The perfect storm

Challenges for research libraries
in the coming decade
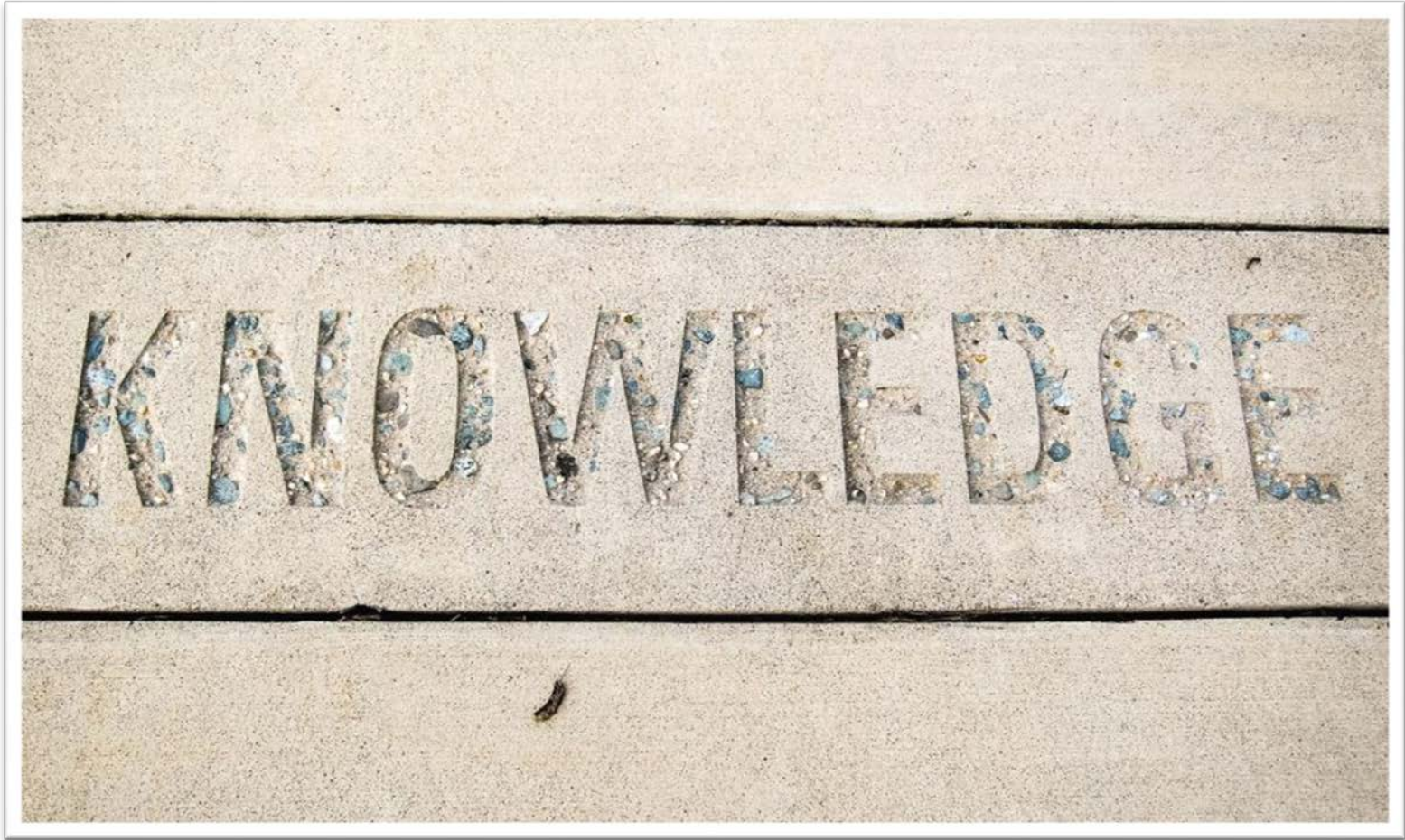
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Library Science Talks, Zurich/Online, 9 February 2021

Why are we here?

https://www.flickr.com/photos/benimoto/1776983659/ CC BY 2.0

The changing environment

Before: "buy it and they'll come"

LIBRARY

"other" content

library collection
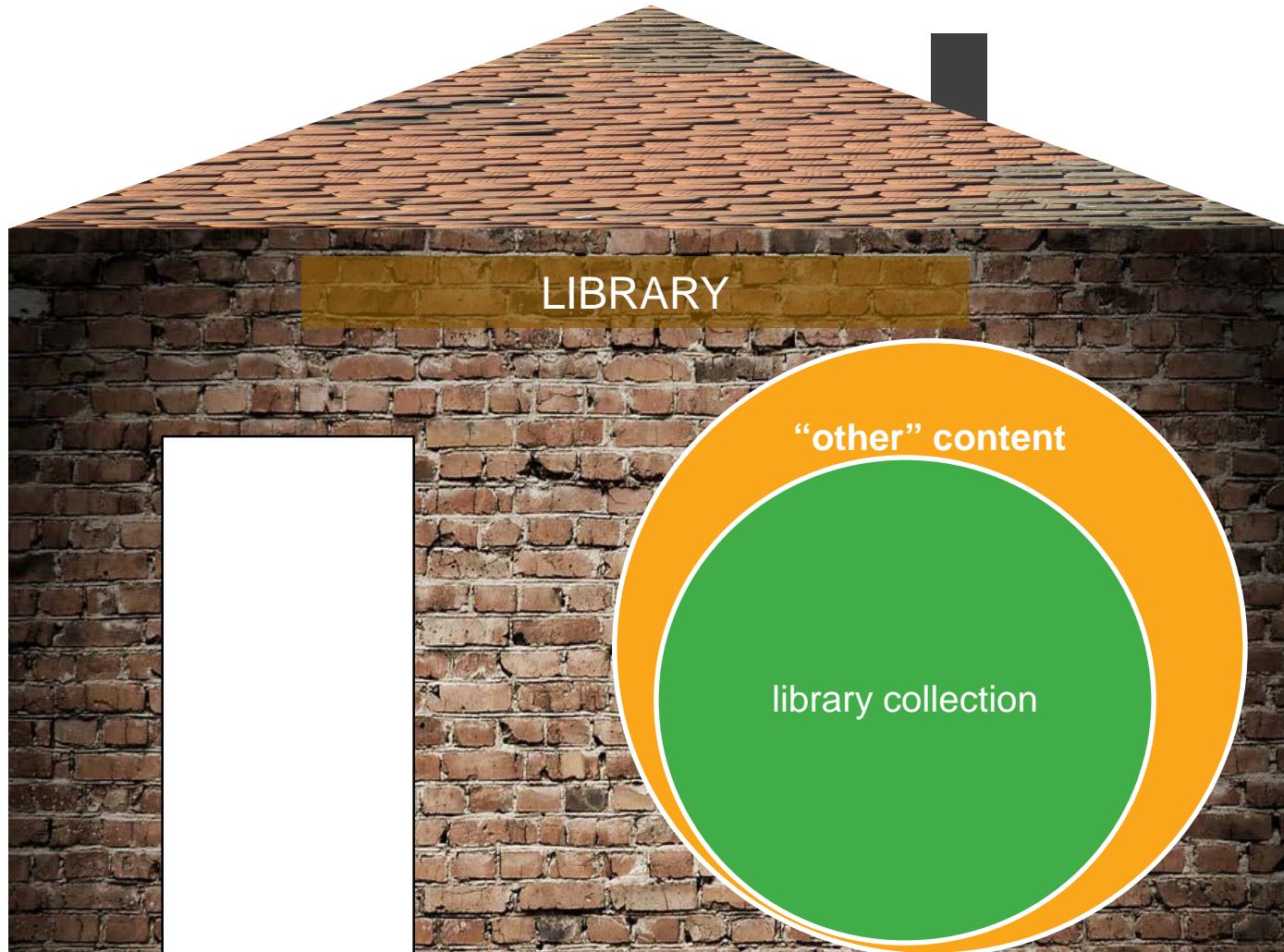
Now: shrinking relevance?

