

The perfect storm

Challenges for research libraries
in the coming decade

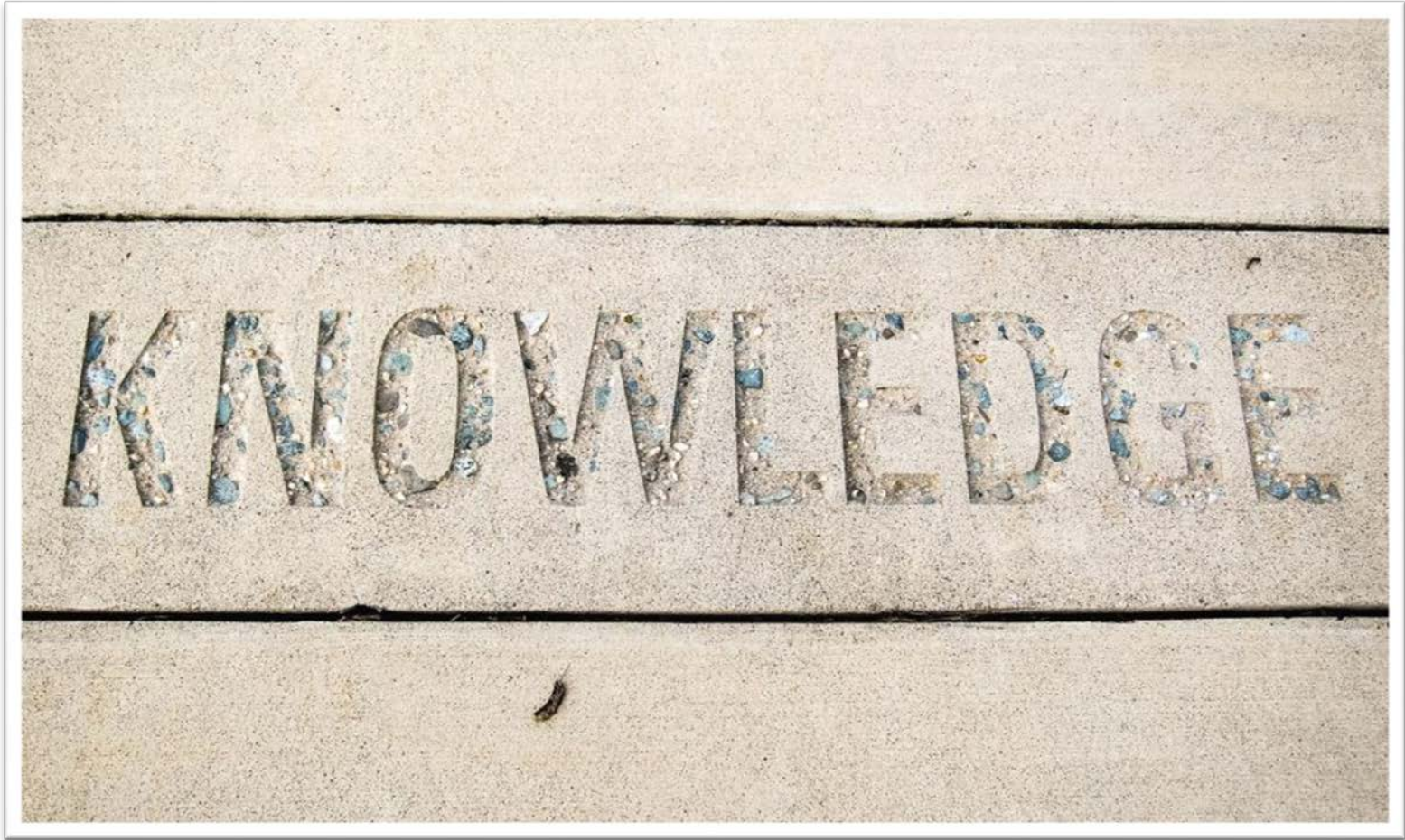
Dr Torsten Reimer
Head of Content and Research Services

Torsten.Reimer@bl.uk / [@torstenreimer](https://twitter.com/torstenreimer)
<http://orcid.org/0000-0001-8357-9422>

Library Science Talks, Zurich/Online, 9 February 2021



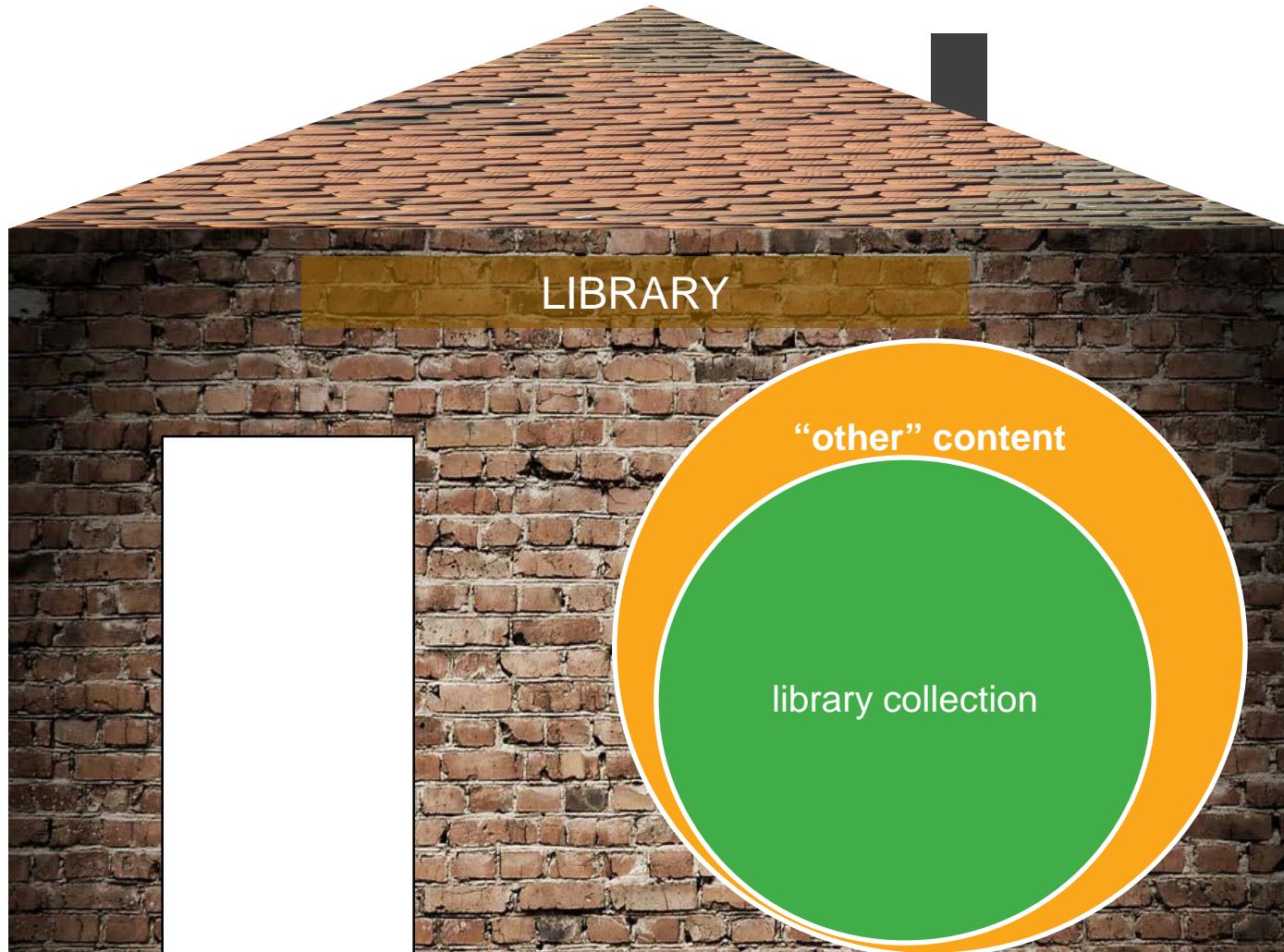
Why are we here?



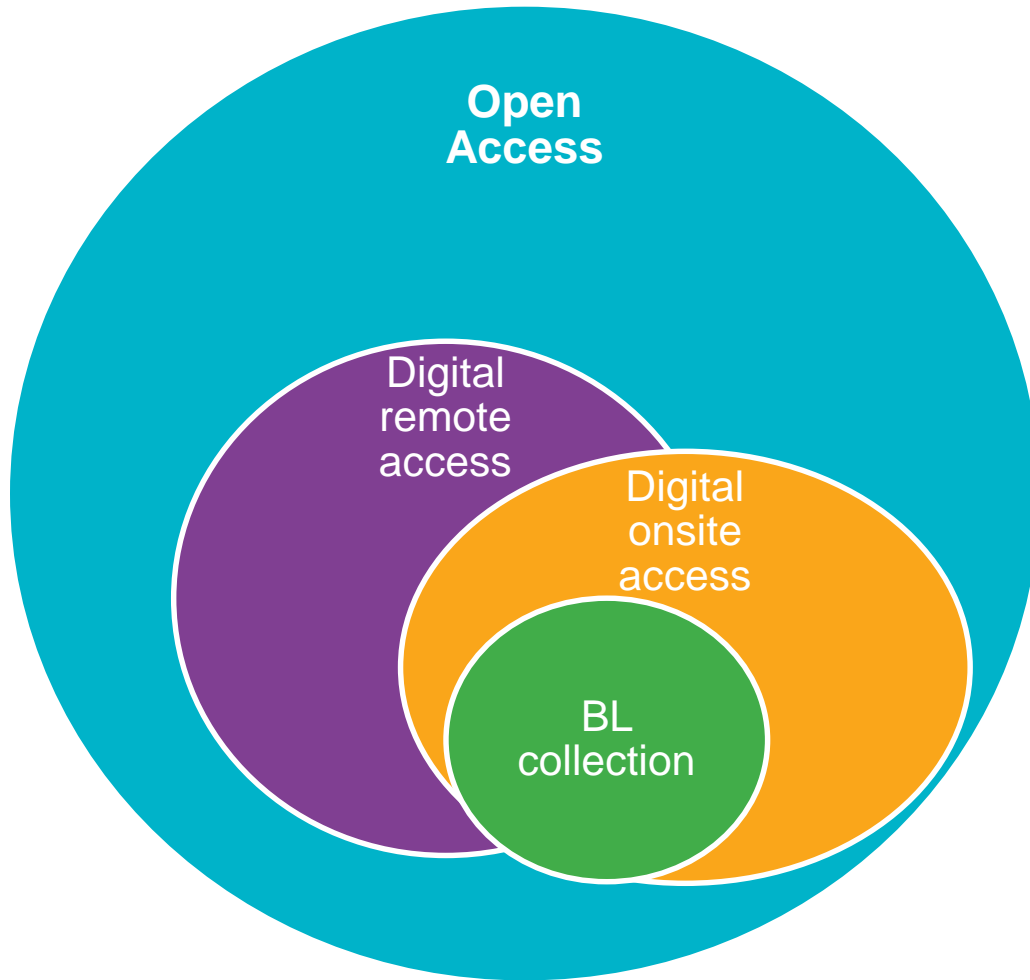
<https://www.flickr.com/photos/benimoto/1776983659/> CC BY 2.0

The changing environment

Before: “buy it and they’ll come”



Now: shrinking relevance?

