

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

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

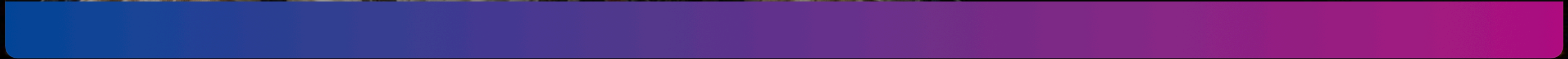
**SCIENCE
MUSEUM
GROUP**



SEARCH OUR COLLECTION

Search objects, people, categories, object numbers etc. 🔍

Explore over 350,000 objects and archives from the Science Museum, Science and Industry Museum, National Science and Media Museum, National Railway Museum and Locomotion.



All 50

People 0

Objects 50

Documents 0

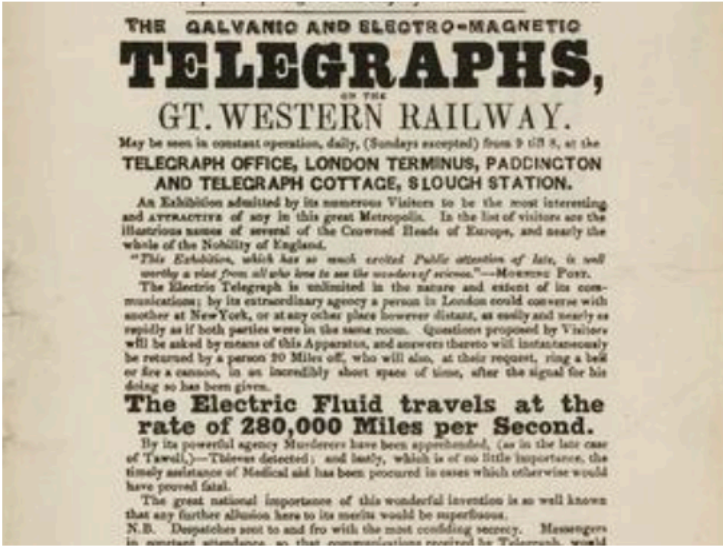
View:



Filter search



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



Advertisement by GWR for the exhibition of the Gal
Art
1845



Milk van, Great Western Railway
Locomotives and Rolling Stock
1936



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



DETAILS

CATEGORY:	Scientific Instruments & Research
OBJECT NUMBER:	Y1991.49.2/1
TYPE:	compound microscope
TAXONOMY:	<div>furnishing and equipment<ul style="list-style-type: none">tools & equipment<ul style="list-style-type: none">optical instrument<ul style="list-style-type: none">microscopefurnishing and equipment<ul style="list-style-type: none">tools & equipment<ul style="list-style-type: none">optical instrument<ul style="list-style-type: none">microscope</div>
CREDIT:	Gift of Central Manchester Health Authority

CITE THIS PAGE

Science Museum Group. Zeiss Compound

RIGHTS

We encourage the use and reuse of our collection data.

Data in the title, made, maker and details fields are released under [Creative Commons Zero](#)

Descriptions and all other text content are licensed under a [Creative Commons Attribution 4.0 licence](#)

[Using our data](#)

DOWNLOAD

Download catalogue entry as [JSON](#)

View [manifest](#) in [IIIF viewer](#)

Add [manifest](#) to [Animal Crossing Art Generator](#)

Download [manifest](#) [IIIF](#)

Our records are constantly being enhanced and improved, but please note that we cannot guarantee the accuracy of any information shown on this website.

From the Collections

From ancient Chinese ceramics to Alexander McQueen evening dresses, take an incredible journey through 5000 years of human creativity with our online collections.

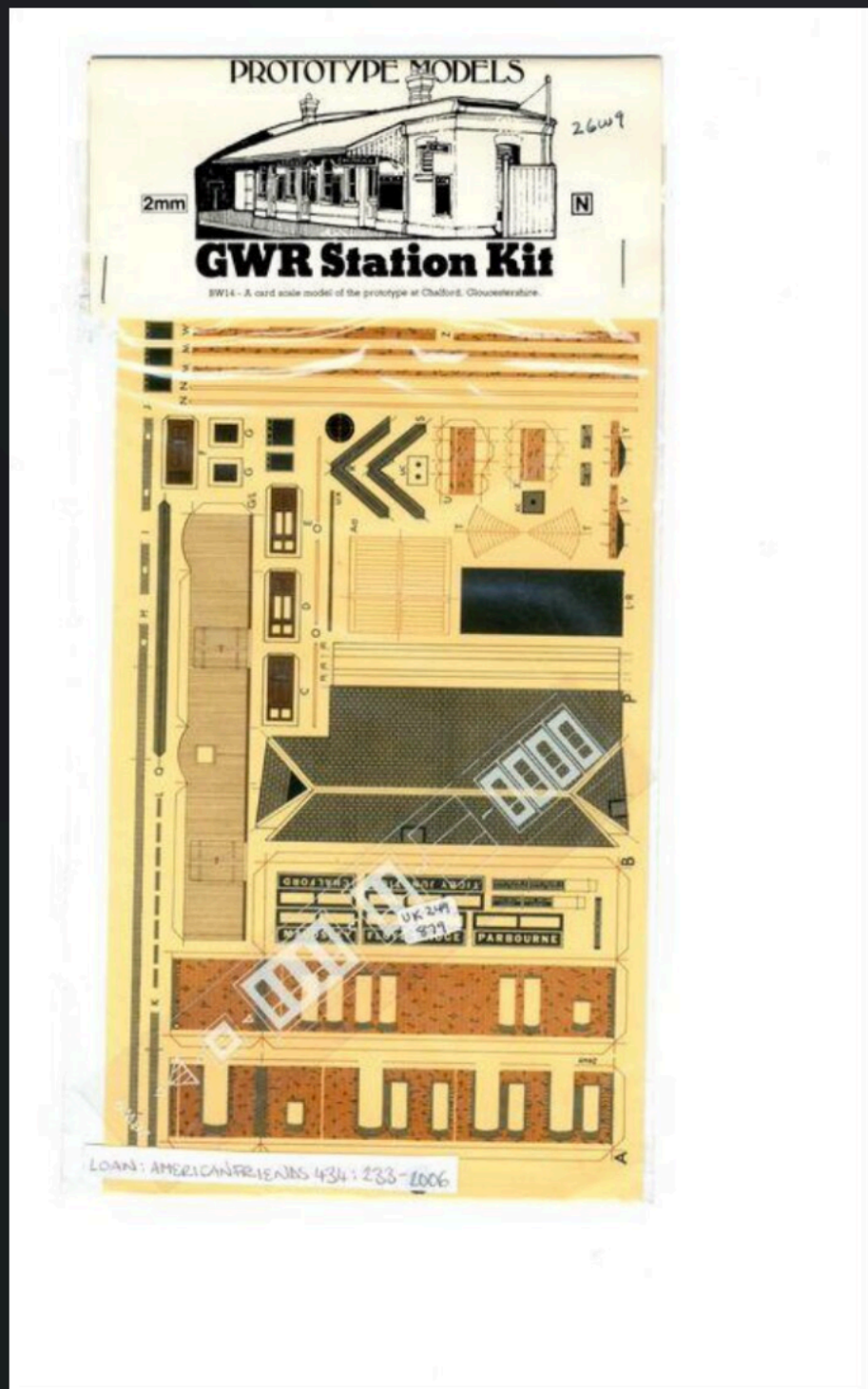


EXPLORE OUR COLLECTIONS

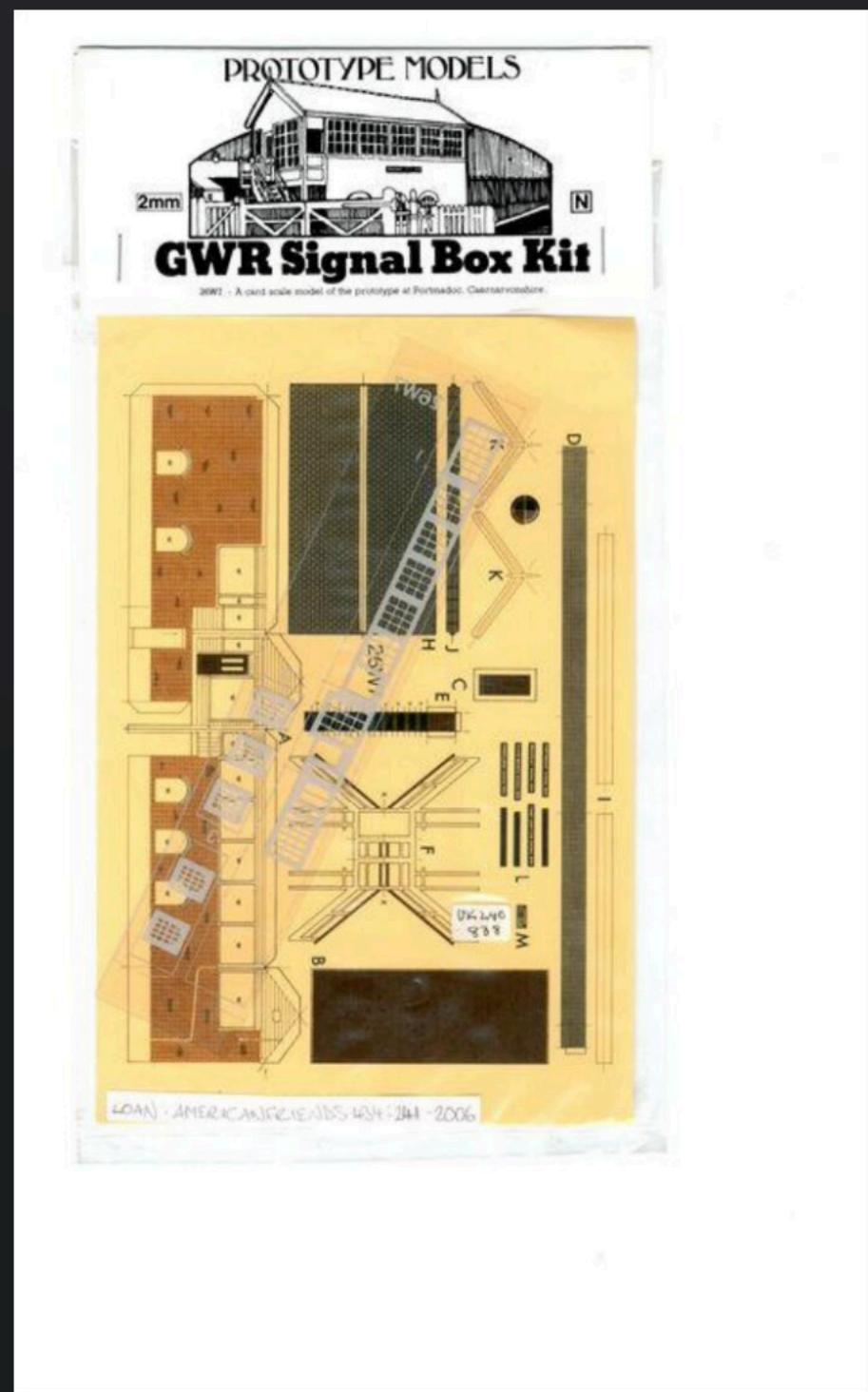
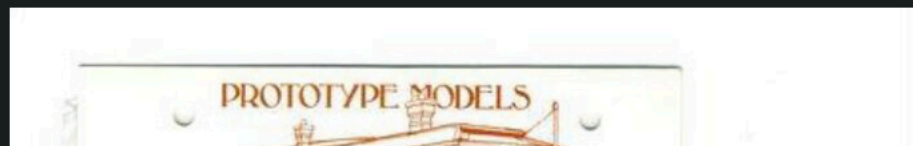
Search more than 1.2 million objects

