, and there is more flexibility today. But, also, I believe that industrial activity has altered our environment in this sense too. We have many polluting substances ', ', the androgen receptors, the metabolism of sex steroids.', 'Gender identity, for most people, is formed during the first two or three years of life; but this adaptation doesn't have to be linear. There are people who reach puberty and still are not very well defined. As Dutch researchers have seen, a significant proportion of boys who reach puberty saying they are girls, or vice versa, later desists. Afterwards, they become aware of being homosexual people, content with their identity. Some reach puberty without having previously consolidated their identity, and sometimes identity is confused with sexual orientation.', ' In Spain, are there many people who receive a gender-affirming treatment and then back down?', 'So far, thanks to the Gender Identity Units of public hospitals, not many have desisted. When

someone arrives at the unit with anxiety and depression, a specialized psychiatrist analyzes if it is a reaction to a situation of distress, seeing that they feel like a woman and have the physique of a man or vice versa, or if it is ' , ' or a schizophrenia that should have to be treated first. If it is a reactive case, it goes directly to treatment. But if you suppress that evaluation process, the possibility of making a mistake is higher. Now, with the new law in Spain, it is going to be the family doctor, or an unspecialized endocrinologist who treats diabetes or cholesterol, the one who practically makes these decisions on demand. I think that the idea of depathologizing prevails over health. We can predict that there will be more transgender people desisting in the coming years.', 'As for the matter of depathologization, what happens is that transgender people seem to be immune to all the mental pathologies that cisgender people have. But not everything is minority stress. The problem is that now a person says: "I want this," and they have to give it to them, but they don't help them to see if it is something primary or reactive.', ' When should gender-affirming treatments be started?', ' If you knew for certain that a boy that is 10 to 12 years old would be stable in his desire to be a girl for the rest of his life (or vice versa) what's best is that the hormonal treatment starts with puberty blockers; then everything would work out perfectly. But there is no certainty in that, and the child has rights. The medical and ethical decision to give a blocker falls on parents and doctors. There are movements against blocking, because as much as you may explain to an 11-year-old kid that the blocker will have important effects on their body - effects that, in any case, are not known - it is difficult for them to understand. Currently, I only see one solution: specialists with clinical experience in the matter.', ' Are gender-affirming treatments safe?', ' After puberty, hormonal treatment with testosterone (transgender boys) or estradiol (transgender girls) is not harmless; like any treatment, it can have adverse effects. In the brain, for example, we see enlarged ventricles. The first study on the effects of hormonal treatments on the brain dates from 2006. We did a second, broader study in 2014, which we published in the ' , ' , and we offered an explanatory hypothesis. In the case of androgenization for a trans man, what happens is the same thing that occurs with the muscles when one takes an anabolic, the same anabolic and anti-catabolizing effects of the androgens in the rest of the body happen in the brain. In feminization, what we observe is that, as the thickness of the cerebral cortex and subcortical nuclei decrease, the ventricles expand. We recently showed that this happens because estradiol affects water metabolism in the cerebral cortex, not because the neurons shrink.', ' in order to improve care for transgender people. We have proposed that a brain scan be included in the protocols every two years.', 'But absolutely nothing is known about the treatment of children with blockers on the brain. We have just been granted a ministry project to study them.', 'How is this possible? Pharmacological treatments require knowing what will happen in the long term.', ' There is a magic phrase that states that the treatment is reasonably safe. It was said by Dr. Louis Gooren, a very experienced Dutch endocrinologist. You see transgender people in good health, but there are no long-term studies to know how they age or what effect some changes we have observed have in the brain. There is an article in which a treatment of this

type is linked to meningiomas, but there hasn't been a general trial of what the treatment is like. ', ' from the age of 11 or 12, puberty blockers are administered in order to suppress gender dysphoria, when this is considered necessary. Blockers are administered, but for a limited time.', ' Does the change in legislation affect how treatments are approached?', 'In Spain the legislation has been changed, and the regional governments have modified the care procedures for ', 'To my knowledge, in none of them, regardless of whether they were right or left wing, have the Gender Units that these governments created been consulted. In Spain, there are units that are international leaders on the matter. There's the one in Malaga, which was the first, headed by Dr. Isabel Esteva, an endocrinologist who introduced the treatments. Others were later created at the beginning of the century: the Hospital Clínic, in Barcelona; Madrid's Ramón y Cajal Hospital; also in Seville, in Bilbao, in Zaragoza, in Valencia, and elsewhere. These units have supported depathologization. But these specialists (endocrinologists, psychologists, psychiatrists) have not been asked anything at all and, as of 2019, they had already treated 9,000 people.', 'Are the politicians not interested in listening to the scientists?', ' The world of politics moves with the preconceived idea that everything is social and that when it comes to gender identity, it is the person's choice. The idea that one chooses as a volitional act is still rooted in the minds of the ruling class and the intellectual influencers. But there is an interaction between the social and the biological, and there is something as important as the self, which is a gendered self. There is a lack of understanding of gender identity, both from a biological and a social point of view. One clings to genes and genitalia and the other to the environment as shapers of identity. However, identity is the consequence of a very complex process involving genes, gonads, hormones, the brain, and the pre- and postnatal environment. It cannot be explained from the fringes, but from an overall view. It has to be seen as a process. That is what our group's research leads to, and what I discuss in the book.', 'There is the idea that we are a clean slate on which anything can be written...', ' I would ask them to prove that such a brain clean slate exists. That is not possible when you have three phases of testosterone action from the second trimester of pregnancy to puberty. That influences not only the brain but the entire genome, and it creates an epigenome, determining which genes are going to be expressed and which are going to be inhibited. In a collaborative study between the universities of A Coruña, Ghent and the UNED, we have shown differences in DNA methylation between cis and transgender populations in a series of genes, some of them related to development. We are not a blank slate at birth. Not only is it not blank; we would not even exist as the species that we are if we were a blank slate at birth. Darwin wouldn't make sense. The social environment affects, first of all, facilitating models in which we are going to fit, but we are not starting from scratch. Children at birth ', ' .', 'Why is it so painful to experience that contradiction between what one feels and what one sees in the mirror?', ' It's more than a feeling. It is the cognitive-emotional awareness of being a man or a woman. It is the self. The self is a gendered self. It is not an abstract identity. Up to now, we have always been told about an abstract self. But that self has been formed with the perception of one's own body and in relation in

time and space with other bodies and with the masculine and feminine form of the body. The contradiction comes from a rejection of the genitalia in transgender women and of the breasts in transgender men. This produces suffering. Family and social rejection, the stigma that leads to minority stress, aggravates this suffering.', 'Why can't they get used to seeing themselves in those bodies?', 'The construction of the self is formed by the perception of one's own body; we need a cerebral self-representation of the body, also in relation to other bodies and what they do. What I think, which I have proposed in our publications, is that there are differences in the differentiation of the cerebral cortex that make the genitalia appear incongruous in transgender people. And this is not a pathology, but it causes suffering if it is not understood by everyone.']]

2022-07-25 15:34:16 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-07-09/meraxes-gigas-new-species-of-giant-dinosaur-discovered-in-argentina.html> (referer: https://english.elpais.com/science-tech/)

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the Field Museum in Chicago (USA) preceded this dramatic announcement. Unearthing the dinosaur went quickly in comparison. On the first day of fieldwork, they spotted an exposed spinal vertebra. "We started digging and more and more bones appeared. We were shocked," said Canale. "We found a skull with no mandible, but with an intact maxilla and some teeth." They were actually incipient teeth because unlike humans, dinosaurs and crocodiles produce several generations of teeth throughout their lives. The Neuquén', ' was 45 years old when it perished, making it one of the oldest carnivorous dinosaurs to be discovered.', 'Almost all of the arm and leg bones were found intact, "which is very unusual because in general, not much remained of the legs and arms of the largest carcharodontosaurs discovered from the Middle to Late Cretaceous period," said Canale. This enabled the research team to identify a new and distinctive feature of this species - a powerful claw on the inner toe that is much larger and sharper than the other two.', 'The hips are also distinctive. Spines on the dinosaur's back project upward above the waist and are reminiscent of the hump on the ', ', discovered in 2015 in Cuenca (Spain). Making another nod to the literary inspiration for the dinosaur's name, the press release describes this part of the dinosaur as "Queen Rhaenys Targaryen's saddle," after the dragon mounted by the fictional queen.', 'The skull is another excellent specimen. Besides being enormous, it is the most complete example found so far and exhibits intricate bones with protuberances, ridges, and grooves. It provided the researchers with valuable information not only about ', ' but about all the species of the family, including the famous', '.', "It provided a lot of information about their anatomy," said Canale. "We observed that the arms were very short, something that we previously suspected, but can now say for certain since we have actual measurements." The analysis concluded that, like other known groups of carnivores such as the ', ' and the Abelisaurus, the arms became shorter over time until they were only 40% of the femur's size. Then they stopped shrinking and no one knows why. "The question is why did they reach that limit? Why didn't the arms keep shrinking? The proportion of the arms to the femur is similar in all of these species," said Canale. Like many scientific endeavors, some answers just raise more questions.', 'The research team tested various hypotheses. "We observed that the pectoral girdle, which is where the arm, scapula, and other bones are inserted, is not small where the arm fits in. It's a very large and well-developed bone that encapsulates a lot of the musculature that extends to the extremities. Since that musculature has to fit in somewhere, perhaps this is the reason why the arms didn't shrink any further. All the musculature that originated in the scapula had to be inserted somewhere." The usefulness of such short limbs is still a matter of controversy. Some speculate that they served for support during copulation, for tearing apart prey, or simply to avoid hitting the ground. But arm size does not seem so important when you have a huge skull. The skull of ', ' was a little over four feet (1.27 meters) long. Other ', ' also had large heads, such as the ', ' (4.6 feet or 1.40 meters) and the ', ' (5.3 feet or 1.63 meters). "Things that other carnivorous hunters did with their arms, these dinosaurs could do with their heads - seize and manipulate prey, pin it to the ground, and kill it," said Canale. Therefore, the arms would not have been very useful for eating, especially when they tried to devour other giants like the ', ', one of the