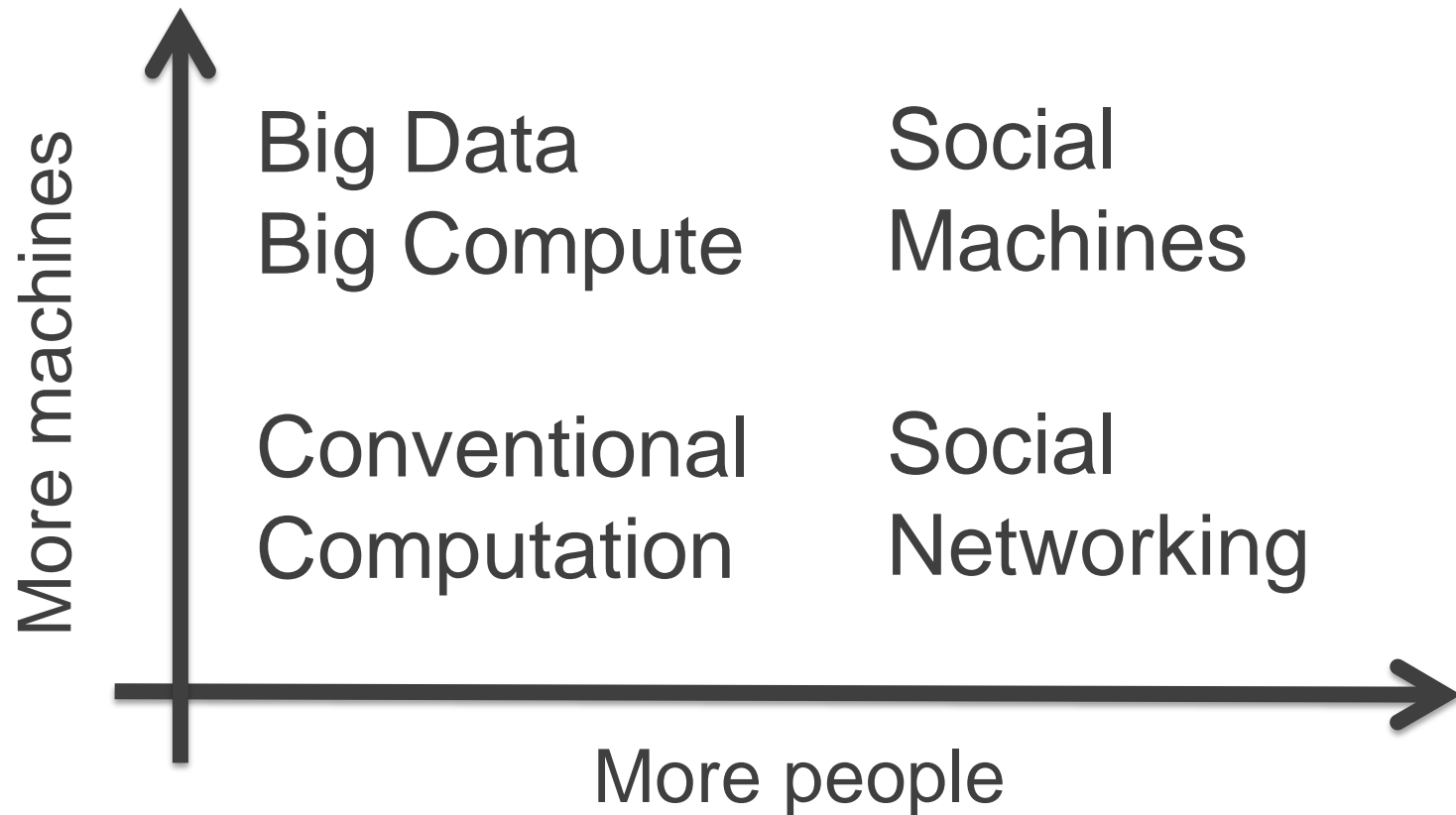


Relative to Internet content
our collections are shrinking

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

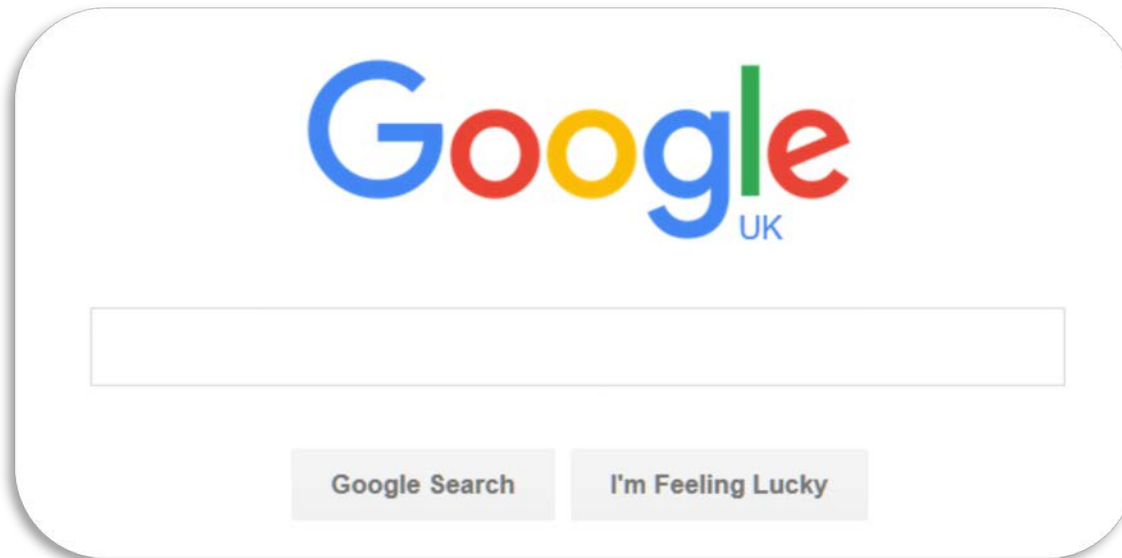
Need to enhance our
collections by connecting to
relevant global content

Context 1: New Ways of Working



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](#).

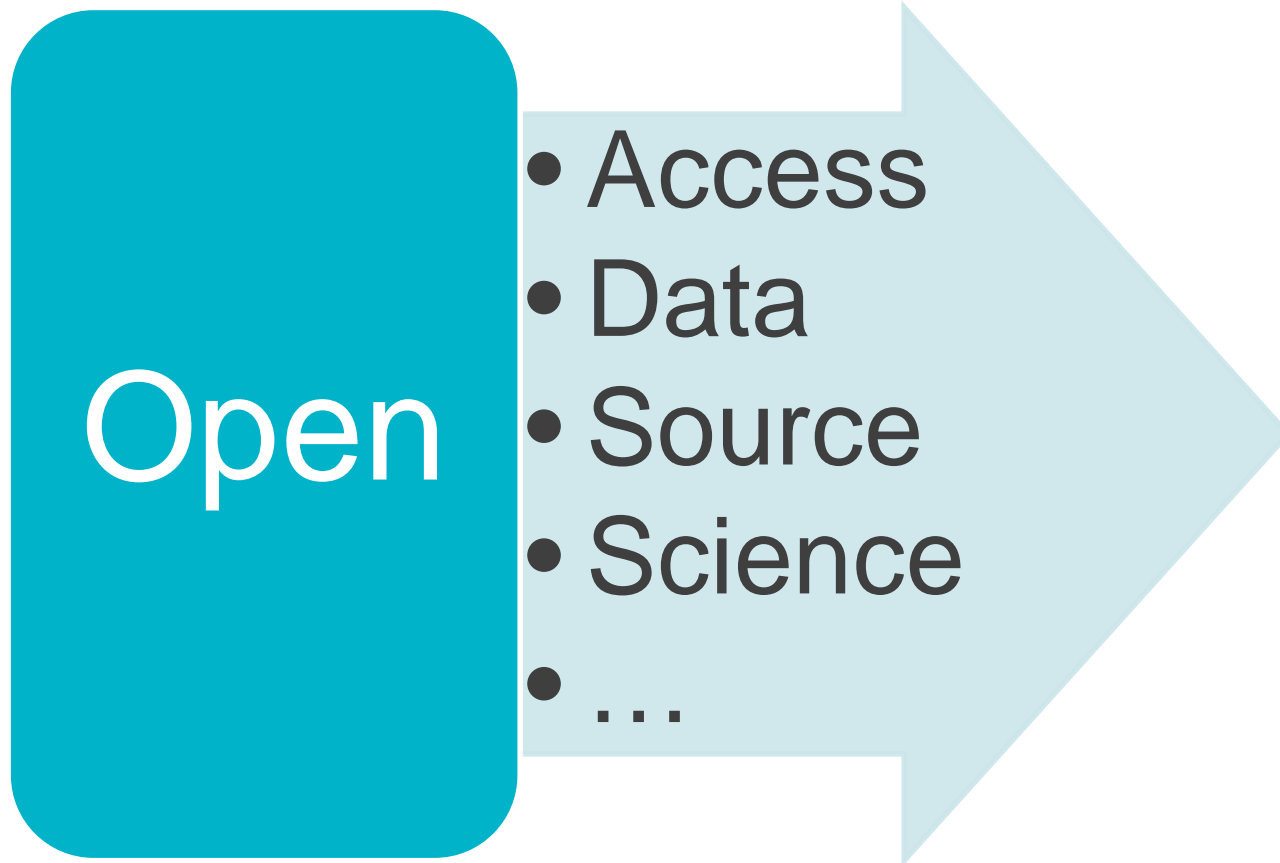


3

Context 3: budgets and value for money



Context 4: scholarly comms, open science



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



(Some) Elements:

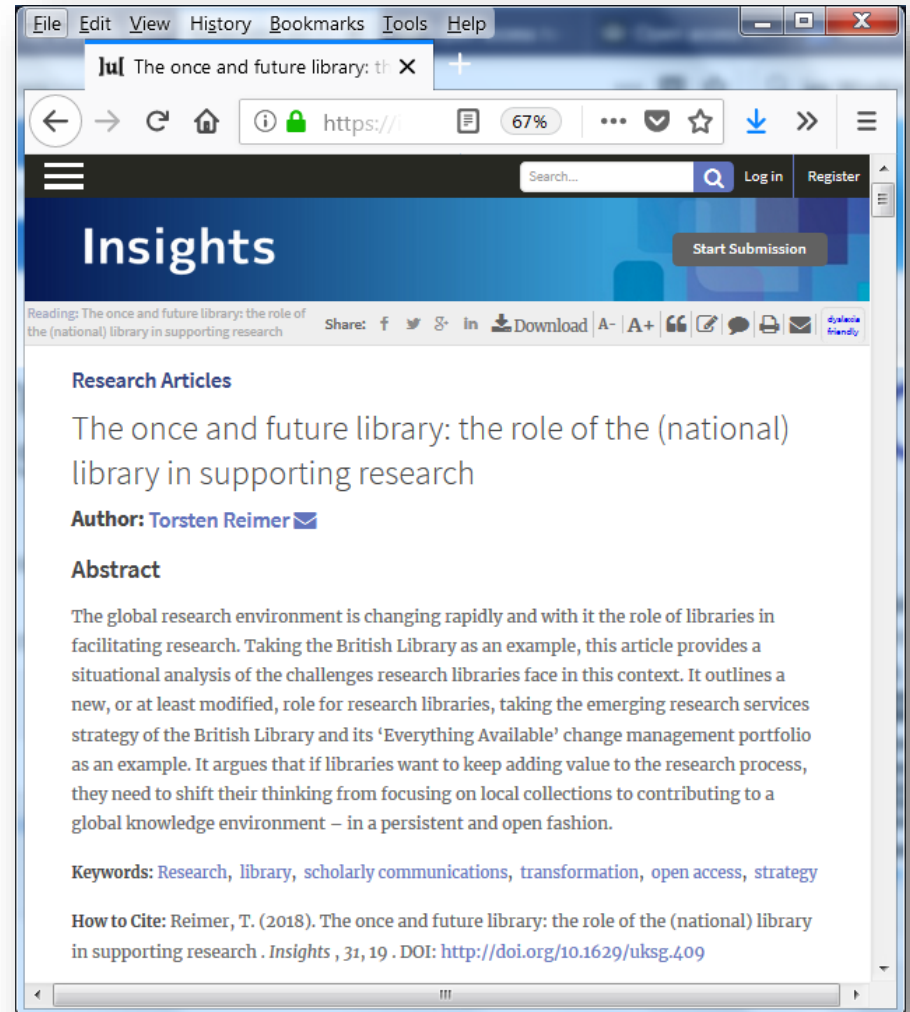
- ...will be **based on evidence** of demand and value to researchers
- Beyond Legal Deposit, the primary decision is whether the content will be of **value to the research community**.
- Where the British Library has no preservation responsibility [...], we will **prefer to connect rather than collect**.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

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

Research Service Strategy

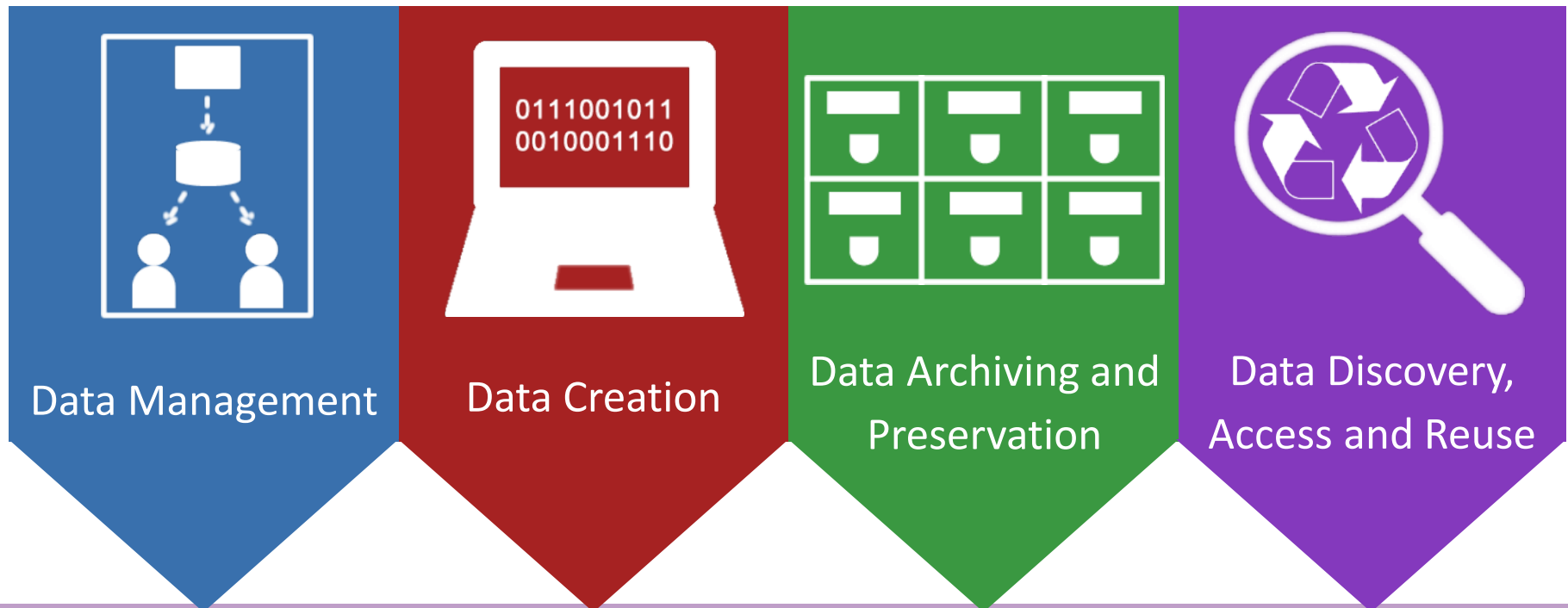
- A service strategy for the British Library's role as a major research library.
- Key element: enhance the national collection by services that open up and help to sustain a global knowledge environment.

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

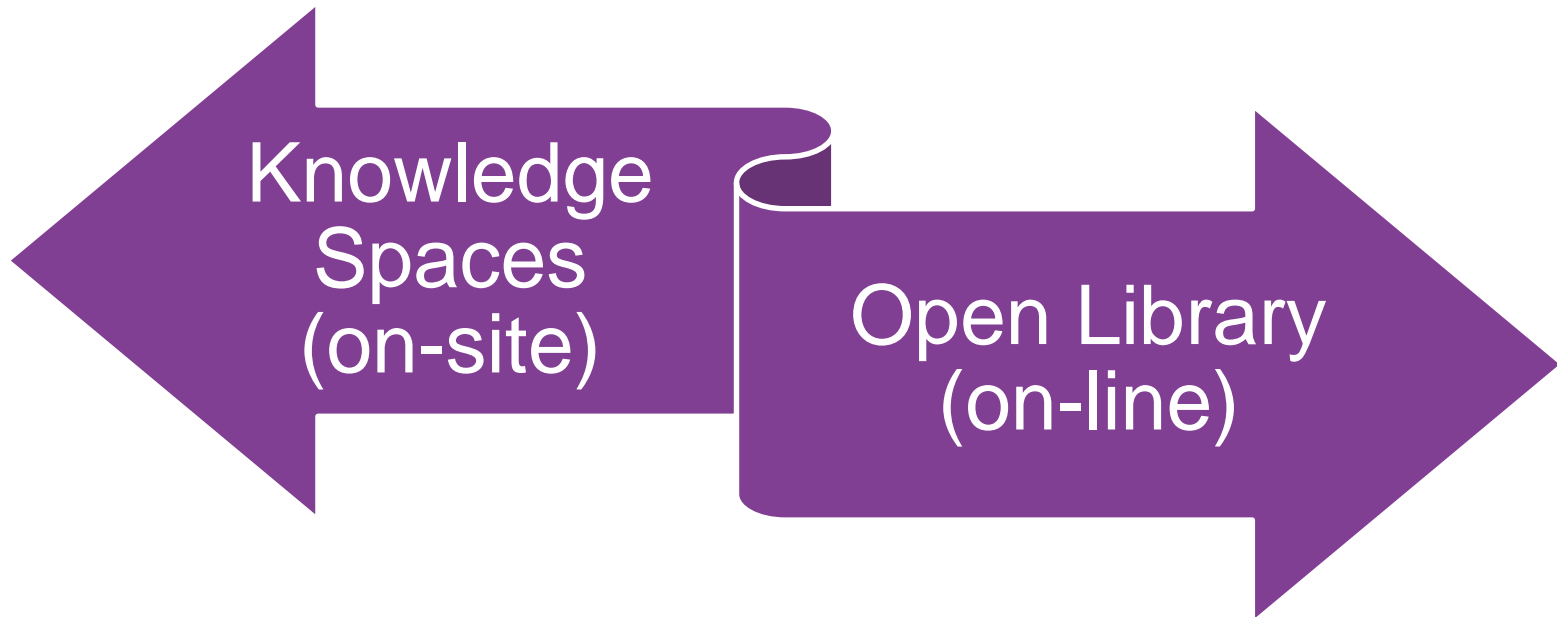


British Library data strategy

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



Everything Available programmes



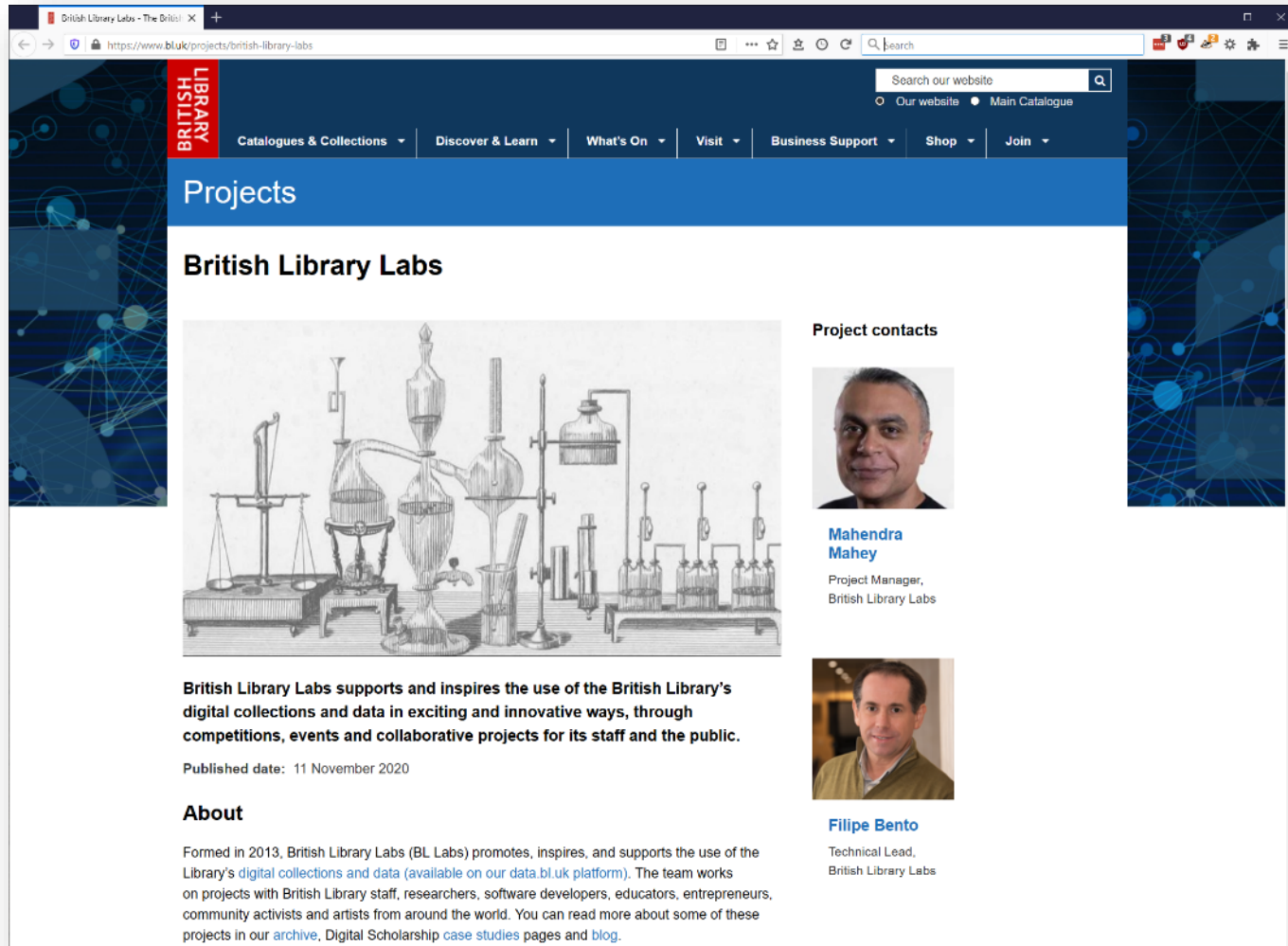
Knowledge Spaces

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

Programme aims:

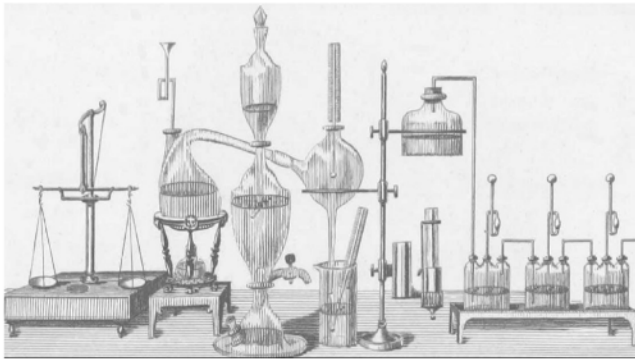
- **Flexible spaces** that will reflect the needs of researchers, fulfil multiple purposes, and will be adapted over time, supporting new services
- **Technology enabled design** with bring-your-own-device access to digital content, audio-visual facilities and infrastructure for (interdisciplinary) data-driven 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



The screenshot shows the British Library Labs website. The browser address bar displays 'https://www.bl.uk/projects/british-library-labs'. The website has a dark blue header with the 'LIBRARY HSILIRB' logo on the left and a search bar on the right. Below the header is a navigation menu with links: 'Catalogues & Collections', 'Discover & Learn', 'What's On', 'Visit', 'Business Support', 'Shop', and 'Join'. The main content area has a blue banner with the word 'Projects'. Below this, the title 'British Library Labs' is followed by a large illustration of historical scientific apparatus. To the right of the illustration is a section titled 'Project contacts' featuring two portraits: Mahendra Mahey, Project Manager, and Filipe Bento, Technical Lead. Below the illustration, there is a paragraph about the organization's mission and a section titled 'About' which provides more details about the team and their work.

British Library Labs



Project contacts

Mahendra Mahey
Project Manager,
British Library Labs

Filipe Bento
Technical Lead,
British Library Labs

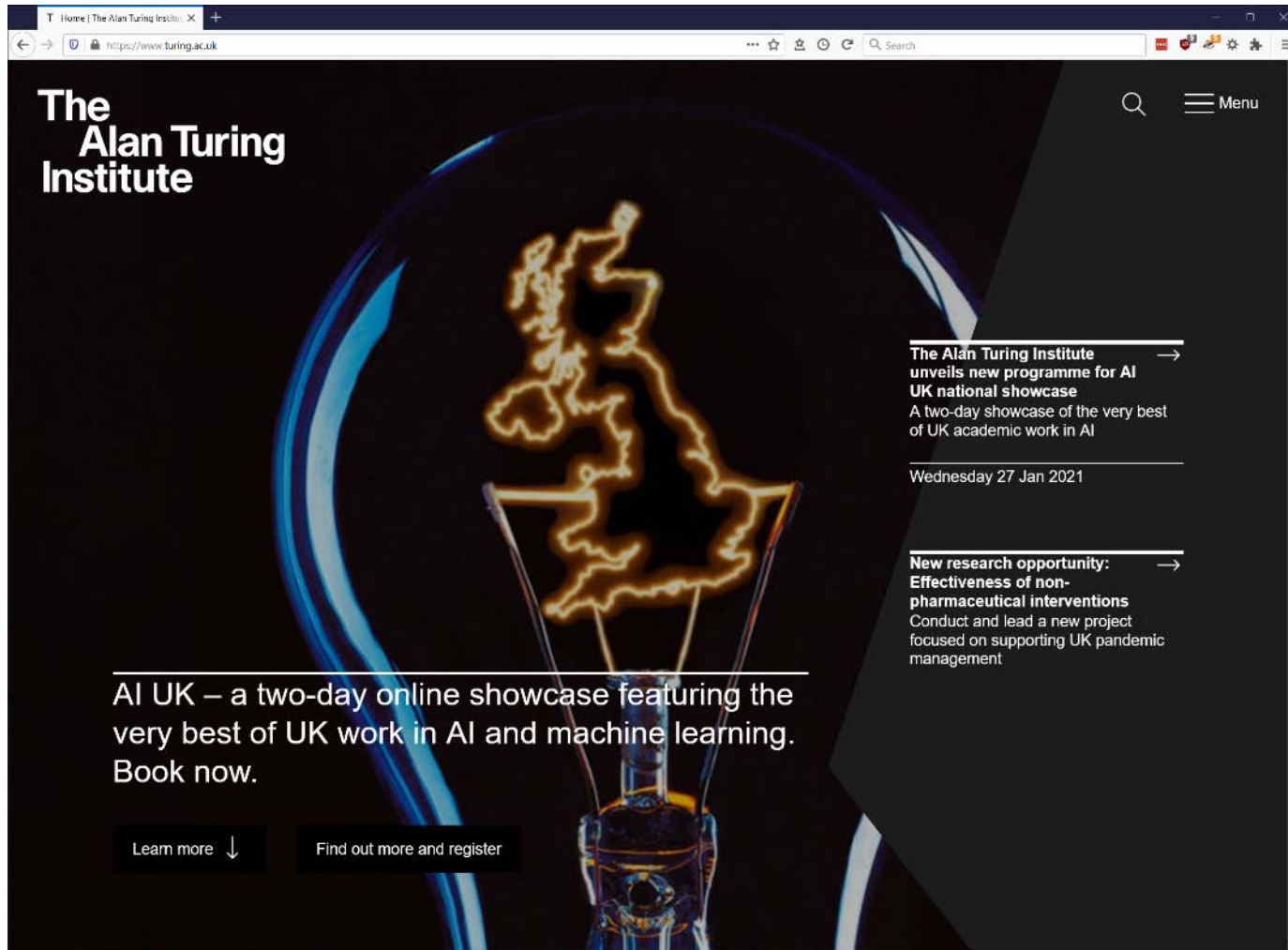
British Library Labs supports and inspires the use of the British Library's digital collections and data in exciting and innovative ways, through competitions, events and collaborative projects for its staff and the public.

Published date: 11 November 2020

About

Formed in 2013, British Library Labs (BL Labs) promotes, inspires, and supports the use of the Library's [digital collections and data](#) (available on our [data.bl.uk platform](#)). The team works on projects with British Library staff, researchers, software developers, educators, entrepreneurs, community activists and artists from around the world. You can read more about some of these projects in our [archive](#), Digital Scholarship [case studies](#) pages and [blog](#).

Skills for the digital future (and present)



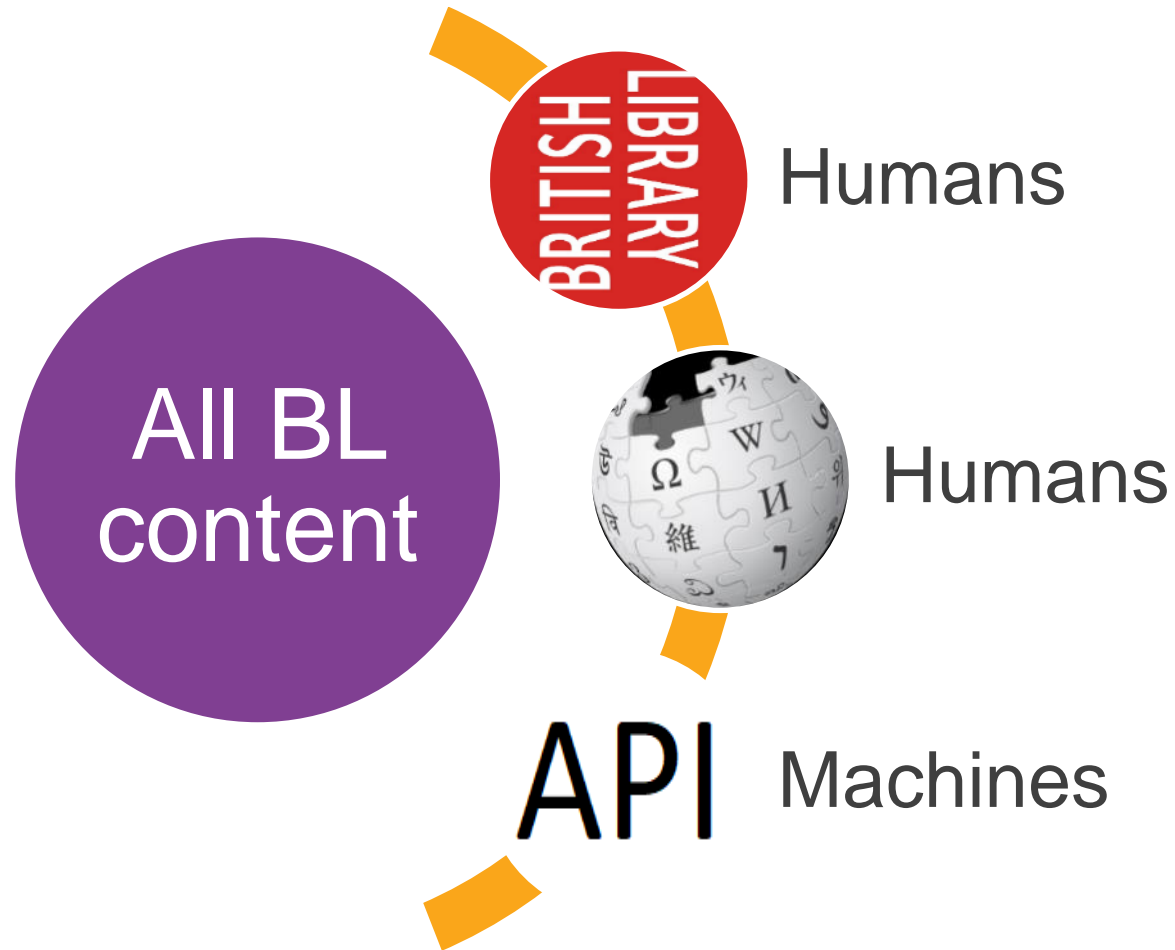
Living with Machines collaboration

- £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.