SEARCH ▶

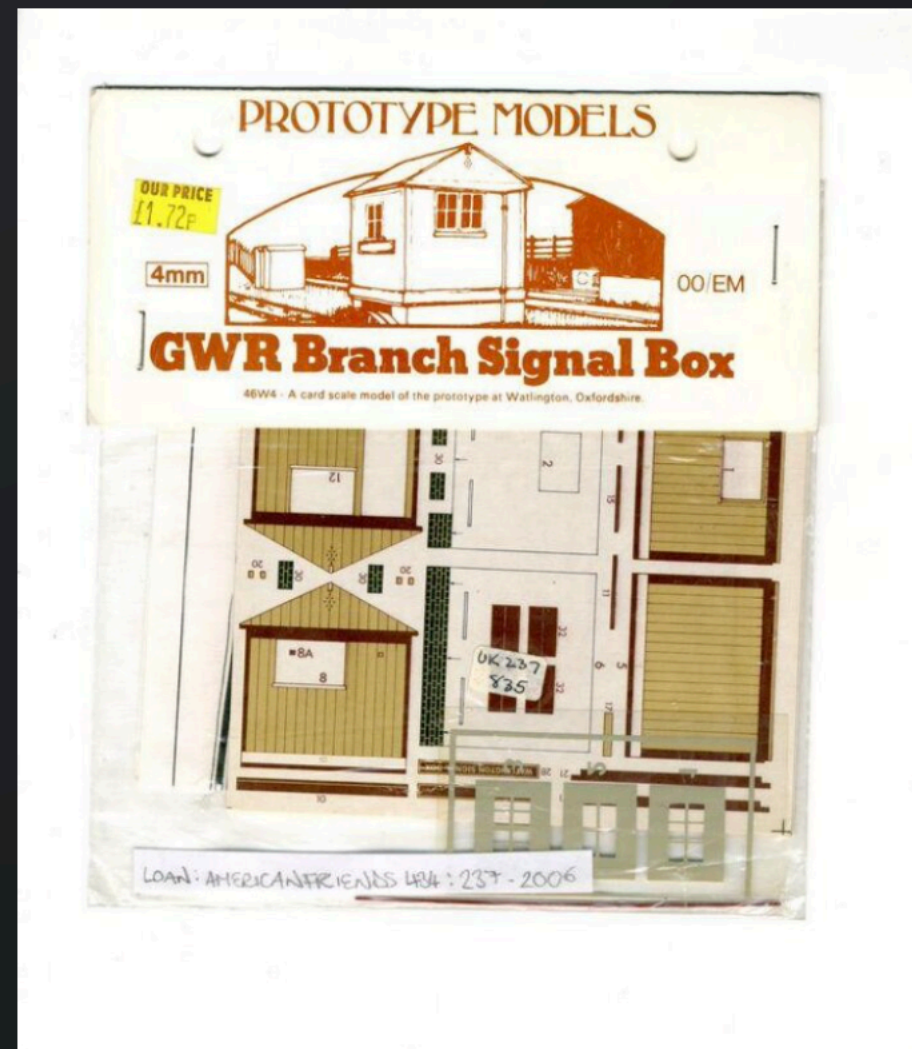
[Add dates](#) +



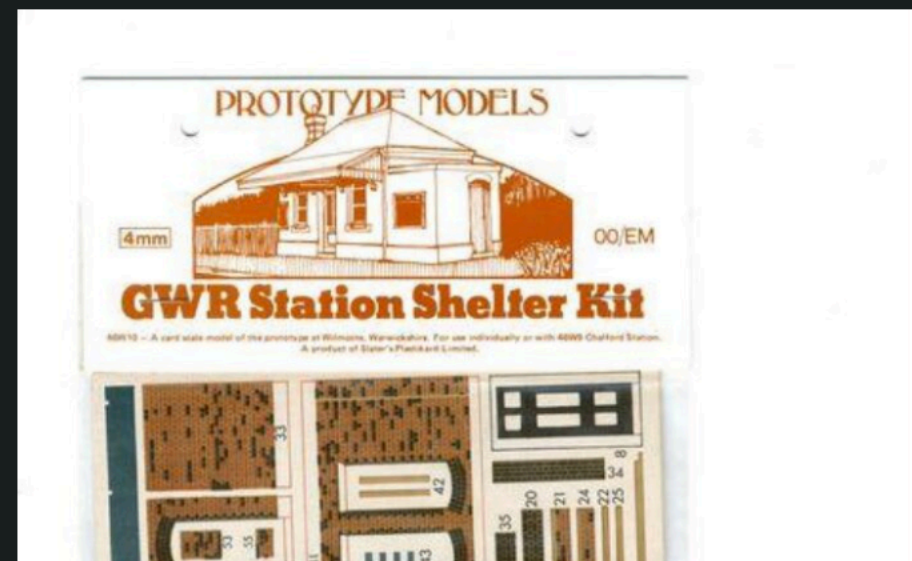
GWR Station Kit
Prototype Models
c.1980s



GWR Signal Box Kit
Prototype Models
c.1980s



GWR Branch Signal Box
Prototype Models
c.1980s



HERITAGE CONNECTOR PROJECT

TRANSFORMING TEXT INTO DATA TO EXTRACT
MEANING AND MAKE CONNECTIONS

**SCIENCE
MUSEUM
GROUP**

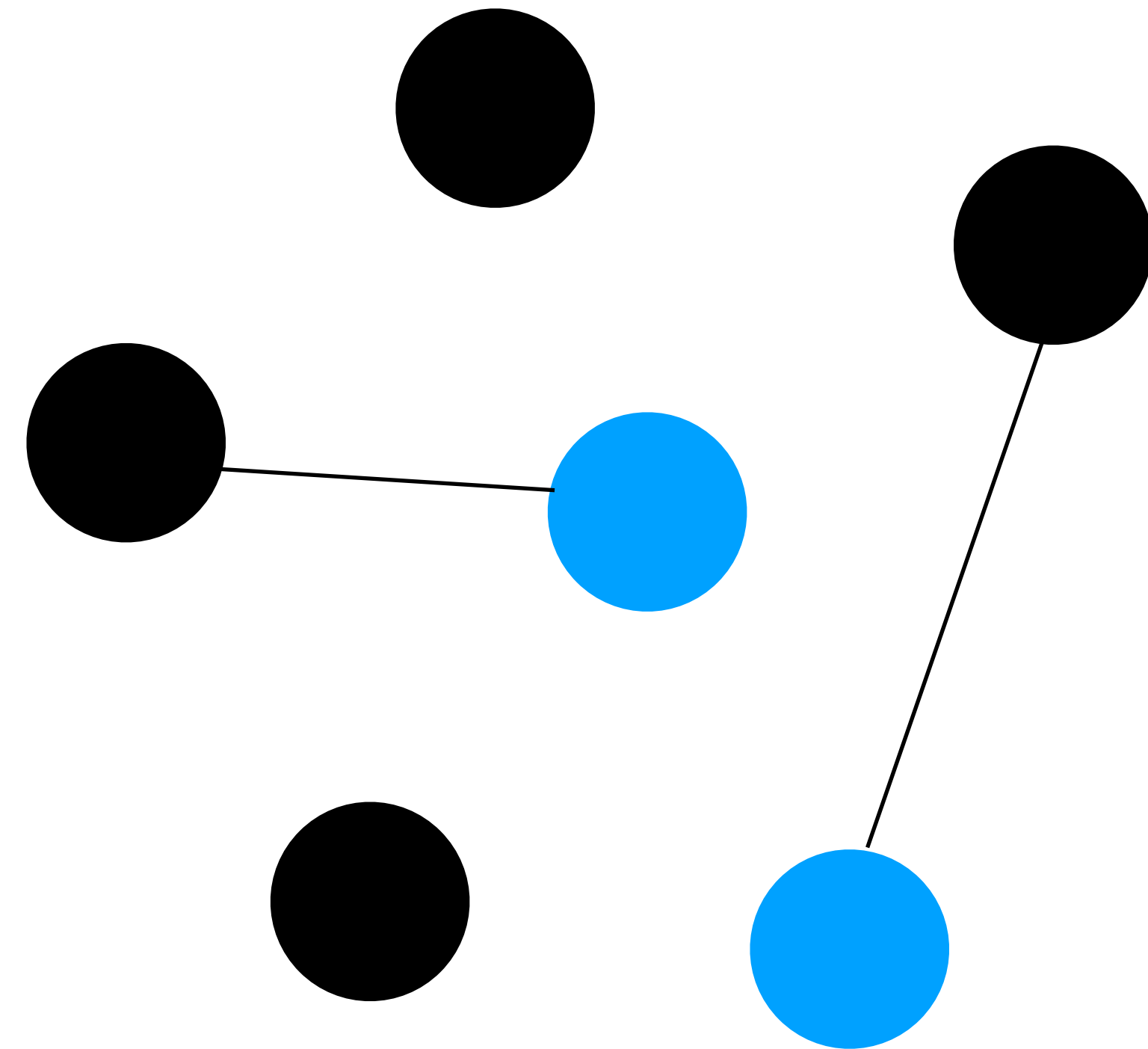


HERITAGE CONNECTOR PROJECT

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?

