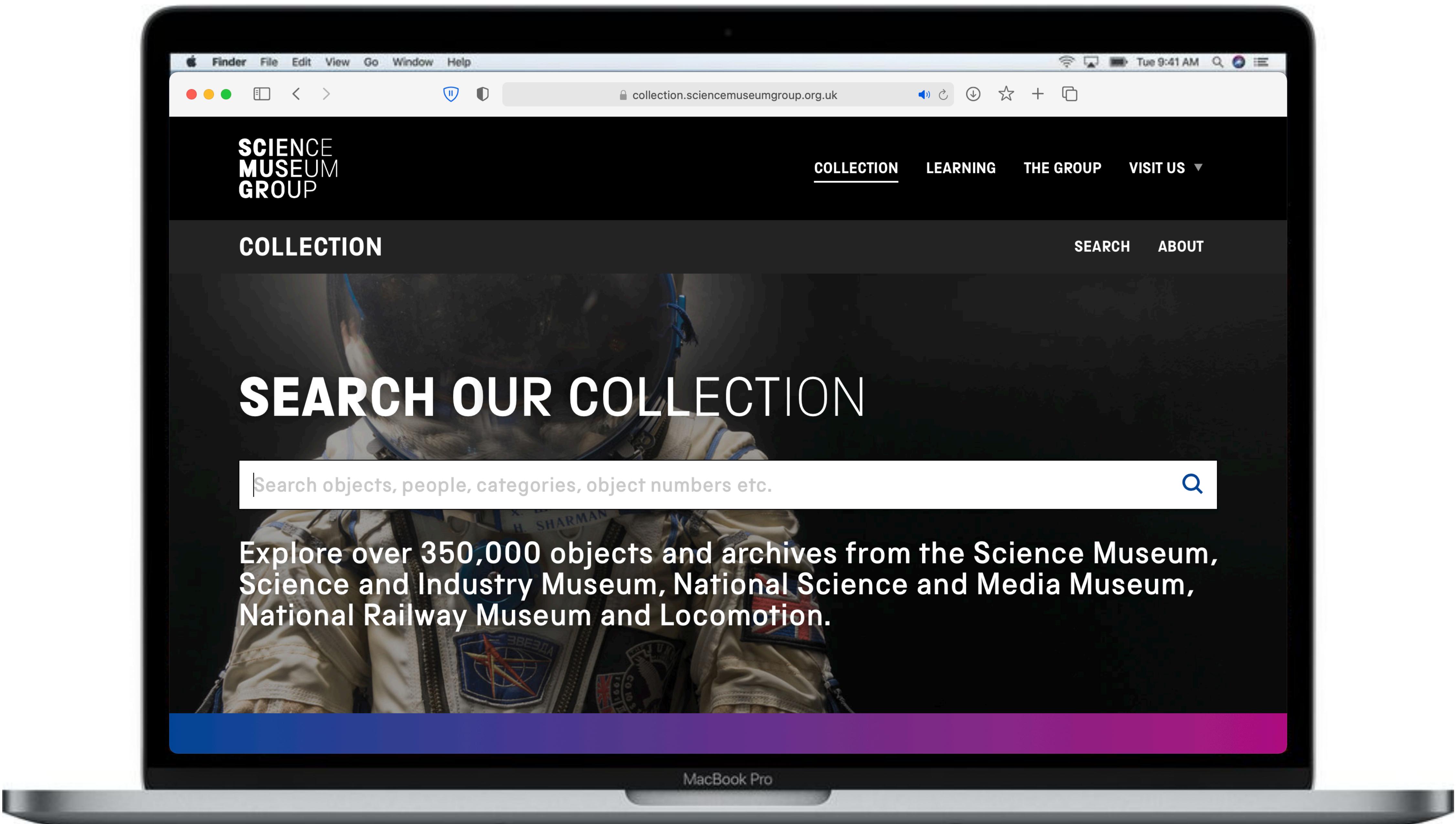


# MACHINE LEARNING AND CULTURAL HERITAGE: WHAT IS IT GOOD ENOUGH FOR?

JOHN STACK, DIGITAL DIRECTOR  
AEOLIAN NETWORK'S ONLINE WORKSHOP 1  
7 JULY 2021

SCIENCE  
MUSEUM  
GROUP





Finder File Edit View Go Window Help

collection.science museumgroup.org.uk/search/images?q=gwr

All 50 People 0 Objects 50 Documents 0

View:

Filter search

Geoffrey Tippett Collection - Swindon Works & GWR Locomotives [supplied title] Photographic Collections (Railway) c. 1930

THE GALVANIC AND ELECTRO-MAGNETIC TELEGRAPHHS,  
ON THE  
GT. WESTERN RAILWAY.  
May be seen in constant operation, daily, (Sundays excepted) from 9 A.M. to 5 P.M., at the TELEGRAPH OFFICE, LONDON TERMINUS, PADINGTON AND TELEGRAPH COTTAGE, SLOUGH STATION.  
An Exhibition adapted by its numerous Visitors to be the most interesting and attractive of any in this great Metropolis. In the list of visitors are the illustrious names of the nobility, gentry, and wealthier classes of Europe, and nearly the whole of the Nobility of England.  
"This Exhibition, which has so much excited Public attention, is well worth seeing, and will be a great attraction to all classes of visitors."—Morning Post.  
The Electric Telegraph is unlimited in the nature and extent of its communications; by its extraordinary agency a person in London could converse with another in New York, or with one in the far-off islands of Australia, and nearly as rapidly as if both parties were in the same room. Questions proposed by Visitors will be asked by means of this Apparatus, and answers thereto will instantaneously be received from persons in America, who will also then be enabled to speak or have a camera, in an incredibly short space of time, after the signal for his doing so has been given.  
The Electric Fluid travels at the rate of 280,000 Miles per Second.  
In the last year, 1,000,000 Messages have been sent, (as in the last case of Tewksbury,)—Telegrams detected; and lastly, which is of no little importance, the newly invented Medical aid has been procured in cases which otherwise would have proved fatal.

The great national importance of this wonderful invention is as well known than any further allusion here to its merits would be superfluous.  
Mr. D. Dugdale, the General Manager of the Great Western Railway, Messengers in instant attendance to that communication received by Telephones, would

Milk van, Great Western Railway Locomotives and Rolling Stock 1936

Diesel Railcar No 4, 1934, Great Western Railway Locomotives and Rolling Stock 1934

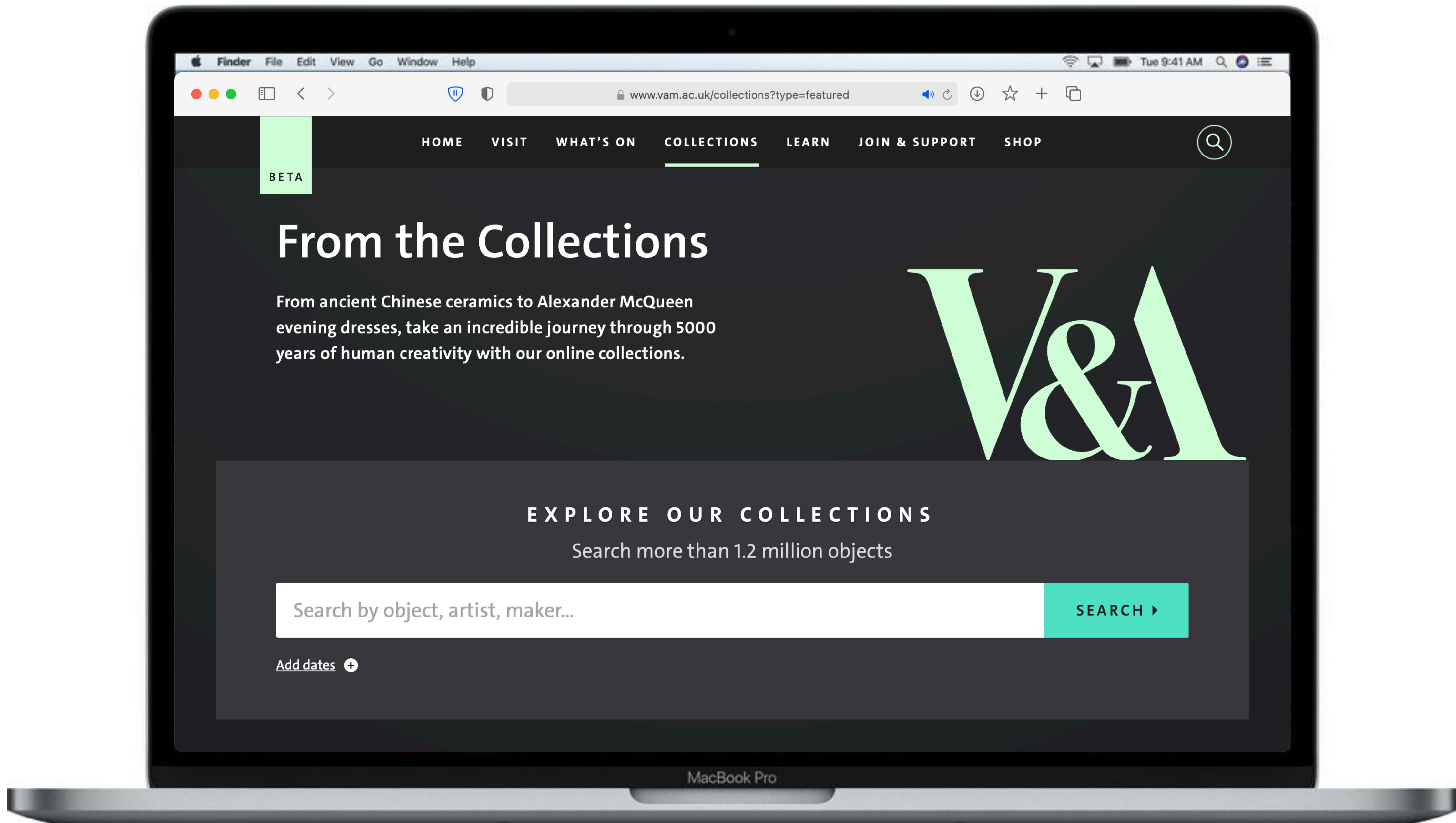
MacBook Pro

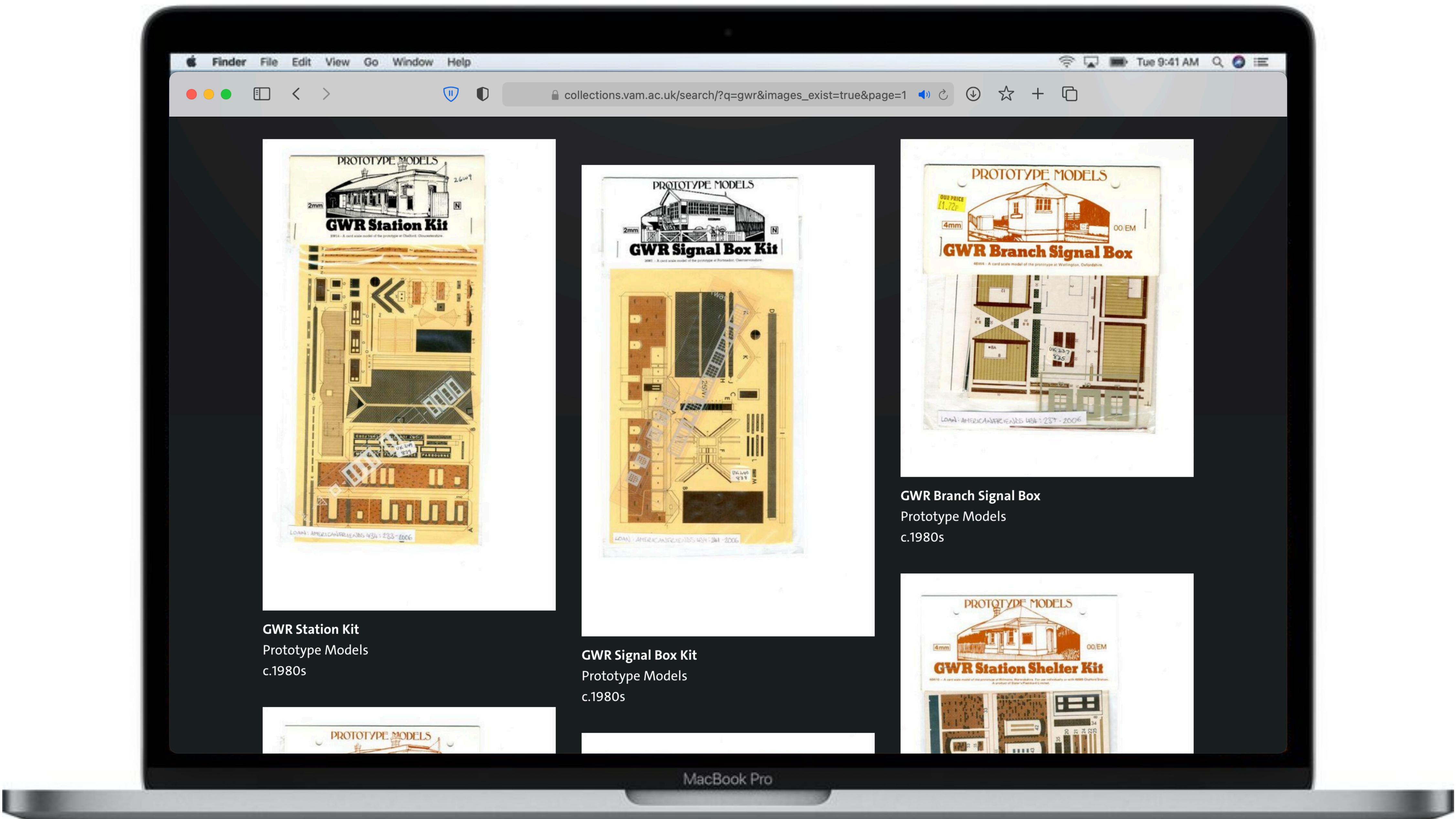
The image shows a MacBook Pro displaying a web browser window. The browser's title bar reads "collection.sciencemuseumgroup.org.uk/objects/co8637546/zeiss-compou". The main content area is titled "DETAILS" and contains the following information:

