

Running since March 2013

# Building better 'GLAM Labs'

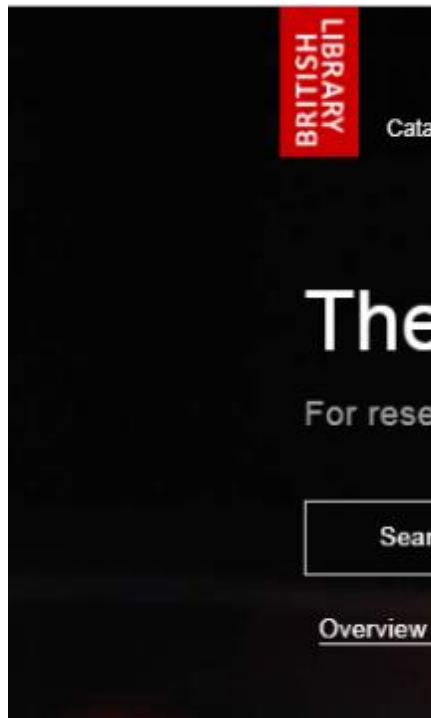
*Experiences and lessons learned from the British Library and around the world with Galleries, Libraries, Archives and Museums engaging with researchers, artists, educators and entrepreneurs who want to use digitised and born digital cultural heritage collections and data for innovative projects.*

Mahendra Mahey, Manager of British Library, British Library, London, UK.

Wednesday 27 February 2019, 1330 – 1500 (Keynote)

Talk given on behalf of the British Columbia Research Libraries Group, in the McPherson Library/Mearns Centre for Learning, Digital Scholarship Commons, Room A308, University of Victoria, Victoria, British Columbia, Canada

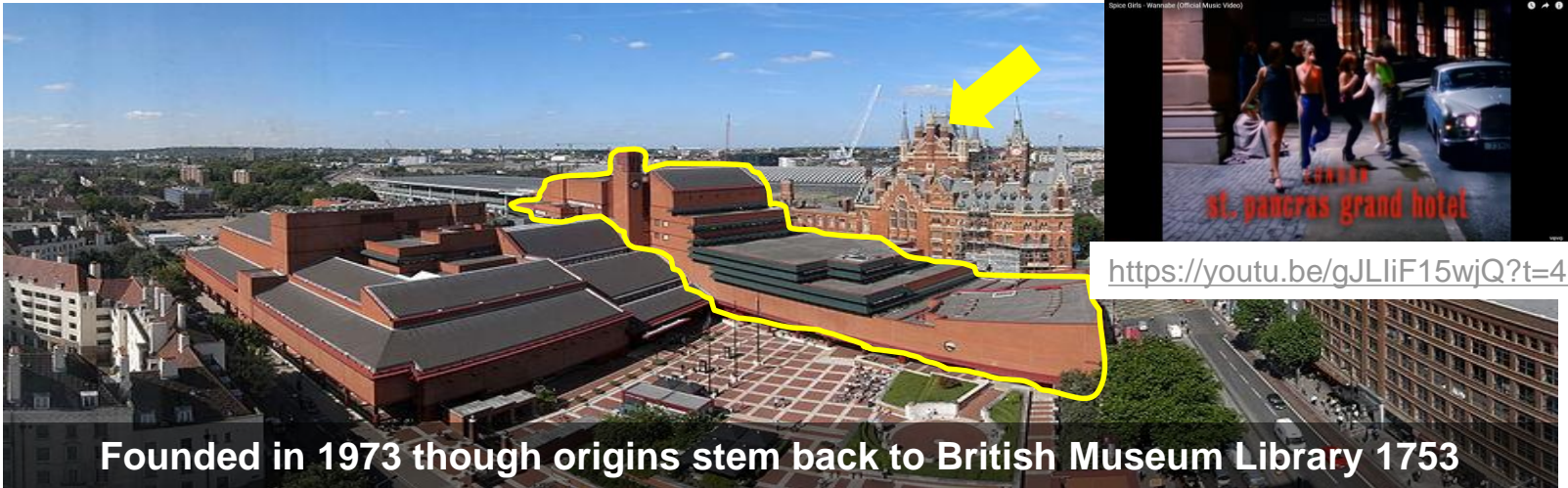
BRITISH LIBRARY



<http://bl.uk>

**For research, inspiration and enjoyment for everyone!**

# The British Library or 'BL'



Founded in 1973 though origins stem back to British Museum Library 1753

## St Pancras, London, UK

Many books are stored 4 stories below the building  
UK Legal Deposit Library – **Reference only**



## Inside the British Library

Space for 1200 readers, around 500,000 visitors per year



## Stockton-on-Tees

Author right to payment each time their books are borrowed from public libraries

Many items stored at Document Supply and Storage centre 48 hours away  
*Building 37 uses low oxygen and robots*  
*Reading room and delivery to London*



## Boston-Spa



Roly Keating (Chief Executive Officer of the British Library)

# Living Knowledge Vision (2015 – 2023)



## Custodianship

**Custodianship**  
We build, curate and preserve the UK's national collection of published, written and digital content



## Research

**Research**  
We support and stimulate research of all kinds



## Business

**Business**  
We help businesses to innovate and grow

To make our **intellectual heritage** accessible to **everyone**, for **research**, **inspiration** and **enjoyment** and be the most **open**, **creative** and **innovative** institution of its kind by 2023 (50 year anniversary).



## Culture

**Culture**  
We engage everyone with memorable cultural experiences



## Learning

**Learning**  
We inspire young people and learners of all ages



## International

**International**  
We work with partners around the world to advance knowledge and mutual understanding

Document: <http://goo.gl/h41wW7>

Speech: <https://goo.gl/Py9uHK>



# Collections – not just books!



*King's Library*

- > **180\*** million items
  - > **14\*** m books
  - > **60\*** m patents
  - > **8\*** m stamps
  - > **4\*** m maps
  - > **6\*** m sound recordings
  - > **1.6\*** m musical scores
  - > **0.3\*** m manuscripts
  - > **0.8\*** m serial *titles*
- \*Estimates*

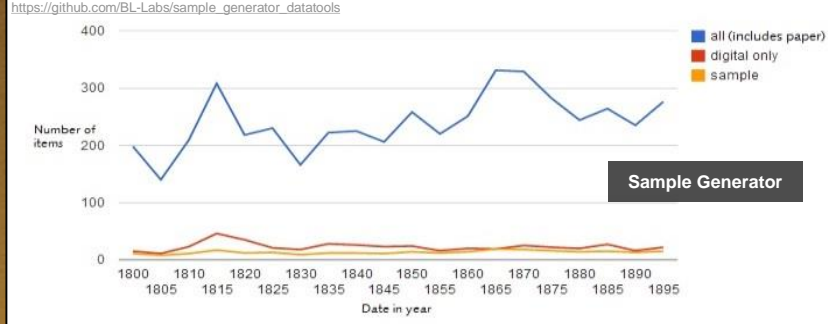
# Have you got X?

## Looking for Physical Content in the British Library



[https://upload.wikimedia.org/wikipedia/commons/5/50/Real\\_wuerzburg.jpg](https://upload.wikimedia.org/wikipedia/commons/5/50/Real_wuerzburg.jpg)

Digital



Bias in digitisation

Over 720 Digital collections  
 15%\* Openly Licensed – most online  
 35%\* Available onsite only at the moment

What percentage/proportion of our physical collections are digitised?  
 3%\* digitised

Digitisation / Curating Born Digital  
 costs more than the resource



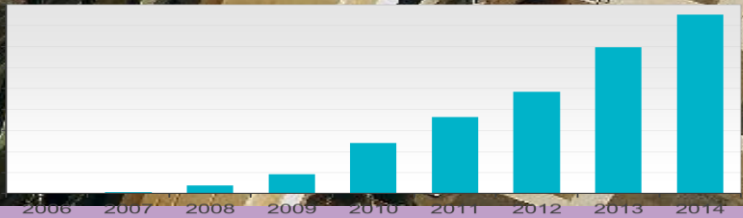
<http://www.turing.ac.uk>  
<https://www.turing.ac.uk/research/research-projects/living-machines>

Born Digital



<http://www.webarchive.org.uk/ukwa/>

Research driven digitisation  
 Heritage Made Digital



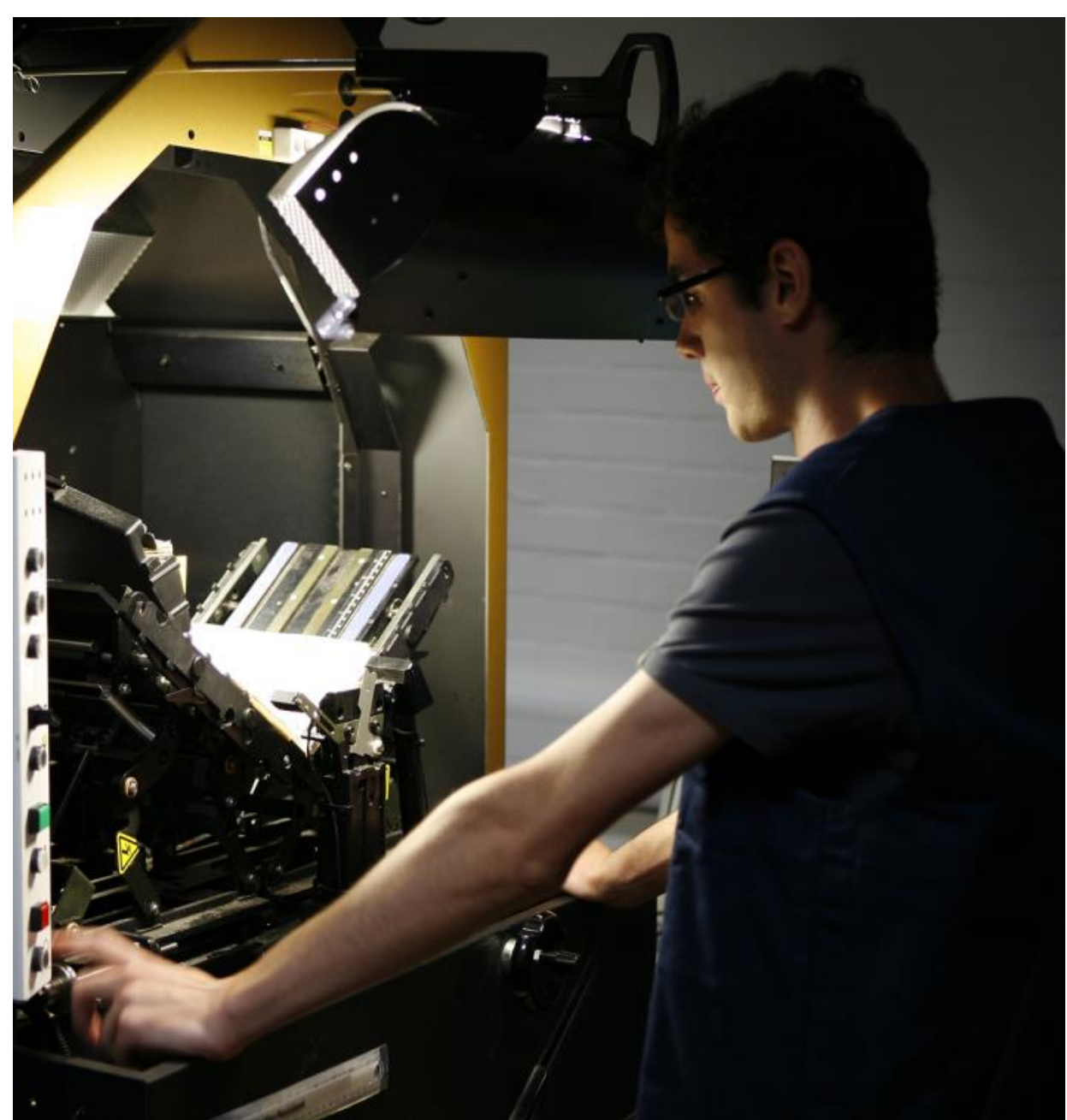
Partnerships  
 Commercial & Other  
 Organisations

