# THE WEB IS NOT THE INTERNET

## - A BRIEF HISTORY OF THE WORLD WIDE WEB -

„During some sessions in the CERN cafeteria,
Tim and I try to find a catching name for the system. […]
Tim proposes "World-Wide Web". I like this very much,
except that it is difficult to pronounce in French…"

(Robert Cailliau, 1995)

Quote: http://www.netvalley.com/archives/mirrors/robert_cailliau_speech.htm

# Science created the World Wide Web

CERN research centre in Geneva, Switzerland

researchers Tim Berners-Lee and Robert Cailliau

joint proposal for „World-Wide Web"

developed to "meet the demand for automated information-sharing between scientists in universities and institutes around the world". [1], [2]

# 1989

[1] http://info.cern.ch/hypertext/WWW/Proposal.html

[2] https://arxiv.org/pdf/1701.04765.pdf

# 1960s terms hypertext, hypermedia coined by Ted Nelson

# 1970s

**Transmission Control Protocol/Internet Protocol (TCP/IP) invented by Vint Cerf and Robert (Bob) Elliot Kahn [1]**

# 1980s Mail Transfer Protocol (MTP, SMTP); Suzanne Sluizer, Jon Postel [2]

[1] https://www.darpa.mil/attachments/ARPANET_final.pdf, https://doc.lagout.org/network/The%20Illustrated%20Network.pdf

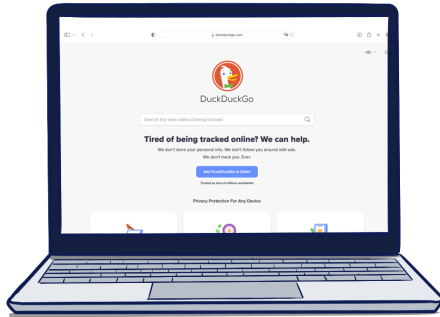[2] https://www.cnet.com/tech/tech-industry/end-of-the-road-for-smtp/

# HTML (HyperText Markup Language with „hyperlinks")

# HTTP

**(HyperText Transfer Protocol; conventions for client-server communication on the Web)**

# URI (Uniform Resource Identifier)

# Outlook: HTTP GET request in client-server communication



**HTTP Request**

```
GET Path HTTP/1.0

Host: Host
User-Agent: Mozilla
...
```

# The web browser
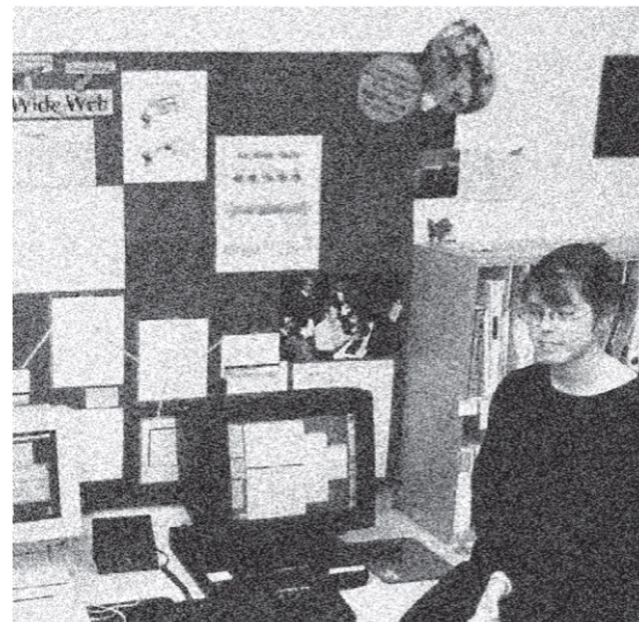
First operating-system-independent web browser – "Line-Mode browser" – was **written by undergraduate CERN intern Nicola Pellow** in 1990. [1]



n undergraduate math student, Nicola
low joined the select members of the WWW
ject at Sweden's CERN in 1990. She helped
ate the first web browser compatible across
y operating systems, making web browsing
adly available for the first time.

A collection of innovations by women in the fields of computer science and technology.

NoWebWithoutWomen.com

[1] https://nowebwithoutwomen.com/images/Nicola_Pellow.pdf

Image: screenshot PDF https://nowebwithoutwomen.com/images/Nicola_Pellow.pdf

# Early web servers & repositories

**early 1990s** arXiv preprint repository switches from email to HTTP access for manuscript transmission. [1]

**1992** Deutsches Elektronen-Synchrotron DESY in Hamburg connects a web server to the WWW.

Web repositories store and publish (scholarly) digital objects – like paper publications and research data – and their metadata records. They aim to **improve the persistent findability and accessibility of research output on the Web.** [2]



FH;P
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University of
Applied Sciences

digitales
daten
management

HUMBOLDT-UNIVERSITÄT ZU BERLIN

Über welches Protokoll wurde Anfang der 1990er auf das heutige arXiv.org zugegriffen?

Photo: Kindly provided by Paul Ginsparg

21.01.2022     MK 3.4 Digitale Repositorien
Pascal Becker     24

[1] https://ar5iv.labs.arxiv.org/html/1709.07020

[2] https://depositonce.tu-berlin.de/handle/11303/5330

Image: screenshot of slide 24; Pascal Becker (2022). „Digitale Repositorien". Potsdam University of Applied Sciences

# Registries of repositories

Repositories are indexed for findability in registry services.

**www.re3data.org**

**v2.sherpa.ac.uk/opendoar**

**risources.dfg.de**



Image: screenshot of re3data.org search box

**HELMHOLTZ**