- CATEGORY: Scientific Instruments & Research
- OBJECT NUMBER: Y1991.49.2/1
- TYPE: compound microscope
- TAXONOMY:
  - furnishing and equipment
    - tools & equipment
      - optical instrument
        - microscope
    - furnishing and equipment
      - tools & equipment
        - optical instrument
          - microscope
  - CREDIT: Gift of Central Manchester Health Authority

To the right of the main content is a sidebar with the following sections:

  - CITE THIS PAGE**: A text input field containing "Science Museum Group. Zeiss Compound" with a copy icon.
  - RIGHTS**: Text stating "We encourage the use and reuse of our collection data." followed by two icons: one for Creative Commons Zero and one for Creative Commons Attribution 4.0 licence.
  - Using our data**: Links to download the catalogue entry as JSON, view an IIIF manifest in an IIIF viewer, add it to Animal Crossing Art Generator, and download the IIIF manifest.
  - DOWNLOAD**: A link to download the IIIF manifest.
  - A note at the bottom states: "Our records are constantly being enhanced and improved, but please note that we cannot guarantee the accuracy of any information shown on this website."





# HERITAGE CONNECTOR PROJECT

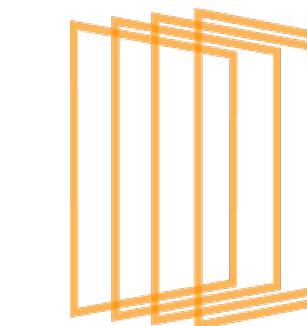
## TRANSFORMING TEXT INTO DATA TO EXTRACT MEANING AND MAKE CONNECTIONS

**SCIENCE  
MUSEUM  
GROUP**



SCHOOL OF  
ADVANCED STUDY  
UNIVERSITY  
OF LONDON

V&A



TOWARDS  
A NATIONAL  
COLLECTION



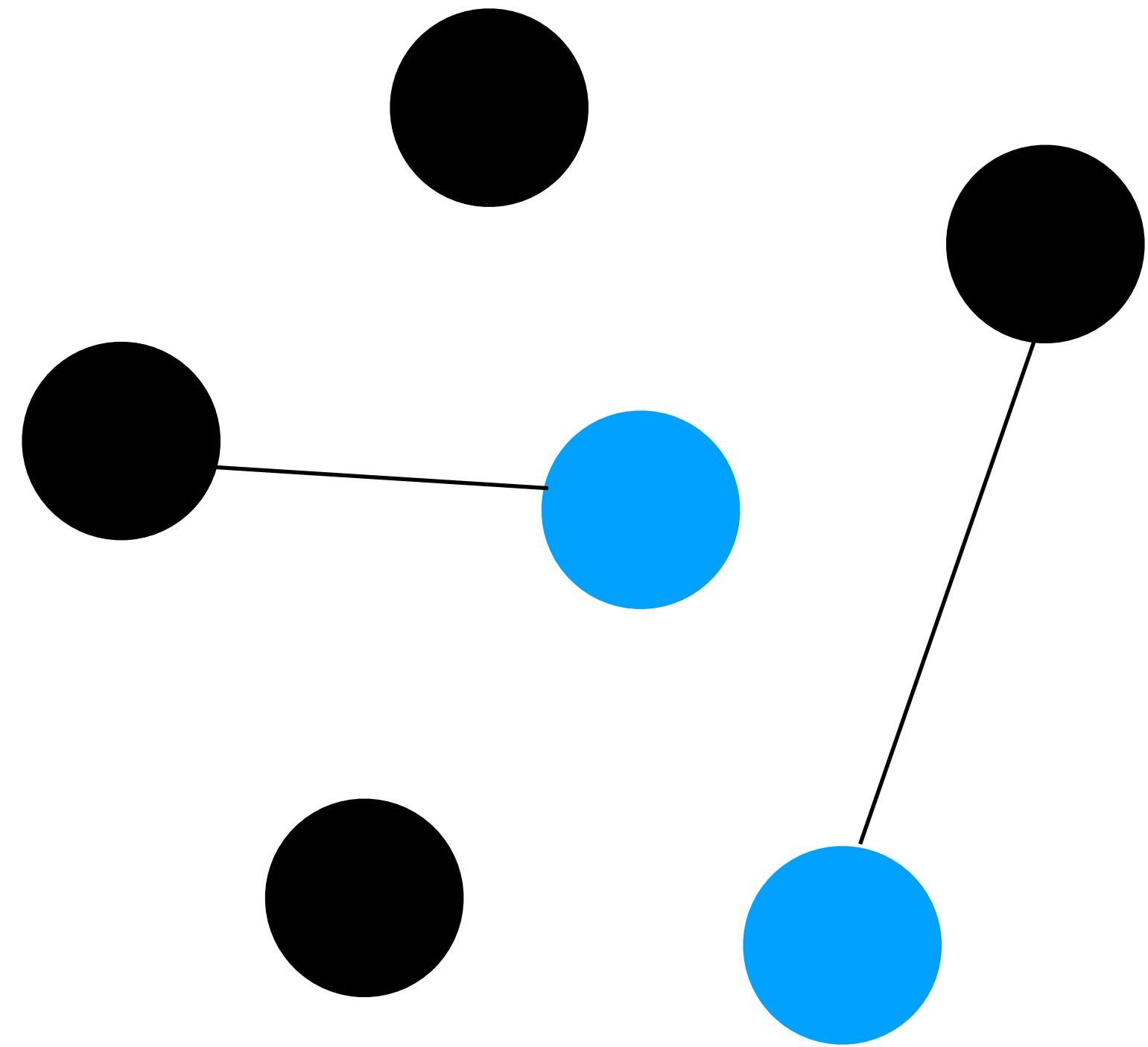
Arts and  
Humanities  
Research Council

# HERITAGE CONNECTOR PROJECT

How can existing digital tools and methods be used to build relationships at scale between poorly and inconsistently catalogued digitised collection objects and other content sources?