\* estimate

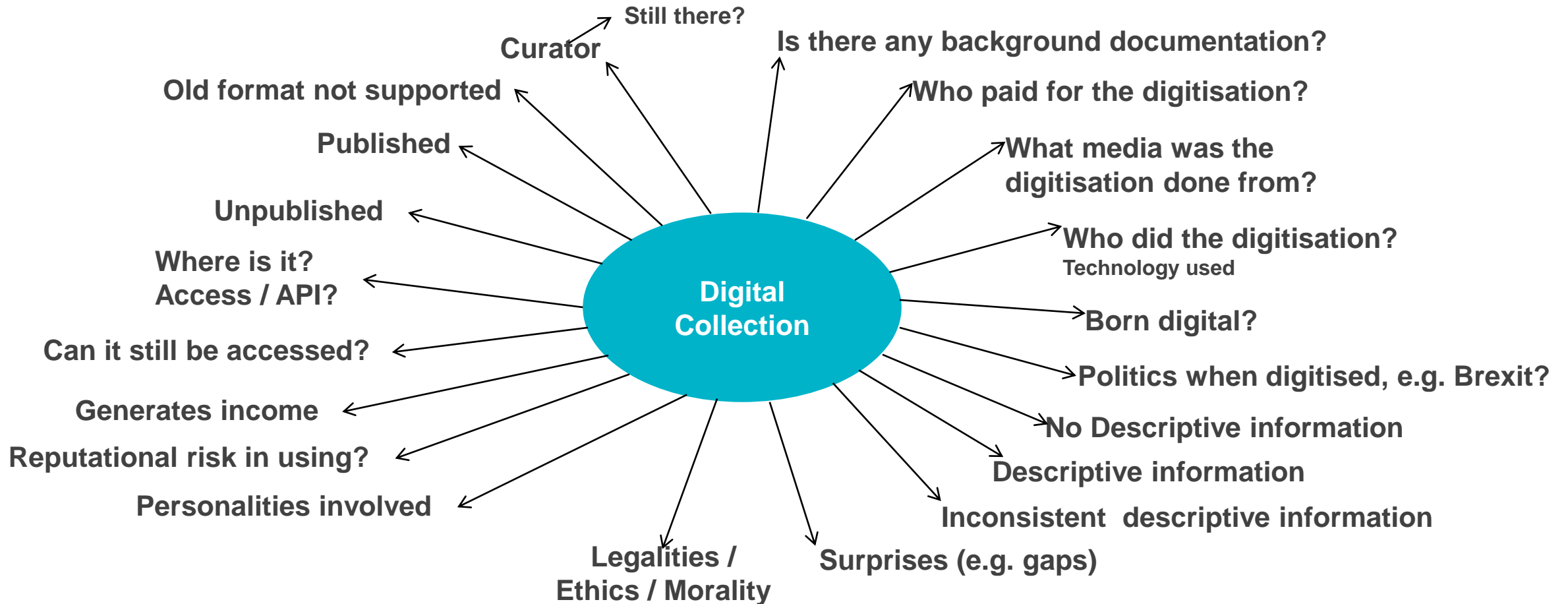


# Digital access and reuse

- All Libraries need a process for agreeing terms of access to content
- Many competing concerns
  - Re-use
  - Open research
  - Copyright
  - Licensing
  - Ethics
  - Revenue
- Large collection of books digitised by funding through Microsoft an early win for us in 2012 (More later about this collection)

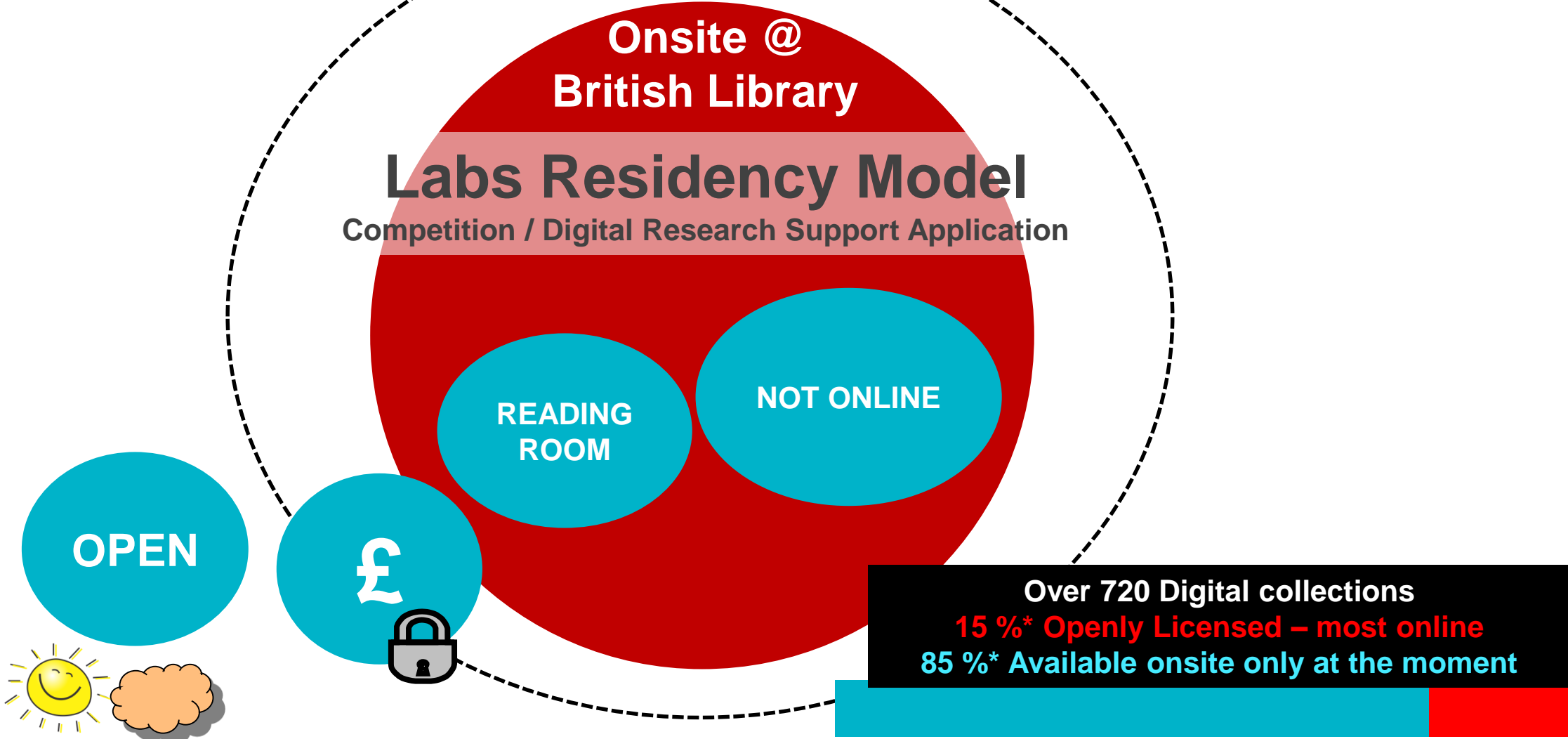


# The Story of the Digital Collection...



*Good to know the background 'story' of a Digital Collection  
if you want to use it for projects ...*

# Challenges of access to Digital Collections at the BL



# Have you got X?

## Looking for Physical Content in the British Library



[https://upload.wikimedia.org/wikipedia/commons/5/50/Real\\_wuerzburg.jpg](https://upload.wikimedia.org/wikipedia/commons/5/50/Real_wuerzburg.jpg)

# Have you got X digitised / in digital form?

## Looking for Digitised / Digital Content in the BL



<http://www.yorkmix.com/wp-content/uploads/2014/04/mr-simms-sweet-shoppe-york.jpg>