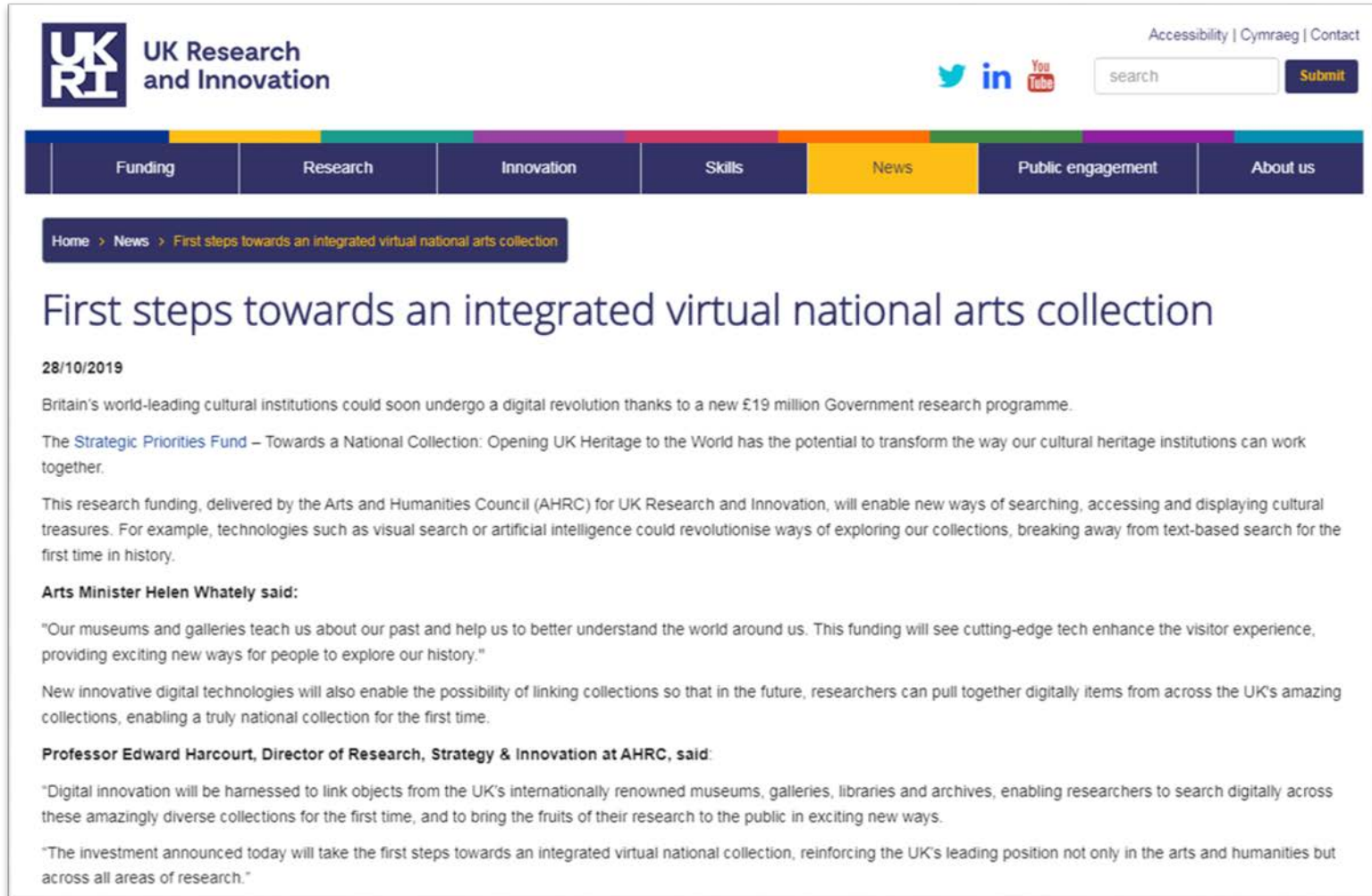


Identifying
places in historic
maps

Single point of entry to collections



Towards a National Collection



The screenshot shows the UK Research and Innovation website. The header includes the UKRI logo, the text 'UK Research and Innovation', and links for Accessibility, Cymraeg, and Contact. There are also social media icons for Twitter, LinkedIn, and YouTube, and a search bar with a 'Submit' button. A navigation bar below the header contains links for Funding, Research, Innovation, Skills, News (highlighted in yellow), Public engagement, and About us. The main content area features a breadcrumb trail: Home > News > First steps towards an integrated virtual national arts collection. The article title is 'First steps towards an integrated virtual national arts collection', dated 28/10/2019. The text describes a new £19 million Government research programme aimed at transforming cultural heritage institutions through digital technologies. It mentions the Strategic Priorities Fund and the Arts and Humanities Council (AHRC). Quotes from Arts Minister Helen Whately and Professor Edward Harcourt are included, highlighting the potential for a truly national collection and the use of digital innovation to link objects from various institutions.

UKRI UK Research and Innovation

Accessibility | Cymraeg | Contact

Twitter LinkedIn YouTube

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."

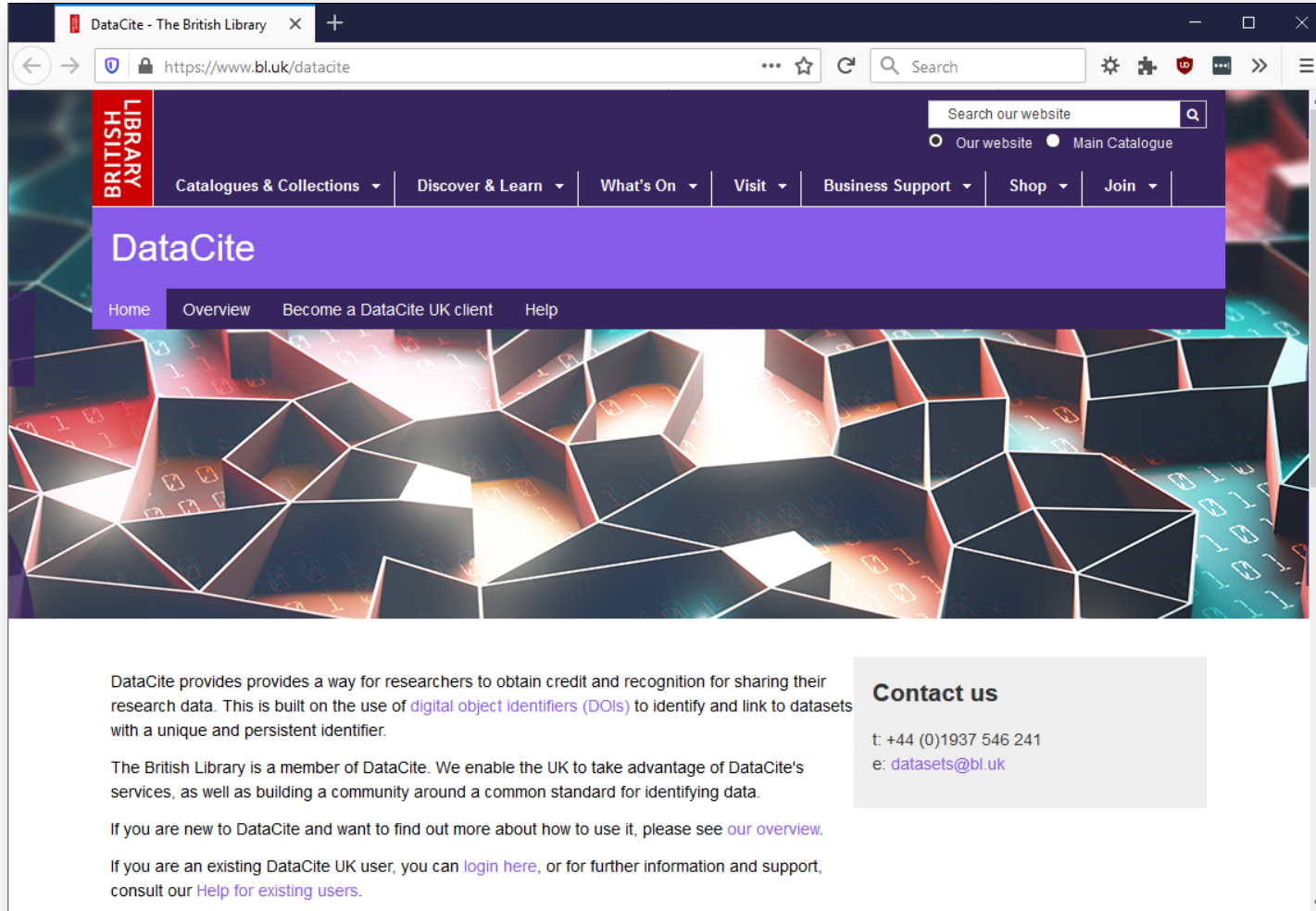
New innovative digital technologies will also enable the possibility of linking collections so that in the future, researchers can pull together digitally items from across the UK's amazing collections, enabling a truly national collection for the first time.

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



DataCite - The British Library

https://www.bl.uk/datacite

Search our website

Our website Main Catalogue

Catalogues & Collections Discover & Learn What's On Visit Business Support Shop Join

DataCite

Home Overview Become a DataCite UK client Help

DataCite provides a way for researchers to obtain credit and recognition for sharing their research data. This is built on the use of [digital object identifiers \(DOIs\)](#) to identify and link to datasets with a unique and persistent identifier.

The British Library is a member of DataCite. We enable the UK to take advantage of DataCite's services, as well as building a community around a common standard for identifying data.

If you are new to DataCite and want to find out more about how to use it, please see [our overview](#).