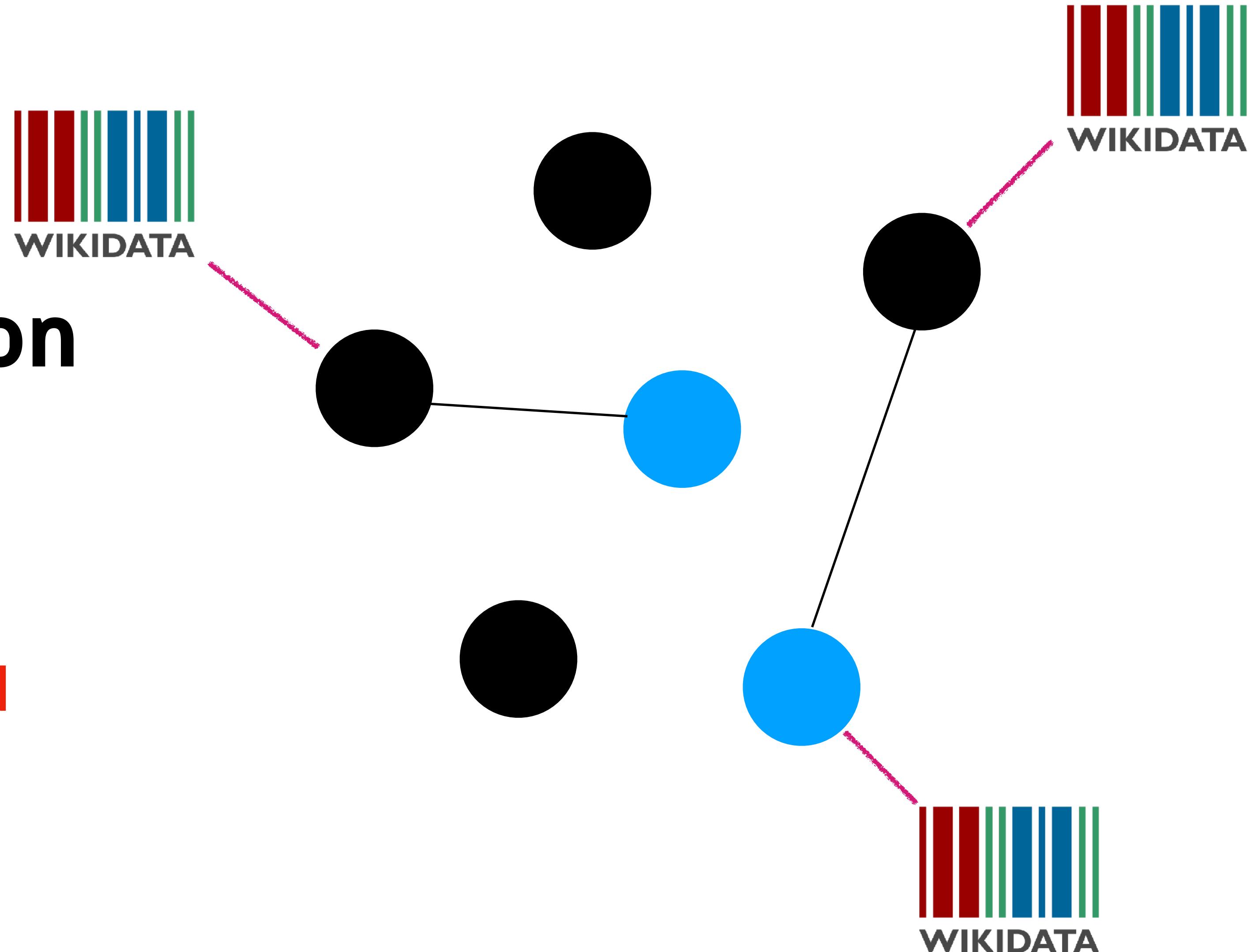
**This is our collection  
now..**

**Small islands of thin data**



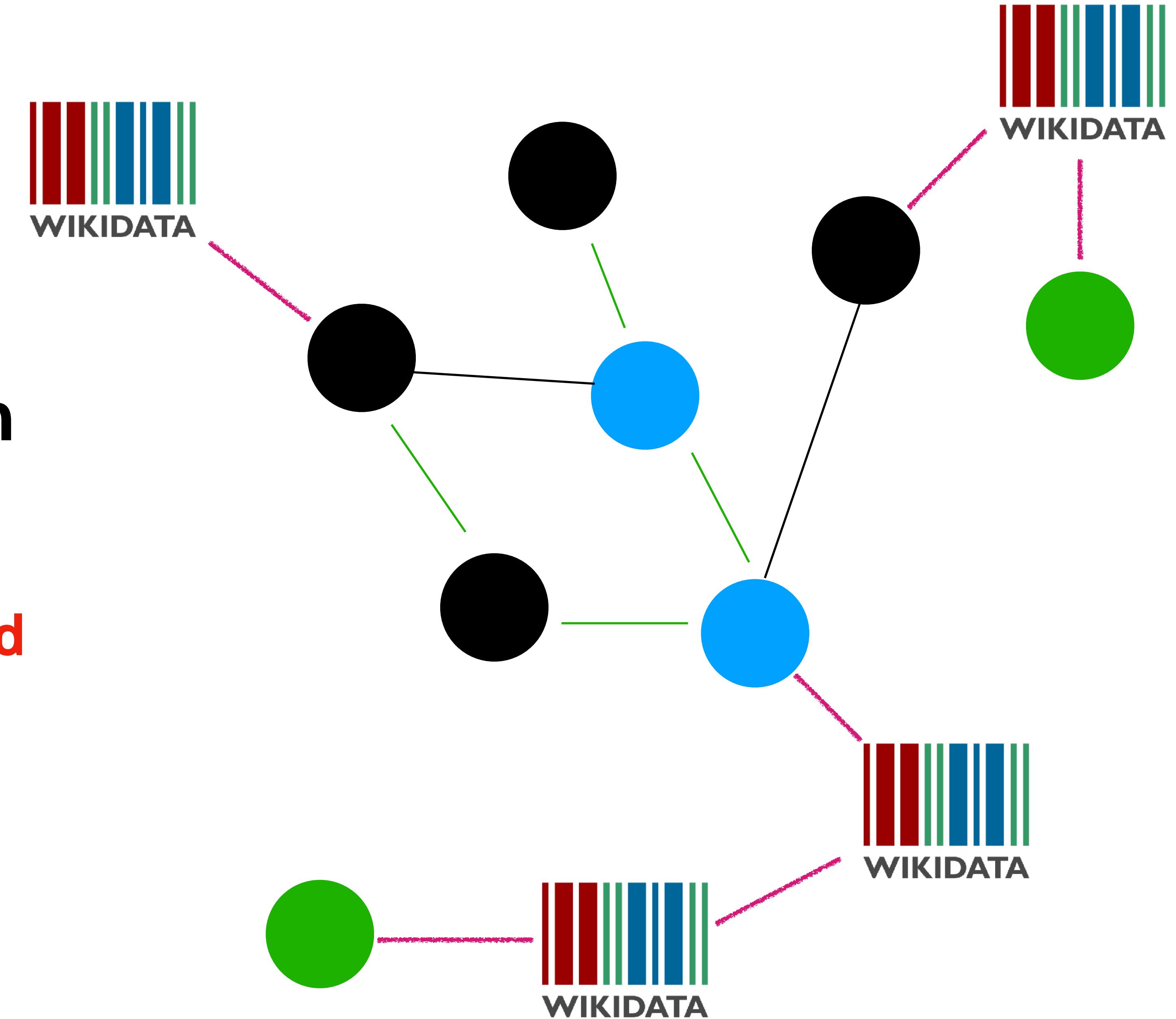
**This is our collection  
connected to  
Wikidata...**

**Small islands of connected  
data**



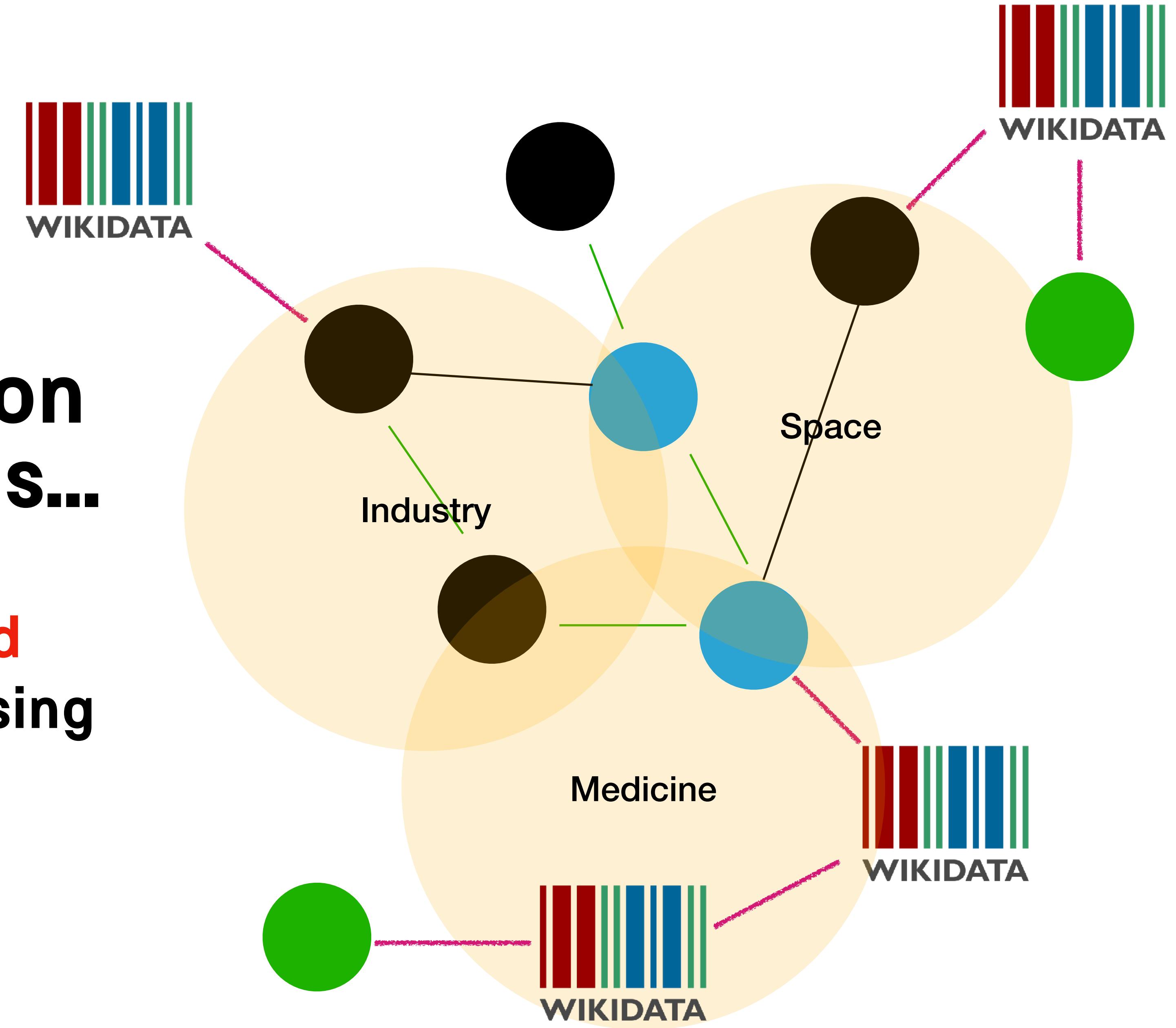
**This is our collection  
interlinked via  
information extraction  
techniques...**

**Small islands of connected  
and interlinked data**



**This is our collection  
with new groupings...**

**Small islands of connected  
and interlinked data exposing  
new groupings**



# HERITAGE CONNECTOR PROJECT

- i. Improve collection interfaces
- ii. Improve discovery
- iii. Improve links to other sources

# HERITAGE CONNECTOR PROJECT

- i. Improve collection interfaces      A. Artificial intelligence
- ii. Improve discovery                  B. Linked data
- iii. Improve links to other sources    C. Knowledge graphs

# DATA SOURCES

- Science Museum Group collection catalogue
- V&A collection catalogue
- Wikidata
- Science Museum Group Journal
- Science Museum blogs

# HERITAGE CONNECTOR PROJECT

- i. Improve collection interfaces      A. Artificial intelligence
- ii. Improve discovery                  B. Linked data
- iii. Improve links to other sources    C. Knowledge graphs

# HERITAGE CONNECTOR PROJECT

- i. Improve collection interfaces
  - A. Artificial intelligence
  - B. Linked data
  - C. Knowledge graphs
- ii. Improve discovery
- iii. Improve links to other sources