# Finding Open British Library Cultural Heritage Datasets

## Collection Guides (234 as of 27/02/2019)

<https://www.bl.uk/collection-guides/>

## Datasets about our collections

Bibliographic datasets relating to our published and archival holdings

## Datasets for content mining

Content suitable for use in text and data mining research

## Datasets for image analysis

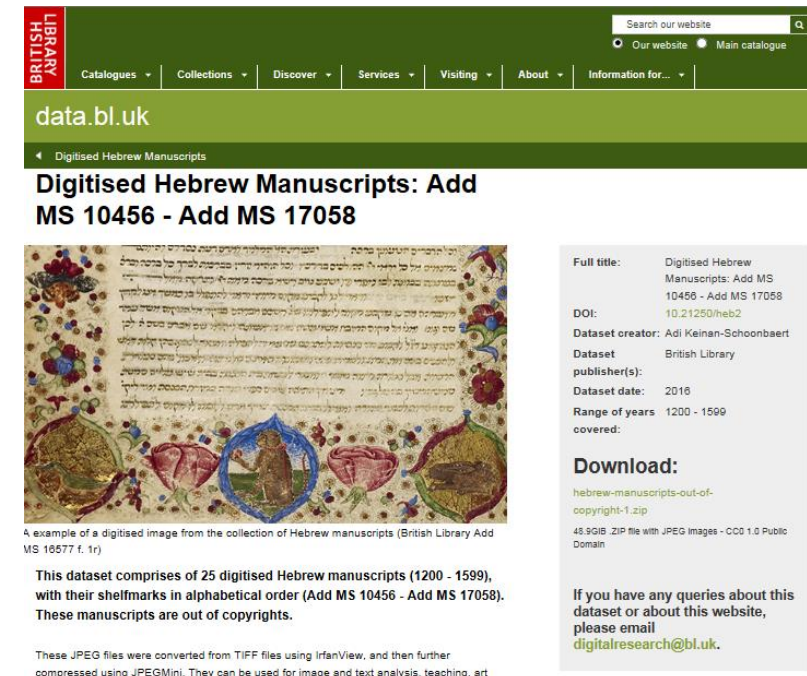
Image collections suitable for large-scale image-analysis-based research

## Datasets from UK Web Archive

Data and API services available for accessing UK Web Archive

## Digital mapping


Geospatial data, cartographic applications, digital aerial photography and scanned historic map materials



data.bl.uk

← Digitised Hebrew Manuscripts

**Digitised Hebrew Manuscripts: Add MS 10456 - Add MS 17058**



A example of a digitised image from the collection of Hebrew manuscripts (British Library Add MS 10577 f. 1r)

**Full title:** Digitised Hebrew Manuscripts: Add MS 10456 - Add MS 17058  
**DOI:** 10.21203/heb2  
**Dataset creator:** Adi Keinan-Schoonbaert  
**Dataset publisher(s):** British Library  
**Dataset date:** 2018  
**Range of years covered:** 1200 - 1599

**Download:**  
[hebrew-manuscripts-out-of-copyright-1.zip](#)  
 45.5GiB ZIP file with JPEG Images - CC0 1.0 Public Domain

If you have any queries about this dataset or about this website, please email [digitalresearch@bl.uk](mailto:digitalresearch@bl.uk).

This dataset comprises of 25 digitised Hebrew manuscripts (1200 - 1599), with their shelfmarks in alphabetical order (Add MS 10456 - Add MS 17058). These manuscripts are out of copyrights.

These JPEG files were converted from TIFF files using IrfanView, and then further compressed using JPEGMini. They can be used for image and text analysis, teaching, art

# <https://data.bl.uk>

**Download collections as zips, no API**  
**Each dataset has a Digital Object Identifier (DOI)**  
**can be referenced for research**  
**Over 120 datasets available**

# British Library Digital collections & Datasets



<http://goo.gl/cwThHw>

Broadcast News (TV and Radio)



<http://dml.city.ac.uk/>



<http://goo.gl/frSMJt>



<http://sounds.bl.uk>

Music (Recordings & Sheet) & Sounds



<http://goo.gl/E8aRyQ>

<http://goo.gl/pBkisZ>

Playbills, Books, Newspapers (includes OCR)



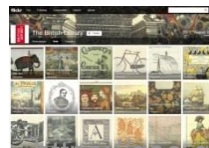
<http://www.qdl.qa/>  
Qatar Digital Library



<http://idp.bl.uk/>  
International Dunhuang Project



<http://goo.gl/4sbCp9>  
Hebrew Manuscripts

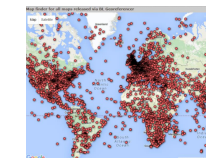


Flickr & Wikimedia Commons



<https://goo.gl/LZRmaz>

Images, Manuscripts & Maps



<http://www.bl.uk/maps/>  
Maps



Usage data



<http://bnb.data.bl.uk>  
British National Bibliography

<https://goo.gl/tVwqHF>

# What engagement does the BL have with people wanting use our digital content? #bldigital

- Dialogue typically:
  - ‘You are in luck’, we have what you are looking for!
  - ‘You are in not luck’ but we have this instead...
  - Engagement **is** constantly required to maintain interest in our digital collections. **No engagement no Lab!**



<https://goo.gl/qpCLlk>

- Tend to attract projects with ‘fuzzier’ boundaries
- Labs is open to more flexible, interdisciplinary / collaborative research
- Artists / Creatives often find engagement with our digital collections easier than scholars who often want a specific thing...



<https://goo.gl/wMTS3Z>

<https://goo.gl/tVwqHF>

# The British Library's Digital Scholarship team

Our mission is to enable the use of the British Library's digital collections for research, inspiration, creativity, and enjoyment.

Digital Research  
Team

BL  
Labs

Living with  
Machines

Connect and  
share

Invest in our  
staff

Support digital  
scholars

Agents for  
change

Innovate and  
collaborate

# How do we think about Digital Scholarship?

"Digital scholarship allows research areas to be investigated in new ways, using new tools, leading to new discoveries and analysis to generate new understanding."

*Dr Adam Farquhar  
Head of Digital Scholarship  
British Library*

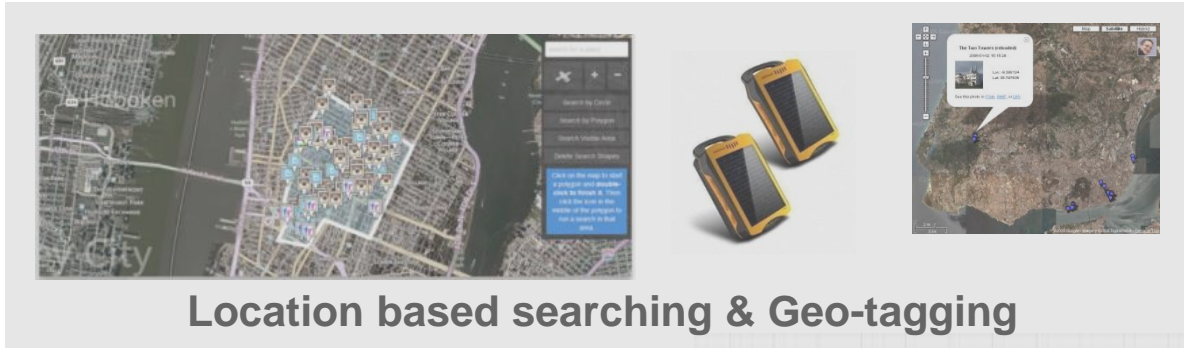
Combines methodologies from the humanities & social science disciplines with computational tools provided by computing disciplines