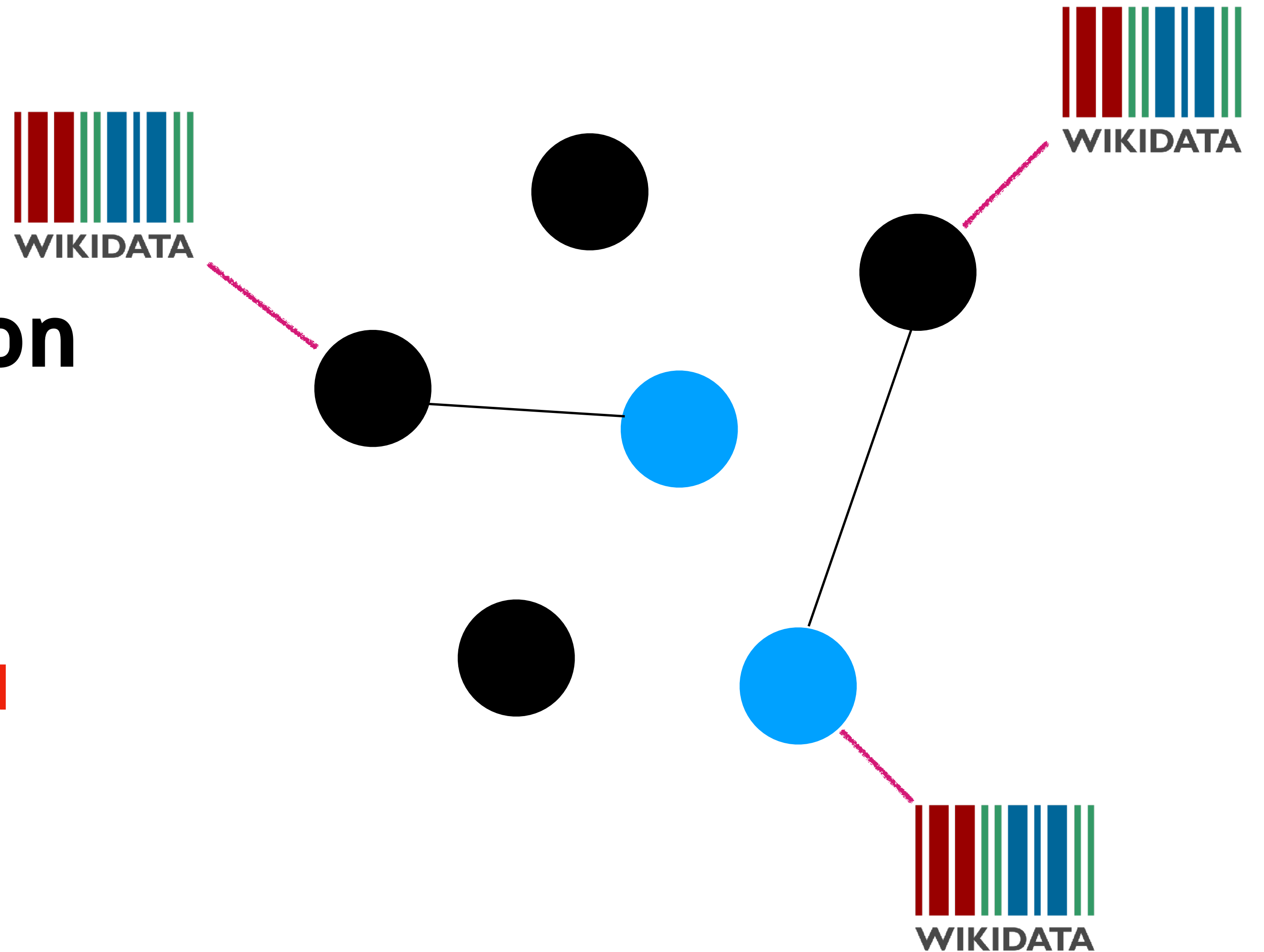
**This is our collection
now..**

Small islands of thin data



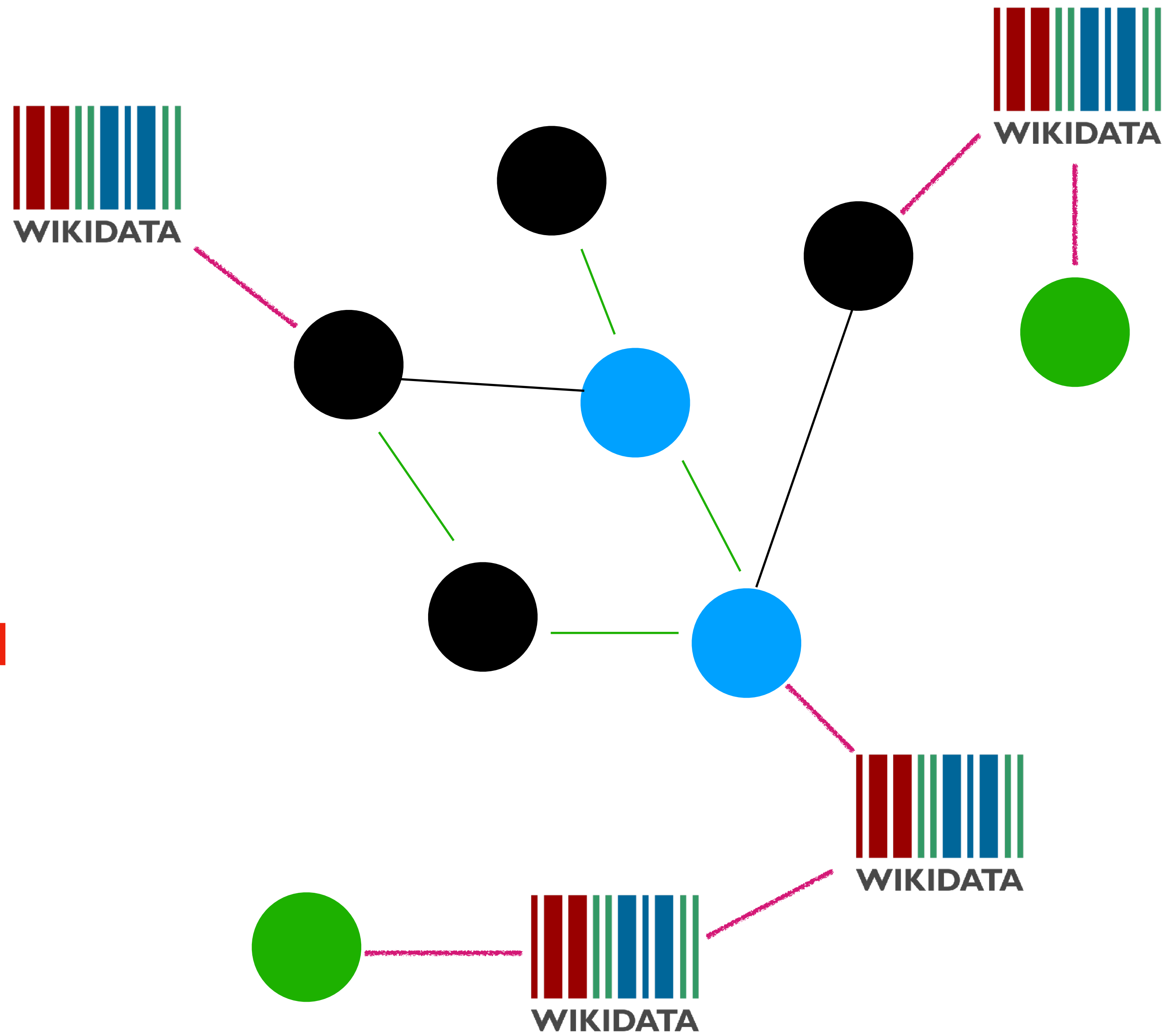
**This is our collection
connected to
Wikidata...**