Open Access

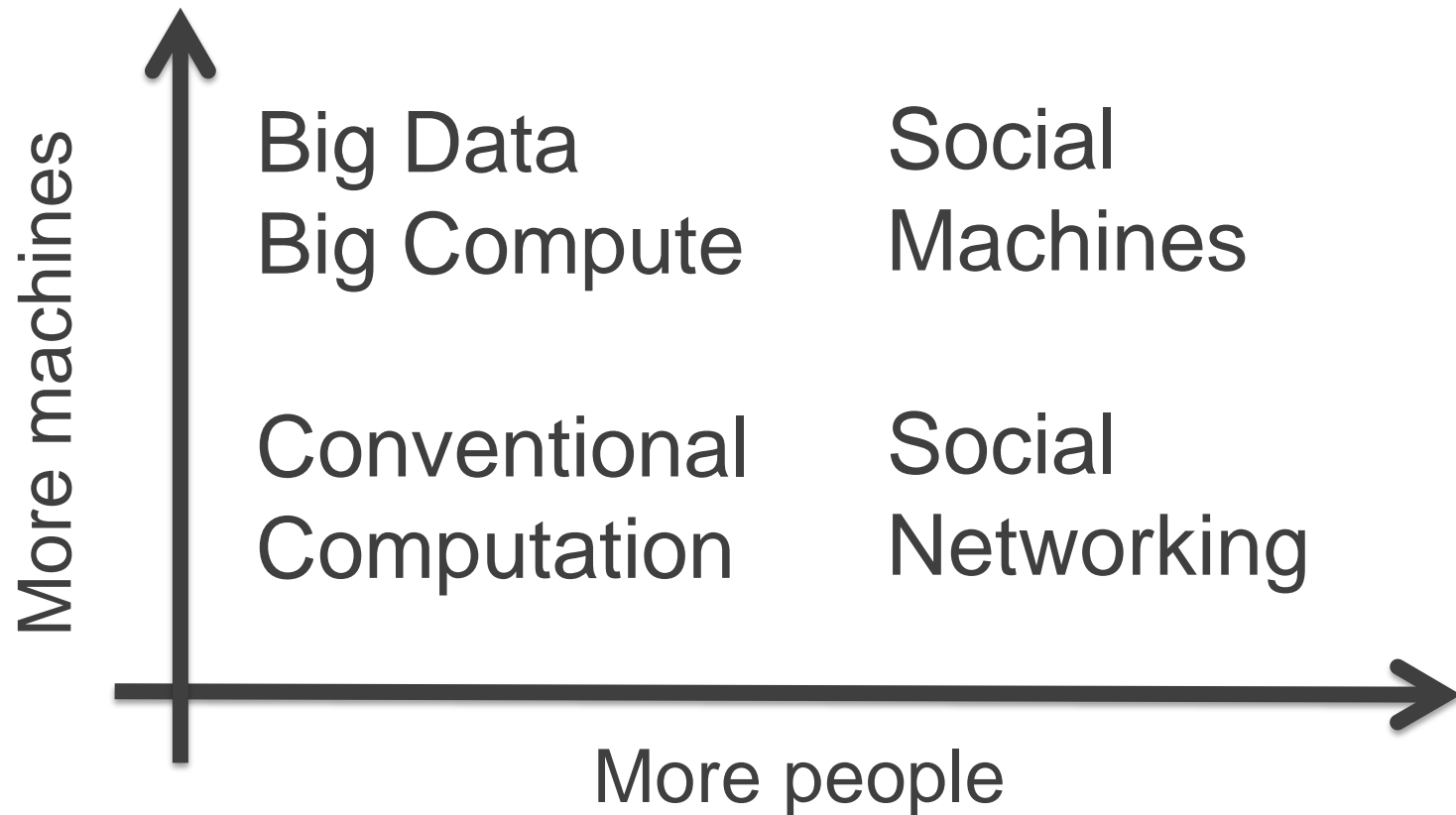Digital remote access

Digital onsite access
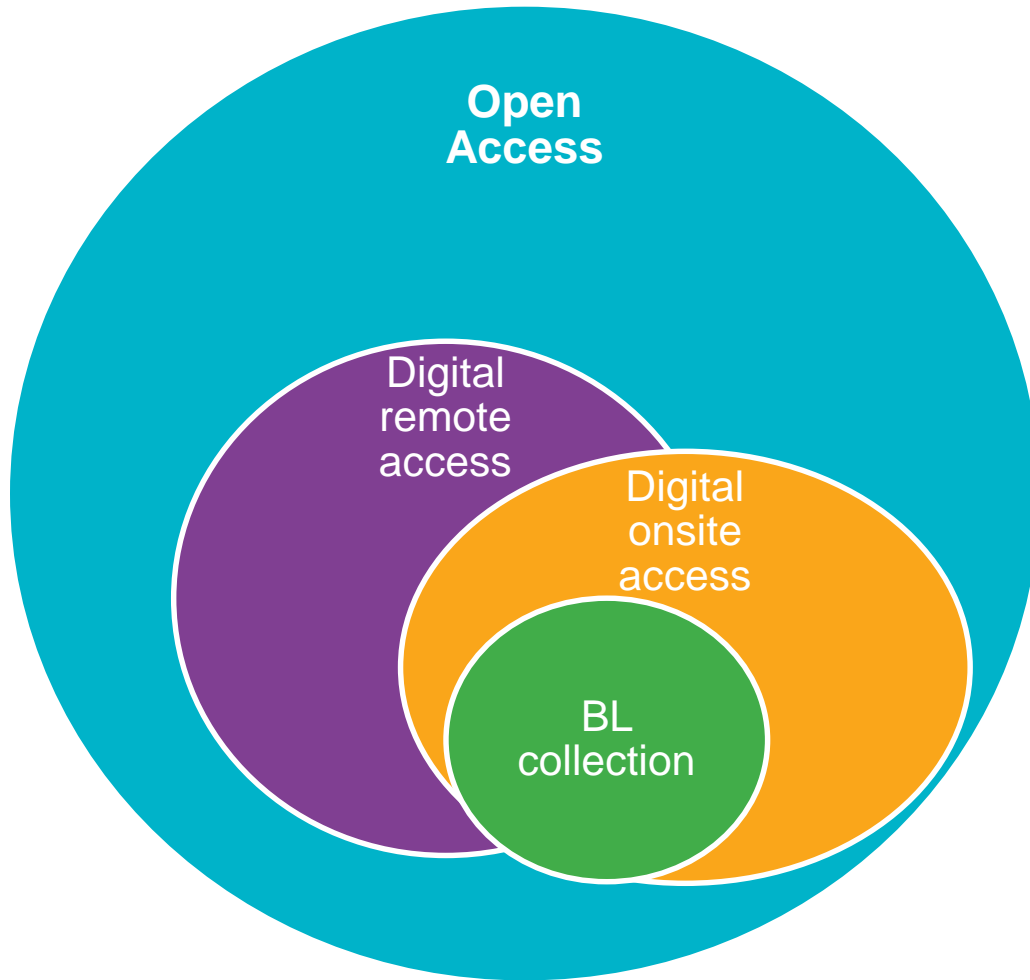
BL collection

Relative to Internet content our collections are shrinking

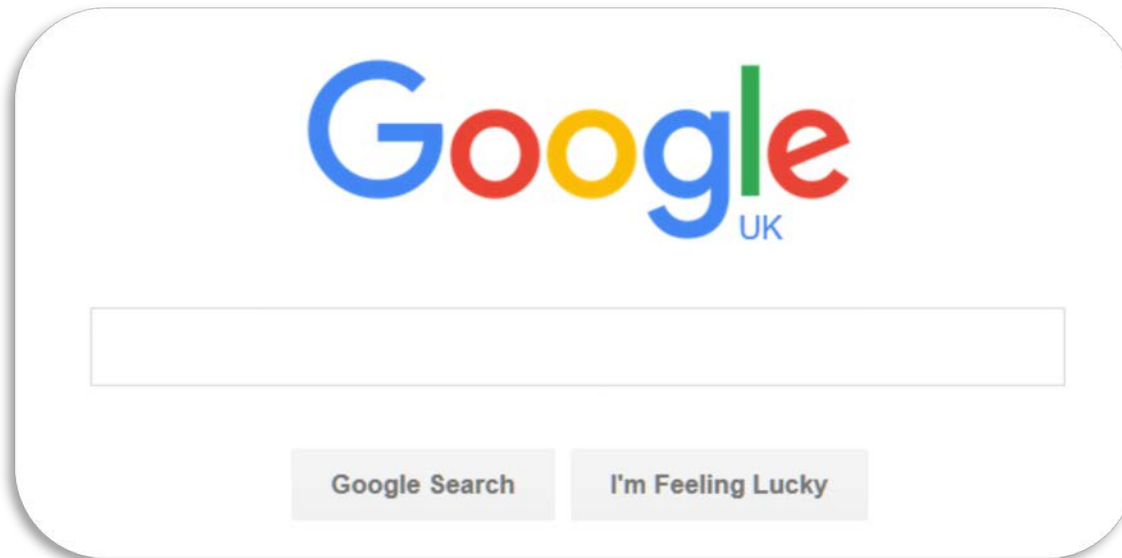We can no longer hope to meet all user needs from our collections

Need to enhance our collections by connecting to relevant global content

Context 1: New Ways of Working

Big Data Big Compute | Social Machines

Conventional Computation | Social Networking

More machines (vertical axis)

More people (horizontal axis)

Dave de Roure, Oxford

Context 2: User Behaviour & Expectations

Context 2: User Behaviour & Expectations

Neal Hockley @NealHockley · Jan 4
I now routinely use @Sci_Hub for off-campus access to journals my university pays for, because their websites are so rubbish #openscience

1   4

Neal Hockley @NealHockley · Jan 4
5 minutes failing to get through Elsevier/Science Direct authentication, vs 5 seconds to land straight on the PDF via @Sci_Hub.
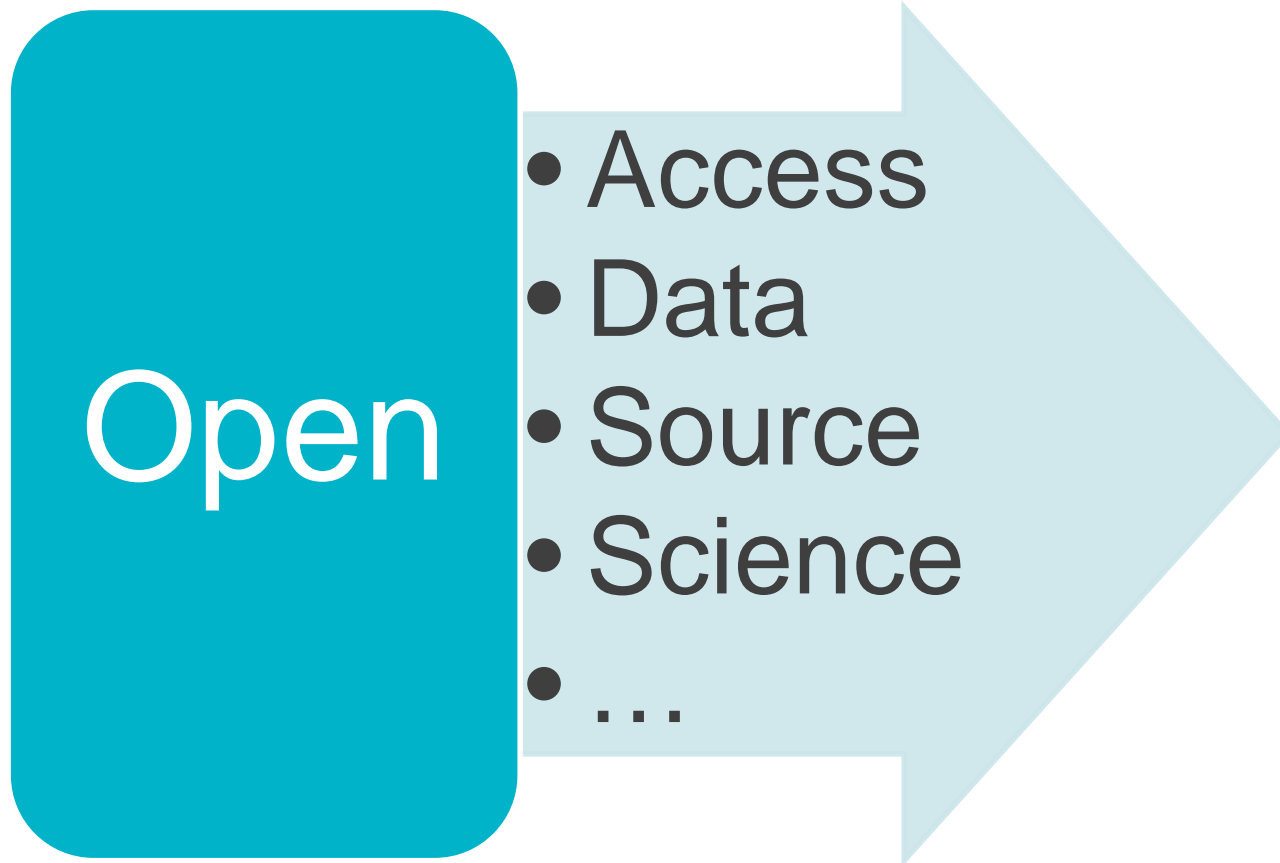
3