Scale

Perspective

Speed

# Digital Scholarship methods



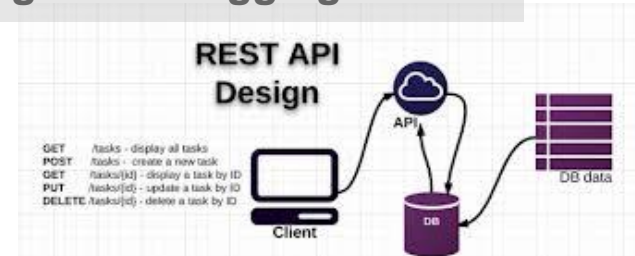
Location based searching & Geo-tagging



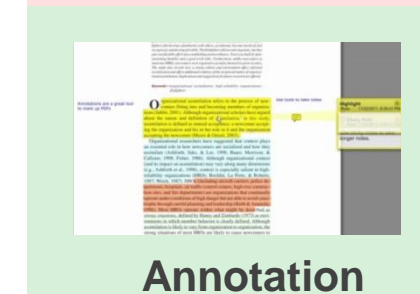
Crowdsourcing Human Computation



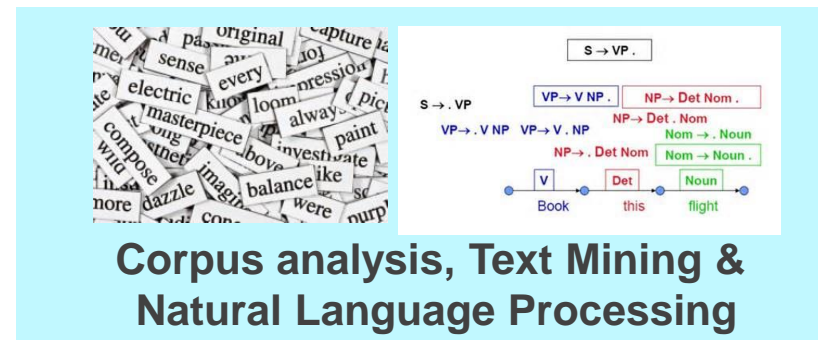
Visualisations



Using Application Programming Interfaces for datasets e.g. Metadata, Images



Annotation



Corpus analysis, Text Mining & Natural Language Processing



Transcribing

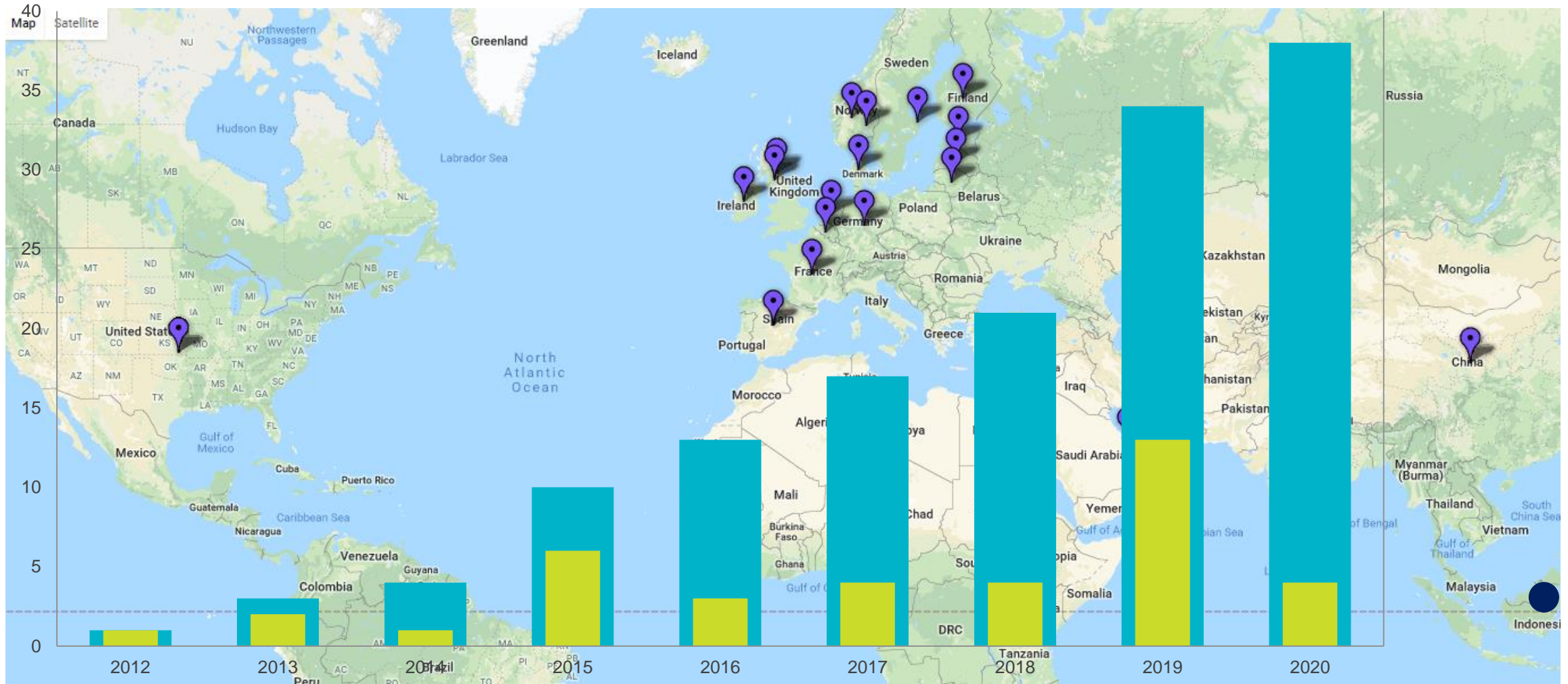
# Library Labs

– a space to experiment and innovate on-site and on-line

- Expert support and advice
- Essential equipment (software, hardware, storage, network)
- Essential ingredients (data, text, images)
- The ability to create, validate, capture, record, reproduce, archive, and share results
- Community, tutorials, examples
- Integrated into reference and research workflows

# Growing GLAM Labs community...50 and counting...

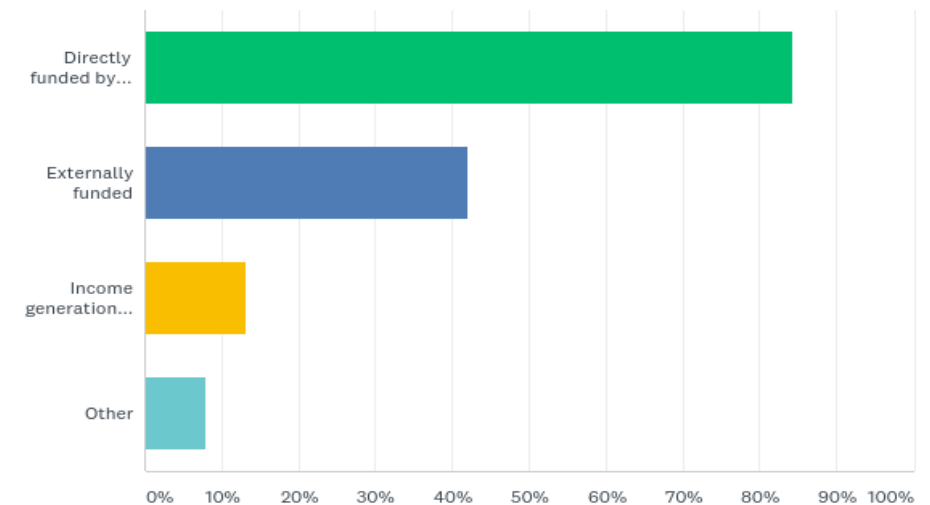
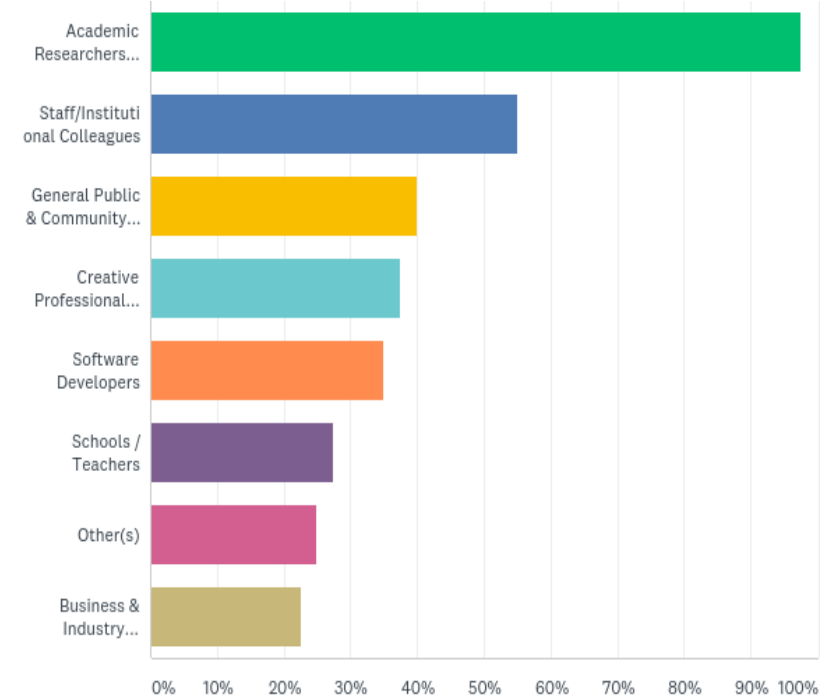
## Survey carried in in Sep 2018



# Differences in GLAM Labs Horses for Courses

- Variation in
  - Target users
  - Funding sources
  - Security models
- Surprises
  - Many do not facilitate access to restricted collections
  - Many do not provide dedicated physical space
  - Or simultaneous access to digital and physical

Get data here: <https://goo.gl/66icov> (you need a google account, you can get one here: <https://goo.gl/CGdUhY>)



# Possible challenges GLAM Labs address

- Money spent on digitising / capturing digital – return on investment, how is it being used and what value and impact it is having, especially when opening collections for all.
- What digital collections are there that can be used openly and onsite and how do we tell people?
- How do we explore the ‘feel’ / ‘shape’ of collections at scale?
- How do we find, explore, augment discovery in often ‘messy’ cultural heritage data without public APIs?
- How do we discover, celebrate old culture & remix to create new culture?

# Why are we doing this? (1)

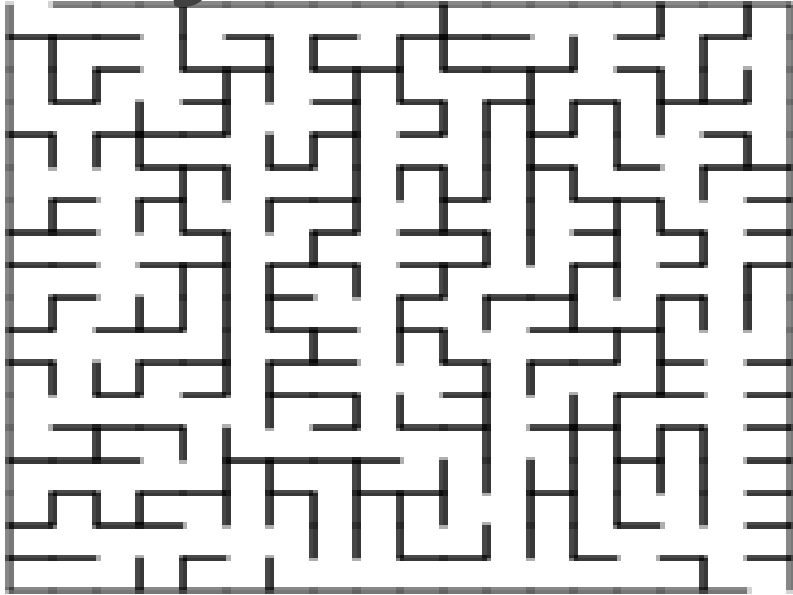


<https://goo.gl/esqpRb>

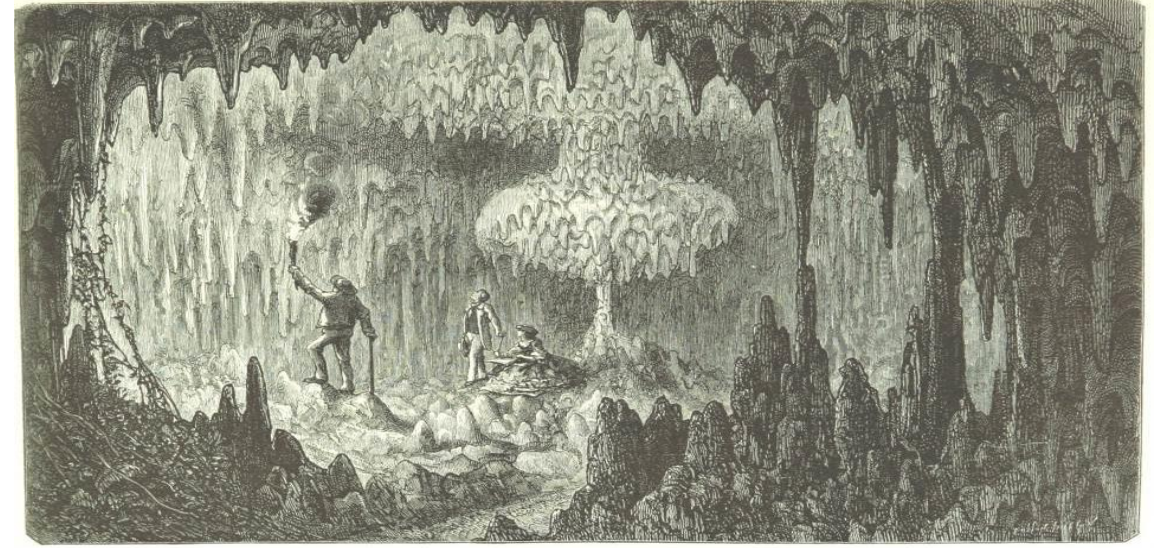
We can learn how we **are** and **should** be supporting our users and this therefore shapes the services we build and problems and projects we work on, such as:

- Access, discovery to digital collections / data?
- Advice, guidance, technical support, training
- Services, Tools and Processes?
- Many more reasons...but learning where the gaps are

# Why are we doing this? (2)



<https://goo.gl/62JnQT>



STALACTITE CAVE NEAR JAGUARA.