**A. ARTIFICIAL INTELLIGENCE**

**B. LINKED DATA**

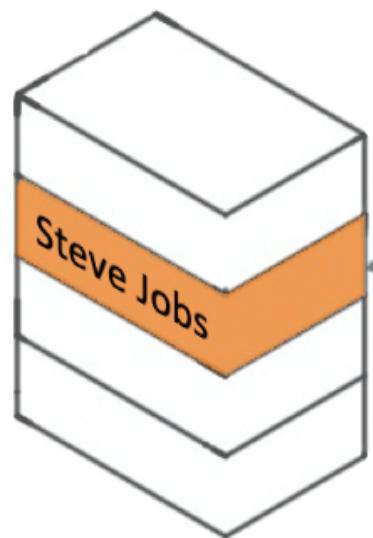
**C. KNOWLEDGE GRAPHS**

**A. ARTIFICIAL INTELLIGENCE**

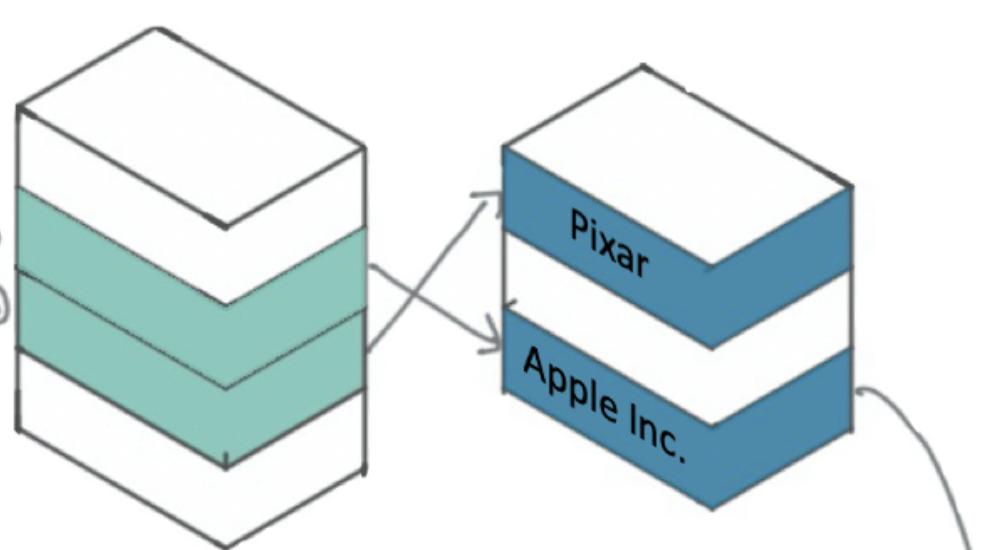
**B. LINKED DATA**

**C. KNOWLEDGE GRAPHS**

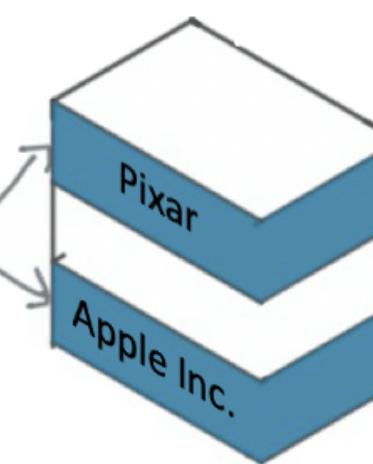
PEOPLE



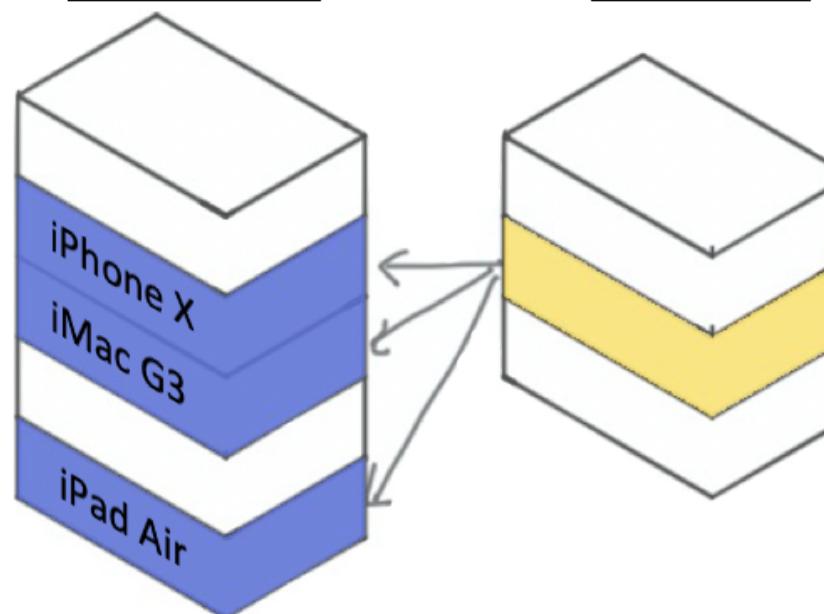
FOUNDERS



ORGANISATIONS

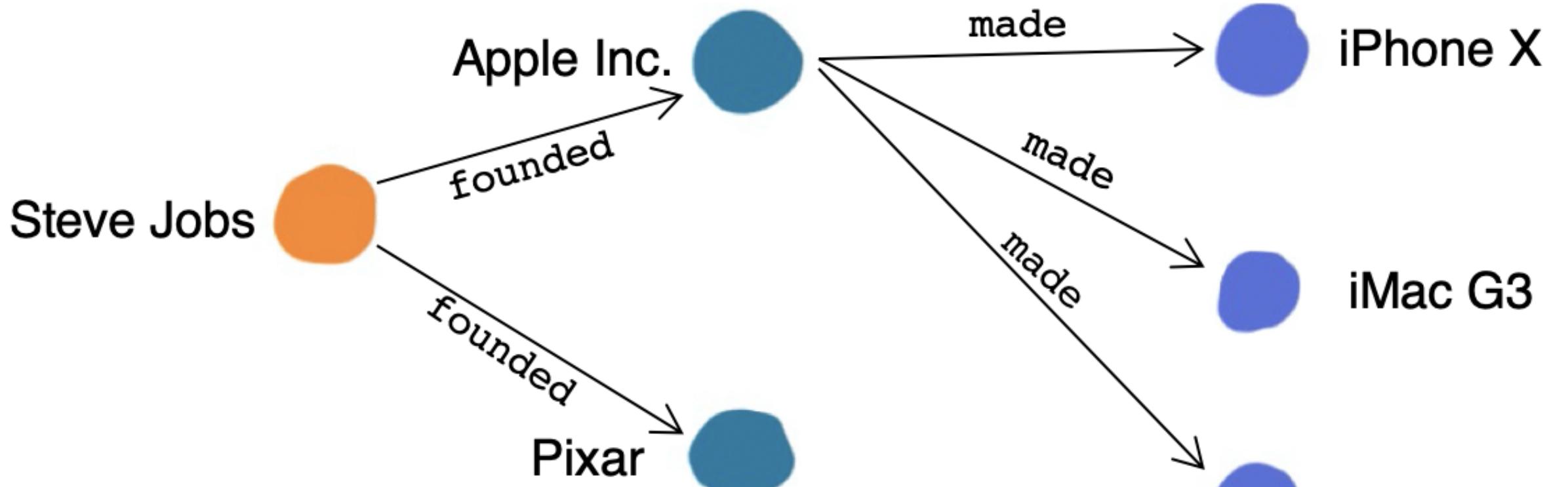
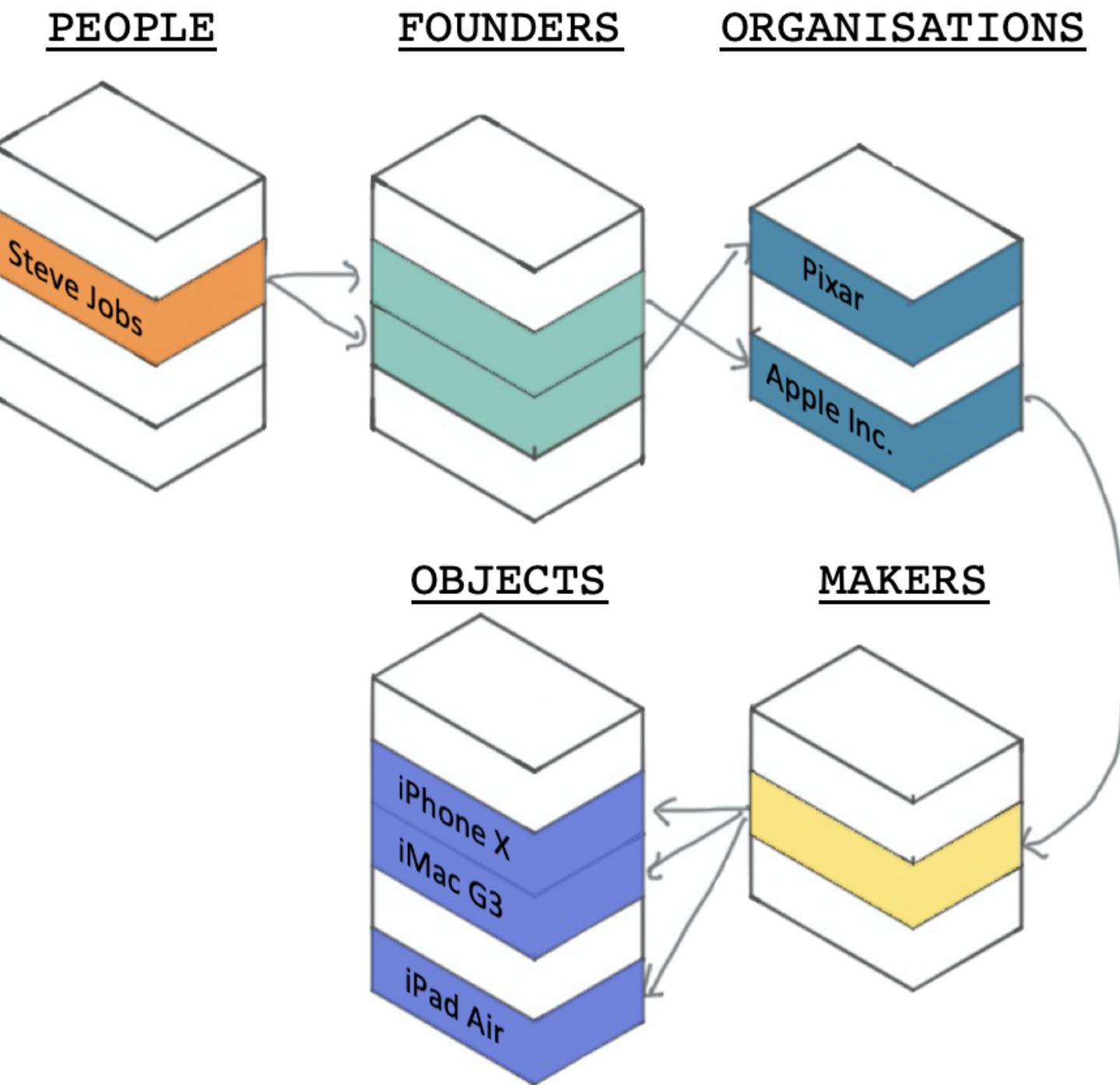


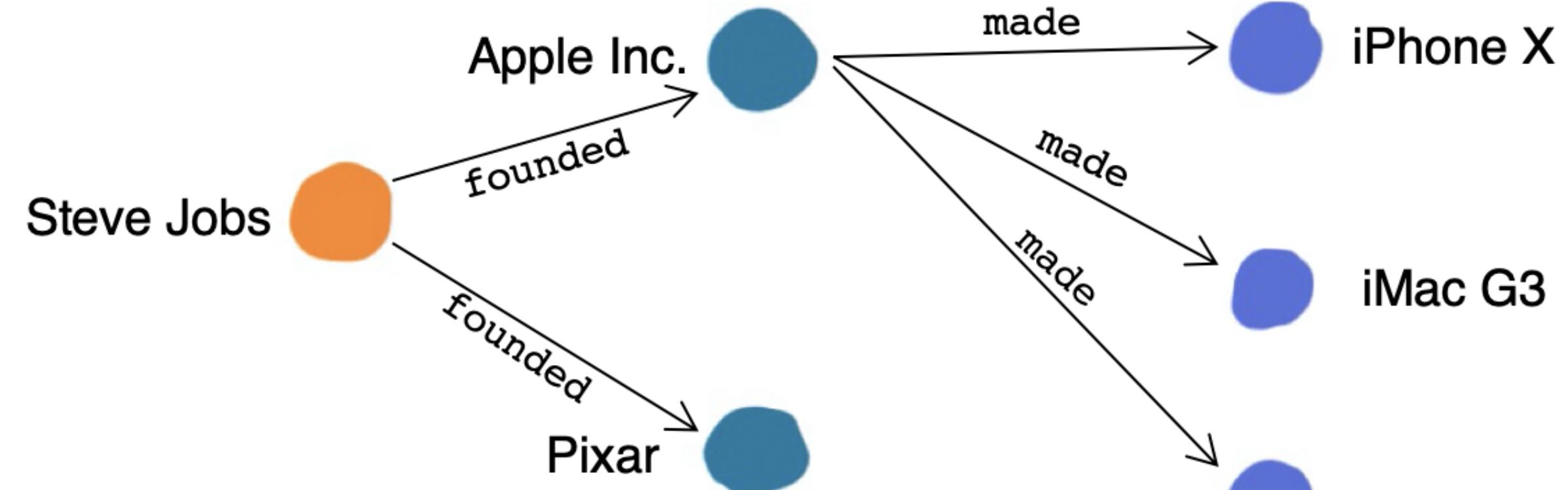
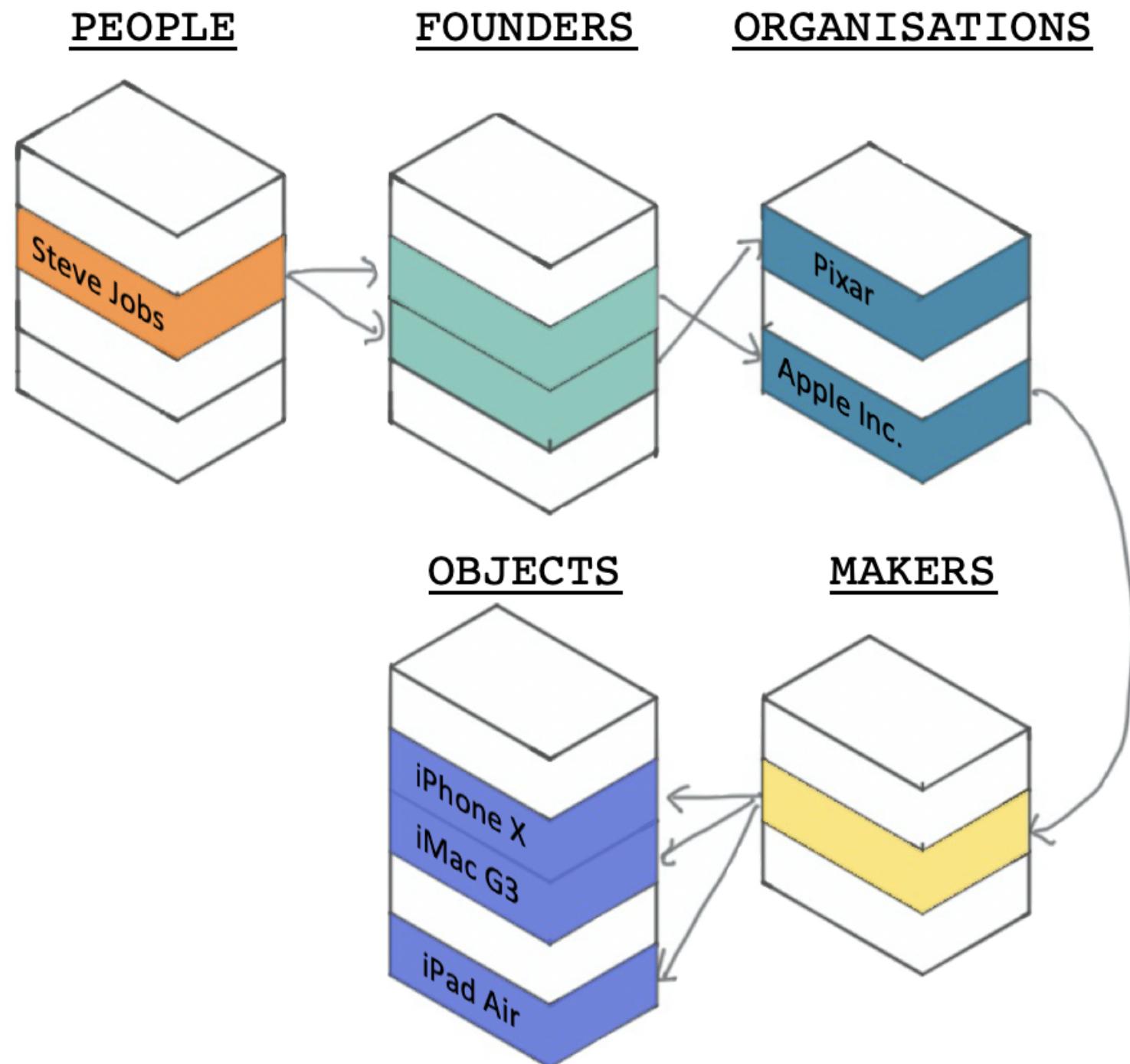
OBJECTS