Context 3: budgets and value for money

£

Context 4: scholarly comms, open science

Open

- Access
- Data
- Source
- Science
- …

Survey of non-users about BL services

Online Catalogues

37% Happy with other sources

33% Never considered it

27% Didn't know it existed

Reading Rooms

45% Too far away

32% Never considered it

30% Happy with other sources

Interlibrary loan

35% Didn't know it existed

31% Never considered it

Business & IP Centre

37% Didn't know it existed

33% Never considered it

30% Too far away

- Online is first port of call for the majority, Google most common starting point
- Once beyond Google, there was an inherent trust in information from specialist websites
- Some are believing their area of interest unlikely to generate 'untrustworthy' online information
- Offline search, i.e. going to libraries, begins when online sources fail to meet research need

How to respond?
Transforming the Library

New Content Strategy

Enabling access for everyone
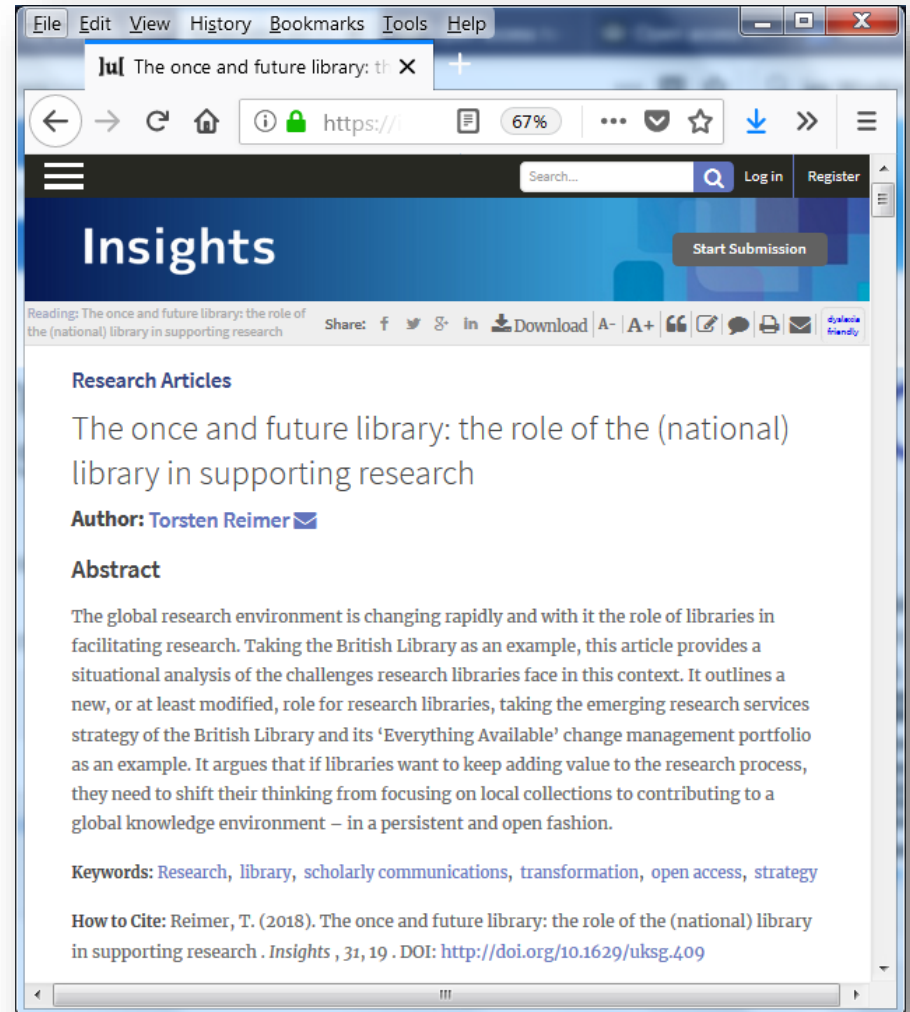The British Library's content strategy
2020–2023

(Some) Elements:

- …will be **based on evidence** of demand and value to researchers
- Beyond Legal Deposit, the primary decision is whether the content will be of **value to the research community**.
- Where the British Library has no preservation responsibility […], we will **prefer to connect rather than collect**.
- We will improve and maintain the **discovery of Open Access** content.

https://www.bl.uk/about-us/governance/policies/content-strategy

Research Service Strategy

- A service strategy for the British Library's role as a major research library.

- Key element: enhance the national collection by services that open up and help to sustain a global knowledge environment.

http://doi.org/10.1629/uksg.409

British Library data strategy

'Our vision for the British Library is that research data are as integrated into our collections, research and services as text is today.'
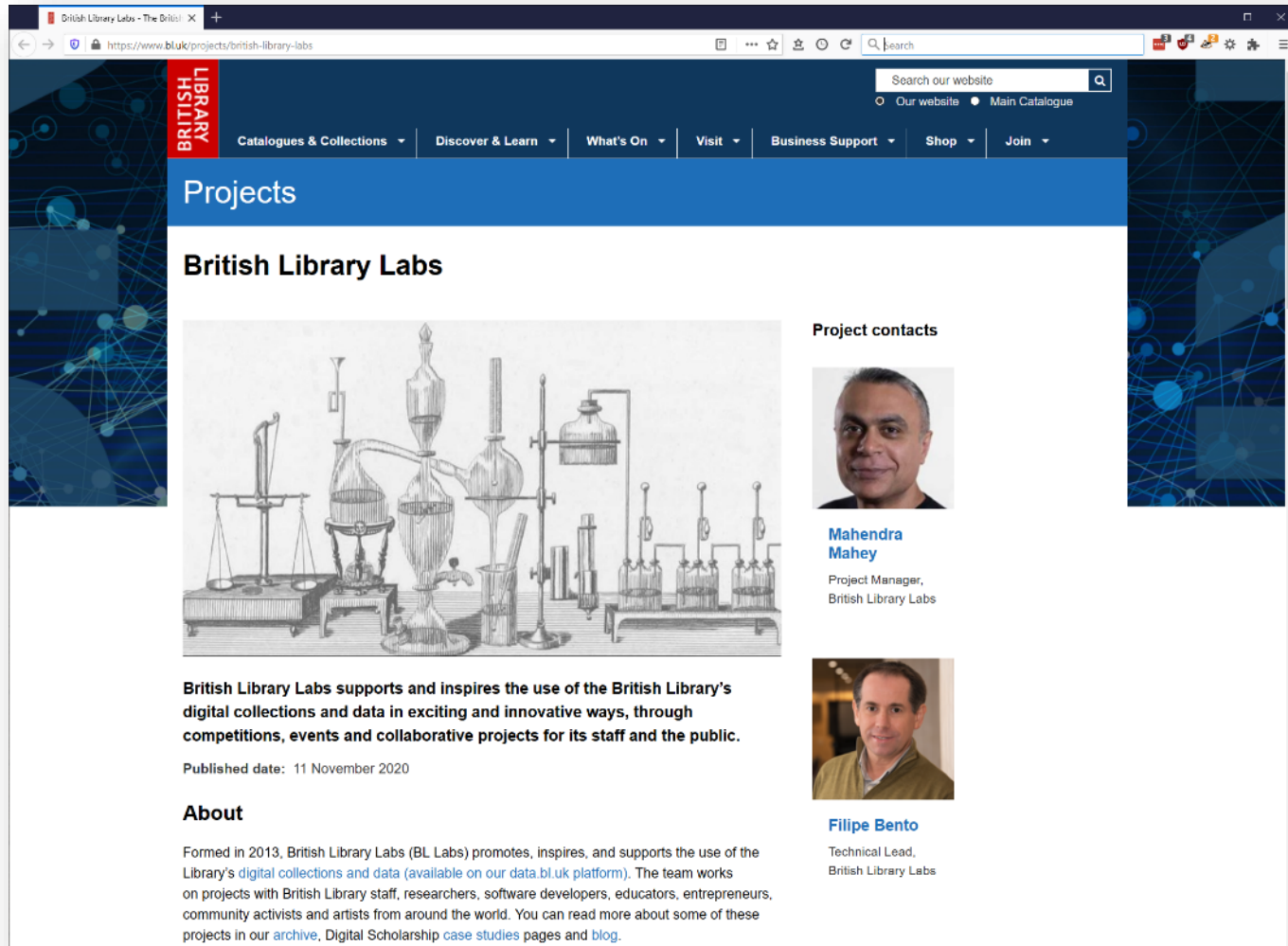

Data Management

Data Creation

Data Archiving and Preservation

Data Discovery, Access and Reuse
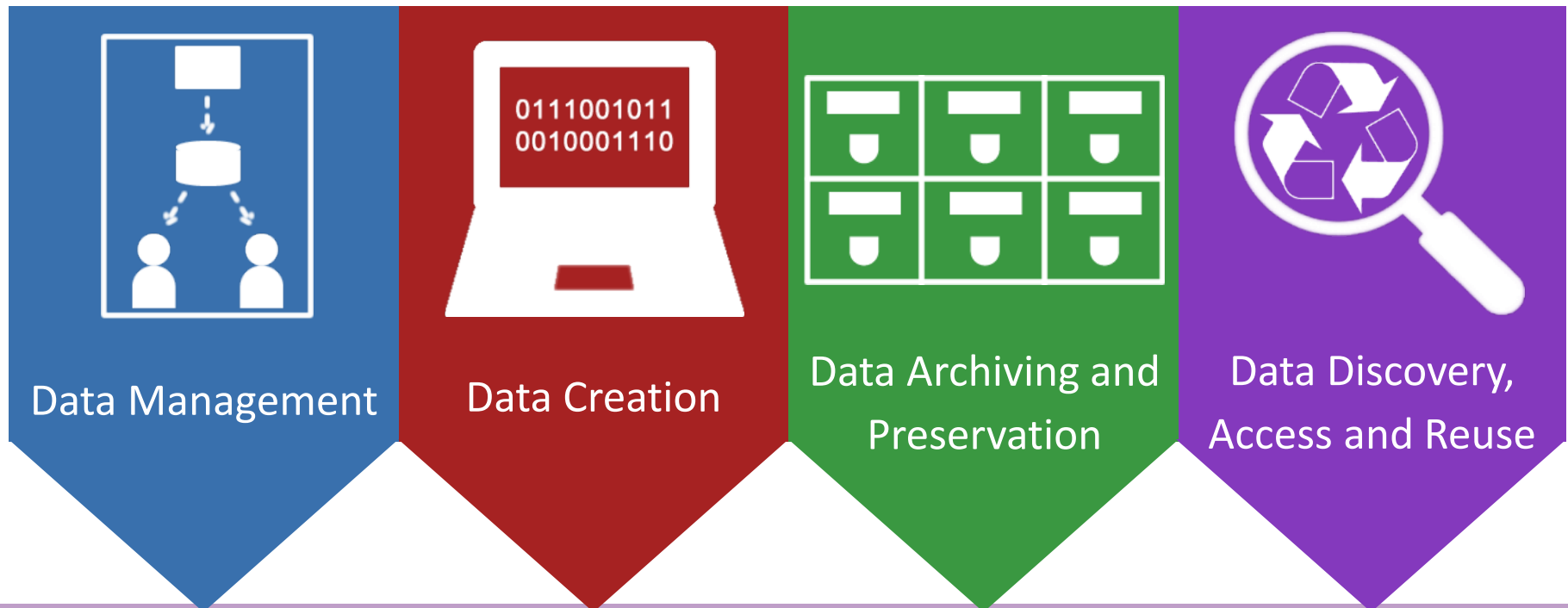
Everything Available programmes