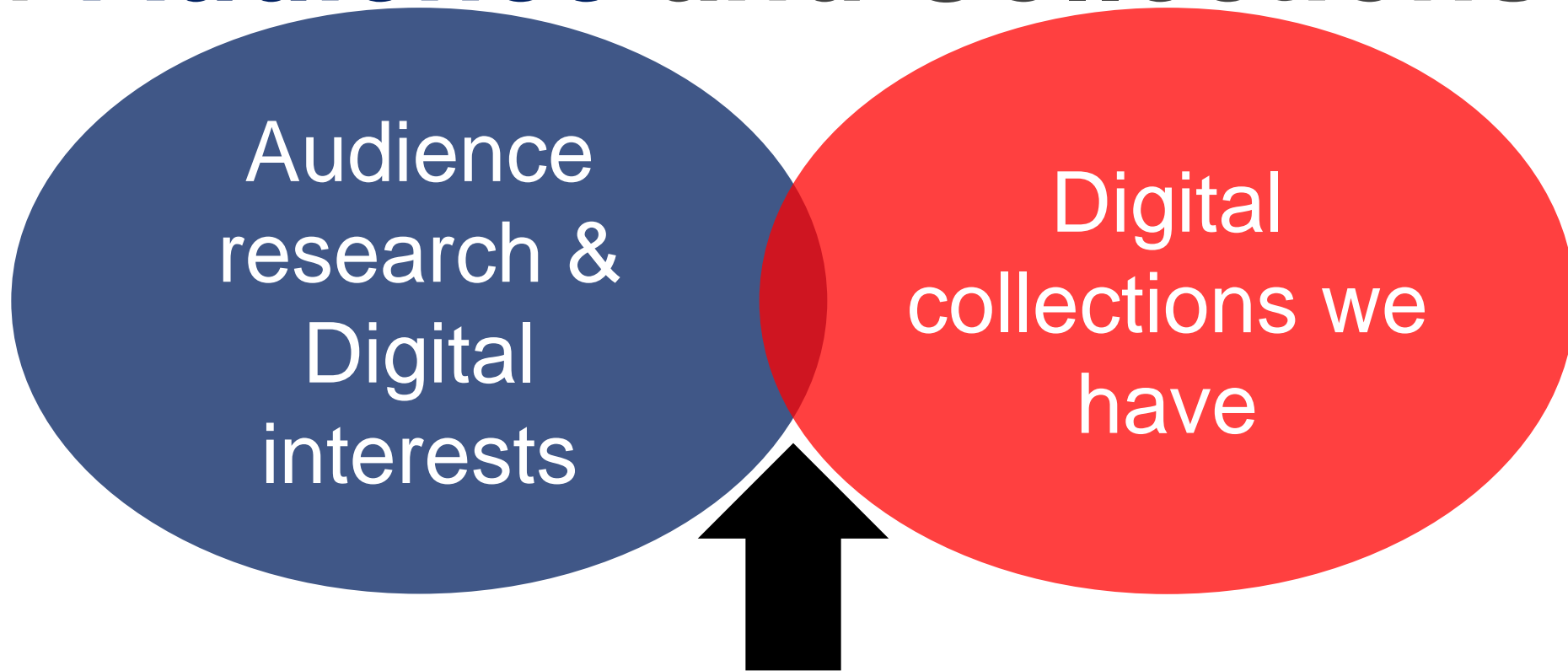
We help people **'navigate'** their way through the 'maze' (sometimes) of the Library to what they want to do...

Requires understanding the culture of the organisation

Researchers often need a translator/advocate for successful projects.

Learn to wear the spectacles of the organisation, read their vision/strategy documents!

# Our Audience and Collections



This is where Labs works

**It starts with making connections, engagement, talking to people!  
All Labs need to do this!**

# Who do we work with? Surprises of serendipity and creating luck ?



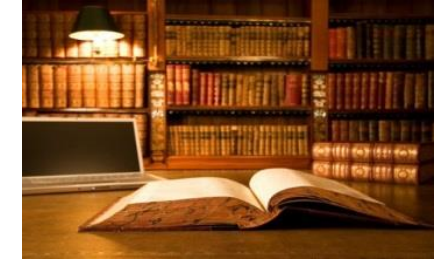
<https://goo.gl/WutNyi>

**Researchers**



<http://goo.gl/nNKhQ2>

**Artists**



<https://goo.gl/9NWZUW>

**Librarians  
Curators**



**Working and Communicating**



<https://goo.gl/7QQ5Tf>

**Software Developers**



<https://goo.gl/x7b4tg>

**Archivists**



<https://goo.gl/Fx8RG7>

**Entrepreneurs**



<https://goo.gl/qh01Mi>

**Educators**

# How?

New!

## Digital Research Support

Tell us your **ideas** of what to do with our digital content

### Engagement

- Roadshows
- Events
- Meetings
- Conversations

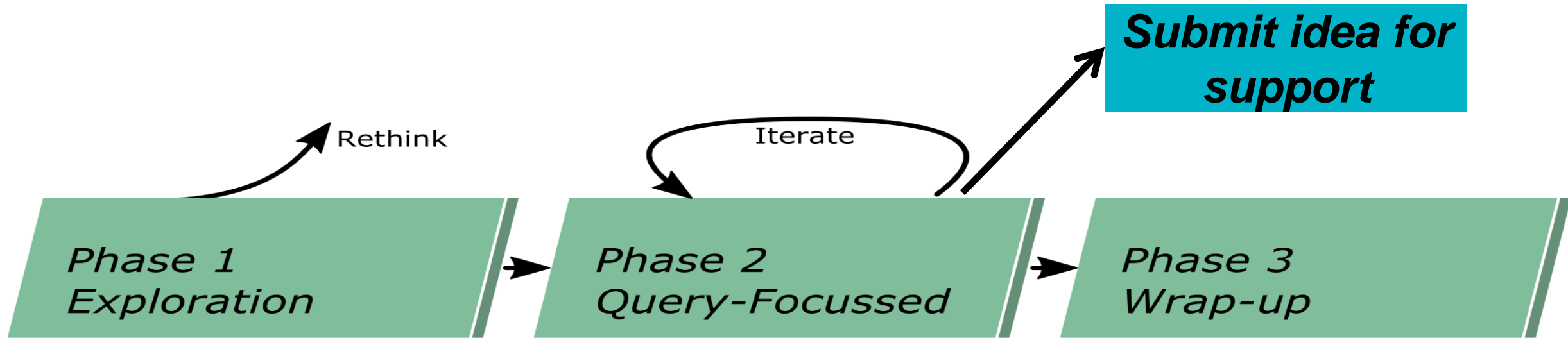
## Awards

Show us what you have **already done** with our digital content in research, artistic, commercial, learning and teaching, staff categories

## Projects

Talk to us about working on **collaborative** projects

# Phases of interaction at BL Labs



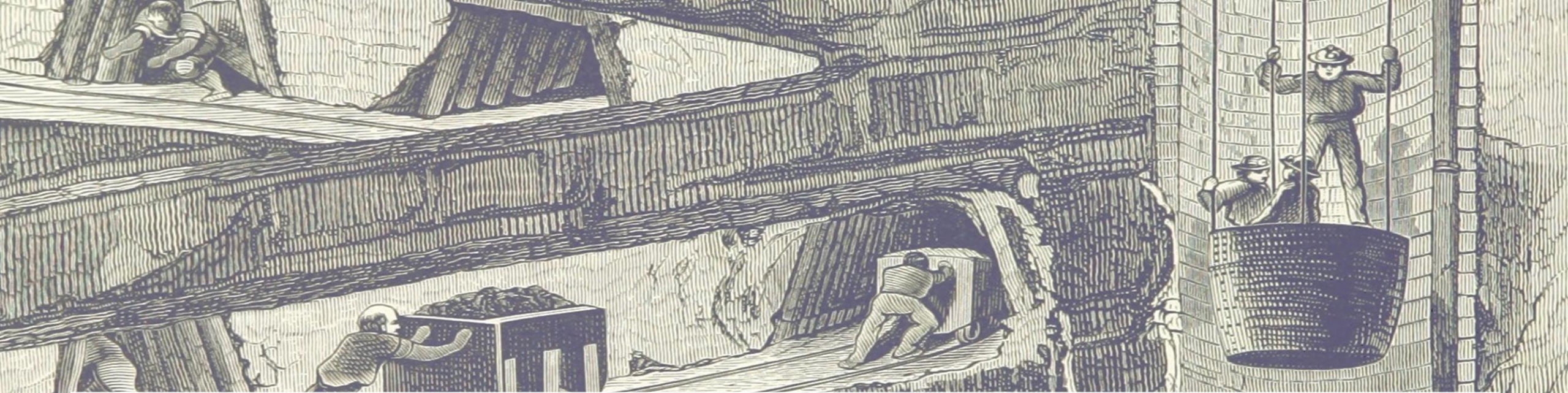
Ideas always change  
Once people experience the data  
and culture of the organisation