Small islands of **connected
data**



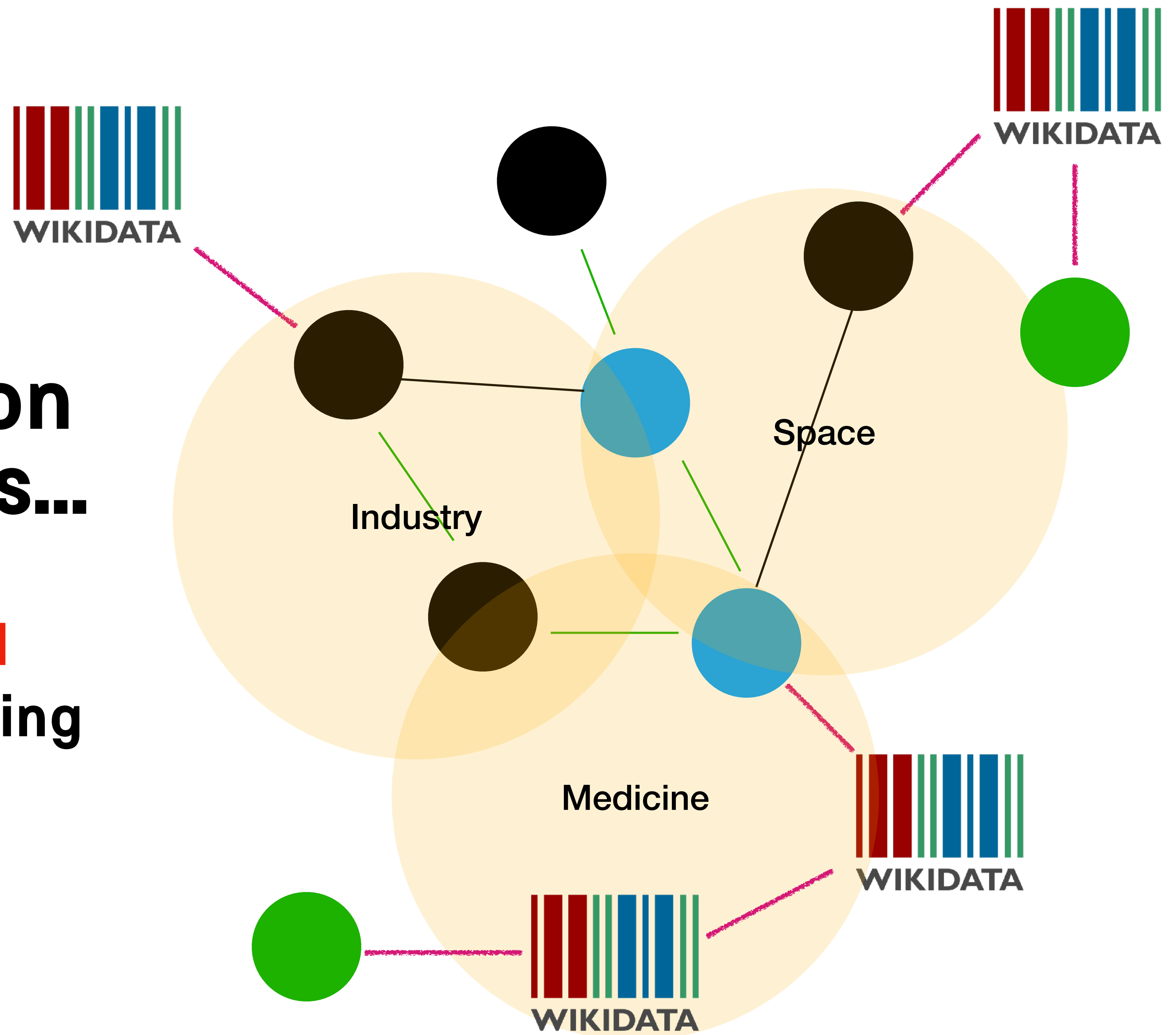
This is our collection
interlinked via
information extraction
techniques...

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 |
| ii. Improve discovery | B. Linked data |
| iii. Improve links to other sources | C. Knowledge graphs |

A. ARTIFICIAL INTELLIGENCE

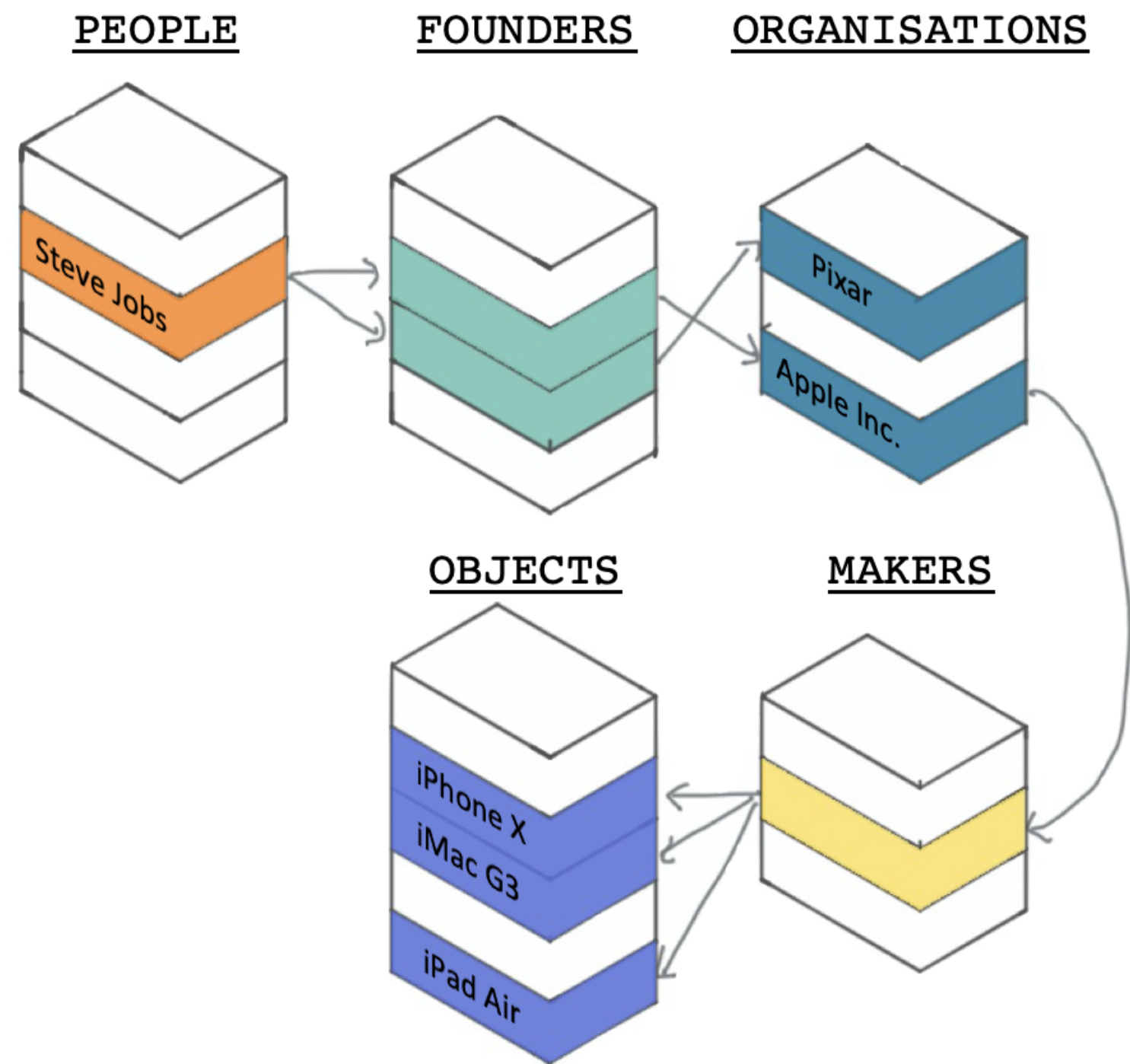
B. LINKED DATA

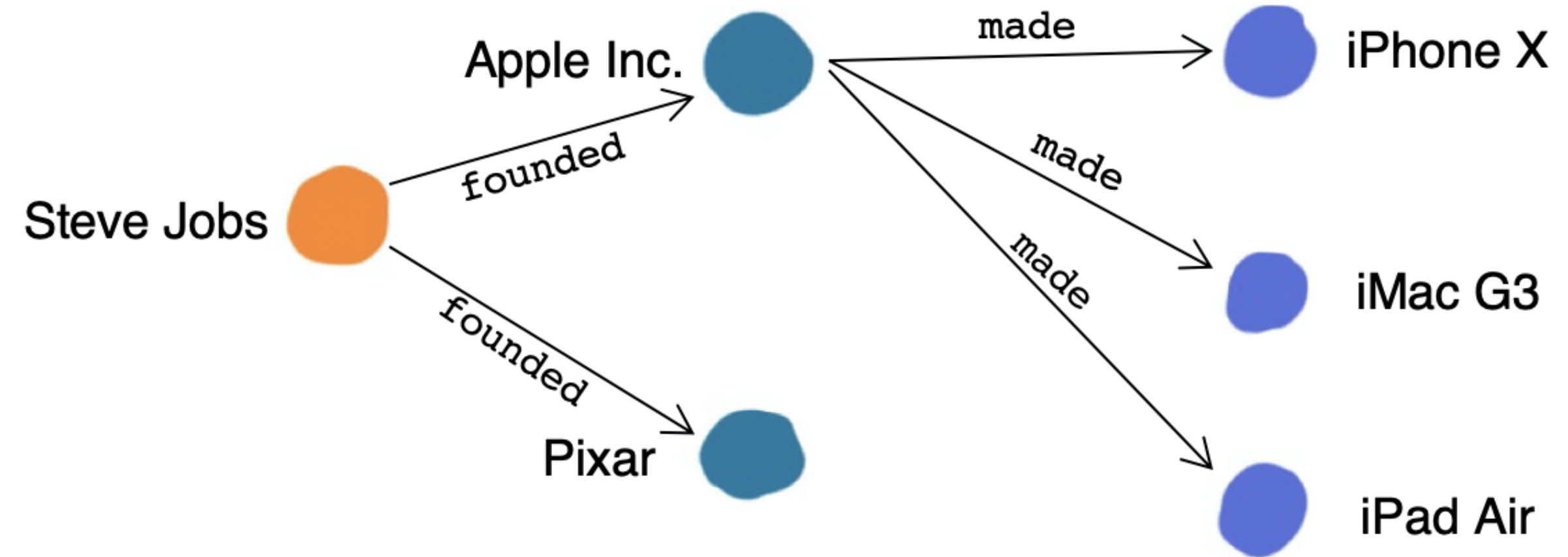
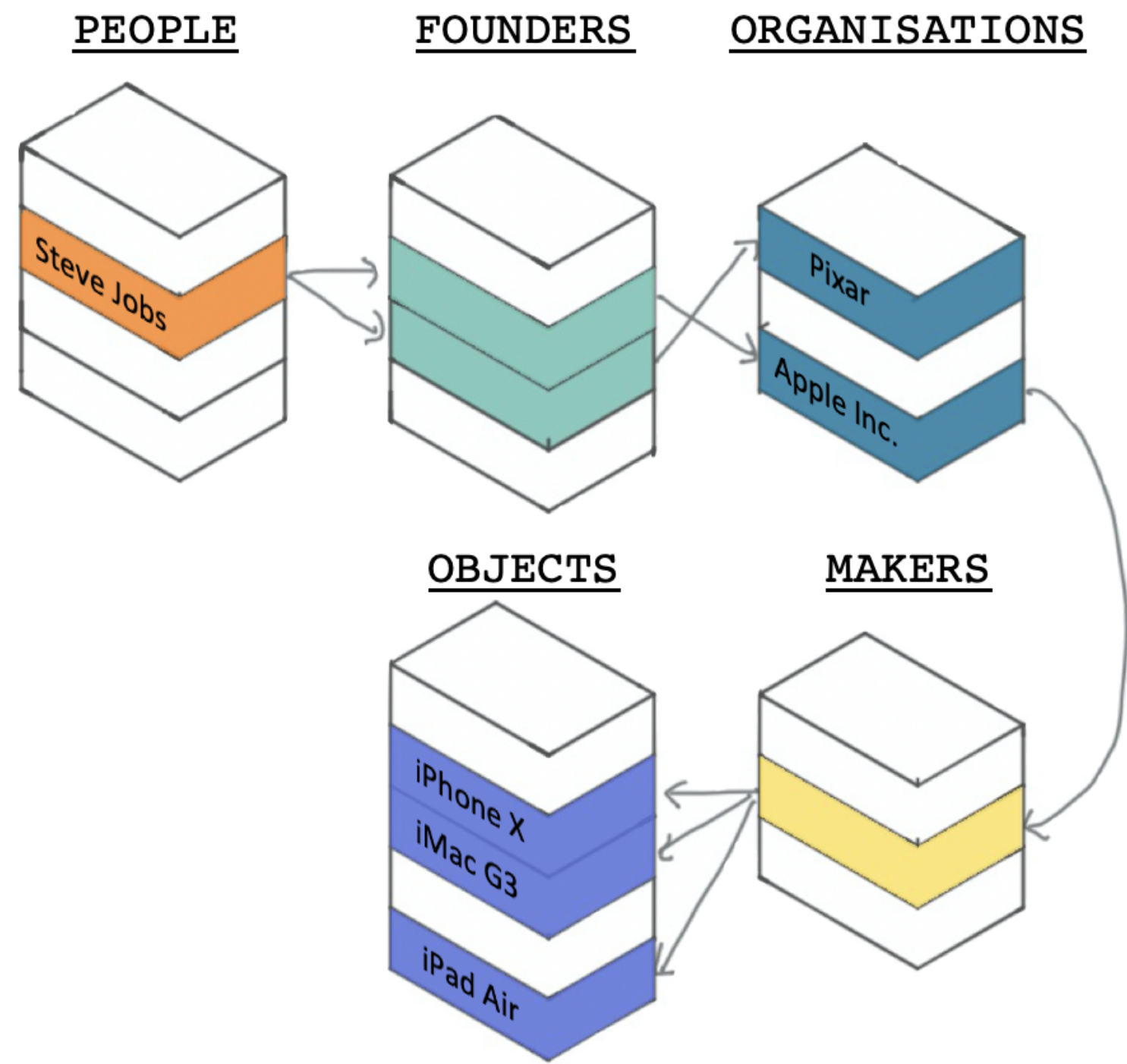
C. KNOWLEDGE GRAPHS