Knowledge Spaces (on-site)

Open Library (on-line)
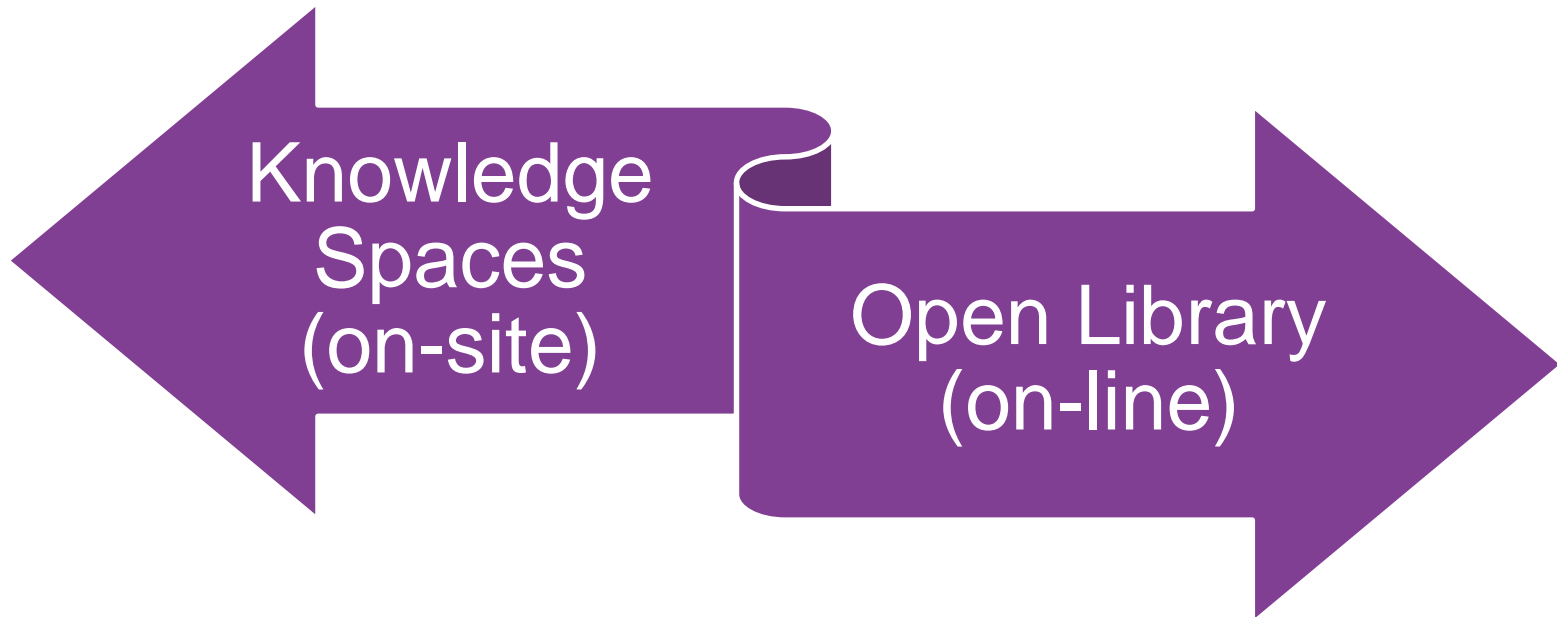
Knowledge Spaces

Living Knowledge: *"Ensure that the Library's on-site facilities and Reading Room services keep pace with the changing needs of researchers"*

Programme aims:
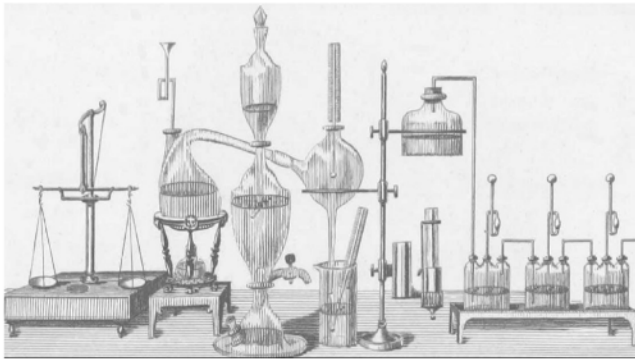
- **Flexible spaces** that will reflect the needs of researchers, fulfil multiple purposes, and will be adapted over time, supporting new services

- **Technology enabled design** with bring-your-own-device access to digital content, audio-visual facilities and infrastructure for (interdisciplinary) data-driven research

- **A more open, inclusive and welcoming environment**, attracting casual visitors, researchers, experts and commercial clients

- **Incubation spaces** for workshops, seminars and science-related events that are bookable by researchers and business users

British Library Labs

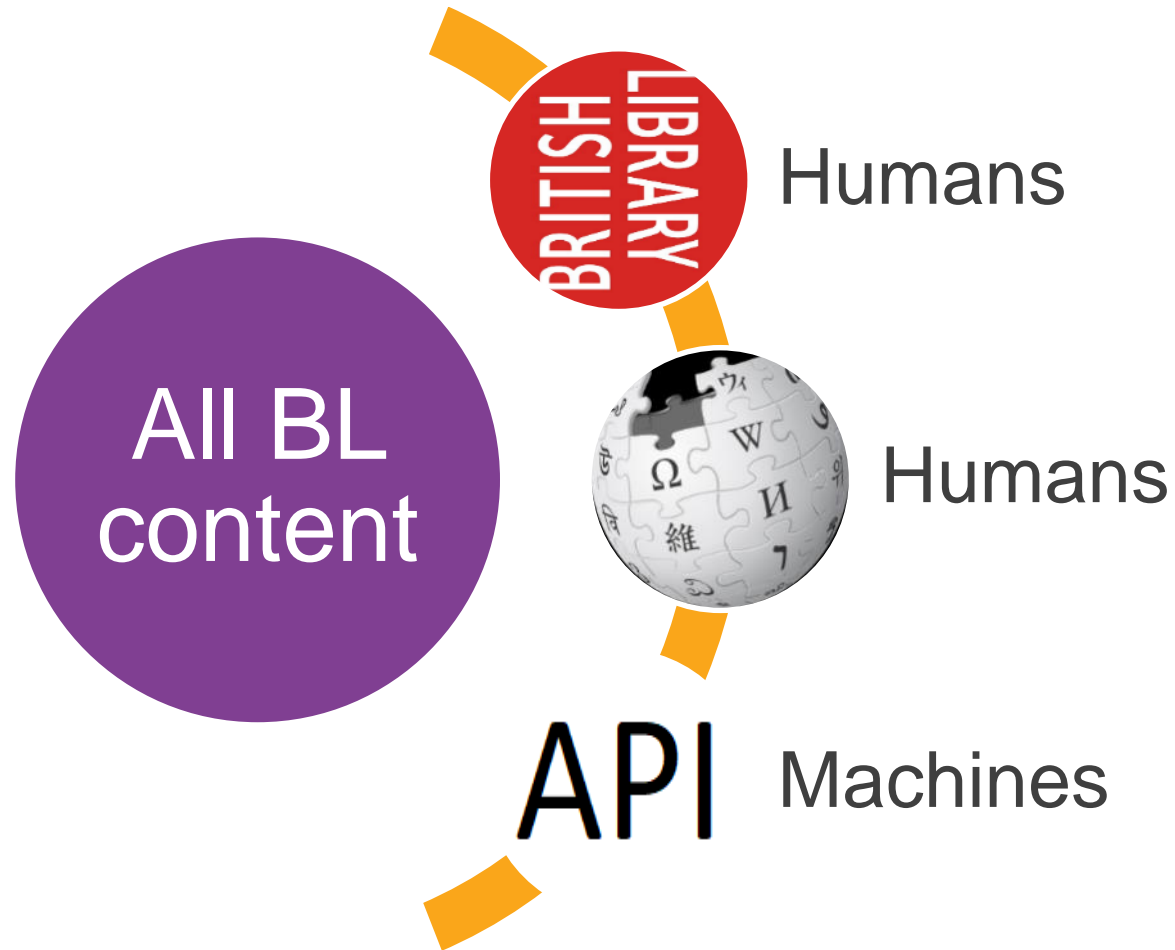# Skills for the digital future (and present)
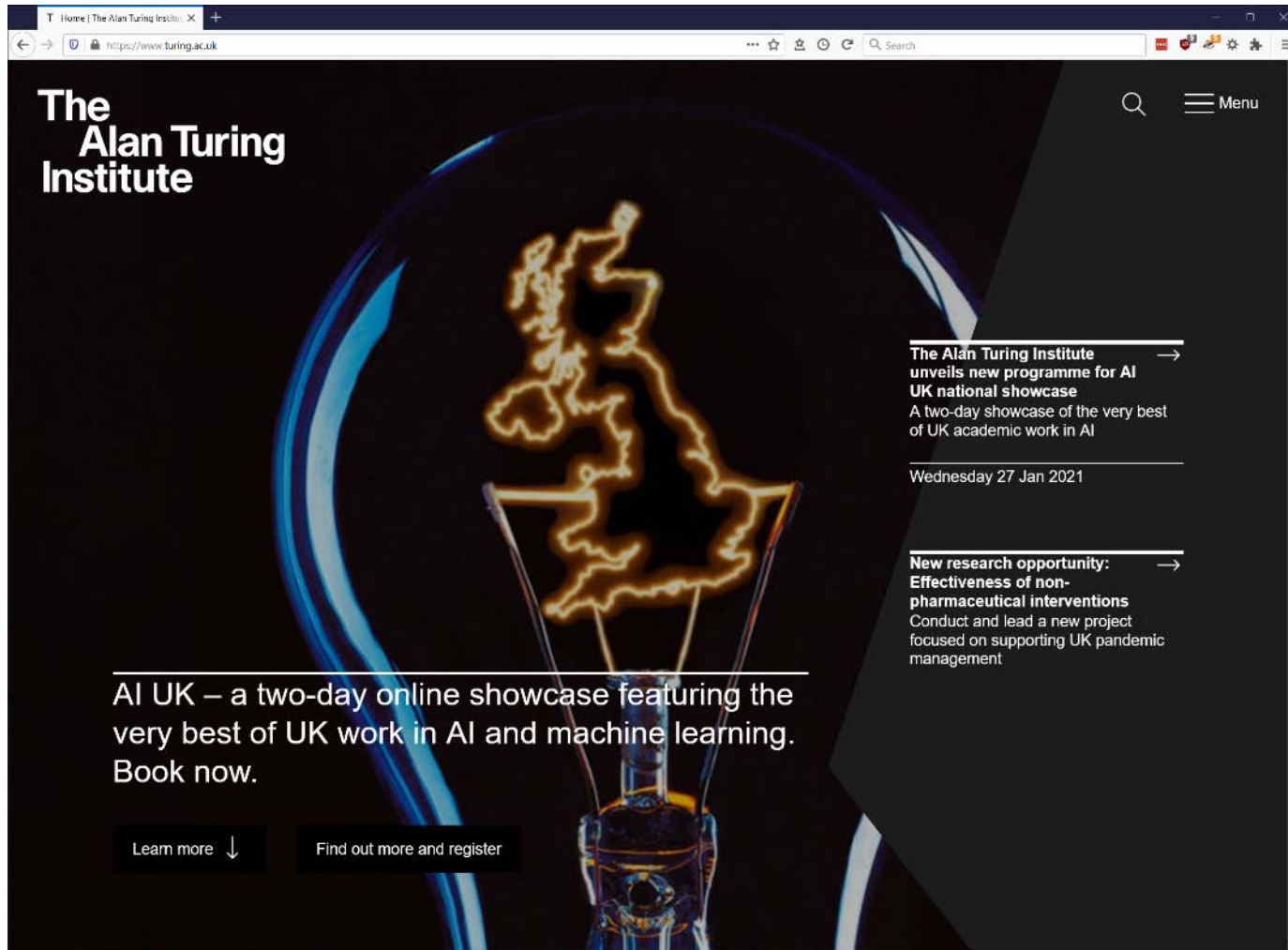
Living with Machines collaboration