# Labs Engagement 2013 - current



- **Over 100** institutions visited
- **Over 70,000** miles travelled around UK, USA, Canada, Australia, Europe, Middle East and Asia!
- **100s** presentations & **over 100** workshops
- **1500** researchers / artists / entrepreneurs / educators / public
- **Over 1000** expressions of interest to use collections
- **150** researchers, artists, entrepreneurs & educators supported  
= potential case studies
- **200 TB** of data via post
- **9 TB** of data on data.bl.uk
- **Over a billion** views through Labs projects





**Hard work, no magic formula!**



# A dozen BL Labs Lessons!



<https://www.flickr.com/photos/26765085@N08/3365589331>

# Early 'BL Labs' lessons 1



<https://www.theodysseyonline.com/one-size-does-not-fit-most>

# Early 'BL Labs' lessons 2

**Engagement starts with people not technology!**

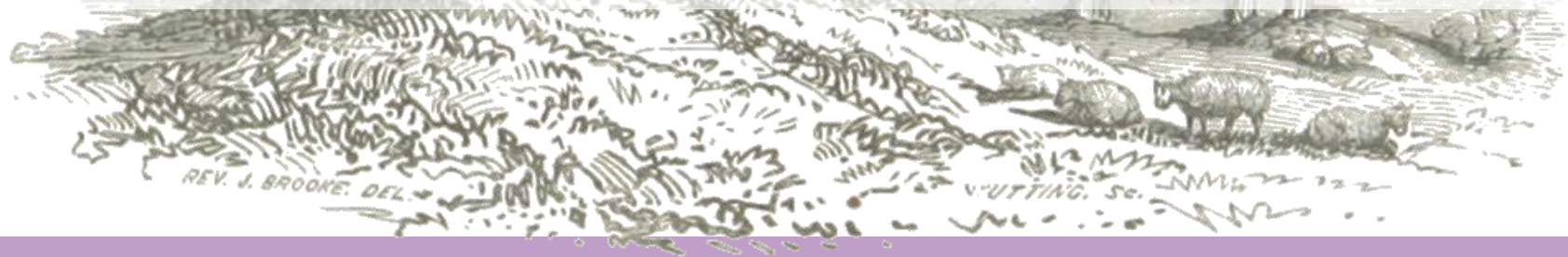
**Start a conversation, generate positive energy, encourage fun/play/experimentation and try to support as many ideas as is humanly possible, be kind, nice, want to share and genuinely want to help people!**



# Early 'BL Labs' lessons 3

## Run Competitions

**Good way to kick start engagement. Spread risk by having more than one finalist. Ensure entrants own their own IP, but all ideas are published. Good way to generate ideas for use.**



# Early 'BL Labs' lessons 4



**Start small but think big!**

**Start with small experiments, digital use can be really simple,  
but OK to think big!**

REV. J. BROOKE. DEL.

WUTTING. SC.

# Early 'BL Labs' lessons 5

**Keep it open, simple and don't overcomplicate**



# Early 'BL Labs' lessons 6

**Policies and processes for digital re-use are critical**



# Early 'BL Labs' lessons 7

**Be brave! Fail fast!**



# Early 'BL Labs' lessons 8

**Reject perfectionism, enemy of rapid progress!**  
**Good enough is sometimes...good enough!**  
(This can be difficult message for Libraries...metadata will never be perfect!)



# Early 'BL Labs' lessons 9

**Services that allow *useful* exploration of cultural heritage data are rare!**

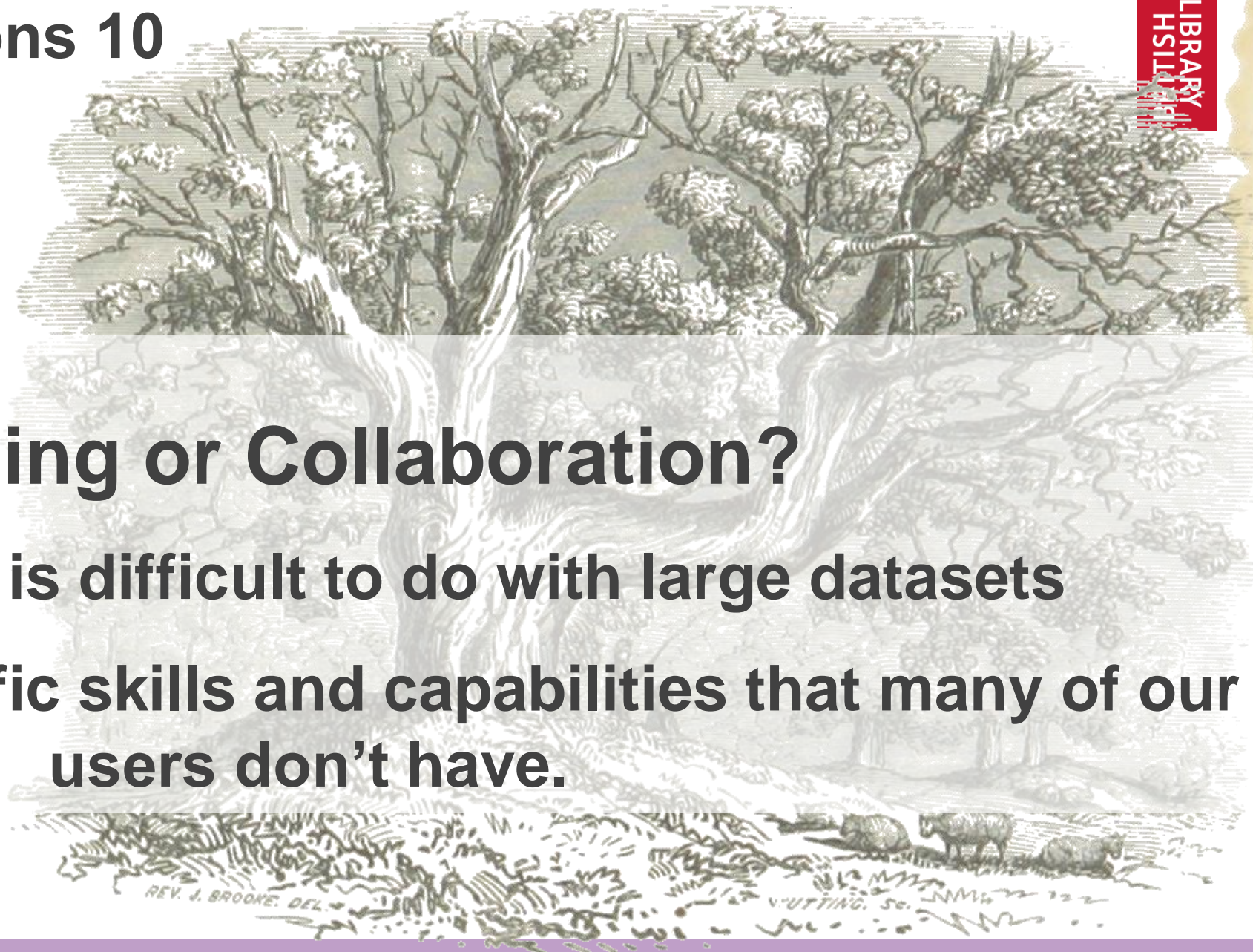


# Early 'BL Labs' lessons 10

## Training or Collaboration?

Exploring data is difficult to do with large datasets

Often requires specific skills and capabilities that many of our users don't have.



# Early 'BL Labs' lessons 11

**Celebrate the uses of digital collections!**

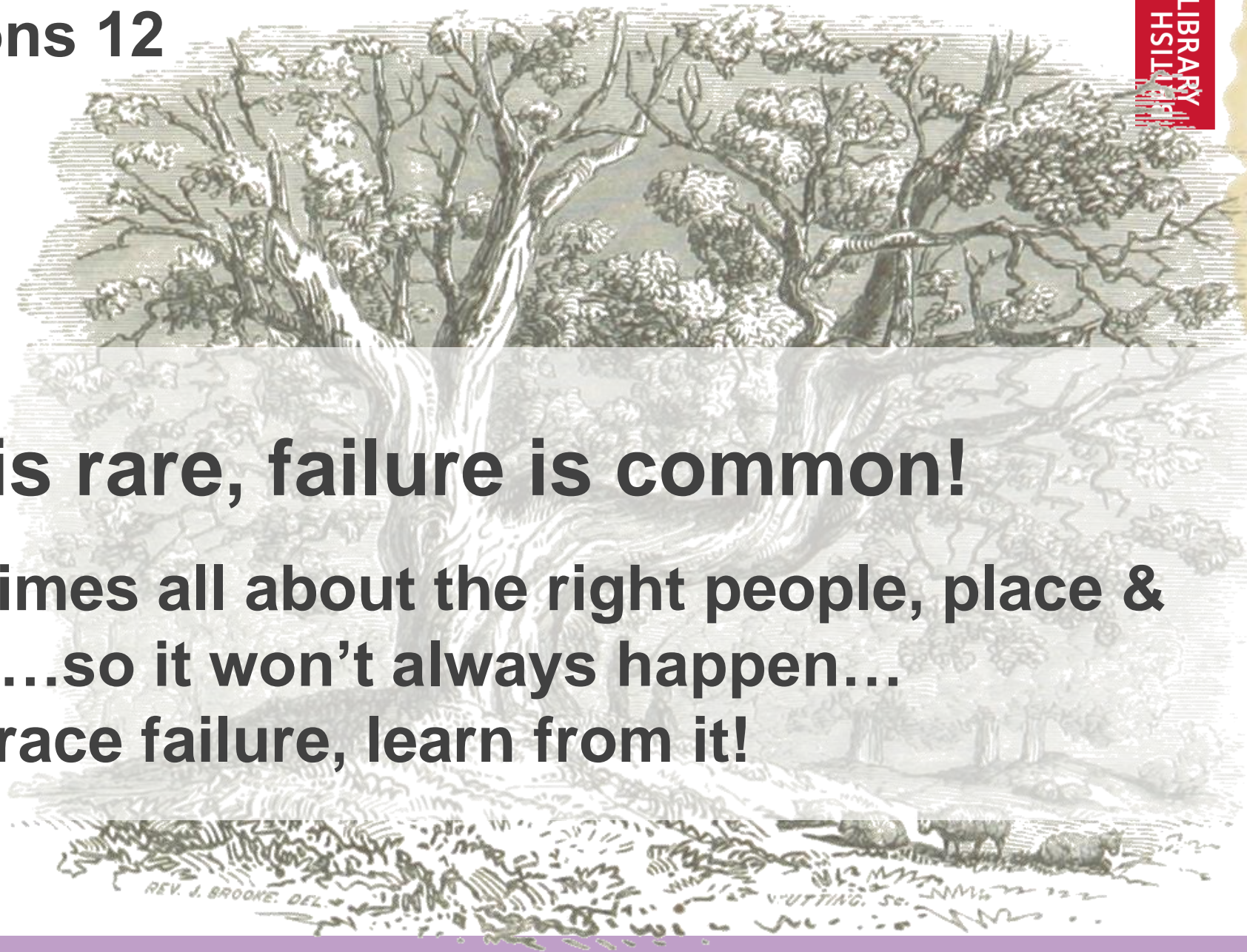
**Run Awards for those already using your digital materials,  
great way to find who is doing what with your digital content.**