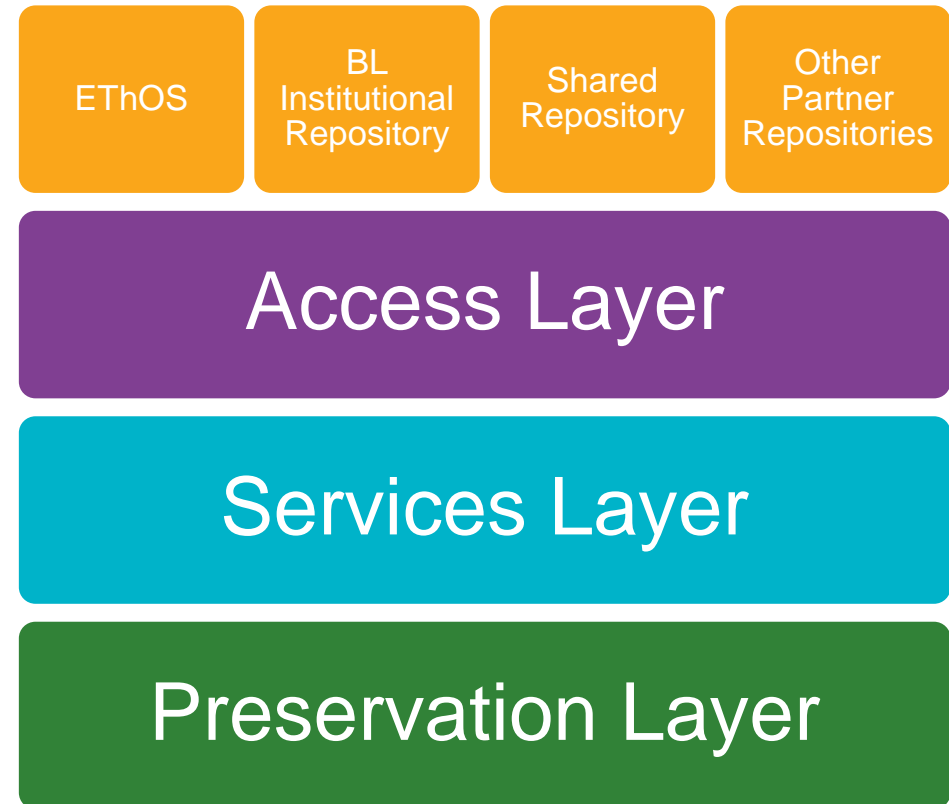
If you are an existing DataCite UK user, you can [login here](#), or for further information and support, consult our [Help for existing users](#).

Contact us

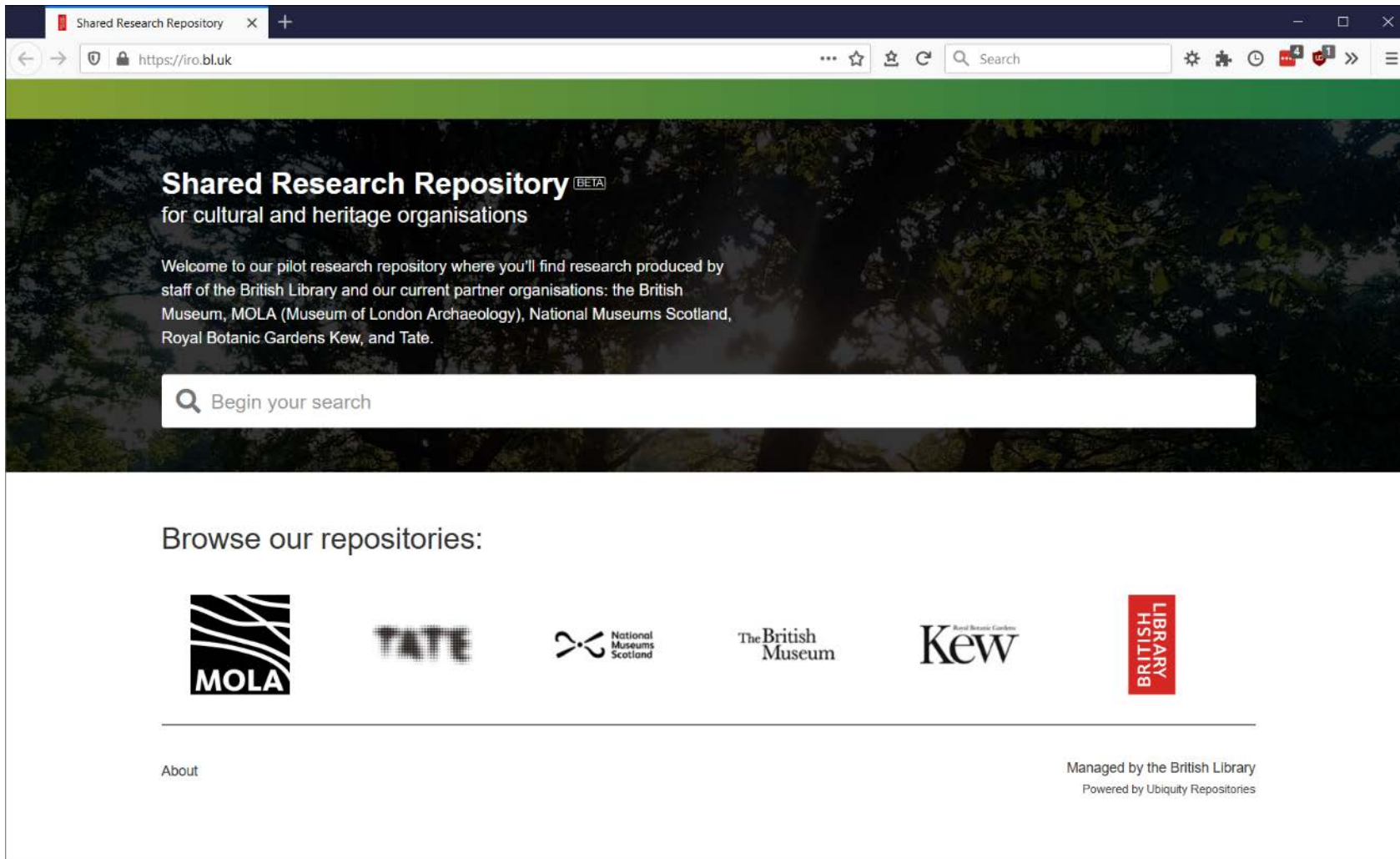
t: +44 (0)1937 546 241
e: datasets@bl.uk

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



Shared Research Repository service



The screenshot shows a web browser window with the address bar displaying <https://iro.bl.uk>. The page features a dark green header with the text "Shared Research Repository" and a "BETA" badge. Below this, a welcome message states: "Welcome to our pilot research repository where you'll find research produced by staff of the British Library and our current partner organisations: the British Museum, MOLA (Museum of London Archaeology), National Museums Scotland, Royal Botanic Gardens Kew, and Tate." A search bar with the placeholder text "Begin your search" is prominently displayed. The section "Browse our repositories:" follows, showcasing logos for MOLA, Tate, National Museums Scotland, The British Museum, Kew, and the British Library (HSILIRB). The footer includes a link to "About" and the text "Managed by the British Library" and "Powered by Ubiquity Repositories".

Shared Research Repository BETA
for cultural and heritage organisations

Welcome to our pilot research repository where you'll find research produced by staff of the British Library and our current partner organisations: the British Museum, MOLA (Museum of London Archaeology), National Museums Scotland, Royal Botanic Gardens Kew, and Tate.

Begin your search

Browse our repositories:

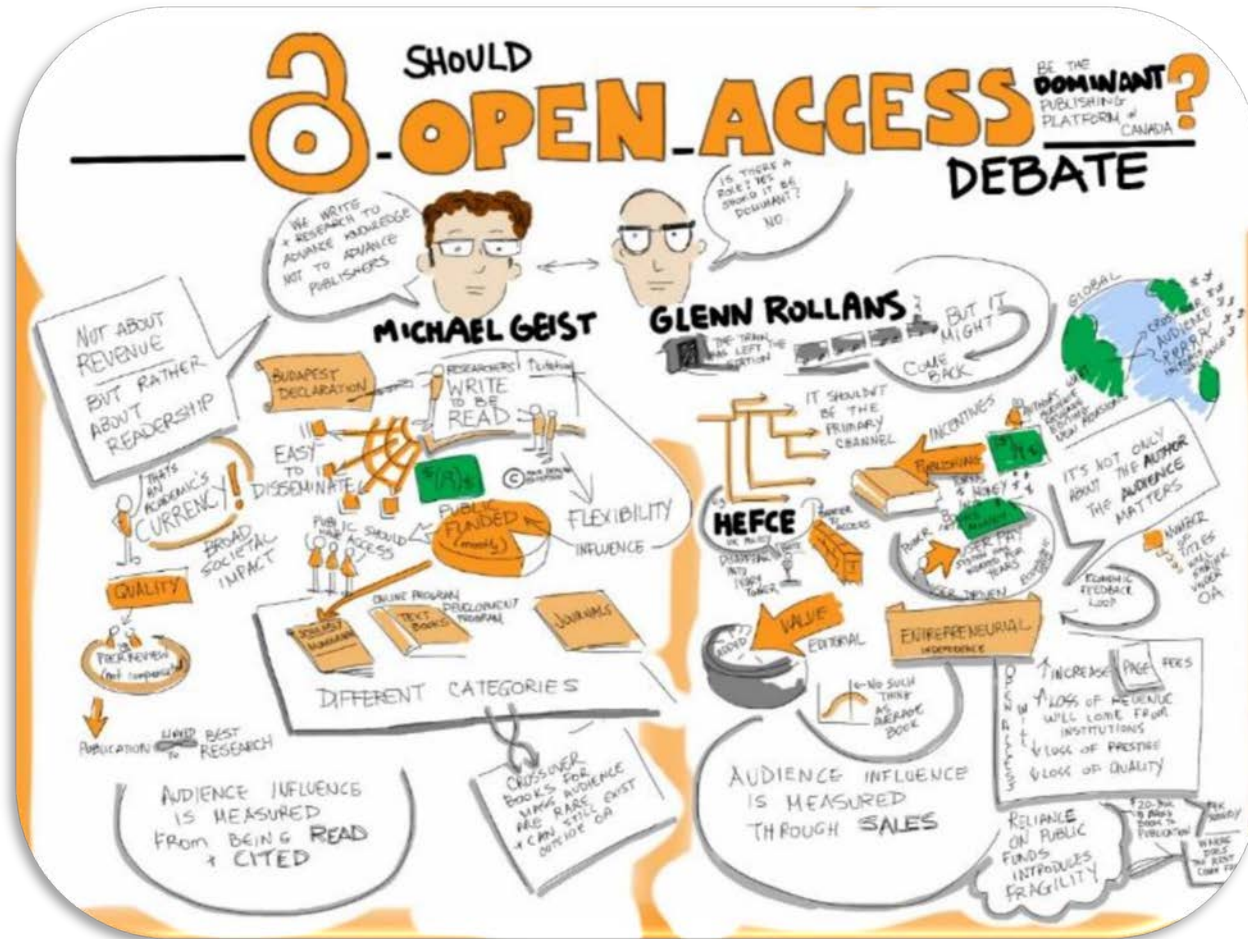
MOLA Tate National Museums Scotland The British Museum Kew LIBRARY HSILIRB

About

Managed by the British Library
Powered by Ubiquity Repositories

A hypothetical 2030 library / knowledge environment

2030: the debate – is over: OA has won



<https://www.flickr.com/photos/gforsythe/14270651836>

...what will be the role of libraries though?

"Unpaywall is transforming Open Science"

—Nature feature article, August 2018

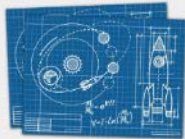
Used and trusted by top organizations

We're integrated into thousands of library systems, search platforms, and other information products worldwide. In fact, if you're involved in scholarly communication, there's a good chance you've already used Unpaywall data.