- £9.2m by Arts and Humanities Research Council and UK Research and Innovation

- Partners: Allan Turing Institute, BL, universities

- Living with Machines is a research project that rethinks the impact of technology on the lives of ordinary people during the Industrial Revolution.

- Sources include digitised newspapers; Ordnance Survey maps; census, birth, death and marriage records; digitised books.

- It aims to be transformative not just for the research question itself but for digital research methods.
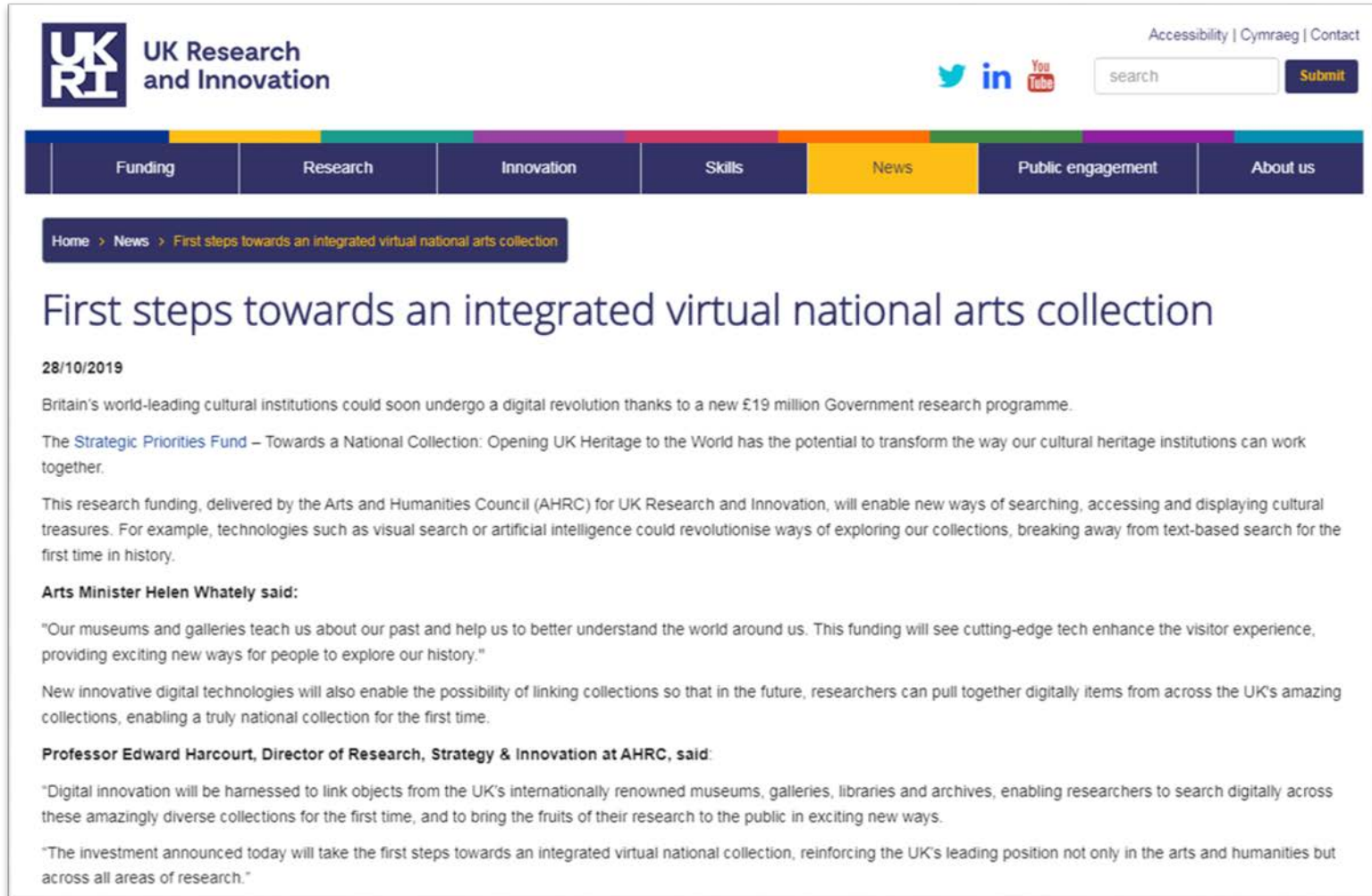

Identifying places in historic maps

Single point of entry to collections

Humans

Humans

API Machines

All BL content

Towards a National Collection

UK Research and Innovation

Accessibility | Cymraeg | Contact

search   Submit

Funding | Research | Innovation | Skills | News | Public engagement | About us

Home > News > First steps towards an integrated virtual national arts collection

First steps towards an integrated virtual national arts collection

28/10/2019

Britain's world-leading cultural institutions could soon undergo a digital revolution thanks to a new £19 million Government research programme.

The Strategic Priorities Fund – Towards a National Collection: Opening UK Heritage to the World has the potential to transform the way our cultural heritage institutions can work together.

This research funding, delivered by the Arts and Humanities Council (AHRC) for UK Research and Innovation, will enable new ways of searching, accessing and displaying cultural treasures. For example, technologies such as visual search or artificial intelligence could revolutionise ways of exploring our collections, breaking away from text-based search for the first time in history.

Arts Minister Helen Whately said:

"Our museums and galleries teach us about our past and help us to better understand the world around us. This funding will see cutting-edge tech enhance the visitor experience, providing exciting new ways for people to explore our history."
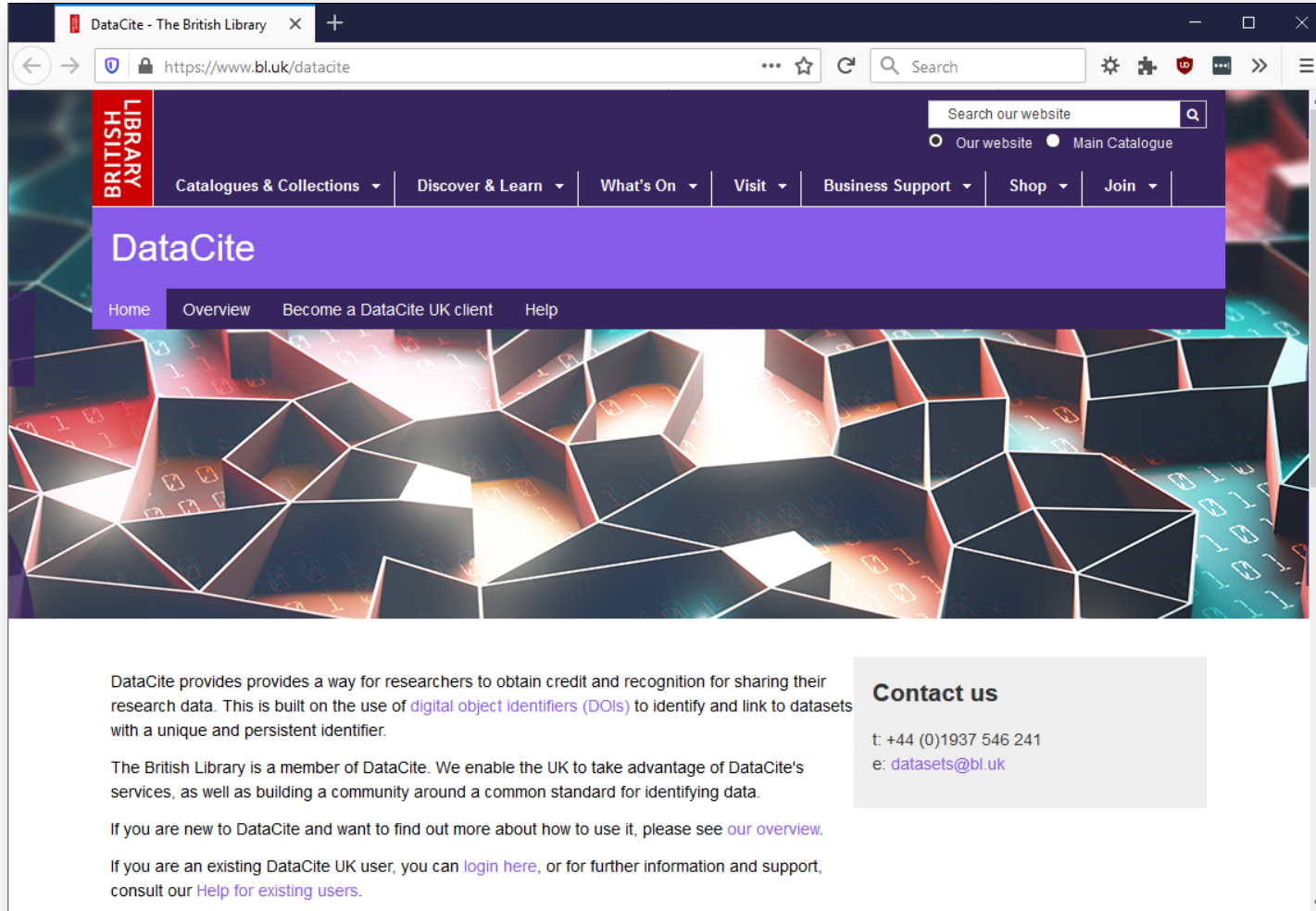
New innovative digital technologies will also enable the possibility of linking collections so that in the future, researchers can pull together digitally items from across the UK's amazing collections, enabling a truly national collection for the first time.