largest herbivores in the history of the planet. "Surely, it's no coincidence that carnivores and the larger herbivores coexisted. There is probably a food chain relationship. It's like an arms race: the prey grows larger as a defense mechanism, and their predators also grow to be able to hunt them," said the paleontologist.', 'By looking at other coexisting species, scientists can theorize about the evolutionary end of the ', ' family of dinosaurs. Specimens of two other species - ', ' and ', ' - from the same geological period (93-96 million years ago) have been discovered. "This leads us to posit that before becoming extinct, they reached a peak level of diversification. It was a group that diversified a great deal just before its extinction. That's when they died out and were no longer the top terrestrial predators of their time in South America." Later, they would be succeeded by the abelisaurids and the megaraptors, but that's another story.', 'The team of scientists includes Sebastián Apesteguía, Pablo Gallina, Alejandro Haluza and Federico Gianechini from Argentina; Jonathan Mitchell, Nathan Smith, Akiko Shinya, and Peter Macovicky from the United States; and Thomas Cullen from Canada. The team plans to continue its research using more sophisticated techniques such as CT scans and detailed reconstructions, as it searches for more answers about the bones, muscles, and general anatomy of the "Ice and Fire" dragon.']]

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'Jessica Mouzo', 'text\_art': ['Crispi divides her day between routine visits to pregnant women, the supervision of high-risk pregnancies and researching fetal development in the historic Maternitat de Barcelona, in the heart of Catalonia's capital. Her latest findings, published in the scientific journal ', ' found that ', ' and a stress-reducing relaxation program for mothers can reduce the risk of babies being born underweight.', 'Low weight in babies "can cause more problems in childbirth that require an incubator... in the long term, [there] is a higher risk of cardiovascular, metabolic, learning or respiratory problems," says Crispi, a specialist in fetal cardiology. She has just received the Jesús Serra 2022 Research Award - worth €35,000 - to continue her research in this field.', 'What are the risk factors that can lead to low birth weight?', ' The main cause is that the placenta does not work well and does not feed the baby properly. ', ' it doesn't work well, we don't know. It's probably multifactorial. The placenta has cells from the baby and has to attach itself to the mother's uterus, implant itself and be able to use the mother's blood and

food. The mother has to have an immunological tolerance to allow for this. Ideally, there has to be an understanding between the mother and the placenta... but older mothers, or mothers with immunological diseases or coagulation disorders, have bodies that do not allow for the placenta to implant itself. This causes problems. Then, ', ', such as tobacco and alcohol use, which can also negatively impact this process. And then there are other external elements, such as nutrition... if it's not optimal, the food that will reach the baby is of a poorer quality, which means that the placenta also doesn't grow. In addition, with stress, cortisol increases; this alters some receptors in the placenta.', 'In your study, you looked at the influence of diet. Why did you choose to focus on this?', 'We have been studying the negative effects of being born with low weight for more than 15 years. We tried to utilize drugs to improve growth, but it was a disaster. So, we said: we have to do something ', ' the problem occurs, because once the placenta malfunctions, there is little that can be done.', 'We studied more than a thousand pregnant women to find out what factors were influencing them. We knew that, in underdeveloped countries, diet was an important factor... although here, in Spain, we thought that mothers ate well. But we found that the mothers of toddlers were eating ', ' than the moms of non-toddlers. We also learned that less than 10% of pregnant women ate well. This means that 90% of pregnant women do not eat optimally. In other words, it's not that they eat very poorly, but eating optimally implies taking in all the nutrients you need in an exact proportion, without missing anything essential.', 'And what does an optimal diet look like?', 'Well, the mother should have a good base of fruit, vegetables and cereals - ideally whole grains - and optimal amounts of protein. We looked, for example, at the mothers of small babies who ate too little protein because, sometimes, during pregnancy, they found a distaste for meat or fish. We also found that there was a nutritional deficiency of calcium, because you have to eat a lot more dairy products while carrying a baby. Perhaps, if they were not pregnant, the women wouldn't have these deficiencies, but with pregnancy, nutritional requirements increase.', ' Why don't the mothers eat well?', 'We believe that there is a percentage that simply don't worry about how much or what they are eating. Or, because of nausea, or because they work and don't have the time to find a balance. But there is also a very important percentage of pregnant mothers who make an effort and believe that they are eating well... the problem is that nobody explains to them how to do it correctly. We gynecologists generally don't have training in this. We mostly dedicate ourselves to prohibiting things: fish due to mercury, ham due to toxoplasmosis, unpasteurized dairy products due to listeria, etc. We don't explain much - if the pregnant woman asks a gynecologist about nutrition, they usually don't know how to answer.', ' In you study, you showed that dietary changes could reduce the number of underweight babies. What else can a better diet do?', 'We have seen that it also reduces pre-eclampsia, which is hypertension in pregnancy. But we did not see dietary changes reducing the number of premature babies.', ' One of the limitations of the study is that it was done in a high-income setting. To what extent is it feasible and realistic to ask all mothers to eat a healthy diet? Eating well is often much more expensive than eating poorly.', ' 70% of the women who participated in the study were of a high economic level, this is true. But when working with the data, we



saw that there was also a positive effect on those of lower socioeconomic levels. Healthy food is expensive, yes, but you can also adapt a diet based on income. These women also appreciated that someone explained to them that, within their income range, they could also make better choices at the grocery store.', 'The other part of the study was stress reduction via a relaxation program.', ' ', ' ' on our entire society. It is assumed that the pregnant woman is a happy woman... but the stress of pregnancy is closely related to the fear of the unknown. You do not know if it is going to go well or badly. This generates worry, which subsequently increases your cortisol levels. Pregnancy, whether you are of a high or low socioeconomic level, generates some intrinsic fears that are very powerful: you do not know if the baby is going to be healthy or unhealthy. There are internal questions about whether you will be a good mother or not, of how strong the relationship with your partner is, if you will be able to continue in your professional career... there are many uncertainties. And uncertainty is the basis of stress.', 'What role does cortisol play in fetal health?', 'Cortisol is the hormone that we create to put us on alert when we are in a stressful situation. Like in a fire, for example. Having high cortisol at a specific time is good. What is ', ' good is having it high all the time, or for a long time. During pregnancy, cortisol is necessary for ', ' ', but very high levels are bad. If you receive too many doses of cortisol, babies are born smaller.', 'How is your research going now?', 'We are trying to understand the multiple ways in which a diet can reduce prenatal problems from developing. One hypothesis is that what the mother eats during pregnancy are like the pieces with which the baby is made: the baby is made by taking in proteins, lipids, carbohydrates. But we believe that there can also be a direct effect on the placenta: eating better can make the placenta of better quality, which makes it feed the baby more efficiently. We are studying the placenta and, within it, the polyphenols - components derived from olive oil - and nutrient carriers to understand which components of a diet can bolster the placenta.', 'With these results, can there be a risk in putting excess responsibility on the mother?', 'On the contrary, the mother is already making an effort. The only thing that the study intends is to give tools to empower pregnant women. The purpose is not to place blame - everyone does the best they can.', 'Some time ago, there was a big controversy surrounding an influencer (also a doctor) who said that there was nothing wrong with having a glass of alcohol while pregnant.', 'No. Zero tolerance to alcohol. Alcohol goes straight to the baby, to the placenta. And tobacco should also be zero.', 'Do the mother's habits completely modulate the baby's health?', 'Yes, totally. A third of adult health depends on our genetics; another third, on our habits of life after birth; and another third of our habits in the prenatal stage... which are entirely those of the mother. In other words, a third of our health depends on how the mother took care of herself.', 'At the awards ceremony, you highlighted the importance of prenatal research and said that it was "neglected." Why did you say this?', 'Firstly because, until 50 years ago, the field didn't exist. Fetal medicine was born with ultrasound - it is a relatively new specialty and much remains to be discovered.', 'The second reason is that, when it comes to research grants, pregnancy is not given much importance. I don't know if it's because we're women, or because the ones who give out the money are men who worry a lot about

prostate cancer or Alzheimer's, but maybe not about pregnancy. We always have to find ways to stretch money, because there are rarely awards for pregnancy research.', 'What is left to learn about fetal medicine?', ' We are putting a lot of focus on the placenta, because it is an extremely complicated organ to study. It's very heterogeneous, it changes a lot during pregnancy and has rarely been examined. It was something that came out after childbirth and was immediately thrown in the trash, because it's kind of ugly, disgusting. But inside the uterus, it is cuter! It's a wonderful organ, the basis of low birth weight, of pre-eclampsia, of many diseases. I work in the cardiovascular area and we also have to understand more about how the heart works... why it sometimes doesn't develop well. The more you study, the more questions you have.']]