MAKERS







text    Anna Atkins was born in Tonbridge, Kent

triples    anna\_atkins, birth\_place, tonbridge\_kent

linked data

<https://collection.science museum group.org.uk/people/cp113991/>  
<https://www.wikidata.org/wiki/Property:P19>,  
<https://www.wikidata.org/wiki/Q936183>

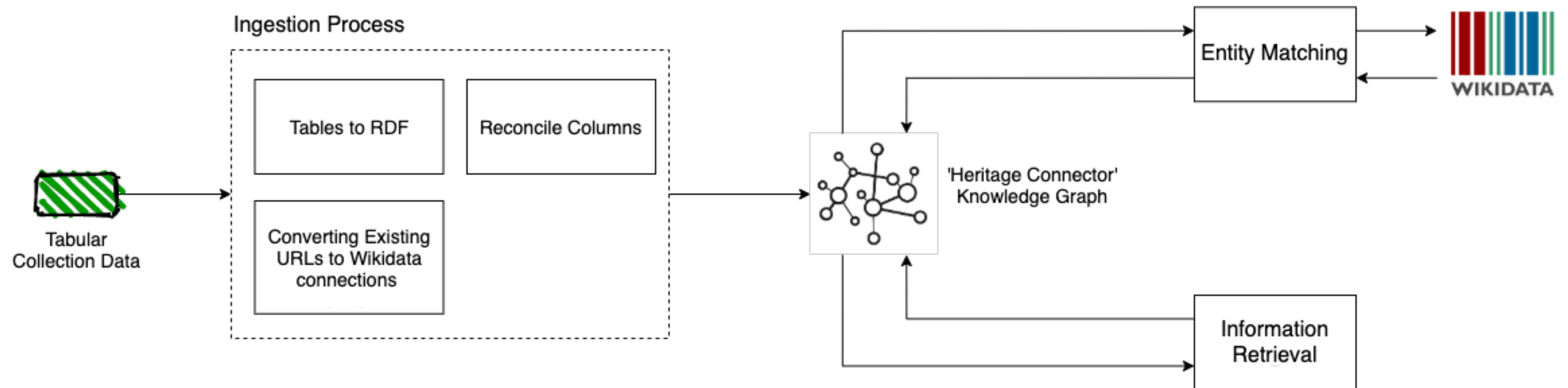
**A. ARTIFICIAL INTELLIGENCE**

**B. LINKED DATA**

**C. KNOWLEDGE GRAPHS**

# A. ARTIFICIAL INTELLIGENCE

- **Easy Wins:** Processing IDs and URLs (links)
- **Disambiguation:** Adding new links to Wikidata with machine learning
- **Named entity recognition:** Adding new links from catalogue text



en.wikipedia.org/wiki/General\_Electric

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# General Electric

From Wikipedia, the free encyclopedia

"GE" redirects here. For other uses, see [GE \(disambiguation\)](#).  
Not to be confused with the former British [General Electric Company](#) (GEC).

**General Electric Company (GE)** is an American [multinational conglomerate](#) incorporated in [New York City](#) and headquartered in [Boston](#). As of 2018, the company operates through the following segments: [aviation](#), [healthcare](#), [power](#), [renewable energy](#), [digital industry](#), [additive manufacturing](#) and [venture capital and finance](#).<sup>[2][3]</sup>

In 2020, GE ranked among the [Fortune 500](#) as the 33rd largest firm in the [United States](#) by [gross revenue](#).<sup>[4]</sup> In 2011, GE ranked among the Fortune 20 as the 14th-most profitable company but has since very severely underperformed the market (by about 75%) as its profitability collapsed.<sup>[5][6][7]</sup> Two employees of GE—[Irving Langmuir](#) (1932) and [Ivar Giaever](#) (1973)—have been awarded the [Nobel Prize](#).<sup>[8]</sup>

## Contents [hide]

- 1 History
  - 1.1 Formation
  - 1.2 Public company
  - 1.3 RCA and NBC
  - 1.4 Television
  - 1.5 Power generation
  - 1.6 Computing
  - 1.7 Acquisitions and divestments
  - 1.8 Fraud allegations and notice of possible SEC civil action
- 2 Financial performance
  - 2.1 Dividends
- 3 Stock
- 4 Bribery
- 5 Corporate affairs
  - 5.1 CEO

**General Electric Company**



Type	Public
Traded as	NYSE: GE <sup>□</sup> S&P 100 component S&P 500 component
ISIN	US3696041033
Industry	Conglomerate
Predecessor	Edison General Electric Thomson-Houston Electric
Founded	April 15, 1892; 128 years ago in Schenectady, New York, US
Founders	Charles A. Coffin Elihu Thomson Edwin J. Houston Thomas Edison L.P. Morgan



[hide]

General Electric		
Subsidiaries and divisions	Current	GE Additive · GE Aviation (GE Aviation Systems) · GE Capital · GE Digital · GE Healthcare · GE Power · GE Renewable Energy (LM Wind Power) · GE Research
	Former and defunct	Australian Guarantee Corporation <sup>1</sup> · Canadian General Electric <sup>1</sup> · Compagnia Generale di Elettricità <sup>2</sup> · Current, powered by GE <sup>2</sup> · Electric Bond and Share Company <sup>2</sup> · GE Aerospace <sup>2</sup> · GE Americom <sup>2</sup> · GE Appliances <sup>2</sup> · GE Automation & Controls <sup>2</sup> · GE Betz <sup>2</sup> · GE Capital IT Solutions <sup>2</sup> · GE Capital Rail Services <sup>2</sup> · GE Commercial Finance <sup>1</sup> · GE Energy <sup>1</sup> · GE Equipment Services <sup>2</sup> · GE Home & Business Solutions <sup>2</sup> · GE Industrial <sup>2</sup> · GE Infrastructure <sup>1</sup> · GE Jenbacher <sup>2</sup> · GE Lighting <sup>2</sup> · GE Measurement & Control Solutions <sup>1</sup> · GE Oil and Gas <sup>1</sup> · GE Security <sup>2</sup> · GE Transportation <sup>2</sup> · GE Waukesha <sup>2</sup> · GE Wind Energy <sup>1</sup> · GECIS <sup>2</sup> · GEIS <sup>2</sup> · Genesis Lease <sup>2</sup> · Genworth Financial <sup>2</sup> · Montgomery Ward <sup>2</sup> · Synchrony Financial <sup>2</sup> · Tungsram <sup>1</sup> · United Nuclear Corporation <sup>1</sup> · Utah Construction Company <sup>2</sup> · Whatman <sup>1</sup>
Joint ventures / shareholdings	Current	Baker Hughes (37%) · CFM International (50%) · Engine Alliance (50%) · GE Hitachi Nuclear Energy (60%) · GE Honda Aero Engines (50%) · Prolec GE (49.99%) · TBS GB
	Former	Alco-GE (1940–53) · NBC (1926–30, 1986–2004) · NBCUniversal, LLC (2004–13) · Penske Truck Leasing (15.5%) · Wabtec
Products and brands	Aircraft engines · General Comprehensive Operating System · GEnie · Locomotives · Mazda · Reciprocating engines · Trivection oven · Tungsram	
People	Founders	Charles A. Coffin · Thomas Edison · Edwin J. Houston · J. P. Morgan · Elihu Thomson
	Executives	Jeffrey R. Immelt · Jack Welch · Bob Wright
	Outside Directors	James Cash Jr. · John L. Flannery · Ann Fudge · Susan Hockfield · Andrea Jung · Rochelle Lazarus · Sam Nunn · Roger Penske · Vera Silva · Douglas A. Warner III
Places and facilities	GE Building (30 Rockefeller Plaza) · GE Building (570 Lexington Avenue) · Nela Park · Realty Plot · Research Laboratory · River Works · Specialty Control Plant · Switchgear Plant · Welch Technology Centre	
Sponsorship	Carousel of Progress (1964–65, 1967–73, 1975–85) · Horizons at Epcot (1983–93)	
Other	GE True · The General Electric Concert · General Electric EdgeLab · General Electric Theater · General Imaging · Thomson-Houston Electric Company · Timeline · United States v. General Electric Co. · Diamond v. Chakrabarty · Phoebus cartel · KGEI · WGEO	

<sup>1</sup>Now integrated into other GE divisions or business groupings · <sup>2</sup>Sold or spun off

Category

Principal owners of the Houston Astros franchise	
Thomas Edison	
Authority control	BNF: cb11880709c (data) · ISNI: 0000 0001 0943 0267 · LCCN: n79078780 · MA: 1332737386 · NKC: olak2003164566 · SUDOC: 027769364 · VIAF: 136799030 · WorldCat Identities: lccn-n79078780

www.wikidata.org/wiki/Q54173

English Not logged in Talk Contributions Create account Log in

Item Discussion Read View history Search Wikidata

# General Electric (Q54173)

American multinational conglomerate corporation

General Electric Company | GE | General Electric Co.

[edit](#)

[In more languages](#)