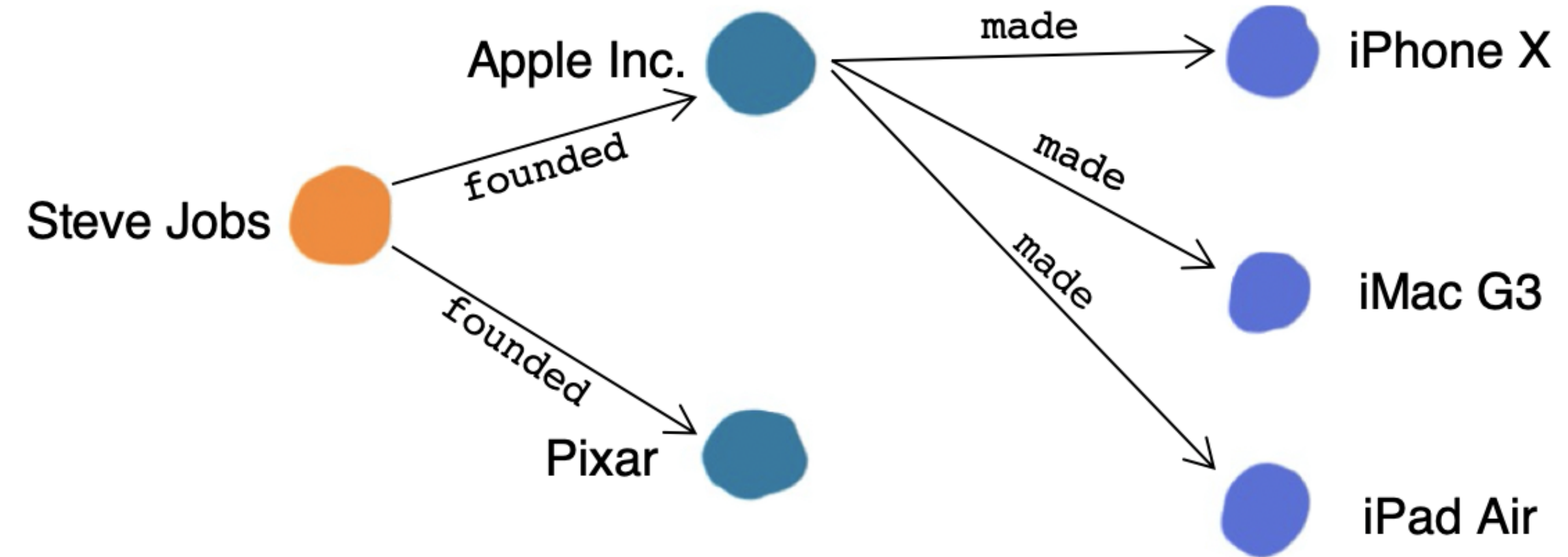
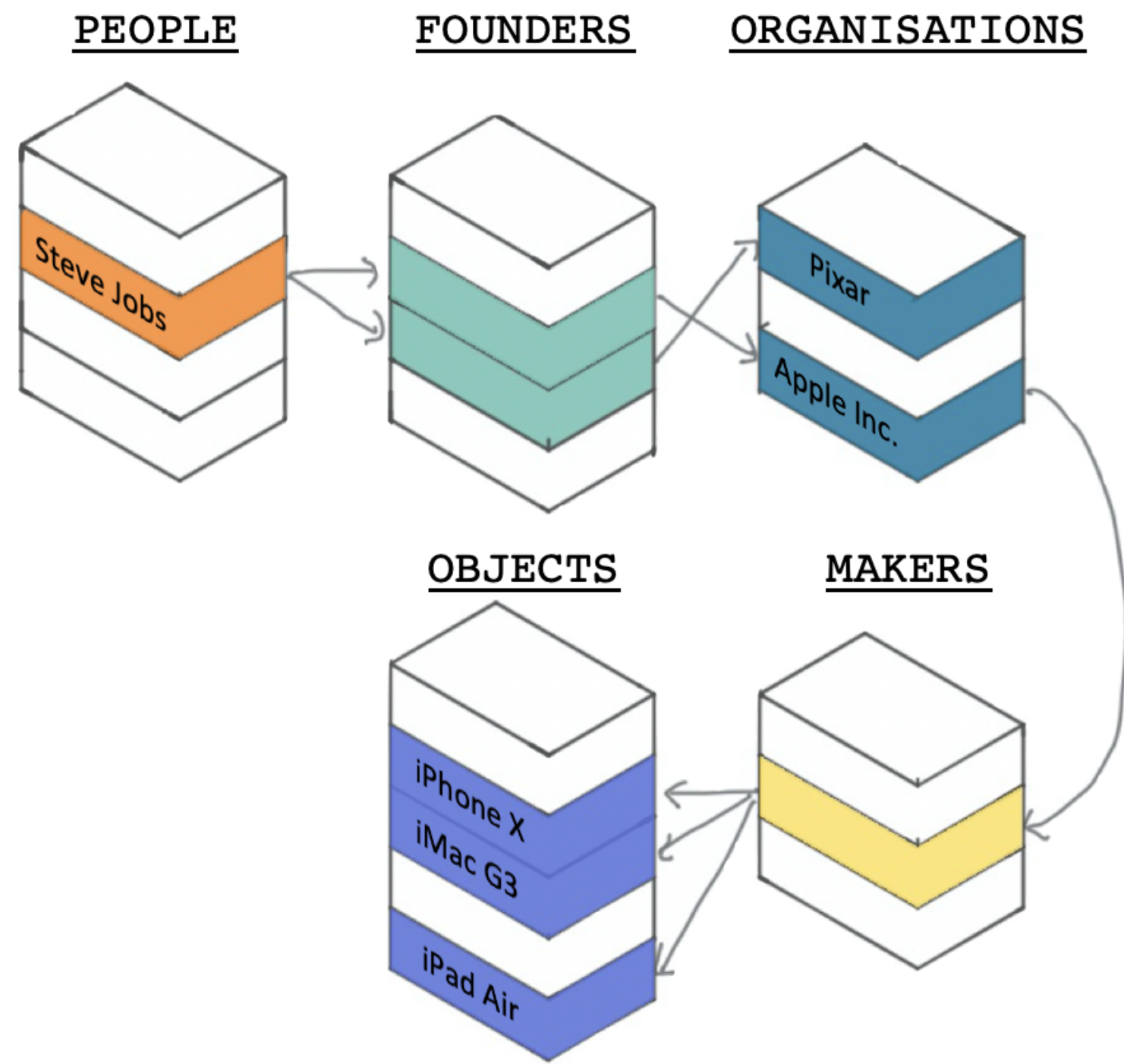
A. ARTIFICIAL INTELLIGENCE

B. LINKED DATA

C. KNOWLEDGE GRAPHS







text Anna Atkins was born in Tonbridge, Kent

triples anna_atkins, birth_place, tonbridge_kent

linked data <https://collection.sciencemuseumgroup.org.uk/people/cp113991/>
<https://www.wikidata.org/wiki/Property:P19>,
<https://www.wikidata.org/wiki/Q936183>