Professor Edward Harcourt, Director of Research, Strategy & Innovation at AHRC, said:

"Digital innovation will be harnessed to link objects from the UK's internationally renowned museums, galleries, libraries and archives, enabling researchers to search digitally across these amazingly diverse collections for the first time, and to bring the fruits of their research to the public in exciting new ways.

"The investment announced today will take the first steps towards an integrated virtual national collection, reinforcing the UK's leading position not only in the arts and humanities but across all areas of research."

Persistent Identifier services

Developing an open repository platform

- Consolidate repositories on a single platform

- Refresh preservation system for shared national collection (>5m items, petabyte-scale)

- Access layer with multiple repositories, shared service model

- Shared repository developed with partners

EThOS	BL Institutional Repository	Shared Repository	Other Partner Repositories

Access Layer

Services Layer

Preservation Layer
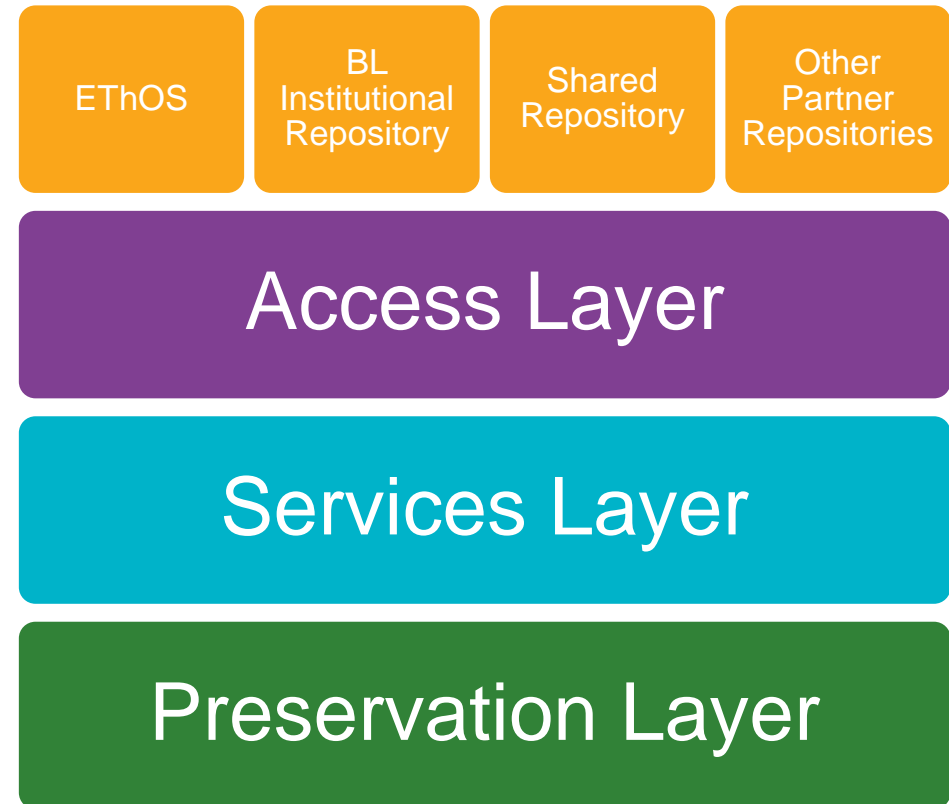
Shared Research Repository service

A hypothetical 2030 library / knowledge environment

2030: the debate – is over: OA has won
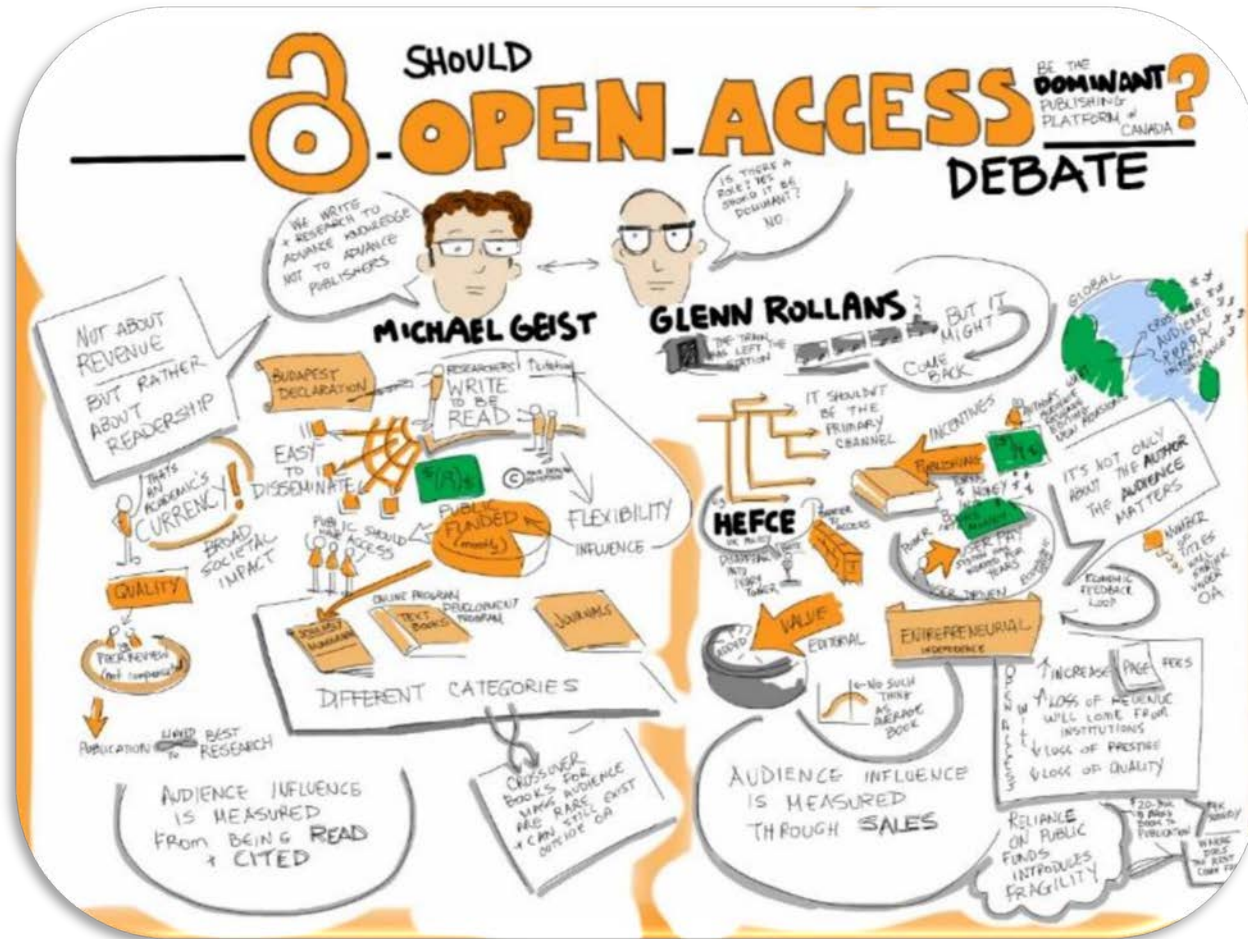
…what will be the role of libraries though?

Open science – can we really support it?