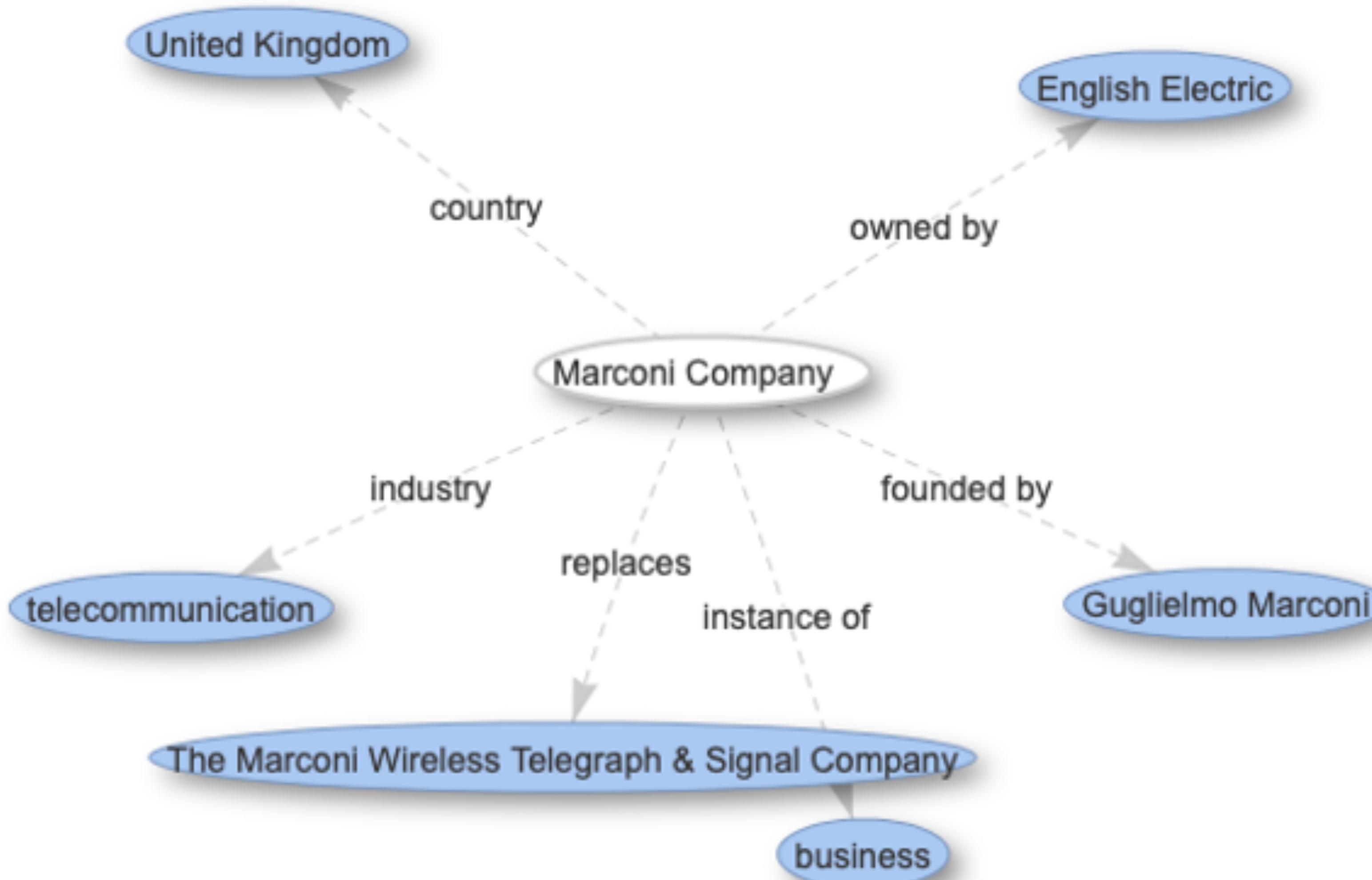
Configure

Language	Label	Description	Also known as
English	General Electric	American multinational conglomerate corporation	General Electric Company GE General Electric Co.
British English	General Electric	No description defined	
French	General Electric	conglomérat américain	
German	General Electric	US-amerikanischer Mischkonzern	

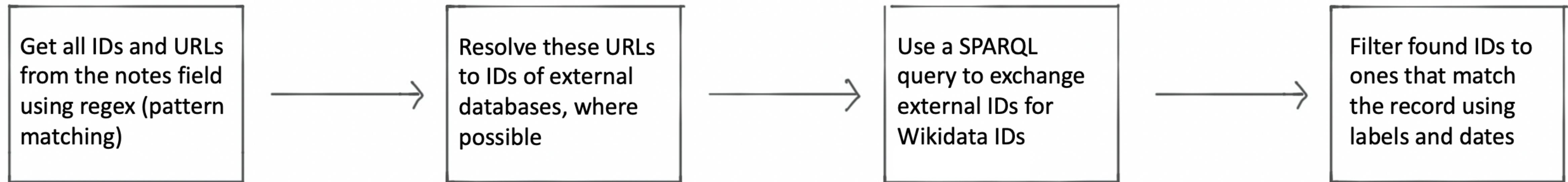
All entered languages

## Statements

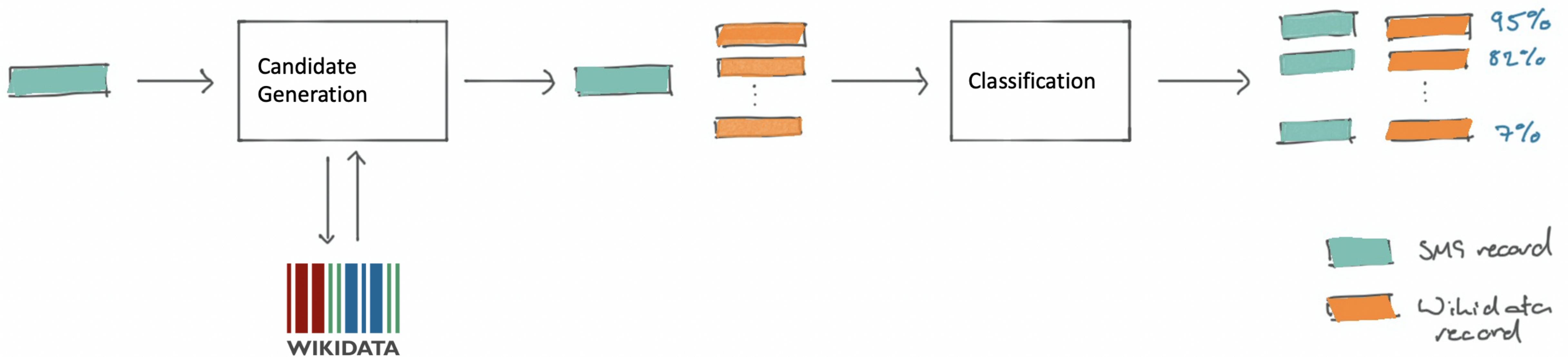
instance of	business	<a href="#">edit</a>
	▼ 0 references	<a href="#">+ add reference</a>
	enterprise	<a href="#">edit</a>
	▼ 0 references	



# EASY WINS (EXISTING IDS)



# DISAMBIGUATION



<a href="https://collection.science museum group.org.uk/objects/co8190203">https://collection.science museum group.org.uk/objects/co8190203</a>	Gold plated BBC Micro personal computer, 1985	wd:Q749976	BBC Micro
<a href="https://collection.science museum group.org.uk/objects/co8084761">https://collection.science museum group.org.uk/objects/co8084761</a>	Kodak Retinette 1B camera	wd:Q1778199	Kodak Retinette
<a href="https://collection.science museum group.org.uk/objects/co8205354">https://collection.science museum group.org.uk/objects/co8205354</a>	Agfa Click-1 camera	wd:Q73170415	Agfa Click
<a href="https://collection.science museum group.org.uk/objects/co8357316">https://collection.science museum group.org.uk/objects/co8357316</a>	'Mendel' - a second generation 3d RepRap printer with parts printed by first generation machines	wd:Q3834994	3D printer
<a href="https://collection.science museum group.org.uk/objects/co8094216">https://collection.science museum group.org.uk/objects/co8094216</a>	Kodak DC3200 Digital Camera	wd:Q6425102	Kodak DC3200
<a href="https://collection.science museum group.org.uk/objects/co425595">https://collection.science museum group.org.uk/objects/co425595</a>	Hewlett-Packard HP 86 personal computer	wd:Q23932337	Hewlett Packard HP-86
<a href="https://collection.science museum group.org.uk/objects/co62678">https://collection.science museum group.org.uk/objects/co62678</a>	IBM system 32 minicomputer	wd:Q1632504	IBM System/32
<a href="https://collection.science museum group.org.uk/objects/co536757">https://collection.science museum group.org.uk/objects/co536757</a>	Ford model T Tourer car, Reg. No. PP7963, Engine No. 1,122,607	wd:Q182323	Ford Model T
<a href="https://collection.science museum group.org.uk/objects/co29091">https://collection.science museum group.org.uk/objects/co29091</a>	The Rolls-Royce vertical take-off-thrust measuring rig, 1954.	wd:Q7361353	Rolls-Royce Thrust Measuring Rig

<b>Number of records with a sameAs link to Wikidata</b>				
<b>recordType</b>		no with sameAs link	total no	%
<b>PERSON</b>		6065	12827	47.28%
<b>ORGANISATION</b>		1790	10859	16.48%
<b>OBJECT</b>		787	281964	0.28%

# NAMED ENTITY RECOGNITION (NER)

British NORP astronaut, Helen Sharman's PERSON Sokol OBJECT spacesuit made by Zvezda ORG . Sharman PERSON wore this rescue suit during the space flight on board the SOYUZ-TM-12 and MIR spacecraft in May 1991 DATE . Space suit model number KV-2 No. 167 CARDINAL .

Sokol-KV-2 OBJECT rescue suit worn by Helen Sharman PERSON during the Juno OBJECT mission to the Mir OBJECT space station, 1991 DATE

СПАСАТЕЛЬНЫЙ СКАФАНДР

Helen Sharman PERSON was the first British NORP person in space. Sharman PERSON wore this suit for two hours on the ground to check its fit. Lying back, she tried to read but her arms ached from holding the book for so long. Despite the suit's cooling systems she sweated 2 litres during the mission launch. Once she could remove the suit, she dried it thoroughly to ensure it would not go mouldy.

The Sokol OBJECT suit was developed after three unsuited cosmonauts asphyxiated on the Soyuz 11 OBJECT mission in 1971 DATE when their descent module depressurised during the return to Earth LOC . Every cosmonaut now wears one during launch and return from space. It will keep the wearer alive for a number of hours in the event of a cabin depressurisation. Each suit is tailor made to the individual cosmonaut and comprises an inner, airtight 'bladder' of rubberised plastic and an outer layer of nylon canvas. There are connecting rings on the lower abdomen for air (cooling) and oxygen supplies and a centrally positioned pressure adjustment valve control on the chest; the pressure gauge is on the left wrist. The helmet and boots are integral with the rest of the suit; the gloves are attached with anodized aluminium bayonet fixings. Today DATE 's Sokol ORG design is little changed from the original.

# Helen Sharman 1963

OCCUPATION: Astronaut, Broadcaster, Chemist, Engineer, Lecturer

NATIONALITY: British

BORN IN: Sheffield, South Yorkshire, England, United Kingdom

British **NORP** astronaut, **Sharman PERSON** Sokol **OBJECT** spacesuit made by **Zvezda ORG**. **Sharman PERSON** wore this rescue suit during the space flight on board the SOYUZ-TM-12 and MIR spacecraft in **May 1991 DATE**. Space suit model number KV-2 No. **167 CARDINAL**.

Sokol-KV-2 **OBJECT** rescue suit worn by **Sharman PERSON** during the **Juno OBJECT** mission to the **Mir OBJECT** space station, **1991 DATE**

СПАСАТЕЛЬНЫЙ СКАФАНДР

**Sharman PERSON** was the first **British NORP** person in space. **Sharman PERSON** wore this suit for two hours on the ground to check its fit. Lying back, she tried to read but her arms ached from holding the book for so long. Despite the suit's cooling systems she sweated 2 litres during the mission launch. Once she could remove the suit, she dried it thoroughly to ensure it would not go mouldy.

The **Sokol OBJECT** suit was developed after three unsuited cosmonauts asphyxiated on the **Soyuz 11 OBJECT** mission in **1971 DATE** when their descent module depressurised during the return to **Earth LOC**. Every cosmonaut now wears one during launch and return from space. It will keep the wearer alive for a number of hours in the event of a cabin depressurisation. Each suit is tailor made to the individual cosmonaut and comprises an inner, airtight 'bladder' of rubberised plastic and an outer layer of nylon canvas. There are connecting rings on the lower abdomen for air (cooling) and oxygen supplies and a centrally positioned pressure adjustment valve control on the chest; the pressure gauge is on the left wrist. The helmet and boots are integral with the rest of the suit; the gloves are attached with anodized aluminium bayonet fixings. **Today DATE**'s **Sokol ORG** design is little changed from the original.

## Sokol space suit (Q1197668)

Russian spacesuit used on Soyuz  
Sokol IVA | Sokol

## NPP Zvezda (Q541905)

company in Moscow, Russia

 edit

K-36DM | Zvezda (Russia) | Research-and-production enterprise "Zvezda" to them.