2022-07-25 15:34:27 [scrapy.core.engine] DEBUG: Crawled (200) <GET https://english.elpais.com/science-tech/2022-07-12/the-taboo-of-menopause-there-is-shame-it-worries-to-be-identified-as-old-or-incapable.html> (referer: https://english.elpais.com/science-tech/)

2022-07-25 15:34:27 [scrapy.core.scrapy] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-07-12/the-taboo-of-menopause-there-is-shame-it-worries-to-be-identified-as-old-or-incapable.html>

{'url': 'https://english.elpais.com/science-tech/2022-07-12/the-taboo-of-menopause-there-is-shame-it-worries-to-be-identified-as-old-or-incapable.html', 'date': '12 Jul 2022', 'title': 'The taboo of menopause: 'You worry you'll be labeled as old or incapable'', 'author': 'Jessica Mouzo', 'text\_art': ['If Carla Romagosa had associated those first hot flashes and that eerie tiredness with early menopause -she was diagnosed at the age of 39-her story would have been different.', '"The clues and the signs were there. I started having symptoms at 35, but I didn't associate it with early menopause."', 'She visited an ', '. "There they told me that I had no ovarian reserve. I went to my gynecologist and she confirmed it: I was entering menopause," she recounts.', 'The end of menstruation usually happens between the ages of 45 and 55. This implies the cessation of ovarian activity and, subsequently, a decline in the production of female hormones, such as estrogen and progesterone, which influence the regulation of many organic processes.', 'Menopause, strictly speaking, is a date: the date of the last period. But the process is gradual. In the transitional phase that lasts for several years before and after the last period, endocrinological changes and symptoms occur which can affect a woman's quality of life.', 'The most common effects associated with this stage are, according to Dr. Santiago Palacios, spokesperson for the Spanish Society of Gynecology and Obstetrics, "first, menstrual irregularity and vasomotor symptoms, such as hot flashes, sweats ', '. " Then, in the medium term, between three and five years after the last period, vaginal dryness, urinary incontinence and other genitourinary symptoms may appear. In the long term, there are other associated ailments, such as osteoporosis.', '"In the past, it was believed that hormones were genitals. Today, it is known that there are estrogen receptors in all parts of the body," Palacios points out.', 'However, there is no unanimity among the experts when it comes to the symptoms of menopause. Carme Valls, an endocrinologist and the author of ', ', says that the effects of the cessation of menstruation are limited to hot flashes and vaginal dryness.', '"Associating is not the same as causing. The other health problems

are those that derive simply from living more than 50 years," she insists.', 'A study published in the journal ', ' concludes that the increases in ', ', urinary incontinence and body mass index among menopausal women are more likely linked to age. On the other hand, motor symptoms, sleep problems, vaginal dryness, sexual pain, decreased sex drive, decreased bone density, or increased body fat are associated with menopause.', 'There is more consensus to be found when it comes to the idea that no two menopauses are the same: 80% of women going through menopause experience at least one of the symptoms associated with this time of life, but not all aggressively. In fact, the prevalence of moderate or severe vasomotor problems is uncertain: one study indicates that in Europe it was 40%; in the United States, 34%. In Japan, it was reported to be just 16%.', 'Carla Romagosa suffered from strong hot flashes, tiredness and difficulty falling asleep. She also experienced ', '. Due to menopause, she cried a lot, settled in "a roller coaster of perpetual premenstrual cycle." She became lonely and suffered pain through her body, as she recounts in her memoir, ', '.', 'Romagosa was treated with hormone replacement therapy, which is typically prescribed for cases of early menopause. She wondered why nobody had told her about this condition before.', '"Because many people associate it with old age, with something negative... there's a lack of understanding and communication in society,"\xa0 she reflects now. She also realizes that there was a lot of ignorance. "I had to surround myself with people who were in the same vital stage as me-50-year-old women-because, when I told my friends, the degree of ignorance they had about this was very high. It was reassuring to get together with women in the same stage and see that nothing strange had happened to me, that this was normal."', 'Hot flashes and not sleeping well are normal. Sometimes, in fact, one goes hand-in-hand with the other. You can also gain weight because hormonal imbalances affect fat storage. And this can change the sexual appetite due to the physiological component associated with the drop in hormones, although other factors also contribute, "such as insomnia, fatigue, vaginal dryness and not daring to propose different kinds of sexual relations," notes Romagosa. But just because it's normal, it shouldn't mean you have to suffer in silence.', 'This past June, ', ' in the scientific journal ', ' warned: "Stigma, embarrassment, a lack of public awareness, and miscommunication mean that for many women, menopause is either borne in quiet suffering or else over-medicalized as nothing more than a hormone deficiency requiring estrogen replacement."', 'There is a taboo that comes with menopause. And silence, a lot of silence. "There is shame about menopause and about aging in women. You internalize that shame and you worry about being labeled as old or incapable because of this," writes Martha Hickey in an email. Dr. Hickey is a gynecologist in the Department of Obstetrics and Gynecology at the Royal Women's Hospital in Victoria, Australia. She recently wrote an article in the ', ' where she advocates for the normalization of menopause.', 'Maria Antònia Roca, 63, still remembers how some of her friends balked when she set up the Osteoporosis-Menopause Women's Association in 2016.', '"There is still a lot of stigma and the women who participate appreciate a space where they can speak face-to-face, because they don't talk [about menopause] at home. There is shame and they stigmatize you: you are menopausal, you can no longer have children, you are old and your youth is gone."', 'Manuela H., 49, has just been told that she is

already menopausal. She hasn't had her period for 15 months. For some time, she's dealt with changes in her sleeping patterns, as well as dry skin and mood swings.', 'It's kind of like an assumption that you're going down. Not only physically, but also in the state of mind. You are more irritable, with a feeling of sadness... it coincides with a time of life with more changes, because the children are also getting older," she explains.', 'Social silence doesn't help. There are women who don't even tell their partners, "because of shame, because communication between them has broken down or because they don't recognize what is happening to them," Romagosa says.', 'The spiral of silence is perpetuated between generations, laments Alicia A., 33: "Everything related to women is a taboo. So, you think that all these horrible things only happen to you and that they are a shame when, in reality, it's all normal."', 'Jacqueline Sánchez, 57, was also diagnosed with early menopause at age 34 after internal bleeding ', '. While she did tell her husband and her daughter, she admits that, with her mother, "the subject was never discussed."', 'From her experience with over 20 years of menopause, the constant lack of information stands out: "You don't know anything and no matter how much you ask, there isn't much information either. Now I have insomnia and hot flashes again, for example, probably because I haven't finished this phase. There's a lot of ignorance and few explanations, perhaps because it's [viewed as] unimportant, or because it's not talked about enough to make it important."', 'Information is essential, agrees Aina Munné, 34. Almost everything she knows about menopause is from her mother.', 'I don't recall any mention in high school of this topic. Like everything that has to do with people with a uterus, it's made invisible and stigmatized."', 'In the UK, they have recently incorporated teaching about menopause into the secondary school curriculum.', 'Dr. Hickey believes that the role of machismo "is fundamental" in the stigma surrounding menopause. "Menopause is age discrimination based on gender in this society." And machismo reaches science. "Menopause is a taboo for research. It has not been done well and this is part of the usual ignorance of women's health."', 'Munné is blunt: "We must stop stigmatizing aging and change the way this topic is communicated." Experts advocate focusing on the positive elements of menopause, such as the end of premenstrual syndromes or the ', '.\xa0 Munné also looks at it like this: "I don't know how I'm going to take it when I get the menopause, but I have endometriosis, so ending painful periods is an attractive proposition," she resolves.', 'But experts warn that, as long as silence persists, misinformation and fears will continue to grow. There are women who silently suffer from symptoms that could be treated, Dr. Palacios notes: "One in four women needs hormone replacement therapy and we are only giving it to 2%. That means that 23% are having a hard time."', 'Hormonal treatment of menopause-which consists of administering hormones that the body has stopped producing-relieves symptoms and, according to the experts consulted, is recommended for women under the age of 60 who are less than 10 years postmenopausal and are facing severe symptoms that impair quality of life.', 'However, Palacios says that a kind of "hormonophobia" persists in Spain, a generalized rejection of these drugs. The origin of this, according to the doctor, is in the interpretation of a study that was published 20 years ago-the Women's Health Initiative (WHI)-which associated hormonal therapy with an increased risk of breast cancer.', 'We now