https://about.hindawi.com/blog/a-radically-open-approach-to-developing-infrastructure-for-open-science/
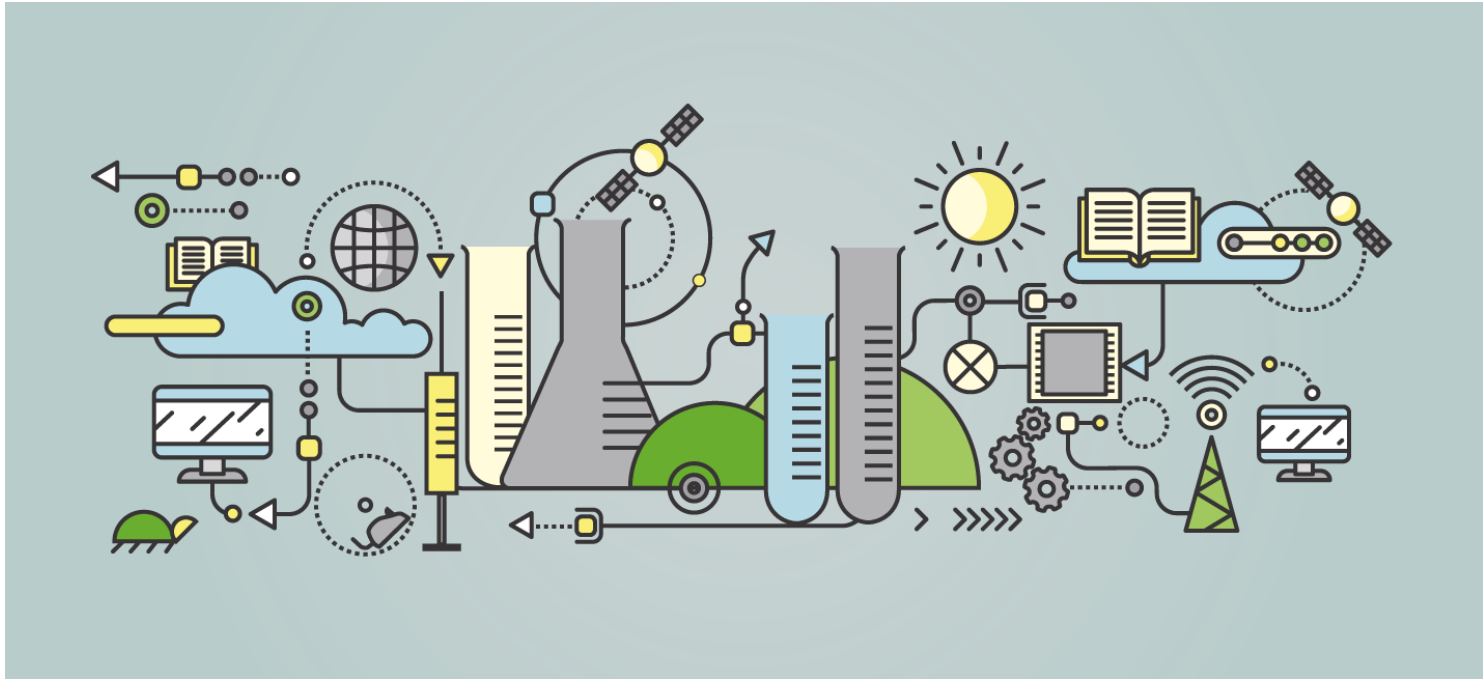
Persistent identifiers: end of local data?
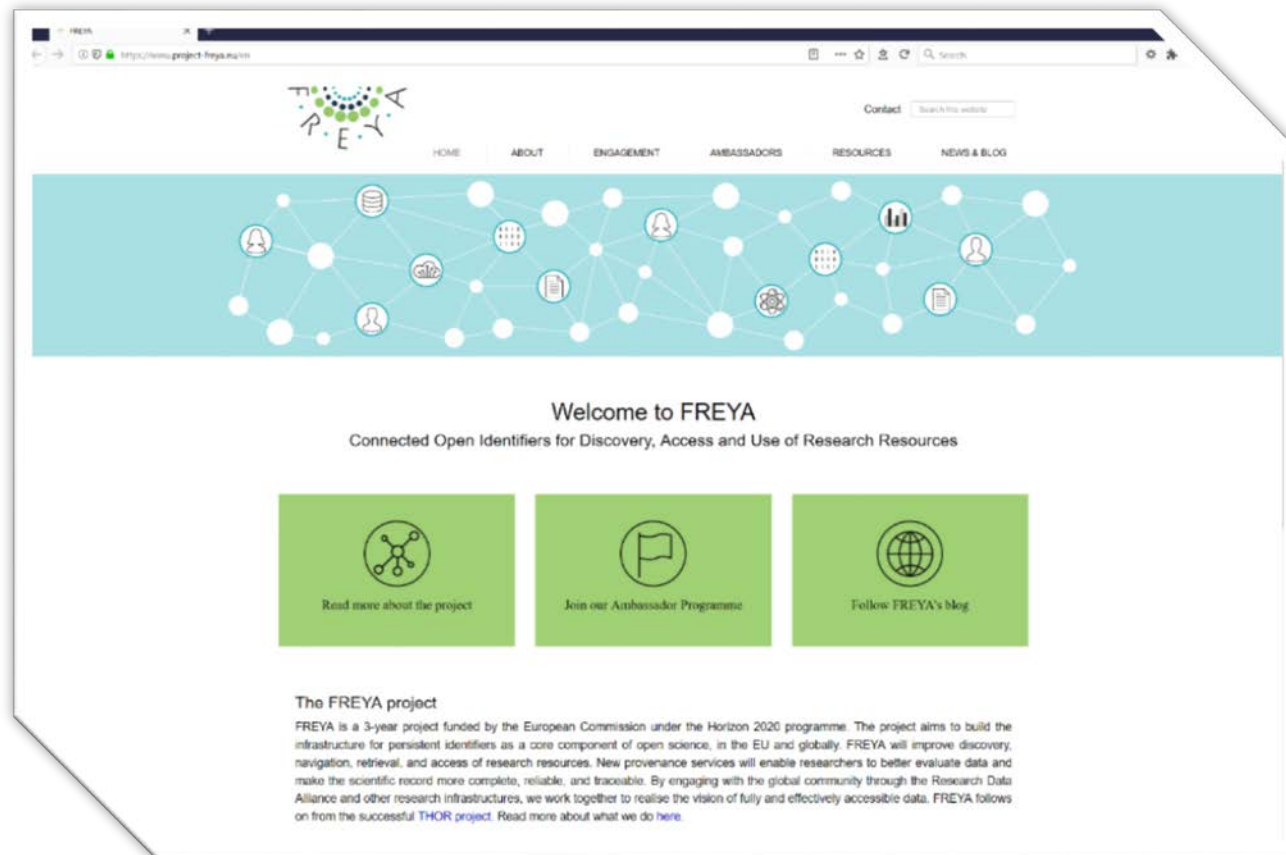
Our #1 UI will be for software not people

https://en.wikipedia.org/wiki/File:Card_puncher_-_NARA_-_513295.jpg

Algorithms will manage our content
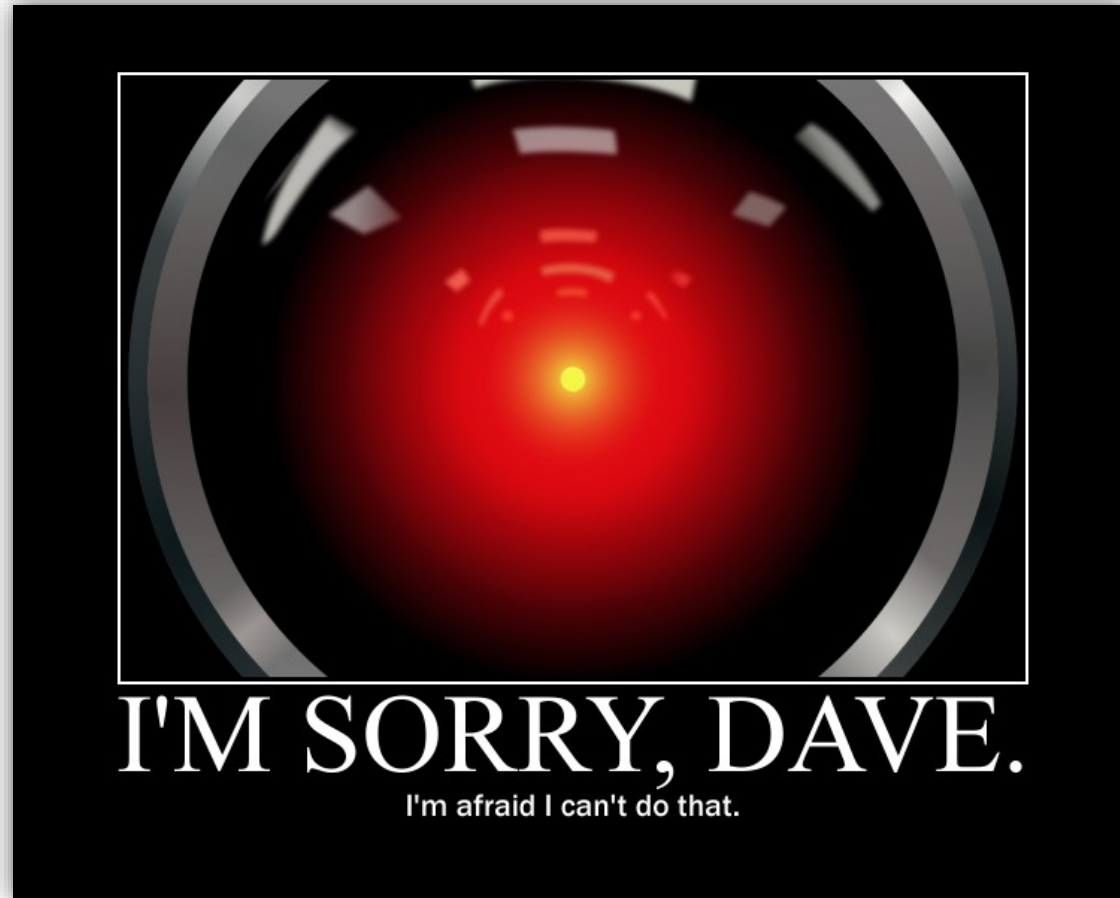
Big publishers reborn as data companies
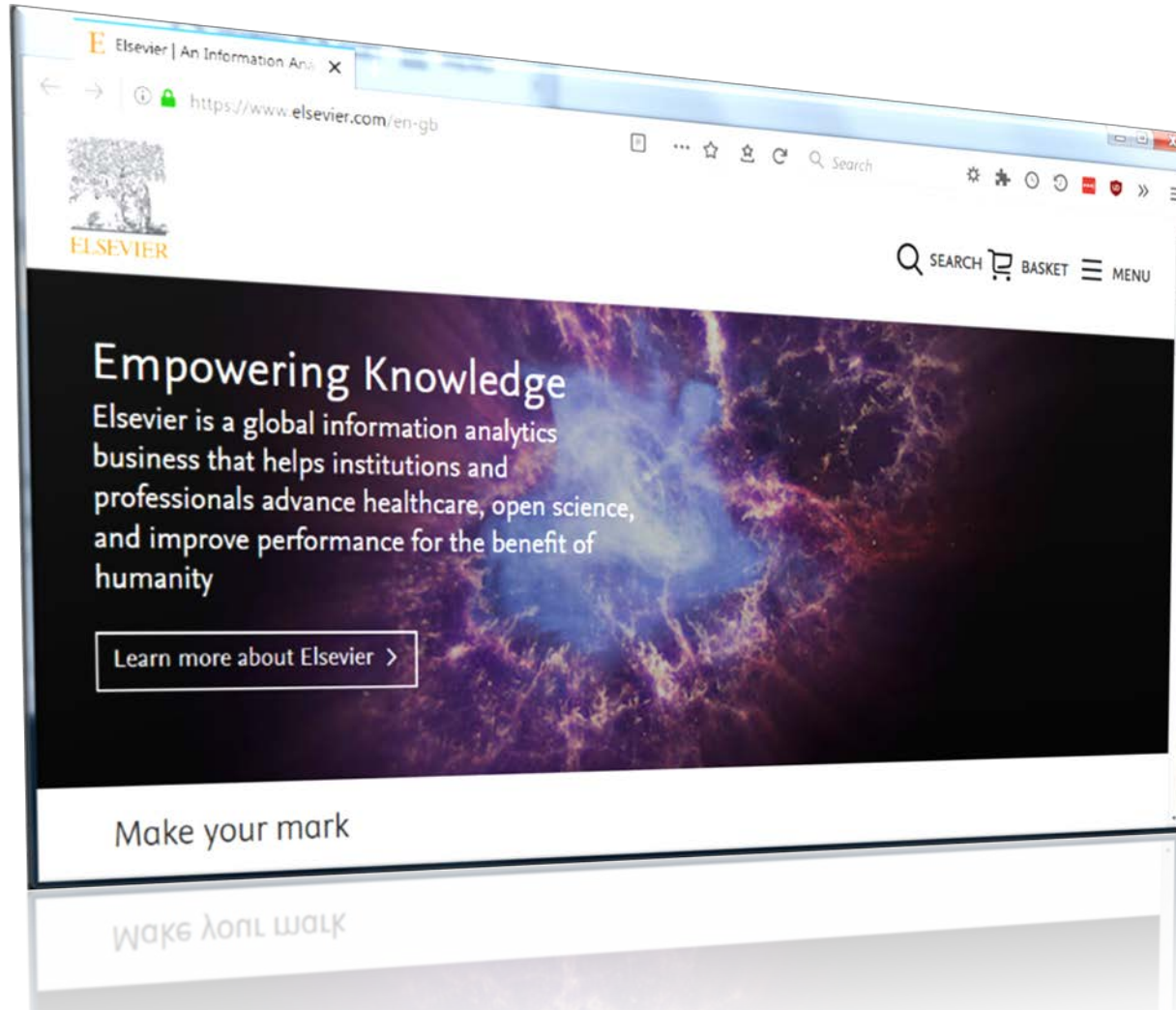
Will user still come for special collections?
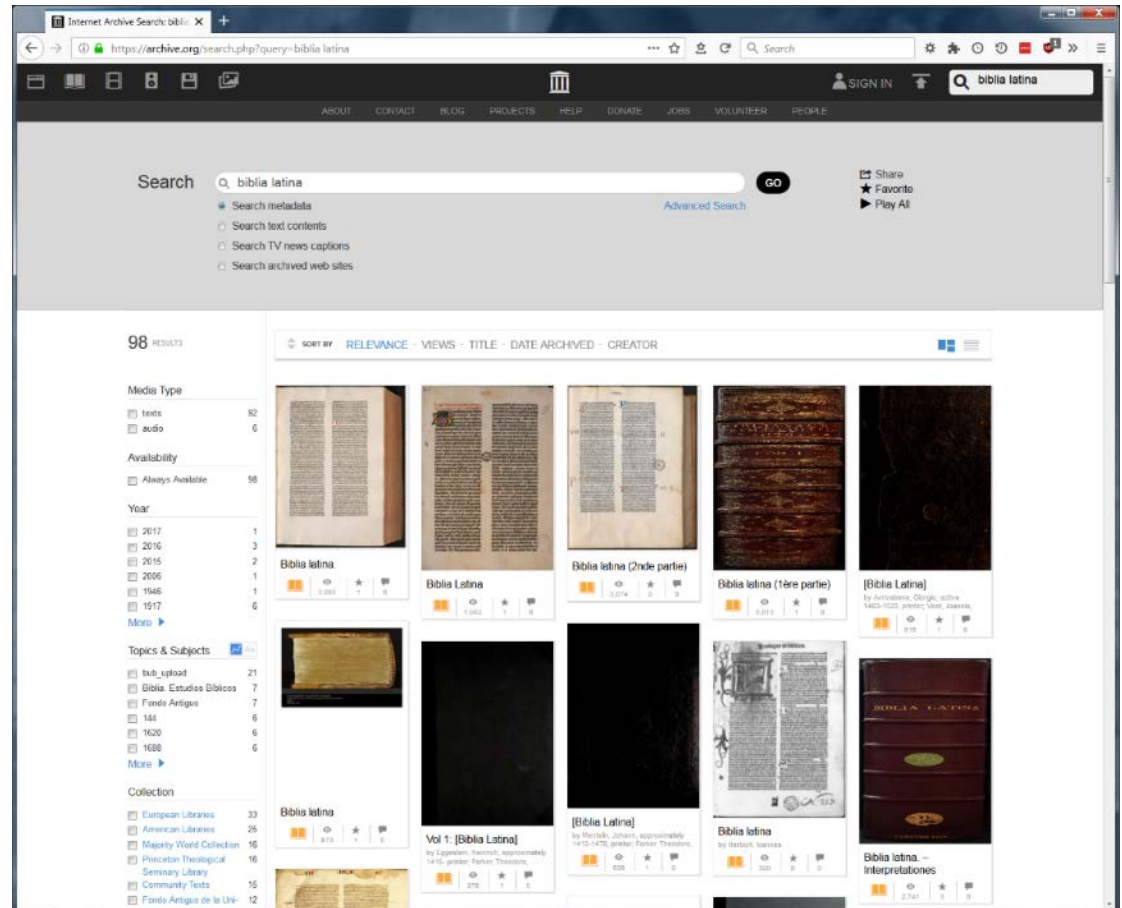
Workspaces and communities