# Early 'BL Labs' lessons 12

**Success is rare, failure is common!**

**Success is sometimes all about the right people, place & right time...so it won't always happen...  
embrace failure, learn from it!**



# Example of useful pattern of research for GLAM Labs

- Finding invisible / well hidden things in 'messy' historical data
- Unearthing / unlocking hidden histories & data to stimulate *new* research
- Celebrating hidden histories / data creatively through events, art & performance



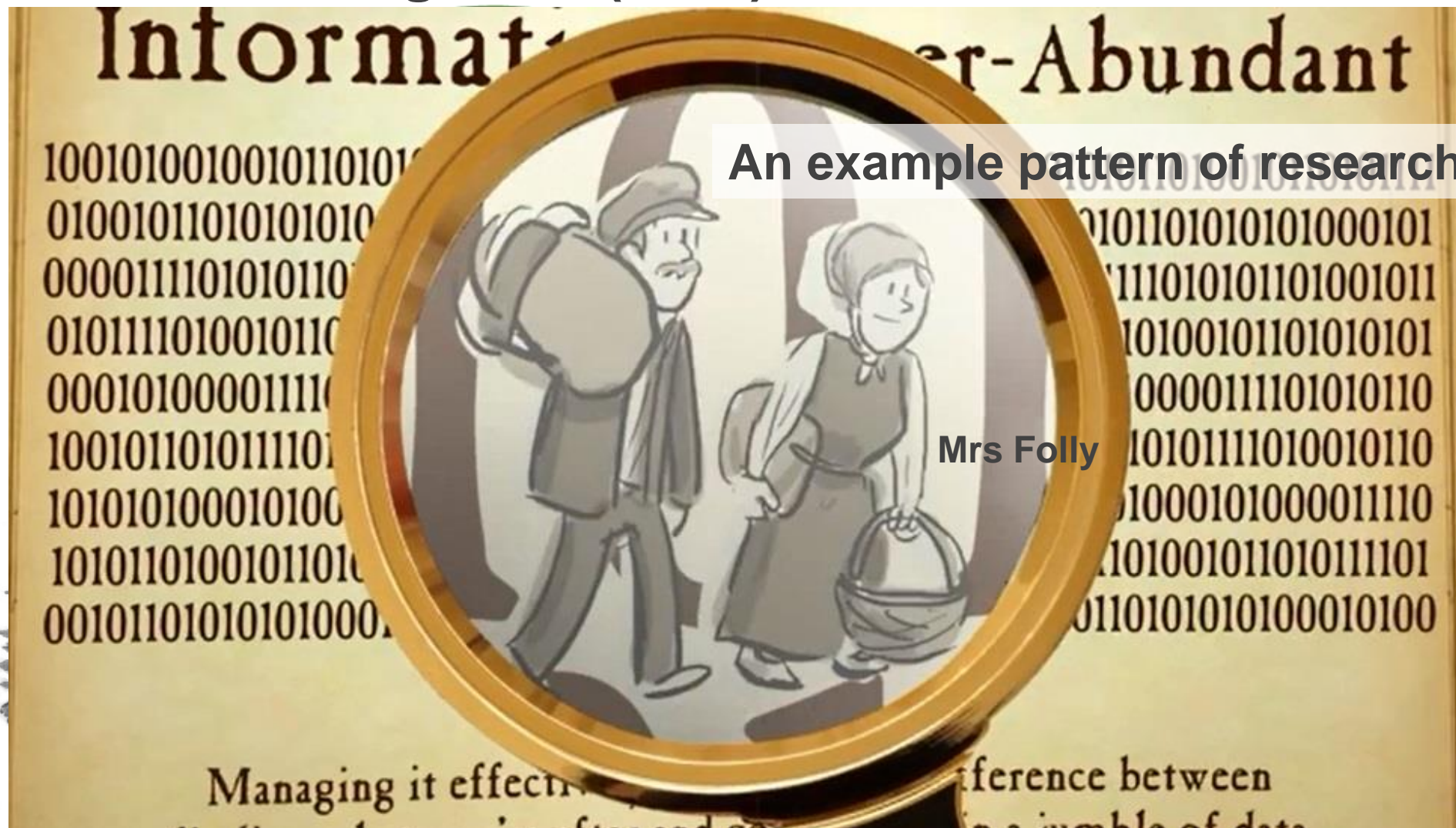
<https://goo.gl/mcpa8B>

<https://goo.gl/vJ291F>



<https://goo.gl/Ql0Bwz>

# Finding things in 'messy' Optical Character Recognised (OCR) text



An example pattern of research

Mrs Folly

Managing it effecti  
ference between

# Code: Machine Learning / Reading

- Labs sometimes use Machine Learning / Reading techniques often called AI
- Analogies to how humans read / learn
- Machines acquire 'knowledge' / data, use that knowledge / data to make sense / identify patterns
- Labs doing this on a case by case basis so methods can vary but need computational **AND** human effort
- Legalities of Text and Data mining being 'ironed' out with publishers, on-going... Often a misunderstood ...AI for good not evil?
- Perhaps we need a metaphor from history...



<https://goo.gl/gXmVQL>



<https://goo.gl/gDQEAz>



<https://goo.gl/k68fTf>



# Smell of soup & Machine Learning

## Who pays?



<http://web2.uvcs.uvic.ca/elc/studyzone/330/reading/smell1.htm>



<https://goo.gl/toq4Bo>

Nasreddin, 13<sup>th</sup> Century Turkish Sufi

Thanks to Memo Akten (@memotv on twitter) for the inspiration!

# Victorian Meme Machine (2014)

Ethel, I am ashamed of you!  
I saw that Frenchman in the conservatory kissing you repeatedly.  
Why didn't you tell him to stop?"

THE CRAFTY CHANDLER

Bob Nicholson interviewed on BBC Radio 4 Making History Programme:  
<http://goo.gl/fmV9ep>

And telling jokes to the public:  
<http://goo.gl/xlDRhz>

Bob obtained further funding from his university  
Looking for more collaborations

**WE ARE NOT AMUSED**  
AN EVENING OF VICTORIAN HUMOUR

Iszi Lawrence and Dr Bob Nicholson challenge two teams of comedians to find the funny side of Victorian history.

HISTORY'S MOST GROAN-WORTHY PUNS.

CHOICE SAMPLES OF VICTORIAN SLANG.

A VICTORIAN GUIDE TO FINDING LOVE

INGENIOUS INVENTIONS

7 November 2016, 7.9pm. £18 (Full price) £8 (Concessions)

Bob Mills, Zoe Lyons, Carrie Quinlan, Steve Cross, Iszi Lawrence, Bob Nicholson

**Victorian Comedy Night, 7 Nov 2016**

I couldn't

Why not?

I can

Rob Walker, Victorian Mother-in-law Jokes

<https://www.youtube.com/watch?v=-GRgj7Q5OM0>

Learnt about access paths to digital collections



# Victorian Meme Machine (2014)



<https://www.youtube.com/watch?v=-GRgj7Q5OM0>

Rob Walker, Victorian Mother-in-law Jokes

# Katrina Navickas (2015) Political Meetings Mapper

London Chartist venues on Booth's map

Shepherdess Walk

Golden Arms, Golden-place, Old Bethnal-green-roe

Queen's Head

Windmill, Whitechape

**“I was able to do in minutes with a python code what I'd spent the last ten years trying to do by hand!”**

**- Dr. Katrina Navickas, BL Labs Winner 2015**

Chartist Meetings.

CASHIER delegate meeting will day, in the Association Room, Chester, at ten o'clock in the

Holton on g in the

ing on Tues- day, the 9th; the 10th. At

up meeting of the Goldwick, Carlton, the neighbouring

alled P

lock in

AND LEEDS GENERAL ADVERTISER.