know that if you start therapy before age 60, the benefits outweigh the risks. If you start later, it's true that there is a greater risk of venous thrombosis", adds Palacios.', 'After the WHI study, the consumption of hormone therapy decreased. But the authors themselves wrote an article in the ', ' where they denounced that their results were being used "inappropriately" to make treatment decisions for women younger than those of the average age of the study (63 years).', 'But the fear persists and "there is a lot of confusion and fear among the patients," warns Palacios, who also clarifies that hormonal treatment is simply one more therapeutic option, not the only one. There are vitamin supplements and other approaches for specific symptoms. Exercise and a healthy diet, for example, are essential.', 'Experts advocate seeking a balance to avoid excessive medicalization, while also responding to the needs of women without downplaying symptoms. A Fawcett Society study reported that one in 10 women has left their job due to menopause.']]

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compounded with other risk factors.', ' And the body pays the price?', ' Cholesterol is an example. If we eat a lot of fatty foods, especially if they contain the bad fats that we're told to avoid, we damage the arteries. They also cause artery calcifications and cholesterol plaques - called thrombi - that can break loose anytime. They travel through the circulatory system and block certain arteries, sometimes in the brain. Calcium and cholesterol deposits in the arteries also clog the artery itself - in the heart, brain, or legs.', ' So we need regular check-ups.', ' Yes, and a healthy lifestyle. When it comes to combating strokes, we tend to focus on the acute phase. The patient must go to a hospital as quickly as possible so we can provide treatment. And many patients respond well to treatment. But we need to focus more on prevention. To avoid becoming stroke patients, we all need to heed medical recommendations and try to minimize the risk of vascular disease, which is at epidemic levels.', ' We all have heard stories about the healthy, physically active person with no bad habits who suddenly suffers a stroke.', ' Of course, and there are many such stories. Even a young person who hasn't developed any risk factors because of age can have a stroke. Why? There are a number of reasons, ', '. Some diseases characteristically affect a specific gene or a certain genetic mutation. We all have genetic risk factors that we don't know much about right now.', ' Do we need more personalized medicine?', ' It is extremely important to raise public awareness so people will volunteer to participate in research studies. These enable us to collect a large volume of data that we need to develop algorithms that can better predict the type of patient at greater risk of suffering a stroke, and then try to prevent it.', ' It's a disease that causes panic when it hits close to home. It's the closest thing to a sudden death.', ' It happens all of a sudden. A person can look and feel perfectly fine and two seconds later, he or she is no longer fine. Other diseases have symptoms that appear more gradually. Strokes happen so fast that response time is essential for survival and for avoiding permanent disability.', 'So time is really important.', ' Time is of the essence. I place great emphasis on training people. Because recognizing the symptoms enables us to develop stroke plans with the objective of getting a patient to a medical center as quickly as possible. The brain's recovery from a stroke and how much we can do for the patient depends on the amount time elapsed since the onset of symptoms. The longer the affected area lacks an adequate blood flow, the more likely those neurons will die.', 'Physicians complain when someone with a minor ailment or who thinks they're having a stroke goes to the emergency room, only to find out later that it's nothing. The frustration of some physicians is understandable, but why should a patient have to recognize exactly what's happening to him or her?', ' Our position is clear - go to the hospital as soon as possible if you suspect you're having a stroke. It may have been a transient ischemic attack but because you feel fine now, you think nothing happened.', 'What is that?', 'A transient ischemic attack or transient stroke is a warning of sorts. Even though you feel fine now, you should still go to an emergency room so that the neurologist can examine you and determine whether you have a high probability of recurrence. There are a number of tests that we can do, even in the emergency department, to determine whether a patient needs to remain in the hospital or can be discharged.', 'What happens in the body during a transient stroke?', ' When a

thrombus forms, the body initiates a series of mechanisms to break it up, such as hemostasis and coagulation. If I cut my hand with a knife, it will start to bleed. Since I'm healthy and have no problems with coagulation, the blood will stop flowing on its own. Why? Because the body begins producing more coagulation in that area to stop the bleeding. The opposite happens with a transient stroke. When the body detects a thrombus, it slows the coagulation process to a certain level and starts trying to dissolve the thrombus.']]}

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Telescopes record images in black and white, through colored filters. Combining several shots of the same field obtained at different wavelengths, it is possible to show what they would have looked like to the human eye, although the color palette will always be, to some degree, artificial, since much of the light in the infrared is invisible. In the case of the first image from the James Webb, six filters have been used: two in different shades of blue, two in green and two in red.', 'To collect enough light, the space telescope's mirror had to remain pointed at the same region of the sky for more than 12 hours. By way of comparison, the ', 'needed more than 200 hours, over many sessions and several months.', 'The James Webb telescope', 'is one of the largest scientific projects in history, both in scale and cost - \$10 billion. It also took three decades to design, build and launch.', 'At the moment, the observatory is orbiting around the Sun at the second Lagrange Point, 1.5 million kilometers from Earth. The observatory is specialized in capturing infrared light - invisible to human eyes - which is emitted by distant objects. What's more, it is the first space telescope that can see through dust clouds and capture the stars behind them. Thanks to the James Webb and other existing space telescopes, such as ', 'Hubble and Chandra, scientists will be able to observe the cosmos in unprecedented detail.', 'The release of the image is a preview of a series of high-resolution color pictures from the James Webb that will be released by NASA on Tuesday at 4.30pm (GMT).', 'The images from the space telescope are set to show the following:', 'Located 7,600 light-years from Earth, it is the brightest known nebula.', '. This giant planet - somewhat larger than Jupiter - is 1,150 light-years away from Earth. If a year on Earth is 365 days, the time it takes for the planet to complete an orbit around the Sun, WASP-96b is so close to its sun that each year lasts just three and a half days.', ' This huge, expanding cloud of gas surrounds a dying star 2,000 light-years from Earth. It is also known as the Southern Ring Nebula, and is only visible from the southern hemisphere.', ' This is the first compact galaxy group ever discovered. Stephan's Quintet was discovered in 1877 by the French astronomer Édouard Jean-Marie Stephan. The group is about 300 million light-years away from Earth.', ' The force of gravity exerted around a nearby galaxy can work like a magnifying glass, amplifying the light of much more distant galaxies behind it. The James Webb will capture this phenomenon to show that these astronomical lenses can be used to study very distant objects.']]

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sinew. In South Africa and India, the heads of large biting ants were used as clamps to hold the edges of wounds together. For centuries, ', '. More than 4,000 years later, American engineer Kristi Anseth is studying how newer, more sophisticated biomaterials assist in regenerating cartilage, help bones heal faster, and provide a better understanding of some diseases.', '"Biomaterials can play a key role in helping our bodies heal themselves," said Anseth, who received the 2020 ', ' international award in late June (after a two-year pandemic hiatus). In an interview with EL PAÍS conducted at the awards ceremony in Paris, the researcher who specializes in ', ', and also designs synthetic materials that imitate our tissues, said, "We are using materials designed for textile products like mattresses or clothing, and making them interact with the human body."', 'Biomaterials "can be used to deliver molecules that help [injured or diseased] tissues heal faster," said Anseth, who is also an Associate Professor of Surgery at the University of Colorado in the United States. "When you only inject cells and nothing else, sometimes they don't survive very well on their own. They need a three-dimensional environment - a biomaterial that can provide the scaffolding and instructions on where and when to grow the right kind of tissue."', 'Many types of biomaterials are commonly used today - heart valves, hip joint replacements, and dental implants. They are made from cells, living tissues, metals, ceramics, plastics, and glass. The US National Institute of Biomedical Imaging and Bioengineering notes that biomaterials can be used in molded or machined parts, coatings, fibers, films, foams, and fabrics for biomedical products and devices. Anseth highlights the potential of degradable sutures that can "bind tissues together and dissolve once they have healed."', 'Anseth explains how biomaterials are used to heal arthritis, an inflammation of the joints that can cause pain and swelling. What usually happens, says Anseth, is that the cartilage that lines a joint - like the knee - wears down. "When you don't have that lubricating cartilage surface in between and bones are grinding against each other - it's painful," she said. "But we have a lot of extra cartilage in our body... so we can take it from somewhere else, grow the cells in a bioreactor, and insert them into the joint to grow and regenerate that cartilage surface."', 'In addition, there are some proteins called ', ', which "can also help tissues and cells grow and heal themselves." Anseth says that these can be useful for fractured ', '. "Although our bones can usually heal on their own, sometimes a cast or plates and screws are needed. It's a long [healing] process," she said, "and sometimes large defects caused by a car accident or bone cancer may not heal very well."', 'Anseth said a growth factor found in bone marrow can be useful in these cases, but there's a catch. "You can't administer it on its own for a major bone injury because it could degrade." That's where biomaterials come in. They can be used "to deliver that [growth] factor locally for longer periods of time and at the right dose, time, and place."', 'Despite their great potential, biomaterials also have limitations. There is a risk of infection if they are not biocompatible. The presence of exogenous materials in the human body dates back to prehistoric times, as documented in a study published in ', ', a scientific journal. A spearhead embedded in the hip of Kennewick Man, a 9,000-year-old skeleton found in Washington state (US), and the use of carbon particles for tattooing are examples of foreign objects that were tolerated by human bodies