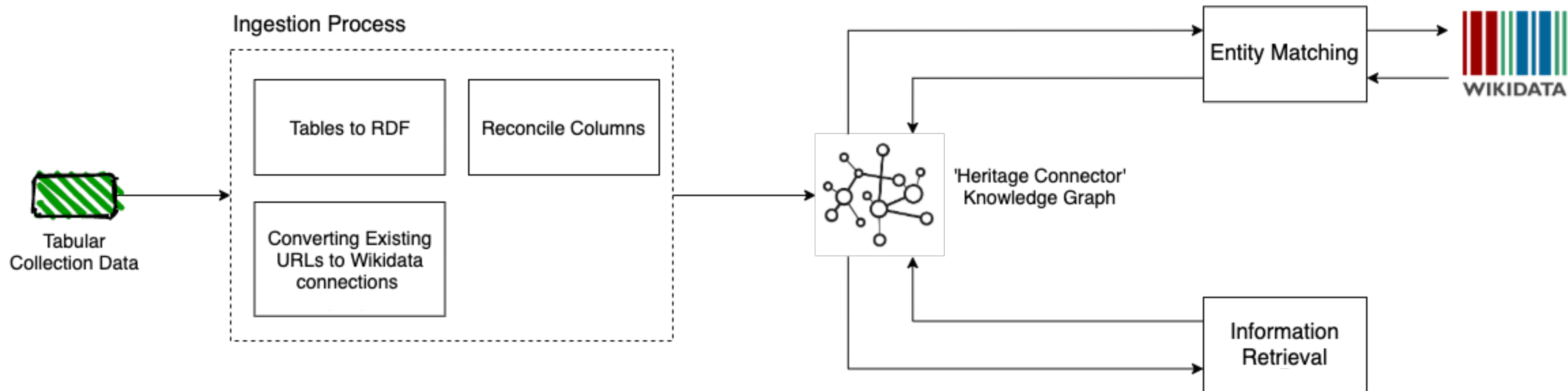
A. ARTIFICIAL INTELLIGENCE

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



Type	Public
Traded as	NYSE: GE  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 J. P. Morgan



V · T · E

General Electric

[hide]

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 ¹ · Canadian General Electric ¹ · Compagnia Generale di Elettricità ² · Current, powered by GE ² · Electric Bond and Share Company ² · GE Aerospace ² · GE Americom ² · GE Appliances ² · GE Automation & Controls ² · GE Betz ² · GE Capital IT Solutions ² · GE Capital Rail Services ² · GE Commercial Finance ¹ · GE Energy ¹ · GE Equipment Services ² · GE Home & Business Solutions ² · GE Industrial ² · GE Infrastructure ¹ · GE Jenbacher ² · GE Lighting ² · GE Measurement & Control Solutions ¹ · GE Oil and Gas ¹ · GE Security ² · GE Transportation ² · GE Waukesha ² · GE Wind Energy ¹ · GECIS ² · GEIS ² · Genesis Lease ² · Genworth Financial ² · Montgomery Ward ² · Synchrony Financial ² · Tungstam ¹ · United Nuclear Corporation ¹ · Utah Construction Company ² · Whatman ¹
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 · Tungstam
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

¹Now integrated into other GE divisions or business groupings · ²Sold or spun off

Category

V•T•E











Principal owners of the Houston Astros franchise

[show]

V•T•E

Thomas Edison

[show]

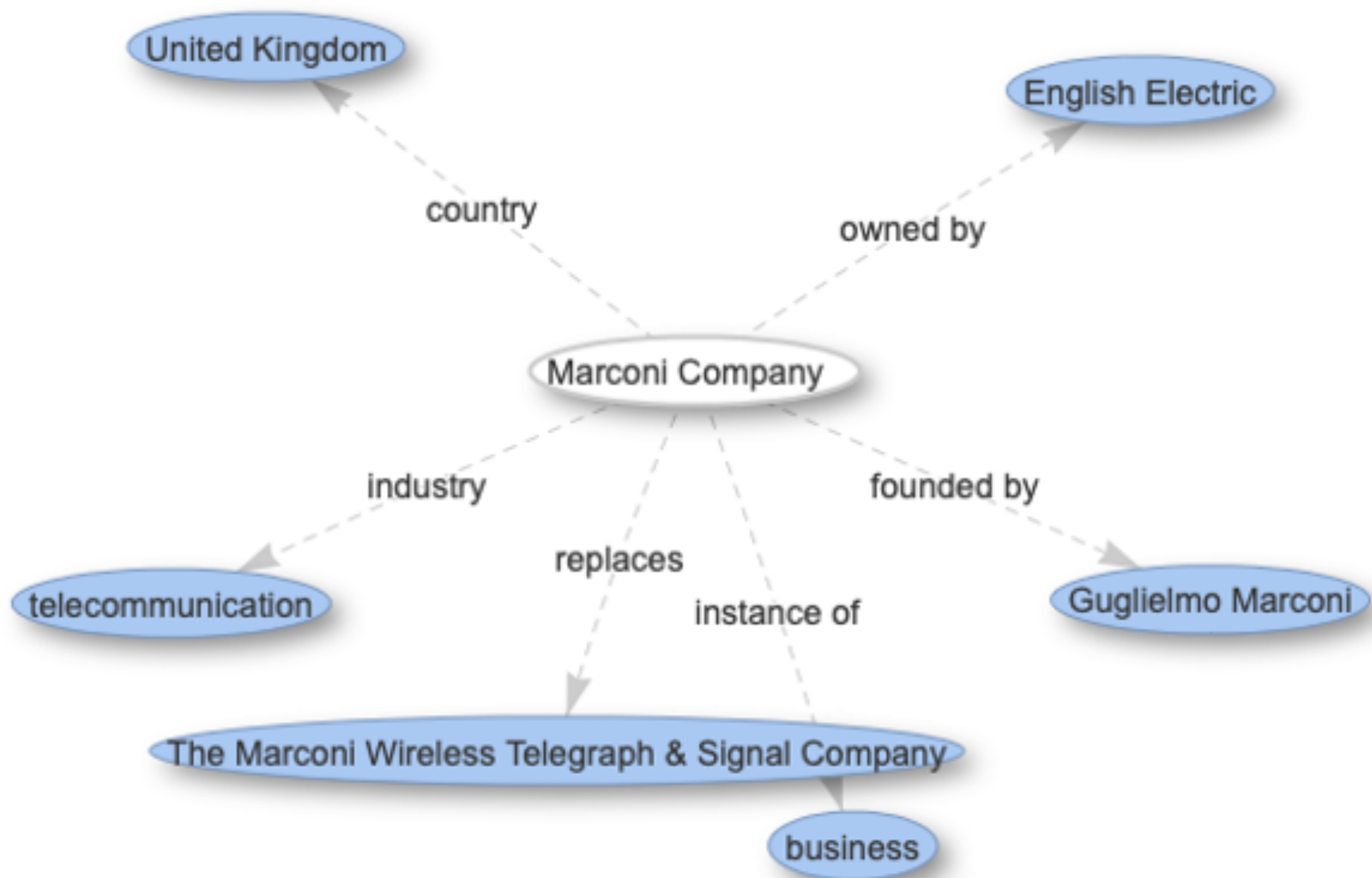
Authority control  BNF: [cb11880709c](#)  (data)  · ISNI: [0000 0001 0943 0267](#)  · LCCN: [n79078780](#)  · MA: [1332737386](#)  · NKC: [olak2003164566](#)  · SUDOC: [027769364](#)  · VIAF: [136799030](#)  · WorldCat Identities: [lccn-n79078780](#) 

Categories:	General Electric	1892 establishments in New York (state)	Aircraft engine manufacturers of the United States	American companies established in 1892
-------------	----------------------------------	---	--	--

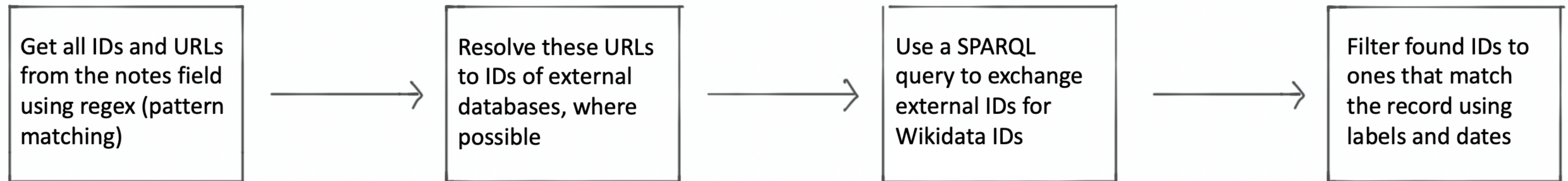


Concept URI

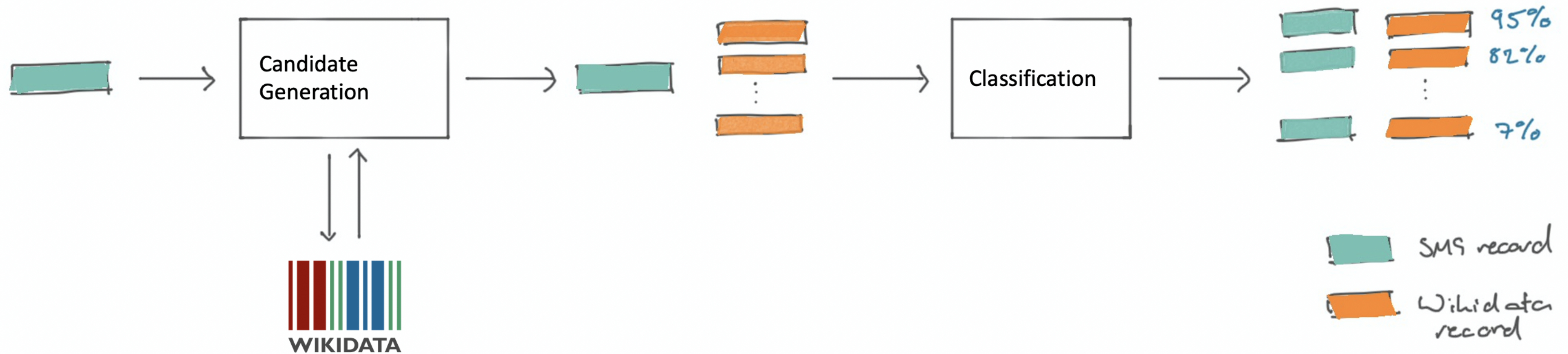
▼ 0 references



EASY WINS (EXISTING IDS)



DISAMBIGUATION



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

Number of records with a sameAs link to Wikidata			
recordType	no with sameAs link	total no	%
PERSON	6065	12827	47.28%
ORGANISATION	1790	10859	16.48%
OBJECT	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](#)

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](#)

[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.