Open Source and nonprofit

Unpaywall is run by Impactstory, a nonprofit dedicated to making scholarship more accessible to everyone. Open is our passion. So it's only natural our source code is open, too.

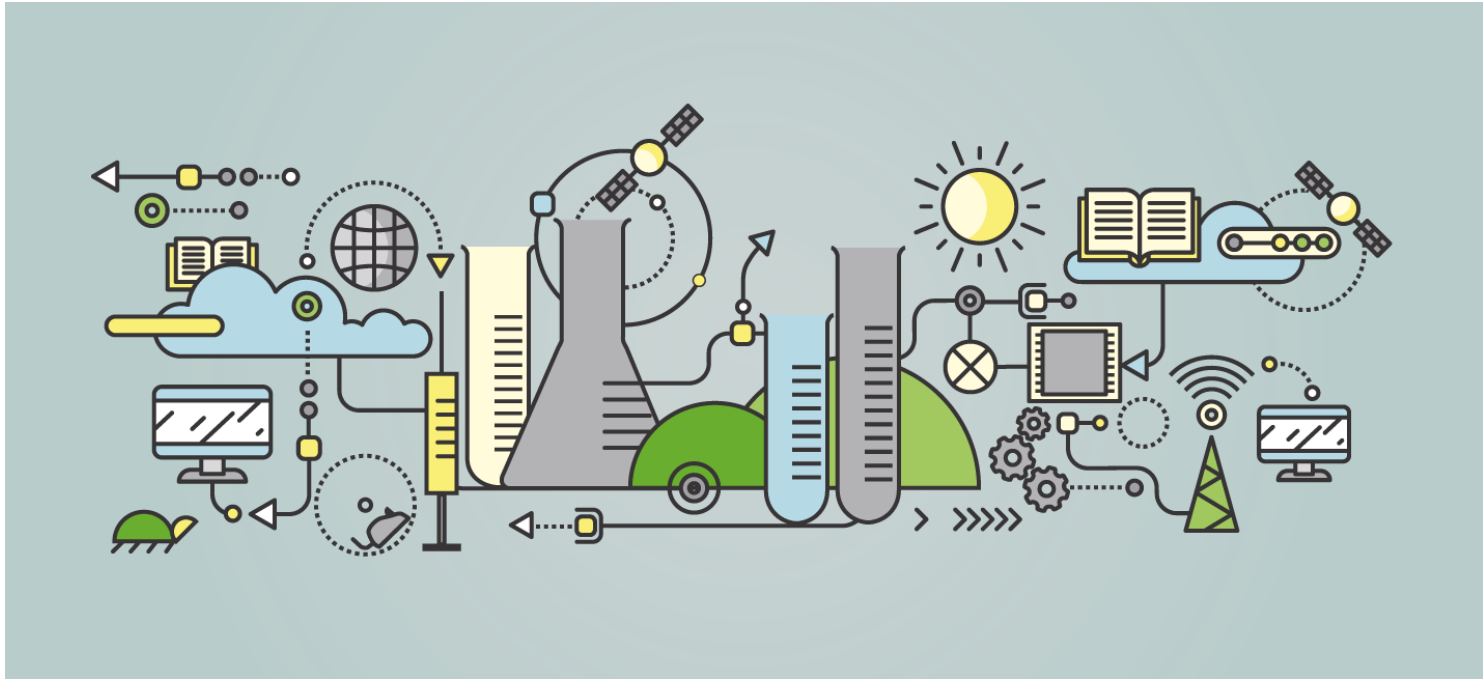


Easy access for everyone

We've helped with projects ranging from undergrad class assignments to global enterprise integrations. So no matter what your use case, we've probably got an easy way for you to access our data...after all, access is what this is all about.

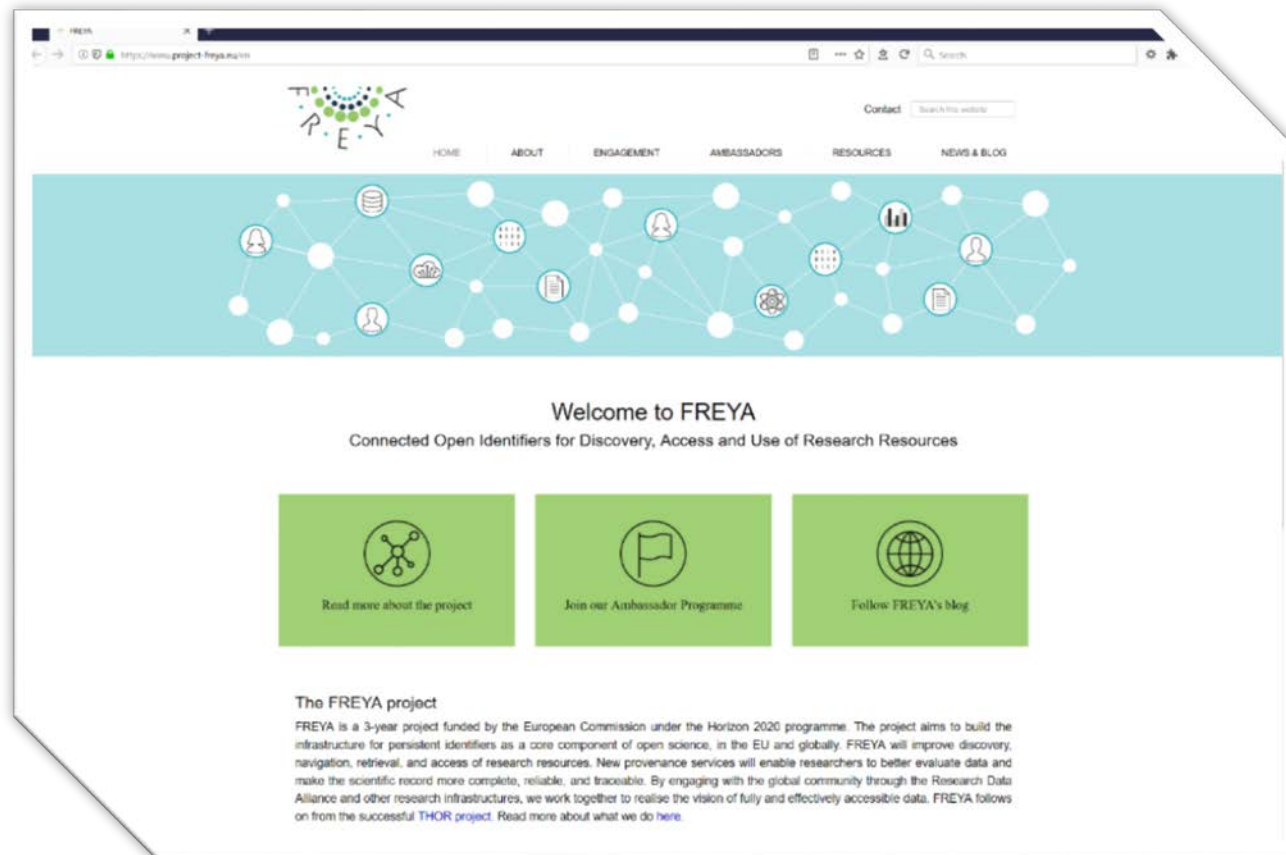


Open science – can we really support it?



<https://about.hindawi.com/blog/a-radically-open-approach-to-developing-infrastructure-for-open-science/>

Persistent identifiers: end of local data?