centuries ago.', 'Two key factors determine the biocompatibility of a material, according to a study published in ', ': host reaction and degradation in the body. Sometimes, says Anseth, "it's difficult to get biomaterials to degrade at the same rate as new tissue growth." Moreover, getting a biomaterial to have all the desired properties "is tricky.... Bones, for example, are really strong and most biomaterials are not as strong or don't have the same properties," said Anseth.', 'More research is still needed to unravel all the mysteries of the human body. Anseth said: "We have regenerated skin, cartilage, and blood vessels, and we have also helped bones heal faster. But we still need to do more [research]. For example, why doesn't the heart regenerate after a heart attack in the same manner as the skeletal muscles we use for walking and exercise?"', 'Anseth foresees "significant advances in medicine" over the next 10 years. "We're going to figure out how we can intervene earlier to get muscles to grow, repair cartilage. or heal nerves... things that aren't possible right now." One of her most ambitious goals is to counteract age-related health problems. Age, a risk factor for multiple chronic diseases, is often accompanied by a loss of body mass.', 'As we age, "something happens to our cells," said Anseth. "They have divided many times over a lifetime, and are no longer as active or able to repair themselves." ', 'could provide young stem cells to help muscles grow back. "Aging is a complex natural process that we can't necessarily reverse, but we can improve the quality of life for people experiencing degeneration in their joints, muscles and hearts."']}]

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'text_art': ['The ', ' can only observe 40% of the sky. It is the ', ', and moving it to point in a different direction is very difficult. Before it is moved, it must keep its back to the Sun. Its equipment must always be kept at a very low temperature, meaning it cannot be pointed at any site at any time. What it can do is rotate a complete turn on its axis to observe objects that are towards the north or south pole.', 'To study objects outside this field, researchers must wait months or even half a year until the movement of the Earth has dragged the James Webb to the other end of its orbit and the Sun occupies the opposite side.', 'These considerations have undoubtedly influenced what has been captured in the space telescope's first photographs. Five of the six images are located in the southern hemisphere and therefore cannot be seen from Europe. Only Stephan's Quintet, in the Pegasus constellation, is visible from Europe, although a good telescope is needed to see it.', 'Of the five objects, the closest to Earth is WASP 96B, a planet located 1,000 light-years away. To put this in context, the closest star to Earth is Proxima Centauri, which is four
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light-years away.', 'Located 2,000 light-years away is NGC 3132, a close neighbor in our "galactic neighborhood" in the Vela constellation. Technically, it's a "planetary nebula," but that name has nothing to do with planets. It looks like a colored ring, but it is actually the remains of an ', ', a bubble of gas that continues to swell like a huge soap bubble. It is half a light-year across and is continuing to grow.', 'The impressive Carina Nebula is also a relatively close object. It is 8,000 light-years from Earth that appears as a large cloud of gas in the', '. The Carina Nebula spans 300 light-years, meaning only a part of it has been captured in the photo from the James Webb.', 'Stephan's Quintet is in another league. It is made up of five galaxies: four, about 300 million light-years away, are united by their gravitational attraction, which has deformed them and created spiral arms of stars. The James Webb image shows the compact galaxy group as it appeared 4.6 billion years ago, when trilobites swam in the Earth's oceans and the dinosaurs had not yet appeared. The fifth galaxy is just 40 million light years away, and if it is seen next to the others, it is only due to a perspective effect.', 'The image that US President Joe Biden presented on Monday, hailed as the deepest view yet into our universe's past, captures thousands of early galaxies. One of the galaxies, which looks like a faint red dot, appears as it did 13 billion years ago. The galaxies seen as arcs of light are about 5 billion light-years away, in Volans, another constellation in the southern hemisphere.']]

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2022-07-25 15:34:56 [scrapy.core.scrapers] DEBUG: Scraped from <200 https://english.elpais.com/science-tech/2022-07-13/without-the-kissing-disease-virus-your-risk-of-multiple-sclerosis-is-practically-zero.html>