Sokol space suit (Q1197668)

Russian spacesuit used on Soyuz

[Sokol IVA](#) | [Sokol](#)

Soyuz 11 (Q648581)

Manned Soviet space mission to the [Salyut 1 Space Station](#)

Using Rules to Augment NER

Date detection ↑ 1.5%, collection & archive names ↑ 0.5%

```
DATE_PATTERNS = [  
    {"label": "DATE", "pattern": [{"SHAPE": "dddd", "ORTH": "-"}, {"SHAPE": "dddd"}]}, # 1984 - 1990 | 1984-1990  
    {"label": "DATE", "pattern": [{"ORTH": "c."}, {"SHAPE": "dddd"}]}, # c. 1200  
    {"label": "DATE", "pattern": [{"TEXT": {"REGEX": r"c\\.\\d{3,4}"}}]}, # c.1200  
    {"label": "DATE", "pattern": [{"TEXT": {"REGEX": r"c\\.\\d{3,4}"}, {"ORTH": "-"}, {"SHAPE": "dddd"}]}, # c.1200 - 1220 | c.1200-1220  
    {"label": "DATE", "pattern": [{"TEXT": {"REGEX": r"\\d{1,2}/\\d{1,2}/(\\d{4}|\\d{2})"}]}, # 03/12/2000  
    {"label": "DATE", "pattern": [{"TEXT": {"REGEX": r"\\d{1,2}\\.\\d{1,2}\\. (\\d{4}|\\d{2})"}]}, # 03.12.2000  
    {"label": "DATE", "pattern": [{"SHAPE": "dd"}, {"ORTH": "-"}, {"SHAPE": "dd"}, {"ORTH": "-"}, {"SHAPE": "dddd"}]}, # 03-12-2000  
    {"label": "DATE", "pattern": [{"SHAPE": "d"}, {"ORTH": "-"}, {"SHAPE": "dd"}, {"ORTH": "-"}, {"SHAPE": "dddd"}]}, # 3-12-2000  
    {"label": "DATE", "pattern": [{"SHAPE": "dd"}, {"ORTH": "-"}, {"SHAPE": "d"}, {"ORTH": "-"}, {"SHAPE": "dddd"}]}, # 03-1-2000  
    {"label": "DATE", "pattern": [{"SHAPE": "d"}, {"ORTH": "-"}, {"SHAPE": "d"}, {"ORTH": "-"}, {"SHAPE": "dddd"}]}, # 3-1-2000  
    {"label": "DATE", "pattern": [{"SHAPE": "dddd"}, {"ORTH": "to"}, {"SHAPE": "dddd"}]}, # 1805 to 1860  
]
```

```
COLLECTION_NAME_PATTERNS = [  
    # TODO: use 'POS': 'PROPN' here instead of IS_TITLE: True for better detection of proper nouns  
    {"label": "ORG", "pattern": [{"IS_TITLE": True, 'OP': '+'}, {'LOWER': 'collection'}]}, # Sforza collection  
    {"label": "ORG", "pattern": [{"IS_TITLE": True, 'OP': '+'}, {'LOWER': 'archive'}]}, # Charles Urban archive  
]
```


A Collection as a Dictionary

↑ 3.2%

```
{"label": "ORG", "pattern": "Thames Archway Company", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp15926"}  
{"label": "ORG", "pattern": "Hodbarrow Mining Company", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp16807"}  
{"label": "ORG", "pattern": "HMS Vanguard (1815)", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp17108"}  
{"label": "ORG", "pattern": "Wind Energy Group", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp17473"}  
{"label": "ORG", "pattern": "E R and F Turner Limited", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp17945"}  
{"label": "ORG", "pattern": "Baird Television Limited", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp17663"}  
{"label": "ORG", "pattern": "Alliance Box Company", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp24886"}  
{"label": "ORG", "pattern": "Hell", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp21022"}  
{"label": "ORG", "pattern": "Paradigm Models Limited", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp22440"}  
{"label": "ORG", "pattern": "City of York Council", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp19207"}  
{"label": "ORG", "pattern": "Kvaerner Masa-Yards", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp24946"}  
{"label": "ORG", "pattern": "Frederick Bateman and Company Limited", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp20289"}  
{"label": "ORG", "pattern": "Normal School of Science, Astronomy Laboratory", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp20442"}  
{"label": "ORG", "pattern": "T Green & Son Ltd", "id": "https://collection.sciencemuseumgroup.org.uk/people/cp20553"}
```


title	wikipedia link	wikidata link	pred_proba
Liverpool and Manchester Railway	link	link	1.0

L&MR

title	wikipedia link	wikidata link	pred_proba
Liverpool and Manchester Railway	link	link	1.0

James Loch

title	wikipedia link	wikidata link	pred_proba
James Loch	link	link	1.0

Chat Moss

title	wikipedia link	wikidata link	pred_proba
Chat Moss	link	link	1.0

Manchester

title	wikipedia link	wikidata link	pred_proba
Manchester	link	link	0.999998

Liverpool

title	wikipedia link	wikidata link	pred_proba
Liverpool	link	link	0.999996

L&MR

title	wikipedia link	wikidata link	pred_proba
-------	----------------	---------------	------------

SUM of count	entPredica te							
linked?	hc:entityFA C	hc:entityLANGUA GE	hc:entityL OC	hc:entityNO RP	hc:entityOBJE CT	hc:entityO RG	hc:entityPERS ON	Grand Total
collection					7,487	112,219	42,778	162,484
unlinked	11,804	2,521	16,545	27,245	28,759	81,641	44,130	212,645
wikidata	20,638	12,217	139,607	32,544	23,414	89,033	55,103	372,556
Grand Total	32,442	14,738	156,152	59,789	59,660	282,893	142,011	747,685

Number of Wikidata pages in the KG:	->	->	108,693
Number of SMG pages in the KG by type:	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 }