GI Severin | Zvezda Research and Production Enterprise

## Soyuz 11 (Q648581)

Manned Soviet space mission to the Salyut 1 Space Station

# Using Rules to Augment NER

Date detection  $\uparrow$  1.5%, collection & archive names  $\uparrow$  0.5%

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    {"label": "ORG", "pattern": [{"IS_TITLE": True, 'OP': '+'}, {"LOWER": 'archive'}]}, # Charles Urban archive
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# A Collection as a Dictionary

↑ 3.2%

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{"label": "ORG", "pattern": "Normal School of Science, Astronomy Laboratory", "id": "https://collection.science museumgroup.org.uk/people/cp20442"}  
{"label": "ORG", "pattern": "T Green & Son Ltd", "id": "https://collection.science museumgroup.org.uk/people/cp20553"}
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	<b>title</b>	<b>wikipedia link</b>	<b>wikidata link</b>	<b>pred_proba</b>
	Liverpool and Manchester Railway	<a href="#">link</a>	<a href="#">link</a>	1.0

### L&MR

	<b>title</b>	<b>wikipedia link</b>	<b>wikidata link</b>	<b>pred_proba</b>
	Liverpool and Manchester Railway	<a href="#">link</a>	<a href="#">link</a>	1.0

### James Loch

	<b>title</b>	<b>wikipedia link</b>	<b>wikidata link</b>	<b>pred_proba</b>
	James Loch	<a href="#">link</a>	<a href="#">link</a>	1.0

### Chat Moss

	<b>title</b>	<b>wikipedia link</b>	<b>wikidata link</b>	<b>pred_proba</b>
	Chat Moss	<a href="#">link</a>	<a href="#">link</a>	1.0

### Manchester

	<b>title</b>	<b>wikipedia link</b>	<b>wikidata link</b>	<b>pred_proba</b>
	Manchester	<a href="#">link</a>	<a href="#">link</a>	0.999998

### Liverpool

	<b>title</b>	<b>wikipedia link</b>	<b>wikidata link</b>	<b>pred_proba</b>
	Liverpool	<a href="#">link</a>	<a href="#">link</a>	0.999996

### L&MR

	<b>title</b>	<b>wikipedia link</b>	<b>wikidata link</b>	<b>pred_proba</b>

<b>SUM of count</b>	<b>entPredicate</b>							
<b>linked?</b>	hc:entityFACT	hc:entityLANGUAGE	hc:entityLOC	hc:entityNORP	hc:entityOBJECT	hc:entityORG	hc:entityPERSON	Grand Total
<b>collection</b>					7,487	112,219	42,778	162,484
<b>unlinked</b>	11,804	2,521	16,545	27,245	28,759	81,641	44,130	212,645
<b>wikidata</b>	20,638	12,217	139,607	32,544	23,414	89,033	55,103	372,556
<b>Grand Total</b>	32,442	14,738	156,152	59,789	59,660	282,893	142,011	747,685

<b>Number of Wikidata pages in the KG:</b>	->	->	<b>108,693</b>
<b>Number of SMG pages in the KG by type:</b>	OBJECT	281,964	353,329
	ORGANISATION	10,859	
	BLOG_POST	1,293	
	PERSON	12,827	
	DOCUMENT	46,219	
	JOURNAL_ARTICLE	167	

# HERITAGE CONNECTOR PROJECT

- i. Improve collection interfaces      A. Artificial intelligence
- ii. Improve discovery                  B. Linked data
- iii. Improve links to other sources    C. Knowledge graphs

# **KNOWLEDGE GRAPH INTERFACE**



# Heritage Connector

[DOCUMENTATION](#)[QUERY LIBRARY](#)

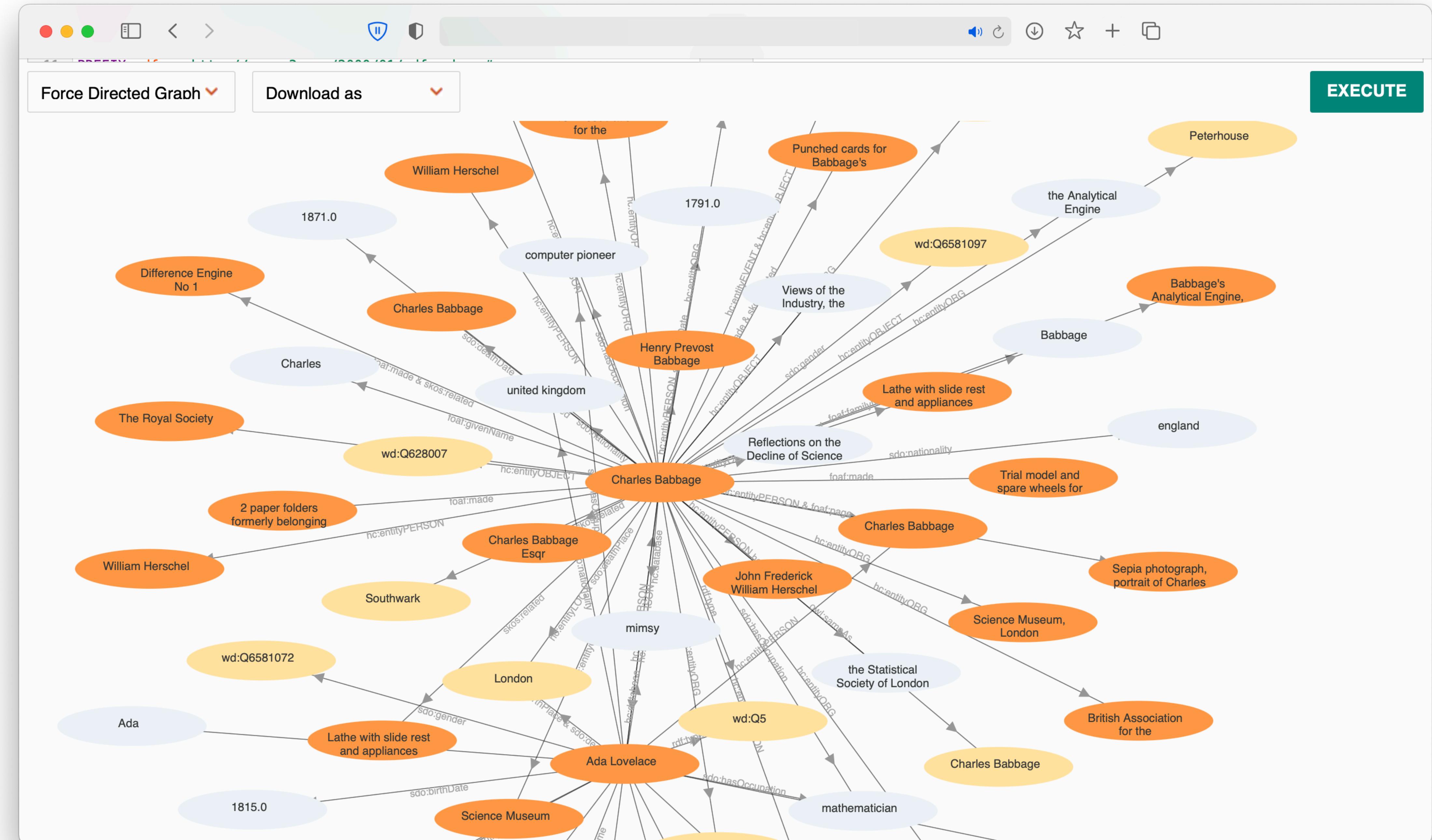
```
1 PREFIX owl: <http://www.w3.org/2002/07/owl#>
2 PREFIX wdt: <http://www.wikidata.org/prop/direct/>
3 PREFIX wd: <http://www.wikidata.org/entity/>
4 PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
5 PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
6
7 SELECT ?item ?itemLabel ?wdItem ?wdItemlabel WHERE {
8   # Change PERSON below to OBJECT or ORGANISATION
9   ?item skos:hasTopConcept 'PERSON'.
10  ?item owl:sameAs ?wdItem.
11  ?item rdfs:label ?itemLabel.
12
13 SERVICE <https://query.wikidata.org/sparql> {
14   ?wdItem rdfs:label ?wdItemlabel.
15   FILTER(LANG(?wdItemlabel) = "en").
16 }
```

[Table](#)[Download as](#)

viewing 100/100 rows

[EXECUTE](#)

item	itemLabel	wdItem	wdItemlabel
<a href="https://collection.science museum group.org.uk/people/cp21611">https://collection.science museum group.org.uk/people/cp21611</a>	Sir Maurice Wilkes	wd:Q62857	Maurice Wilkes
<a href="https://collection.science museum group.org.uk/people/cp133074">https://collection.science museum group.org.uk/people/cp133074</a>	Willem van de Velde I	wd:Q722912	Willem van de Velde the Elder
<a href="https://collection.science museum group.org.uk/people/cp94357">https://collection.science museum group.org.uk/people/cp94357</a>	Sir Benjamin Vincent Sellon Brodie	wd:Q75421470	Sir Benjamin Vincet Sellon Brodie, 3rd Bt.
<a href="https://collection.science museum group.org.uk/people/cp27747">https://collection.science museum group.org.uk/people/cp27747</a>	Joseph-Hubert Ponscarme	wd:Q598120	Hubert Ponscarme
<a href="https://collection.science museum group.org.uk/people/cp17013">https://collection.science museum group.org.uk/people/cp17013</a>	Elsie Wright	wd:Q18528681	Elsie Wright