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{'url': 'https://english.elpais.com/science-tech/2022-07-13/without-the-kissing-disease-virus-your-risk-of-multiple-sclerosis-is-practically-zero.html', 'date': '13 Jul 2022', 'title': 'Without the kissing disease virus, your risk of multiple sclerosis is practically zero', 'author': 'Manuel Ansedè', 'text_art': ['This year, Italian epidemiologist Alberto Ascherio solved one of the great mysteries of medicine. In January, his team proved that the ', 'virus, which causes mononucleosis (also known as the kissing disease), is also the main cause of multiple ', ', an enigmatic disorder in which the protective covering of neurons is destroyed. In some cases, the patients - usually diagnosed in their twenties or thirties - can deteriorate to the point of struggling to talk and walk. Until now, the three million people living with multiple sclerosis worldwide did not know what the real trigger of their ', 'was.', 'In 2000, Ascherio's team, from ', ', began to rigorously monitor 10 million US soldiers. Their results show that the risk of multiple sclerosis increases by 32 times after being infected by the kissing disease virus. In an interview, Ascherio explains how a virus as omnipresent as the Epstein-Barr, which infects 94% of the population, is to blame for a disease as rare as multiple sclerosis, with just 36 cases per 100,000 people.', ' If you are not infected with the Epstein-Barr virus, what is your risk of having multiple sclerosis?', 'Practically zero. Multiple sclerosis probably doesn't develop if a person is not infected with the
```

virus.', 'You have stated that the virus is "the main cause" of multiple sclerosis. Virologist Jeffrey Cohen, from the US National Institutes of Health, has declared that he prefers to be cautious with the word "cause," and talks about a "necessary precondition." What are your thoughts on this?', ' I don't think that way, to tell the truth. It's a bit of a paradox, because calling it a necessary factor implies that it is a causal factor in 100% of the cases. When I say that it is a cause, I say that it is the causal factor of 99.9%, a little less.', ' So you do believe that the Epstein-Barr virus causes multiple sclerosis.', 'Yes, I think that there is no doubt that multiple sclerosis is a rare complication of an Epstein-Barr virus infection, but there are always other factors. How is it possible for such a common virus to cause such a rare disease? Well, this is not an exception; it's the rule. The Epstein-Barr virus causes Burkitt's lymphoma, which is a rare lymphoma, and it also causes nasopharyngeal carcinoma, which is also very rare. Many viruses cause serious illnesses occasionally.', 'For example?', ' Before there was a vaccine, practically all children used to be infected by the polio virus. And one in 400 children had paralytic polio, but the other 399 didn't. There is always a genetic predisposition, environmental factors, other infections or a set of factors. It is the same thing that happens with Covid-19: some people die while others have no symptoms.', 'Could there be another cause of multiple sclerosis, besides the Epstein-Barr virus? Is there another candidate?', 'No. We looked into all known viruses for our study, and no other emerged as a possible candidate. In multiple sclerosis, the virus triggers a complex inflammatory autoimmune process. In very rare situations, this could happen without a known cause; we can't exclude the option of another virus. But those would be very rare cases.', 'Almost everyone has the Epstein-Barr virus in their saliva.', ' Yes. It reactivates periodically. If we stop people on the street and test them, 20% will test positive. But you can also test negative now and test positive in two weeks. Virus excretion is intermittent.', ' The Epstein-Barr virus is like other members of the herpesvirus family: it can integrate its DNA into your own DNA, inside human cells.', 'It can integrate into human DNA, but in most people, the DNA of the virus remains in a tiny pellet inside the human cell. It connects to human DNA when the cell reproduces. As the human cell divides in two, the virus also reproduces.', 'Is it then possible to envision a treatment that eliminates the virus from our cells?', ' Theoretically, yes. We can block the replication of the virus when the cell reproduces.', 'Do you think that a person with multiple sclerosis could be cured if the virus is removed?', ' That is still unknown. We proved that the virus causes the disease, but there are two aspects: it can cause just the onset of the disease, or it can also cause its progression. It is almost certain that if the virus is present it will continue to stimulate this autoimmune response. It is likely, but not certain. It is also possible that, even if the virus is removed, this immune process will continue on its own. We still don't know the answer.', ' It would be amazing if it worked.', 'It would be amazing, and I think it's something that should be studied. The only way to know, in my opinion, is to try antiviral treatments. There are some ongoing studies, like a trial that is being carried out with immune cells that kill the virus, cytotoxic T cells specific for the Epstein-Barr virus. We ourselves tried to carry out some studies with an antiviral that

is effective against the virus, but we don't have a magic bullet, a drug that kills the virus for good. There are drugs with intermediate activity which reduce proliferation, but we don't know if it will be enough.', 'Have your latest results driven research into the disease?', ' Yes, I think, a lot, at all levels and, especially, regarding the vaccines, because that would be the most logical way to act. If multiple sclerosis is caused by a very aggressive immune response against the virus, then a vaccine would be able to modulate that response so that it is less aggressive. Currently, the American company Moderna has an experimental vaccine against the Epstein-Barr virus.', 'Do we have a clear understanding of the way the virus behaves in a person with multiple sclerosis?', 'Not really, we still don't quite get it. There was a series of investigations in 2007 that showed that multiple sclerosis lesions have cells infected with the virus, that the virus reactivates, that the immune system attacks those cells and it causes all the inflammation around it, damaging the myelin (the sheath of neurons). The results seemed very conclusive, but afterwards, other laboratories were unable to replicate them. And others, more recently, have. They are difficult studies, on which they are working with autopsy material from people who died of multiple sclerosis. It's a disease that lasts for decades, so we're trying to understand how the inflammatory process started by looking 10 years later. It's not easy.', 'What other viruses are involved in the development of autoimmune diseases?', ' The truth is that there is no very clear evidence. The Epstein-Barr virus itself is probably associated with an increased risk of systemic lupus erythematosus, but most autoimmune diseases are considered to be of unknown cause. Infections likely play a role, but this hasn't been clearly proved.', 'Smokers have twice the risk of contracting multiple sclerosis than non-smokers. Why?', 'The mechanisms are unclear. Lung inflammation could possibly have some interaction with the Epstein-Barr virus.', ' What about other risk factors for multiple sclerosis, such as childhood obesity?', ' Of the factors that can be corrected, probably the most important one is vitamin D deficiency. The second would be smoking. Childhood obesity is associated with vitamin D deficiency. Some people think that there is an effect of obesity that's independent of the effect of vitamin D, but I'm not 100% sure.', 'In your laboratory, you also study the role of drugs, diet and lifestyle in the risk of Parkinson's disease. Have you reached any conclusion?', 'Regarding Parkinson's, the main conclusion is that physical activity has a protective effect. As for diet, we have interesting results, but the level of certainty is not as strong. The Mediterranean diet and the flavonoids, which are antioxidant components, are associated with a reduced risk of Parkinson's. Proving causality is complicated. We are studying the initial phase of Parkinson's, and we see that the Mediterranean diet is associated with a lower frequency of the first symptoms. We don't mean that 90% of cases can be prevented with the Mediterranean diet; we are talking about preventing 10% to 15%. It is promising, because it's the best thing we have after physical activity, but we are not going to get rid of Parkinson's with diet. However, we can get rid of multiple sclerosis with a vaccine.', 'What is the main hypothesis about the cause of Parkinson's?', ' There are risk factors, such as the exposure to pesticides. I think it almost certainly increases the risk of Parkinson's, but we're talking about doubling the risk. The vast majority of people with

Parkinson's don't have substantial exposure to pesticides. I think the causes are quite complex, with many contributing factors. There are 10% or 15% of cases that have genetic mutations. In the rest of the cases, it is not known.', ' Men have a 1.5 times higher risk of having Parkinson's than women. What could be the reason?', ' Yes, it is more common in men, and we also don't know why.

Differences in disease risk between men and women are common. Multiple sclerosis is more common in women. In most cases, it is not known. Some talk of hormones, of course, but in reality there is not a clear understanding.']]

2022-07-25 15:34:56 [scrapy.core.engine] INFO: Closing spider (finished)

2022-07-25 15:34:56 [scrapy.extensions.feedexport] INFO: Stored csv feed (90 items) in: elpais\_scrap.csv

2022-07-25 15:34:56 [scrapy.statscollectors] INFO: Dumping Scrapy stats:

```
{'downloader/request_bytes': 70513,
  'downloader/request_count': 157,
  'downloader/request_method_count/GET': 157,
  'downloader/response_bytes': 5488315,
  'downloader/response_count': 157,
  'downloader/response_status_count/200': 94,
  'downloader/response_status_count/301': 31,
  'downloader/response_status_count/404': 30,
  'downloader/response_status_count/504': 2,
  'dupefilter/filtered': 127,
  'elapsed_time_seconds': 974.903647,
  'feedexport/success_count/FileFeedStorage': 1,
  'finish_reason': 'finished',
  'finish_time': datetime.datetime(2022, 7, 25, 13, 34, 56, 373239),
  'httpcompression/response_bytes': 27108722,
  'httpcompression/response_count': 124,
  'httperror/response_ignored_count': 30,
  'httperror/response_ignored_status_count/404': 30,
  'item_scraped_count': 90,
  'log_count/DEBUG': 253,
  'log_count/ERROR': 1,
  'log_count/INFO': 57,
  'log_count/WARNING': 1,
  'memusage/max': 280784896,
  'memusage/startup': 280784896,
  'request_depth_max': 2,
  'response_received_count': 124,
  'retry/count': 2,
  'retry/reason_count/504 Gateway Time-out': 2,
  'scheduler/dequeued': 157,
  'scheduler/dequeued/memory': 157,
  'scheduler/enqueued': 157,
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  'spider_exceptions/TypeError': 1,
  'start_time': datetime.datetime(2022, 7, 25, 13, 18, 41, 469592)}
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2022-07-25 15:34:56 [scrapy.core.engine] INFO: Spider closed (finished)

```
[59]: scrapped_df = pd.read_csv('elpais_scrap.csv')
scrapped_df
```

```
[59]:
```

	url	date	\
0	https://english.elpais.com/society/2022-07-22/...	22 Jul 2022	
1	https://english.elpais.com/economy-and-busines...	05 Jul 2022	
2	https://english.elpais.com/economy-and-busines...	05 Jul 2022	
3	https://english.elpais.com/economy-and-busines...	06 Jul 2022	
4	https://english.elpais.com/international/2022-...	11 Jul 2022	
..	...	...	
175	https://english.elpais.com/science-tech/2022-0...	12 Jul 2022	
176	https://english.elpais.com/science-tech/2022-0...	12 Jul 2022	
177	https://english.elpais.com/science-tech/2022-0...	13 Jul 2022	
178	https://english.elpais.com/science-tech/2022-0...	13 Jul 2022	
179	https://english.elpais.com/science-tech/2022-0...	13 Jul 2022	

	title	author	\
0	Carlos Ríos: The rise and fall of the nutritio...	Daniel Mediavilla	
1	Ruja Ignatova: From crypto queen to FBI's top ...	Antonio Ortuño	
2	As the global economy deflates, here is what t...	El País	
3	Euro falls to 20-year low against US dollar an...	Álvaro Sánchez	
4	Short showers and limited heating: Germany pre...	Elena G. Sevillano	
..	...	...	
175	Mar Castellanos, neurologist: 'Stroke increasi...	Manuel Jabois	
176	James Webb space telescope: A guide to the fir...	Nuño Domínguez	
177	The engineer who teaches our bodies to heal th...	Isabel Rubio	
178	James Webb space telescope: Where are the cosm...	Rafael Clemente	
179	'Without the kissing disease virus, your risk ...	Manuel Ansede	

	text_art
0	Like many gurus before him, Carlos Ríos, a 31-...
1	The, is similar to the Californian gold rush o...
2	Last October, during the presentation of its W...
3	The possibility that a US dollar and a euro wi...
4	Next winter will be the first without Russian ...
..	...
175	When Dr. Mar Castellanos chose to specialize i...
176	US President Joe Biden revealed on Monday the ...
177	The ancient ,used sutures made of linen and an...
178	The , can only observe 40% of the sky. It is t...
179	This year, Italian epidemiologist Alberto Asch...