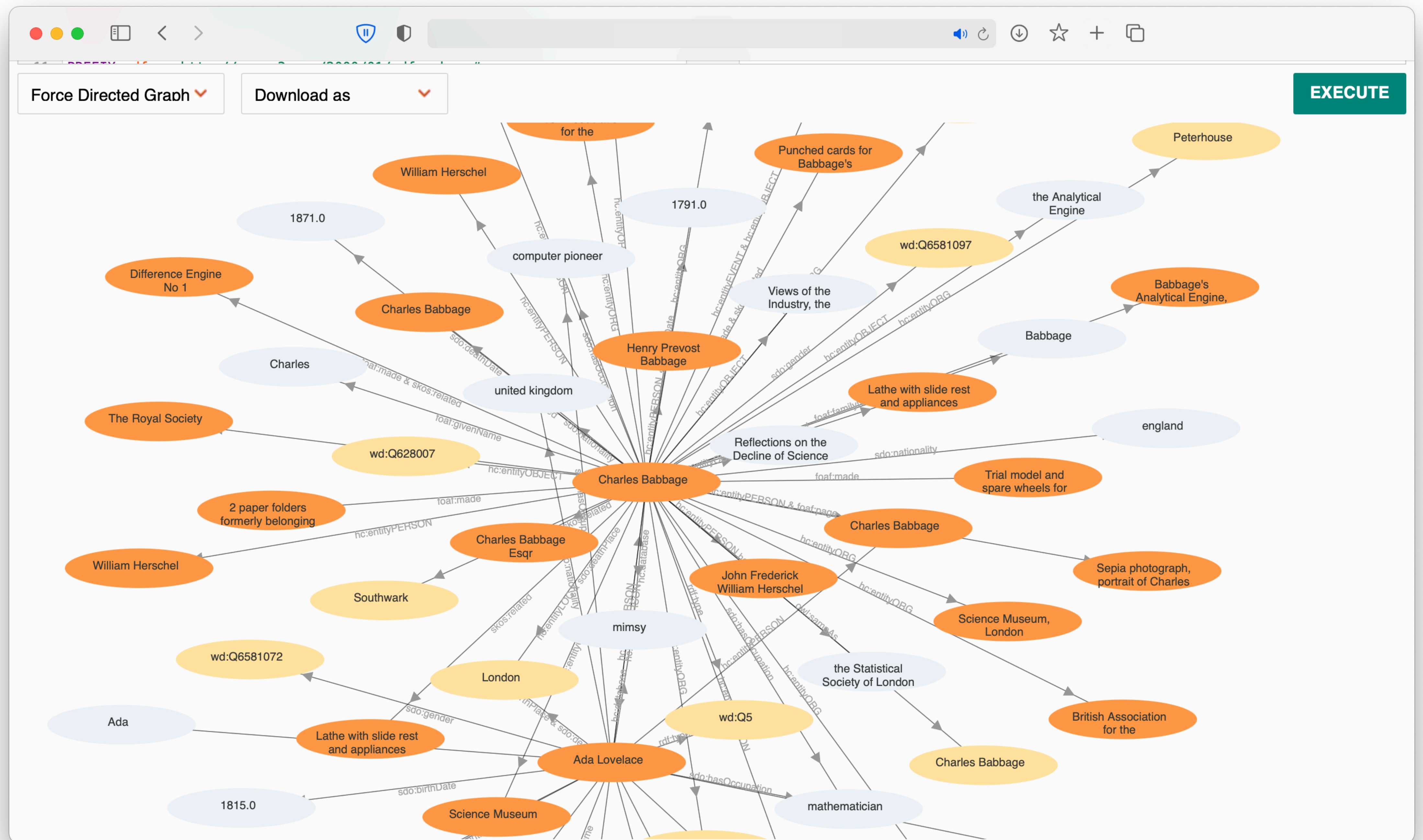
Table

Download as

viewing 100/100 rows

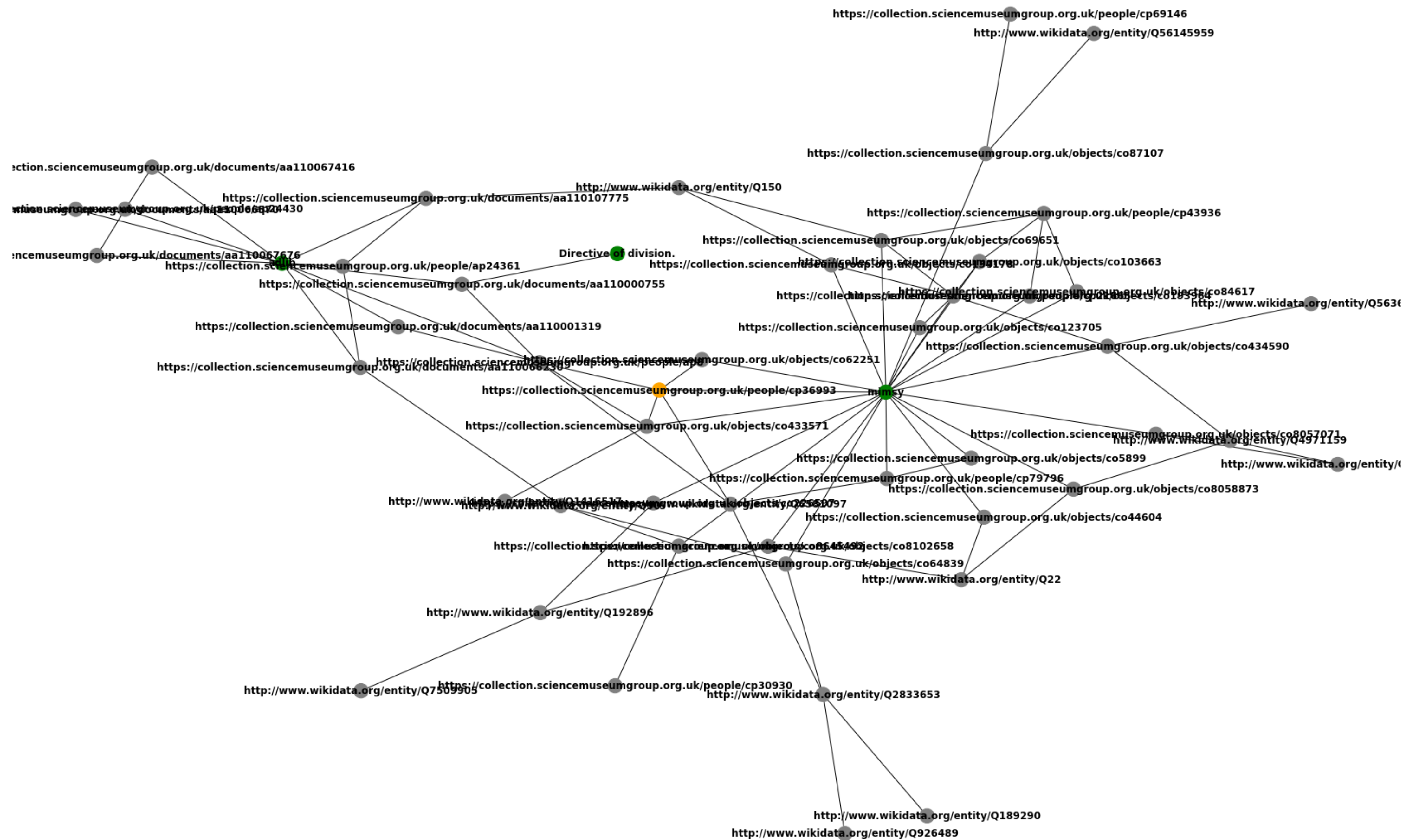
EXECUTE

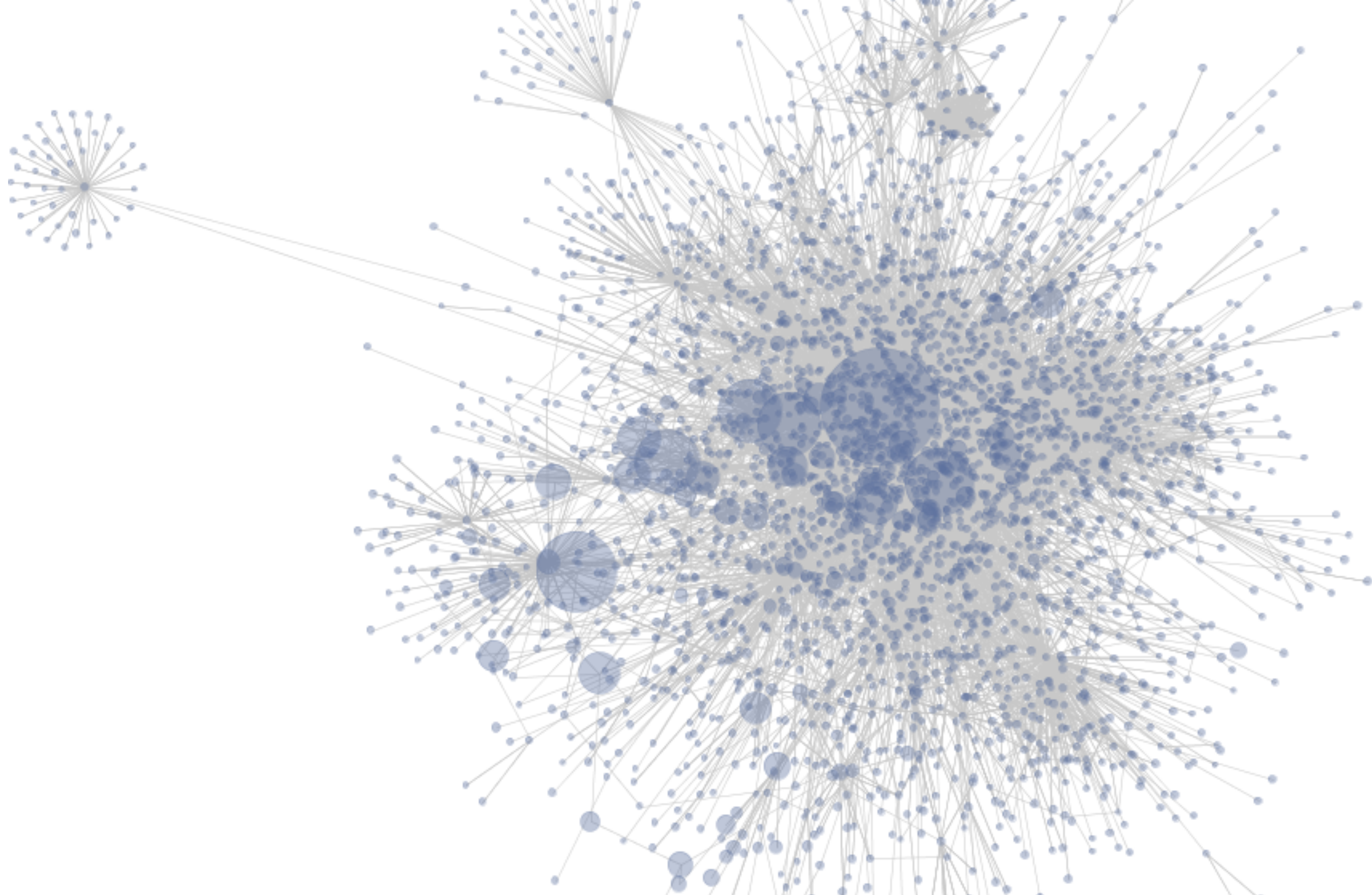
item	itemLabel	wdItem	wdItemlabel
https://collection.sciencemuseumgroup.org.uk/people/cp21611	Sir Maurice Wilkes	wd:Q62857	Maurice Wilkes
https://collection.sciencemuseumgroup.org.uk/people/cp133074	Willem van de Velde I	wd:Q722912	Willem van de Velde the Elder
https://collection.sciencemuseumgroup.org.uk/people/cp94357	Sir Benjamin Vincent Sellon Brodie	wd:Q75421470	Sir Benjamin Vincet Sellon Brodie, 3rd Bt.
https://collection.sciencemuseumgroup.org.uk/people/cp27747	Joseph-Hubert Ponscarne	wd:Q598120	Hubert Ponscarne
https://collection.sciencemuseumgroup.org.uk/people/cp17013	Elsie Wright	wd:Q18528681	Elsie Wright



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

NEXT STEPS





DETAILS

CATEGORY:	Scientific Instruments & Research
OBJECT NUMBER:	Y1991.49.2/1
TYPE:	compound microscope
TAXONOMY:	<div>furnishing and equipment<ul style="list-style-type: none">tools & equipment<ul style="list-style-type: none">optical instrument<ul style="list-style-type: none">microscopefurnishing and equipment<ul style="list-style-type: none">tools & equipment<ul style="list-style-type: none">optical instrument<ul style="list-style-type: none">microscope</div>
CREDIT:	Gift of Central Manchester Health Authority

Heritage Connector Widget(s)

CITE THIS PAGE

Science Museum Group. Zeiss Compound

RIGHTS

We encourage the use and reuse of our collection data.

Data in the title, made, maker and details fields are released under [Creative Commons Zero](#)

Descriptions and all other text content are licensed under a [Creative Commons Attribution 4.0 licence](#)

[Using our data](#)

DOWNLOAD

Download catalogue entry as [JSON](#)

View [IIIF](#) manifest in [IIIF viewer](#)

Add [IIIF](#) to [Animal Crossing Art Generator](#)

Download [IIIF](#) manifest [IIIF](#)

Our records are constantly being enhanced and improved, but please note that we cannot guarantee the accuracy of any information shown on this website.

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>