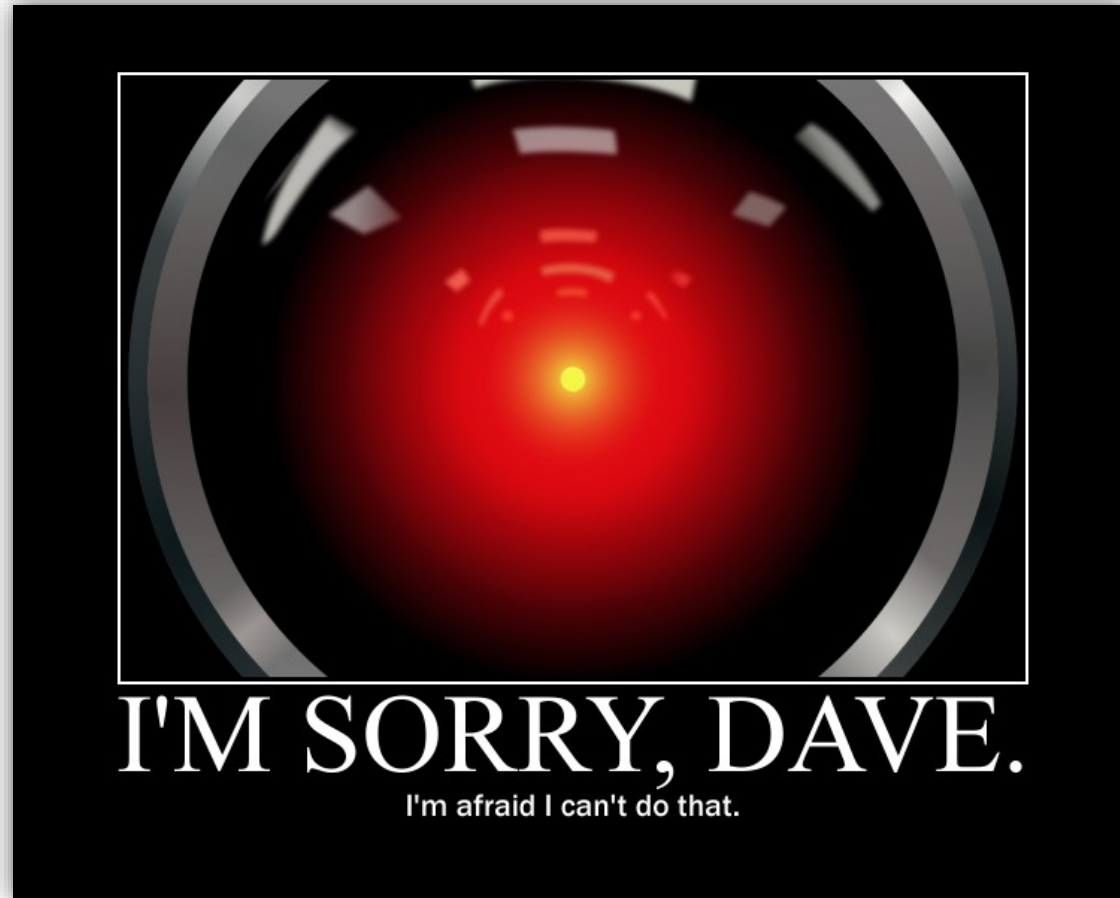


Our #1 UI will be for software not people



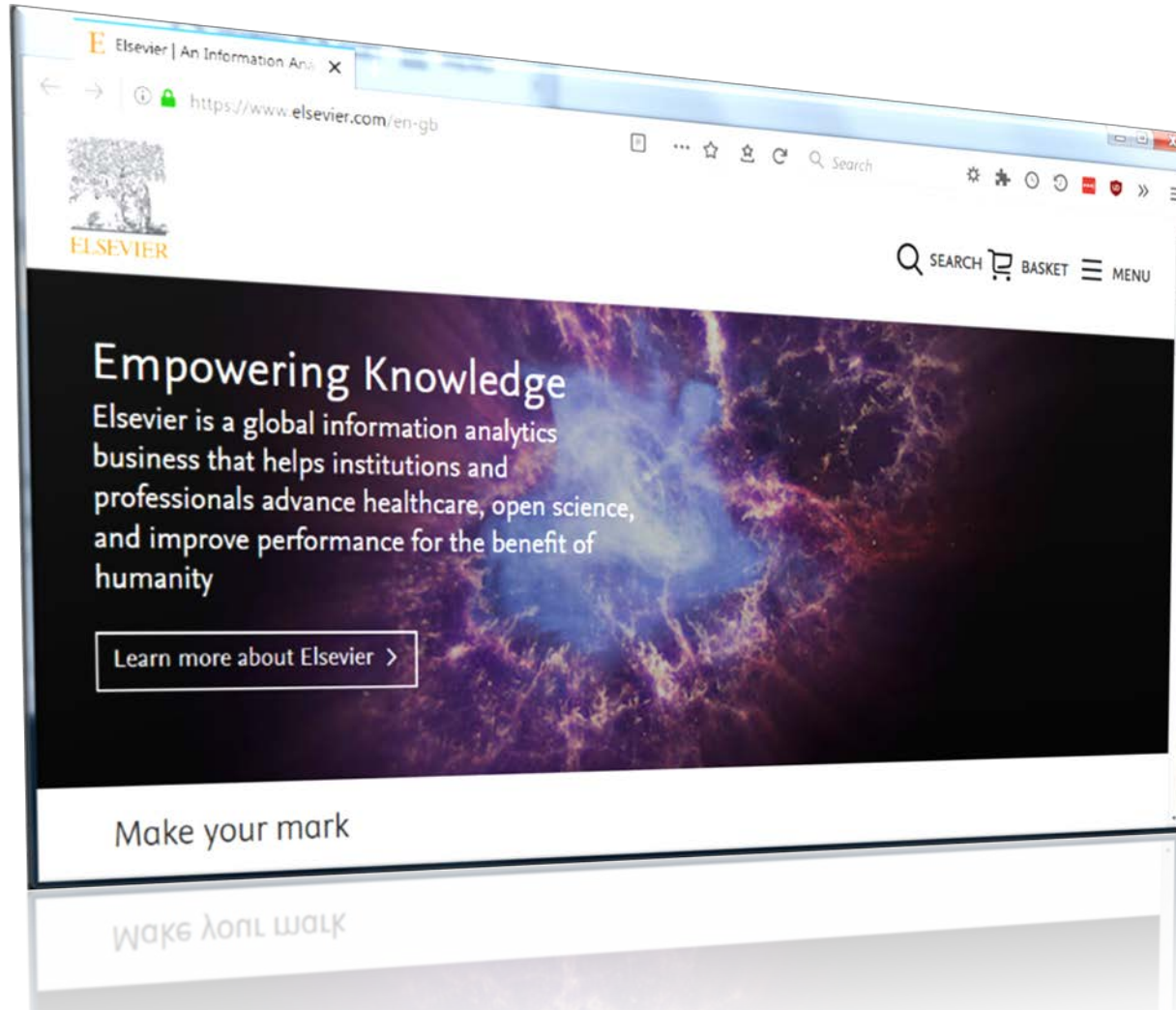
https://en.wikipedia.org/wiki/File:Card_puncher_-_NARA_-_513295.jpg

Algorithms will manage our content



https://commons.wikimedia.org/wiki/File:Motivator_HAL_9000_soory_dave.jpg CC BY 3.0

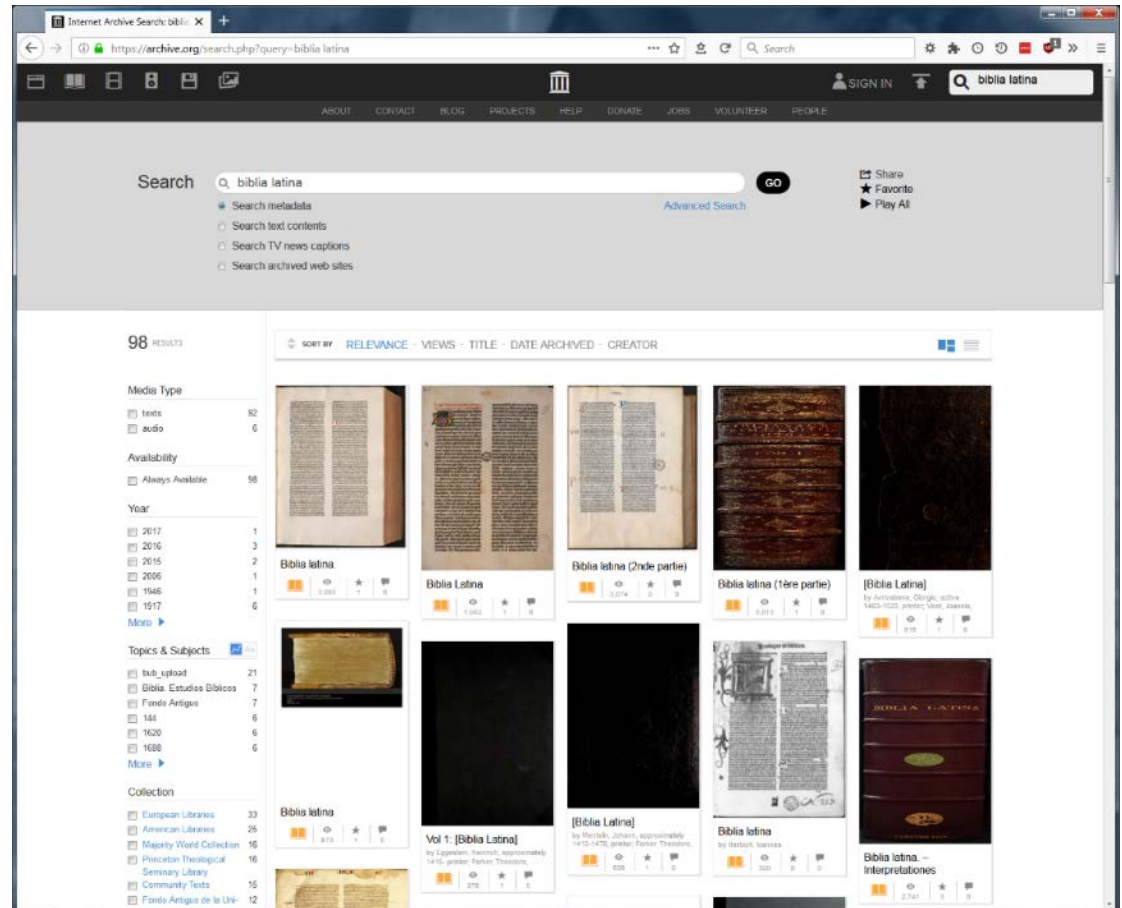
Big publishers reborn as data companies



Will user still come for special collections?



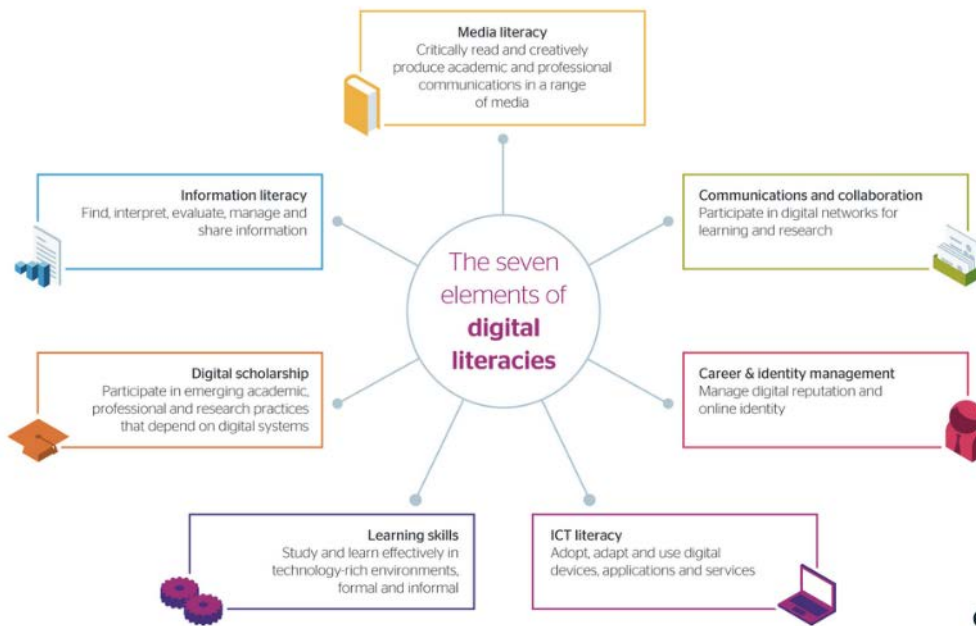
<https://www.bl.uk/collection-items/gutenberg>



Workspaces and communities



Information literacy, skills and inclusion



<https://citea.digitalinsite.co.uk/index.php/toolkit/analyse/>

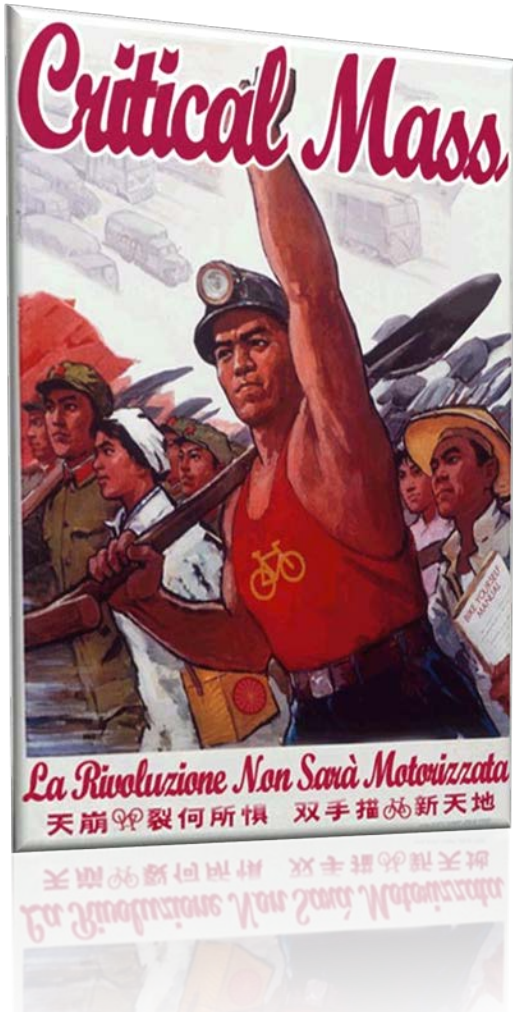


How might the “new paradigm” work out?

- 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