[180 rows x 5 columns]

```
[64]: scrapped_df["title"][44]
```

```
[64]: 'Predictive policing: The pitfalls of crime forecasting'
```

```
[65]: scrapped_df["text_art"][44]
```

[65]: 'Knowing where a crime is going to be committed before it happens is the dream of police departments all over the world, and data scientists and , want to make it a reality. Many law enforcement agencies, especially in the US where , have been using pattern-detecting information systems to predict crime hotspots. A research team from the University of Chicago (Illinois, USA) led by Professor Victor Rotaru has developed a model capable of predicting likely crime areas up to a week in advance. The tool has a 90% accuracy rate, which makes it one of the most successful examples of the predictive policing systems operated by companies such as PredPol, Azavea and KeyStats in big cities like Los Angeles and New York.,An article by Rotauru and his team published in , describes a model designed for urban environments that was trained on historical property and violent crime data from the city of Chicago from 2014-2016. The model processed the historical data and then identified the areas most likely to experience the highest crime levels in the weeks following the testing period. With 90% reliability, the tool predicted the likelihood of crimes like homicides, assaults, muggings, and robberies for 1,000-square-foot (300 square meters) quadrants of the city. The model was later tested in seven other large US cities (Atlanta, Austin, Detroit, Los Angeles, Philadelphia, San Francisco, and Portland) with similar results.,But these algorithmic systems have not solved the thorny problem of how to avoid the widely , against Black and Latino neighborhoods. A 2021 study concluded that it is impossible for predictive policing systems to offset their intrinsic biases, which is one reason why the European Parliament called for a ban on these tools in the European Union.,Rotaru's team acknowledge the problem. "To prevent their tool from being detrimental to some groups, the authors turned the concept of predictive policing on its head and recommended that their models be used to monitor policing itself," said Andrew V. Papachristos, a professor of sociology at Northwestern University (Illinois, USA).,Papachristos believes the perspective offered by the Rotaru-led study is important, and can help develop early intervention systems and other initiatives to identify police abuse, a particularly sensitive issue in the US since the George Floyd death in 2020. He also thinks that it would be useful to "send social workers, response teams and victim assistance teams to the quadrants identified by these predictive policing systems.", "Despite our caution," says the study, "one of our key concerns in authoring this study is its potential for misuse, an issue with which predictive policing strategies have struggled. More important than making good predictions is how such capability will be used. Because policing is as much 'person-based' as 'place-based,' sending police to an area, regardless of how small that area is, does not dictate the optimal course of action when they arrive, and it is conceivable that good predictions (and intentions) can lead to over-policing or police abuses. For example, our results may be falsely interpreted to mean that there is 'too much' policing in low-crime (often predominantly white) communities, and too little policing in higher-crime (often more racially and ethnically diverse) neighborhoods.", "We view our model as a police policy optimization tool," said Ishanu Chattopadhyay, a co-author of the study.



"That's why we are so insistent that we have to be very careful about how we apply the knowledge it provides.", In large US cities, neighborhoods are often closely associated with a particular race or ethnicity. "Disproportionate police responses in communities of color can contribute to biases in event logs, which might propagate into inferred models," says the study, acknowledging that there is no way to statistically control for such deviations. "Anyone using these tools should be aware of this.", A researcher from a different US university consulted by EL PAÍS questions the results of the Rotaru-led study, noting that the model's effectiveness drops significantly when the crime itself rarely occurs. Another drawback of the model is that the predictive algorithm isn't able to identify areas with the highest crime, only those the highest reported crime, which is important because in the US, Black communities are less likely to report crimes to the police. "Our tool is based on reported crimes. We cannot model crimes that are not reported," said Chattopadhyay., Predictive policing models must also cope with input biases. Since they use databases of arrest information, the model associates areas with higher arrest numbers with a greater need for policing, which in turn increases the number of arrests. This is why civic organizations object to the widespread use of these tools, and why Rotaru and his colleagues caution against misapplying the tools they created.'

```
[70]: for i in scrapped_df.columns:
        print(i,":")
        print( scrapped_df[i][100])
```

```
url :
https://english.elpais.com/science-tech/2022-07-19/predictive-policing-the-pitfalls-of-crime-forecasting.html
date :
19 Jul 2022
title :
Predictive policing: The pitfalls of crime forecasting
author :
Manuel G. Pascual
text_art :
Knowing where a crime is going to be committed before it happens is the dream of police departments all over the world, and data scientists and , want to make it a reality. Many law enforcement agencies, especially in the US where , have been using pattern-detecting information systems to predict crime hotspots. A research team from the University of Chicago (Illinois, USA) led by Professor Victor Rotaru has developed a model capable of predicting likely crime areas up to a week in advance. The tool has a 90% accuracy rate, which makes it one of the most successful examples of the predictive policing systems operated by companies such as PredPol, Azavea and KeyStats in big cities like Los Angeles and New York., An article by Rotauru and his team published in , describes a model designed for urban environments that was trained on historical property and violent crime data from the city of Chicago from 2014-2016. The model processed the historical data and then identified the areas most likely to
```

experience the highest crime levels in the weeks following the testing period. With 90% reliability, the tool predicted the likelihood of crimes like homicides, assaults, muggings, and robberies for 1,000-square-foot (300 square meters) quadrants of the city. The model was later tested in seven other large US cities (Atlanta, Austin, Detroit, Los Angeles, Philadelphia, San Francisco, and Portland) with similar results. But these algorithmic systems have not solved the thorny problem of how to avoid the widely , against Black and Latino neighborhoods. A 2021 study concluded that it is impossible for predictive policing systems to offset their intrinsic biases, which is one reason why the European Parliament called for a ban on these tools in the European Union. Rotaru's team acknowledge the problem. "To prevent their tool from being detrimental to some groups, the authors turned the concept of predictive policing on its head and recommended that their models be used to monitor policing itself," said Andrew V. Papachristos, a professor of sociology at Northwestern University (Illinois, USA). Papachristos believes the perspective offered by the Rotaru-led study is important, and can help develop early intervention systems and other initiatives to identify police abuse, a particularly sensitive issue in the US since the George Floyd death in 2020. He also thinks that it would be useful to "send social workers, response teams and victim assistance teams to the quadrants identified by these predictive policing systems." "Despite our caution," says the study, "one of our key concerns in authoring this study is its potential for misuse, an issue with which predictive policing strategies have struggled. More important than making good predictions is how such capability will be used. Because policing is as much 'person-based' as 'place-based,' sending police to an area, regardless of how small that area is, does not dictate the optimal course of action when they arrive, and it is conceivable that good predictions (and intentions) can lead to over-policing or police abuses. For example, our results may be falsely interpreted to mean that there is 'too much' policing in low-crime (often predominantly white) communities, and too little policing in higher-crime (often more racially and ethnically diverse) neighborhoods." "We view our model as a police policy optimization tool," said Ishanu Chattopadhyay, a co-author of the study. "That's why we are so insistent that we have to be very careful about how we apply the knowledge it provides." In large US cities, neighborhoods are often closely associated with a particular race or ethnicity. "Disproportionate police responses in communities of color can contribute to biases in event logs, which might propagate into inferred models," says the study, acknowledging that there is no way to statistically control for such deviations. "Anyone using these tools should be aware of this." A researcher from a different US university consulted by EL PAÍS questions the results of the Rotaru-led study, noting that the model's effectiveness drops significantly when the crime itself rarely occurs. Another drawback of the model is that the predictive algorithm isn't able to identify areas with the highest crime, only those the highest reported crime, which is important because in the US, Black communities are less likely to report crimes to the police. "Our tool is based on reported crimes. We cannot model crimes that are not reported," said Chattopadhyay. Predictive policing models must also cope with input biases. Since they use databases of arrest information, the model associates areas with higher arrest numbers with a

greater need for policing, which in turn increases the number of arrests. This is why civic organizations object to the widespread use of these tools, and why Rotaru and his colleagues caution against misapplying the tools they created.

Selenium

```
[32]: #install chromeDriverManager
path_chromedriver = "C:/Users/debyf/Downloads/M13 Web Scraping/chromedriver"
driver = webdriver.Chrome(path_chromedriver)
```

```
C:\Users\debyf\AppData\Local\Temp\ipykernel_11136\833959323.py:3:
DeprecationWarning: executable_path has been deprecated, please pass in a
Service object
    driver = webdriver.Chrome(path_chromedriver)
```

```
[33]: url_elpais_tech = "https://english.elpais.com/science-tech/"
```

```
[34]: #get the url through the driver
driver.get(url_elpais_tech)
```

```
[35]: #click the acceptance of cookies
click_element = WebDriverWait(driver,5).until(EC.element_to_be_clickable((By.
    ↪CSS_SELECTOR,
                                                                    "button.
    ↪didomi-components-button didomi-button didomi-dismiss-button_
    ↪didomi-components-button--color didomi-button-highlight highlight-button".
    ↪replace(" ", ".")
                                                                    )))
click_element.click()
```

```
[58]: #get the urls
page_urls = []
pages = driver.find_elements(By.XPATH,"//*/h2/a")
for i in pages:
    page_urls.append(i.get_attribute("href"))
```

```
[59]: #get the information of the articles

r_articles = []

for i in page_urls:
    articles = []
    n_pages = driver.get(i)
    time.sleep(2)
    h1 = driver.find_element(By.TAG_NAME,"h1")
    time.sleep(1)
    h2 = driver.find_element(By.TAG_NAME,"h2")
```

```

time.sleep(1)
author = driver.find_element(By.CLASS_NAME,"a_md_a")
time.sleep(1)
date = driver.find_element(By.ID,"article_date_p")
r_articles.append([h1.text,h2.text,author.text,date.text])