Information literacy, skills and inclusion

https://citea.digitalinsite.co.uk/index.php/toolkit/analyse/
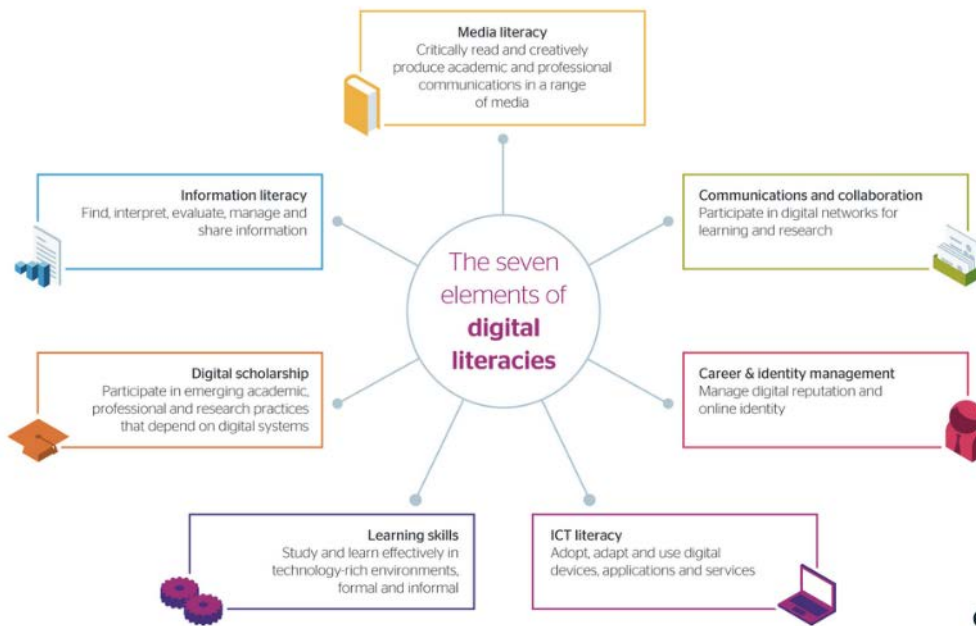
How might the "new paradigm" work out?

- Our digital services will be provided by a few service providers

- Our role in technical open science services may be smaller than we expect

- We will procure, not run services and our information will be in the cloud

- Role in discovery, access and managing content might be reduced

- Our role in open science services may be smaller than we expect

- Repositories could disappear behind commercial discovery layers

- Our digital special collections may not be accessed through us, and analogue material that isn't visible online will see decline in use

- We may need fewer but more highly skilled staff, focusing on licensing/connecting solutions and enabling users

The Digital Shift and community action

Digital Shift Manifesto
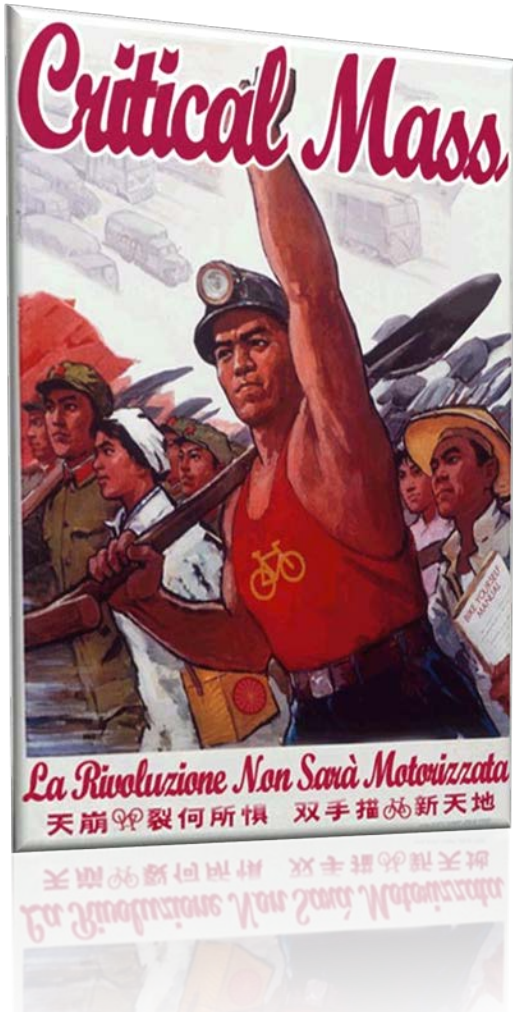
*"In 2030, UK research libraries will be an **integral part** of both the local and global **knowledge environment**.*

*We will offer **environmentally sustainable**, **inclusive** services that enable a diverse set of users to identify and use **trusted** knowledge resources from all over the world.*

*Our open research and digital scholarship services will enable **seamless and persistent sharing and reuse** of research outputs.*

*Library staff will be **recognised experts** in (digital) research methods and **valued partners** in the research process, even leading in some fields.*

*Print collections will be as easy to discover as our digital ones, and we will provide digital and physical **spaces** that **meet 21st century researchers' needs**.*

*Libraries will have **mastered** the use of technologies such as **artificial intelligence**, and we will deploy them on technology platforms that are open and transparent, built on sustainable and **ethical** principles."*

https://www.rluk.ac.uk/digital-shift/

Medium-term (2022-2024) objectives

1. Engage: with key stakeholders around the core challenges of the digital shift identified in phase 1.

- 2.1.1. Establish a programme of knowledge exchange activities with experts from outside the library sector
- 2.1.2. Contribute to a sustainability action plan for carbon-neutral digital research library services to help inform members in their decision making and those of their institutions

2. Build: a consensus around the steps to be taken to address skills gaps and the role to be played by RLUK, external stakeholders, and individual members.

- 2.2.1. Create a strategic workforce plan for RLUK libraries, informed by the results of the skills audit and stakeholder mapping undertaken in phase 1. This needs to build on, and support, wider workforce planning.
- 2.2.2. Working in conjunction with CSN, develop **a manifesto/set of requirements for open information sources/infrastructure** that will inform licensing and procurement for RLUK members and ideally beyond

Conclusion

Conclusion

- Move from collection focus to one of enabling users

- Our strength is not just in collections, but in trust, transparency and people

- Fewer but more highly skilled staff?

- On-site services: from consumption to knowledge creation

- Add value by connecting things

- Focus on user experience

- Open science needs open information management

- Rally around community infrastructures, shared services

- "Open" procurement principles

- Consider open solutions over black boxes

- Openness in AI

- Get content where users are, but fight for provenance

- Persistent access should not be left to commercial entities only