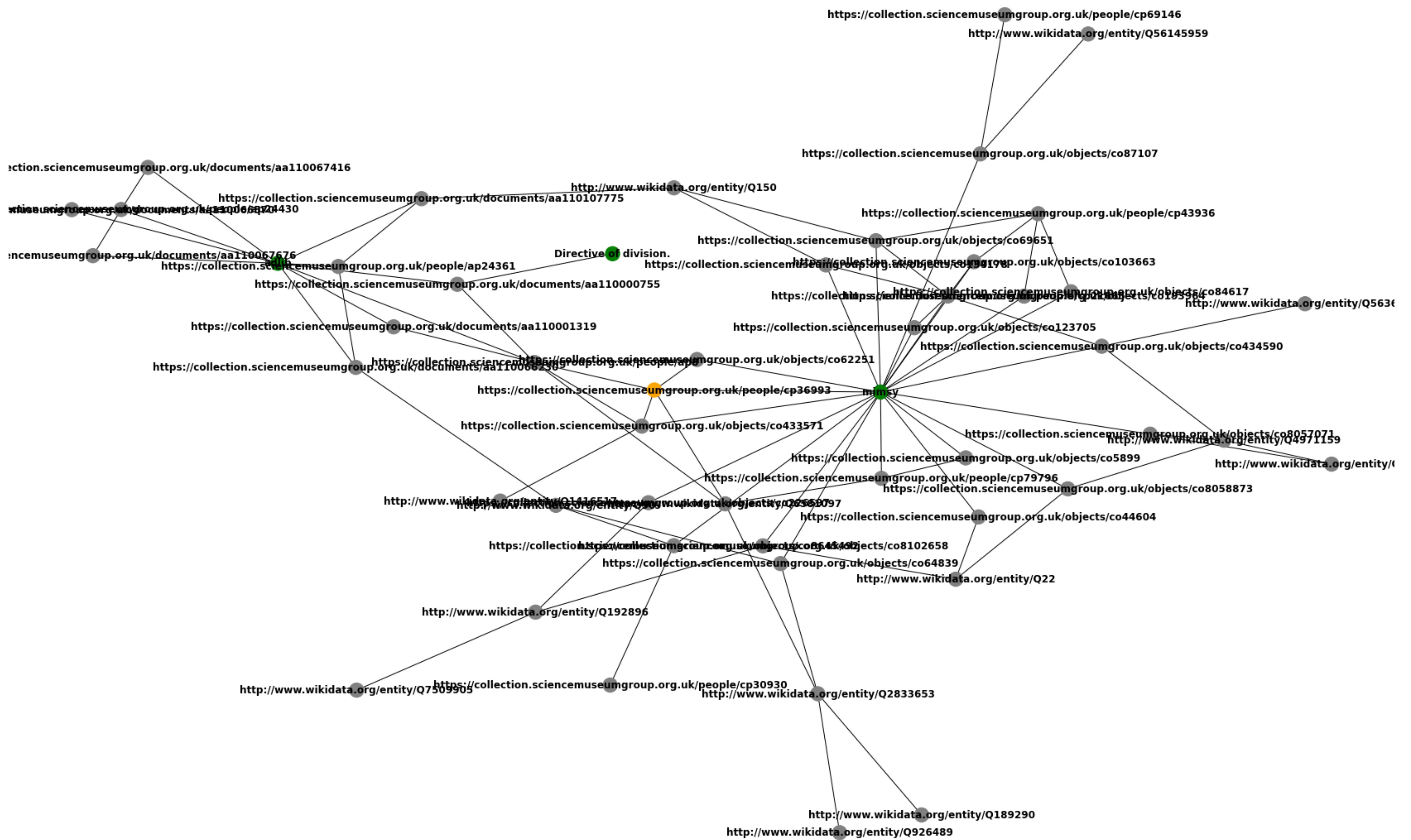


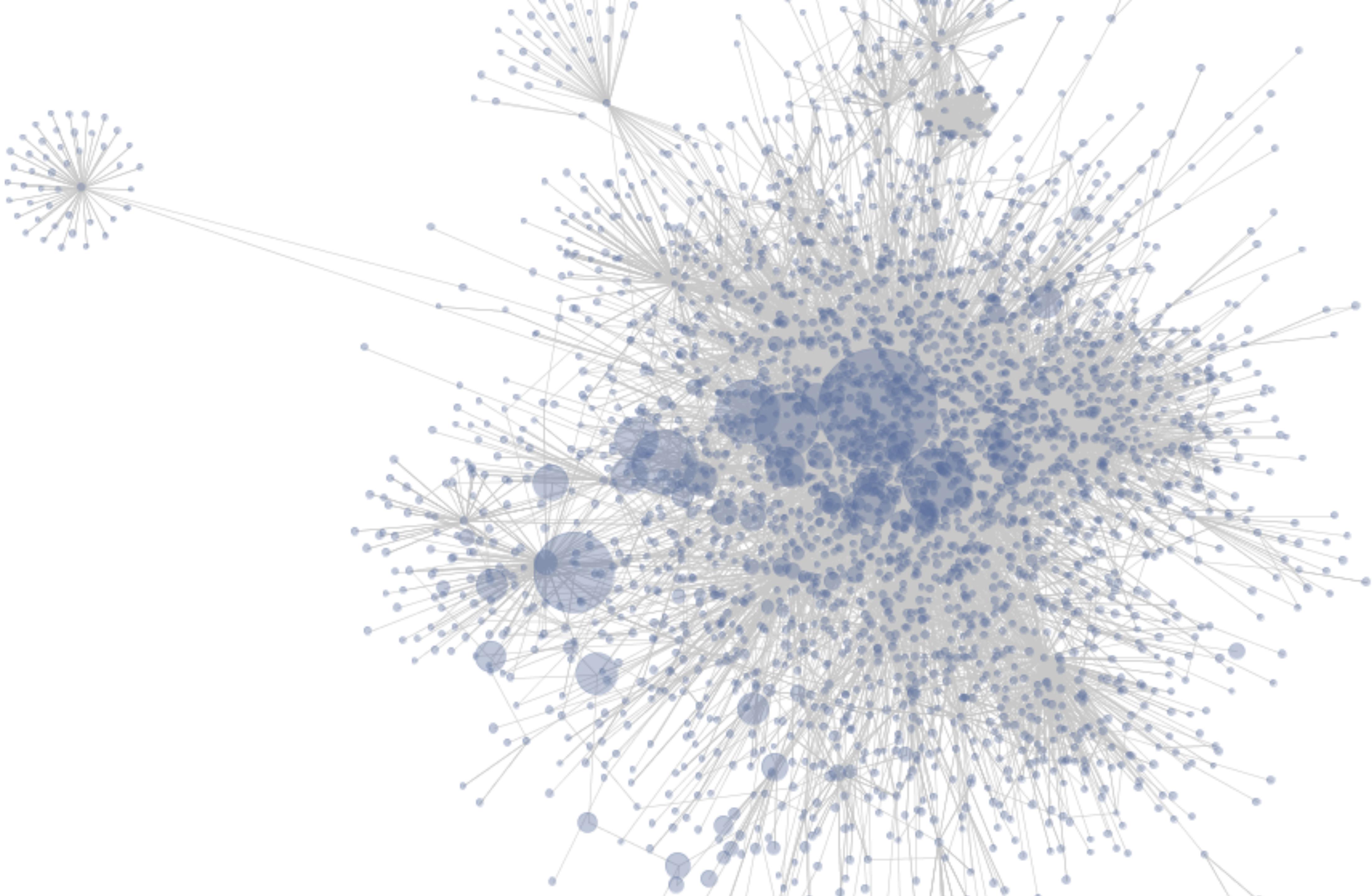
<a href="https://collection.science museum group.org.uk/people/cp4341">https://collection.science museum group.org.uk/people/cp4341</a>	James Tibbits Willmore	wd:Q6144273	wdt:P6764	AUTH317725						wdt:P1711
<a href="https://collection.science museum group.org.uk/people/cp101797">https://collection.science museum group.org.uk/people/cp101797</a>	Vincent Brooks	wd:Q18508706	wdt:P6764	A33587						wdt:P1711
<a href="https://collection.science museum group.org.uk/people/cp69383">https://collection.science museum group.org.uk/people/cp69383</a>	Albin Roberts Burt	wd:Q4712380	wdt:P6764	AUTH318904						wdt:P1711
<a href="https://collection.science museum group.org.uk/people/cp89471">https://collection.science museum group.org.uk/people/cp89471</a>	Leopold I of Belgium	wd:Q12971	wdt:P6764	N12415						wdt:P1711
<a href="https://collection.science museum group.org.uk/people/cp82966">https://collection.science museum group.org.uk/people/cp82966</a>	Leonardo Da Vinci	wd:Q762	wdt:P6764	N4735						wdt:P1711
<a href="https://collection.science museum group.org.uk/people/cp88900">https://collection.science museum group.org.uk/people/cp88900</a>	Pius VII	wd:Q124754	wdt:P6764	N7234						wdt:P1711
<a href="https://collection.science museum group.org.uk/people/cp82966">https://collection.science museum group.org.uk/people/cp82966</a>	Leonardo Da Vinci	wd:Q762	wdt:P6764	A12588						wdt:P1711
<a href="https://collection.science museum group.org.uk/people/cp70477">https://collection.science museum group.org.uk/people/cp70477</a>	Joseph II	wd:Q76555	wdt:P6764	N11007						wdt:P1711
<a href="https://collection.science museum group.org.uk/people/cp5533">https://collection.science museum group.org.uk/people/cp5533</a>	David Hockney	wd:Q159907	wdt:P6764	A4233	wdt:P2741	1293				
<a href="https://collection.science museum group.org.uk/people/cp26594">https://collection.science museum group.org.uk/people/cp26594</a>	Clarkson Stanfield	wd:Q1095862	wdt:P6764	A8882	wdt:P2741	518				
<a href="https://collection.science museum group.org.uk/people/cp26594">https://collection.science museum group.org.uk/people/cp26594</a>	Clarkson Stanfield	wd:Q1095862	wdt:P6764	A2400	wdt:P2741	518				
<a href="https://collection.science museum group.org.uk/people/cp26594">https://collection.science museum group.org.uk/people/cp26594</a>	Clarkson Stanfield	wd:Q1095862	wdt:P6764	A4713	wdt:P2741	518				

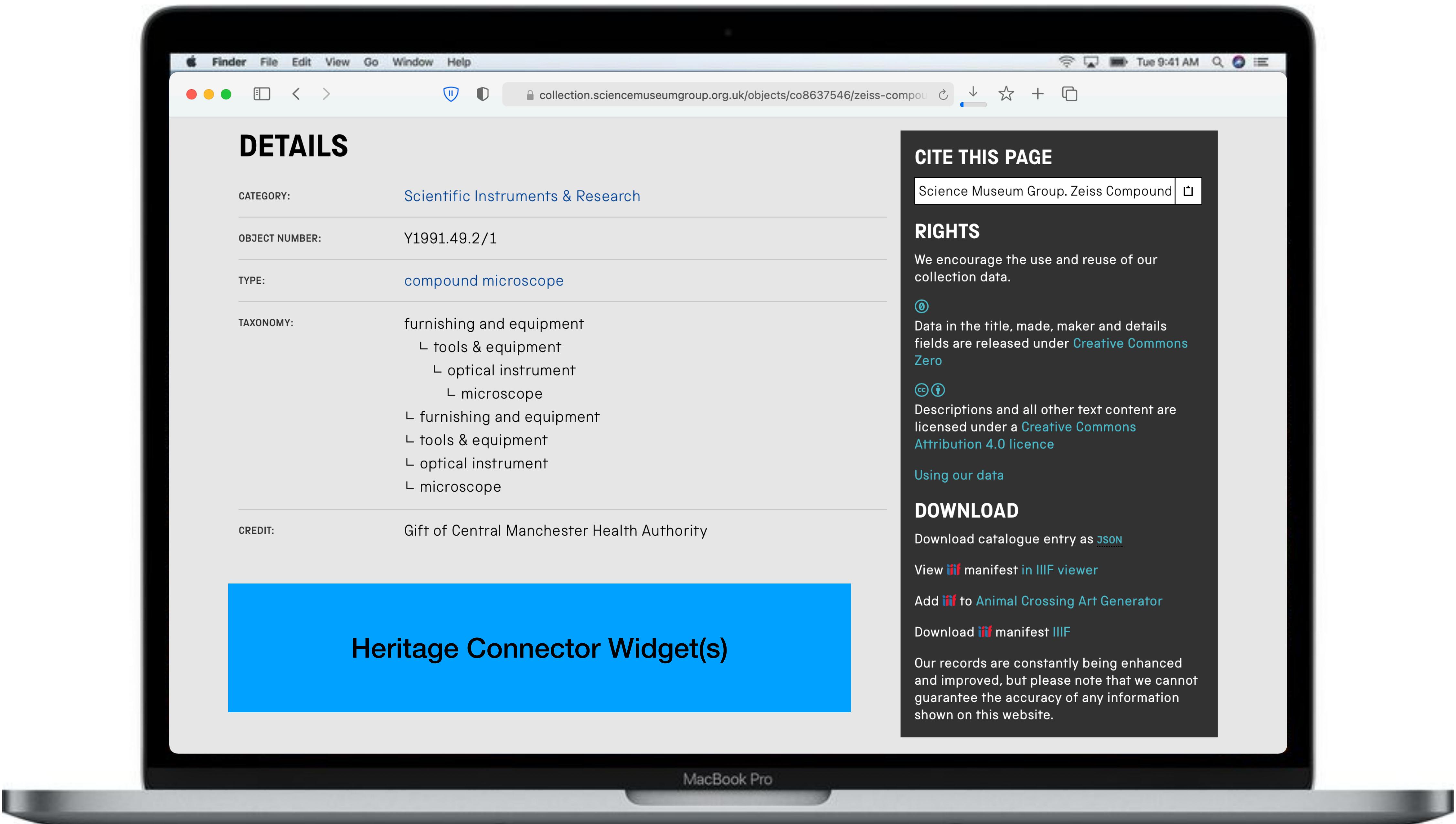
Table Download as EXECUTE viewing 232/232 rows

s	sLabel	o	oLabel
smgp:ap24859	Henry Norman	wd:Q554629	Ménie Muriel Dowie
smgp:ap28005	Alexander Cox	wd:Q241669	Nancy Spungen
smgp:cp19725	Richard Roberts	wd:Q45930082	Gillian Cookson
smgp:cp126713	Hiromix	wd:Q3136279	Hiromix
smgp:cp1193	Terence Tenison Cuneo	wd:Q9682	Elizabeth II
smgp:cp167052	Lewis Ralph Yealand	wd:Q61198	Pat Barker
smgp:ap30218	Henry Booth	wd:Q431614	Catherine Booth
smgp:ap30218	Henry Booth	wd:Q5362439	Elizabeth Booth
smgp:cp36990	George Adams	wd:Q515868	Hannah Adams
smgp:cp105721	John Henry Dallmeyer	wd:Q5648935	Hannah Primrose, Countess of Rosebery
smgp:cp28224	William Walcot	wd:Q5052600	Catherine Cooke
smgp:cp77478	Sir Thomas Spencer Wells	wd:Q36322	Jane Austen

# **NEXT STEPS**







# MACHINE LEARNING AND CULTURAL HERITAGE: WHAT IS IT GOOD ENOUGH FOR?

# MACHINE LEARNING AND CULTURAL HERITAGE: WHAT IS IT GOOD ENOUGH FOR?

- Suggesting possibilities and highlighting connections.
- Identifying trends and gaps.
- Visualising range and diversity of collections.
- Identifying related content.
- Working at scale.
- Bringing in new terminology alongside collection catalogue.

# BUT...

- ML generated content needs framing/contextualisation.
- False positives not always apparent or might require specialist skills or knowledge.
- Challenges cultural heritage notions of “canonical” collection catalogue data.
- Need to understand what we can’t do yet.
- Important to approach critically.

# THANKS

# THANKS

<https://www.sciencemuseumgroup.org.uk/project/heritage-connector/>

<https://thesciencemuseum.github.io/heritageconnector/>

<https://github.com/TheScienceMuseum/heritage-connector/>

<https://onlinelibrary.wiley.com/doi/epdf/10.1002/ail2.23>