```

```

[60]: #create a df with the information
info_df = pd.DataFrame(r_articles,columns=["Title","Abstract","Author","Date"])

```

```

[61]: #parse the text
art_text = []
for p in page_urls:
    driver.get(p)
    time.sleep(1)
    text = driver.find_elements(By.XPATH,"//*[ @id='fusion-app']/article/div[2]")
    for i in text:
        art_text.append(i.text)

```

```

[62]: text_df = pd.DataFrame(art_text,columns=["Text"])

```

```

[63]: #concat the info and text
article_df = pd.concat([info_df,text_df],axis=1)
article_df.head()

```

```

[63]:
                                     Title \
0          How scientists determine the age of a star
1  Why are egg cells able to live for half a cent...
2  Could recreational drug ketamine provide the a...
3  Is the dream of clean and unlimited nuclear fu...
4  Predictive policing: The pitfalls of crime for...

                                     Abstract
0  Astrophysicist Miriam García answers readers' ...
1  Female sex cells can last for decades without ...
2  Neuroscientist Hailan Hu says the mental illne...
3  The old joke is that this technology is always...
4  The developers of an algorithm designed to ide...

                                     Author \
0  MIRIAM GARCÍA
1  MANUEL ANSEDE
2  ISABEL RUBIO
3  GARETH WILLMER HORIZON
4  MANUEL G. PASCUAL

                                     Date \
0  JUL 27, 2022 - 17:33 CEST
1  JUL 22, 2022 - 02:31 CEST
2  JUL 20, 2022 - 18:07 CEST
3  JUL 20, 2022 - 12:43 CEST
4  JUL 19, 2022 - 23:34 CEST

                                     Text
0  If we identify a star and want to know its age...

```

```
1 On average, every woman is born with a million...
2 Ketamine was first employed in the 1960s as an...
3 The Sun has fueled life on Earth for billions ...
4 Knowing where a crime is going to be committed...
```

```
[64]: for i in article_df.columns:
      print(i,":")
      print(article_df[i][8])
```

Title :

mLOY: The genetic defect that explains why men have shorter lives than women

Abstract :

The loss of the Y chromosome in the blood damages the heart and shortens life expectancy, according to a new study

Author :

NUÑO DOMÍNGUEZ

Date :

JUL 16, 2022 - 21:23 CEST

Text :

We have long been baffled as to why men live around five years less than women, on average. But now a new study suggests that, beyond the age of 60, the main culprit is a genetic defect: the loss of the Y chromosome, which determines sex at birth.

"It's clear that men are more fragile, the question is why," explains Lars Forsberg, a researcher at Uppsala University in Sweden.

For decades it was thought that the male Y chromosome's only function was to generate sperm that determine the sex of a newborn. A boy carries one X chromosome from the mother and one Y from the father, while a girl carries two Xs, one from each parent.

In 1963, a team of scientists discovered that as men age, their blood cells lose the Y chromosome due to a copying error that happens when the mother cell divides to produce a daughter cell. In 2014, Forsberg analyzed the life expectancy of older men based on whether their blood cells had lost the Y chromosome, a mutation called mLOY. The effect recorded was "mindblowing," the researcher recalls.

Men with fewer Y chromosomes had a higher risk of cancer and lived five and a half years less than those who retained this part of the genome. Three years later, Forsberg discovered that this mutation makes getting Alzheimer's three times as likely. What is most worrying is the enormous prevalence of this defect. Twenty percent of men over the age of 60 have the mutation. The rate rises to 40% in those over 70 and 57% in those over 90, according to Forsberg's previous studies. "It is undoubtedly the most common mutation in humans," he says.

Until now, nobody knew whether the gradual disappearance of the Y chromosome in the blood played a pivotal role in diseases associated with aging. In a study just published in the journal Science, Forsberg and scientists from Japan and the US demonstrate for the first time that this mutation increases the risk of

heart problems, immune system failure and premature death.

The researchers have created the first animal model without a Y chromosome in their blood stem cells: namely, mice modified with the gene-editing tool CRISPR. The study showed that these rodents develop scarring of the heart in the form of fibrosis, one of the most common cardiovascular ailments in humans, and die earlier than normal mice. The authors then analyzed the life expectancy recorded in nearly 15,700 patients with cardiovascular disease whose data are stored in the UK public biobank. The analysis shows that loss of the Y chromosome in the blood is associated with a 30% increased risk of dying from cardiovascular disease.

"This genetic factor can explain more than 75% of the difference in life expectancy between men and women over the age of 60," explains biochemist Kenneth Walsh, a researcher at the University of Virginia in the US and co-author of the study. In other words, this mutation would explain "four of the five years lower life expectancy in men." Walsh's estimate links to a previous study in which men with a high mLOY load live about four years less than those without it.

It is well known that men die earlier than women because they smoke and drink more and are more prone to recklessness. But, beyond the age of 60, genetics becomes the main culprit in the deterioration of their health: "It seems as if men age earlier than women," Walsh points out.

The study reveals the molecular keys to the damage associated with the mLOY mutation. Within the large group of blood cells can be found the immune system's white blood cells responsible for defending the body against viruses and other pathogens. The loss of the Y chromosome triggers aberrant behavior in macrophages, a type of white blood cell, causing them to scar heart tissue, which in turn increases the risk of heart failure. Researchers have shown that the damage can be reversed if they give mice pirfenidone, a drug approved to treat humans with idiopathic pulmonary fibrosis, a condition in which the lungs become scarred and breathing becomes increasingly difficult.

There are three factors that increase the risk of Y chromosome loss. The first is the inevitable ageing process. The longer one lives, the more cell divisions occur in the body and the greater the likelihood of mutations occurring in the genome copying process. The second is smoking. "Smoking causes you to lose the Y chromosome in your blood at an accelerated rate; if you stop smoking, healthy cells once again become the majority," says Walsh. But the third is also inevitable: other inherited genetic mutations can increase the gradual loss of the Y chromosome in the blood by a factor of five, explains Forsberg.

Both Forsberg and Walsh believe that this study opens up an "enormous" field of research. Still to be studied is whether men with this mutation also have cardiac fibrosis and whether this is behind their heart attacks and other cardiac ailments. We also need to better understand why losing the Y chromosome damages health. "For now, we have shown that the Y chromosome is not just there for reproduction, but is also important for our health," says Forsberg. The next step is to identify which genes are responsible for the phenomenon.

The loss of this chromosome has been detected in all organs and tissues of the body and at all ages, although it is more evident after 60. It is abundant in the blood because this is a tissue that produces millions of new cells every day

from blood stem cells. Healthy stem cells produce healthy daughter cells and mutated ones produce daughter cells with mLOY.

A previous study showed that this mutation of the Y chromosome disrupts the function of up to 500 genes located elsewhere in the genome. It has also been shown to damage lymphocytes and natural killer cells, evident in men with prostate cancer and Alzheimer's disease, respectively.

There are hardly any tests for mLOY at present. But Forsberg and his colleagues have designed a PCR test that measures the level of this mutation in the blood and could serve to determine which levels of this mutation are harmful to health. "Right now, we see people in their 80s with 80% of their blood cells mutated, but we don't know what impact this has on their health," says Walsh. Another unanswered question is why men lose the genetic mark of the male with age. The evolutionary logic, argue the authors of the paper, is that men are biologically designed to have offspring as soon as possible and to live 40 to 50 years at most. The spectacular increase in life expectancy in the last century has meant that men and women live to an advanced age - 80 and 86 years in Spain, respectively - which makes the effect of these mutations more evident. Another fact which possibly has some bearing on the issue: the vast majority of people who reach 100 are women.

"To transform all these discoveries into treatments, we first need to better understand this phenomenon," says Forsberg. "We men are not designed to live forever, but perhaps we can increase our life expectancy by a few more years." Biochemist José Javier Fuster, who studies pathological mutations in blood cells at the National Center for Cardiovascular Research, stresses the importance of the work. "Until now it was not clear whether the loss of Y was the cause of cancer, Alzheimer's disease and heart failure," he explains. "This is the first demonstration in animals that it has a causal role." The human Y chromosome is different from the mouse chromosome, so the priority now is to accumulate more data in humans. "This is a great first step in understanding this new mechanism behind aging-linked diseases," he adds.

The cells of the human body group their DNA into 23 pairs of chromosomes that pair up one by one when a cell copies its genome to generate a daughter cell. The Y is the only one that does not have a symmetrical partner to pair up with: instead, it does so with an X chromosome; and the entire Y chromosome is often lost, explains Luis Alberto Pérez Jurado from Pompeu Fabra University in Barcelona. "For now, six genes have been identified within the Y chromosome that would be responsible for an impact on health," he says. "All of them are related to the proper functioning of the immune system." In part, this would also explain the greater vulnerability of males to viral infections, including Covid-19.