L. IV. NO. 2057

SATURDAY, OCTOBER 16, 1841.

sharply be done. (Cheers.) If this

old movement that college-bred lecturers

erred, man who, knowing what perso-

nger their and with discretion,

at that

and y

Julian Harney, in

ords—laughter—for he

Julian Harney was not

as oppressed people

tion. (Cheers.)

the Chartist and every Thackeray, in

year plan, to read another; that the

There are three men in France, another

men; and that the British

press are told, will work

ed, in spite of which

concerns. I am sure

Dr. Robert

Chartists Walking Tour and Re-enactment London

**Learnt that domain knowledge reduces noise**

# Bringing History to Life to engage a wider audience!



[https://youtu.be/0lx0CL\\_dsQs?t=132](https://youtu.be/0lx0CL_dsQs?t=132)

<https://goo.gl/tVwqHF>

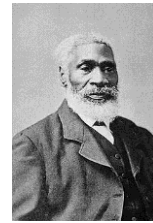
# Black Abolitionist Performances & their Presence in Britain (2016) – Hannah-Rose Murray



Frederick Douglass



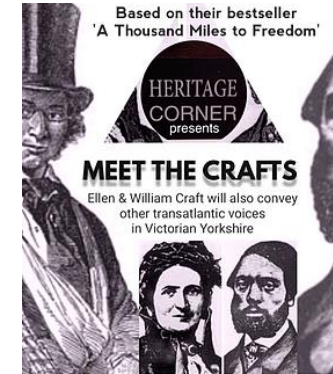
Ellen Craft



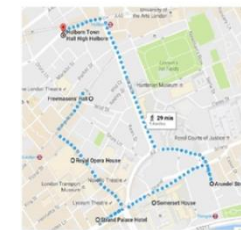
Josiah Henson



Ida B Wells

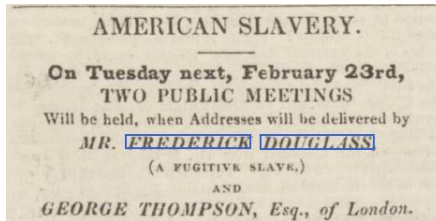


Joe Williams & Martelle Edinborough



Walking Tour Route

<http://frederickdouglassinbritain.com/>



- Mi.. nister to the United. States ;with the largest. iall ever des- patched. The -total nujber, of letters, and newspapers is about 10 ,800l contained in 156 bags, and 13 ion boxes. 1- 1vUBP001., Tuesday. The screw steam ship Sarah Sands; Captain Thompson, sailed to- day for New York with 170 pas- senger, a full cargo, and £20,000 in specie. The manner in which this noble shin steamed out-of the Mer sey excited ge moral admiration. We understand that some miralty offl- cers accompanied her for a short distance for the purpose of in specting her machinery. iFRE ERIC. DOUGLASS, THE EMANCIPATED SLAVE, AND THE " CUNARD'S LI' COMPANY--On the 4th sit., Mr Frederick D ouglass, whose natural eloquence, modest bear- ing, high character, and amiable 'disposition' have Ivon shin " troops of friends" in t his country, paid-the London agent off Cunard's line of steamers for his fare to Boston by: the Can... bria steamer, there being but one fare (48s 1s.), and received a ticket entitling him to berth No: 72, onboard that steamer. On going on board the Cambria with hi s luggage, the other day, he found that htsberth had been given to another pas- senger; and on asking an explanation from the Liveipool agent, Mr M' ver, be, was told (as Mr Douglass states in a letter) that the London agent, in selling him the ticket, had acted witho ut authority, and that he should not go on board the ship unless he agreed to take his meals alone, and not to mix with the saloon com any; and give up the berth for which he had paid. Mr D. adds- I have travelled in 'this country nineteen months, and have always enjo yed equal rights and privileges with other passengers, and it wasnot until I turned my face towards America that I met with anything l

Aberdeen Journal, 14 April 1847

"Frederick Douglass, The Emancipated Slave"

ed on, the 12th, Aurult; froial' e Head- 21dt- September-; Cape; of Good Hope 4t ovenihr; and' from 'Plymouth' 110th January. She 'wi it wasnot demed' advisable to m ate temp' takn- 'he hrbou. CatoirRow pring tides, 'c and, n-arriviag n Friday, t w s foud she hadobun. a Fu 'fugitive slaves,William 'Wells Brown, Win. 'Crafts, and-his1 wife, eben so favourably notice-d by thi- pres inthe outand; wetofScotla e, det-iling tthe circum- stances of hispresenteat efrt toet' cape' iada.' Of 'this very in terestign'rtiviliie, thousands 'of 'copies l ashis publi- 116 ape arances, 'helhas become 'well knowl in both c

Started to implement Machine Learning Techniques uary 1851 "Fugitive Slaves"

<https://goo.gl/tVwqHF>



# Microsoft Books...Our Dream Collection!!!



Image: Artwork by Alicia Martin

# Collection guide by Nora McGregor



LIBRARY BRITISH

Search our website

Our website Main Catalogue

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

## Collection guides

### Digitised printed books (18th-19th century)



Concise Guide to London, with map, etc. 1885

Printed books digitised in partnership with Microsoft from the 18th & 19th century

#### About the collection

In partnership with Microsoft, the British Library has digitised, and made freely available under [Public Domain](#)

#### Related guides

**The King's Library**  
The collection of George III includes thousands of books and pamphlets

**Datasets for content mining**  
Content suitable for use in text and data mining research

**Datasets for image analysis**  
Image collections suitable for large-scale image-analysis-based research

**Italian printed collections**  
Our Italian collections cover all periods and a wide variety of subjects

**Portuguese printed collections**  
Contemporary and antiquarian material, including 225 books published in Portugal before 1601

**German printed collections**  
Early and modern material printed in the German-speaking countries

<https://www.bl.uk/collection-guides/digitised-printed-books>

<https://goo.gl/tVwqHF>

## Public Domain Mark 1.0

No Copyright



This work has been **identified** as being free of known restrictions under copyright law, including all related and neighboring rights.

You can copy, modify, distribute and perform the work, even for commercial purposes, all without asking permission. See **Other Information** below.

# This is where true magic happens!

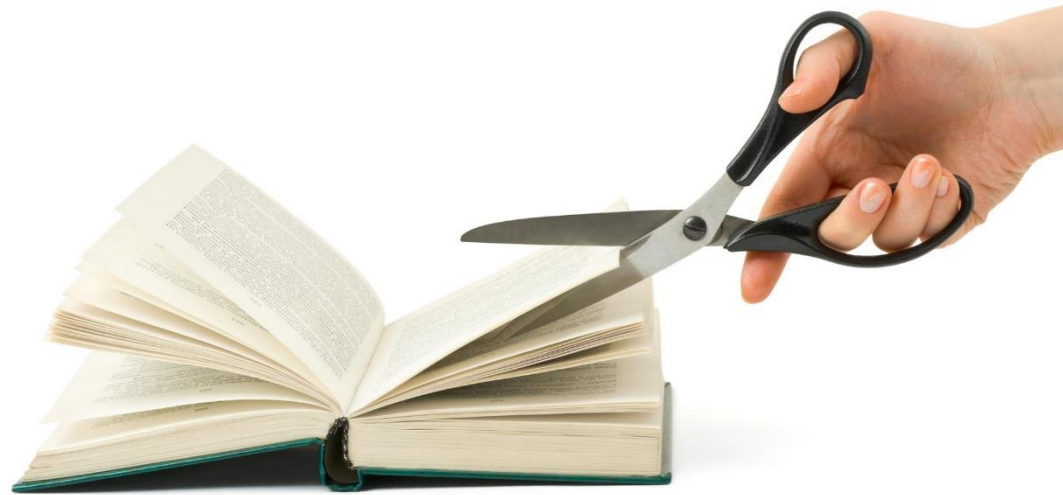
30 August 2012

# Practice what you preach!

## Creating our dream example to inspire others

- The Labs team needed to run our own experiments...to understand our users
  - ‘Eating own dog food’
- One idea from hack event in June 2013 from Matt Prior looks promising...

# Scissors and books – a match made in heaven?



<https://goo.gl/PVLB1B>

**RELAX Librarians!**

It's the digital version...

Done algorithmically via OCR process, details here:

<https://goo.gl/jke4sy>

# Snipping out images from 65,000 Digitised Books\*



Face recognition Algorithms based on photos



Mechanical Curator with an algorithmic brain (Circles, Squares and Slanty etc)



Internal IT / Wikimedia Flickr Commons Individual URL & API 1,020,418 images need tagging!



Press



Creative uses of images



Worked better for female faces than men's

Since Dec 2013

\*Estimates

>1000,000,000\* views

>17,500,000\* tags

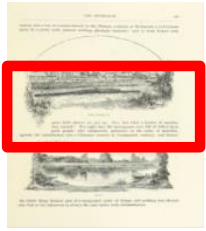
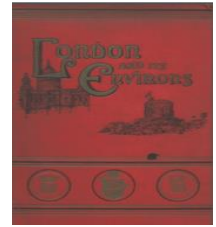
>More demand to see physical items



<http://goo.gl/qPPgxX>



<https://goo.gl/FgZ4HM>



Tumblr



<http://mechanicalcurator.tumblr.com>  
Posts image every 30 minutes

<http://www.flickr.com/photos/britishlibrary/>



\*Matt Prior - <http://goo.gl/j29Tnx>

Work @ BL by Ben O'Steen, Labs & Digital Research Team

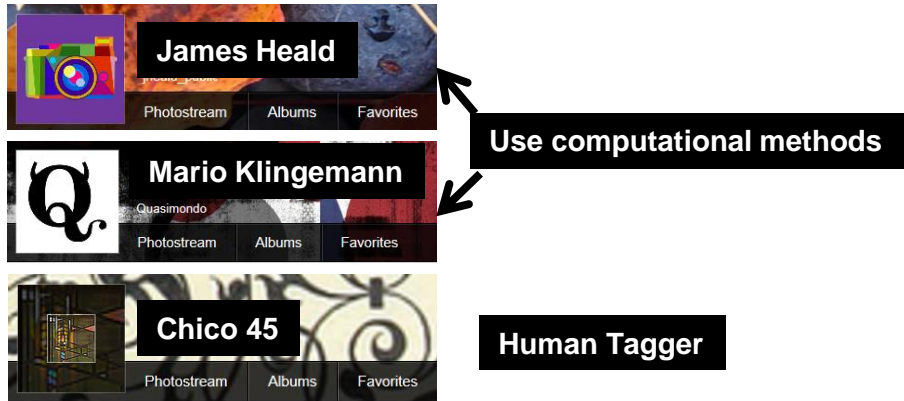


@BL\_Labs @mahendra\_mahey @uvic @uviclib @britishlibrary labs@bl.uk

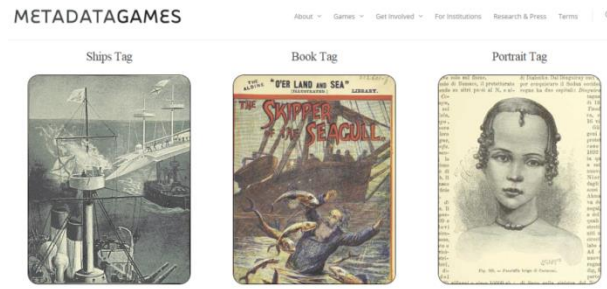
<https://goo.gl/tVwqHF>

# Tagging a million images

## Iterative Crowdsourcing

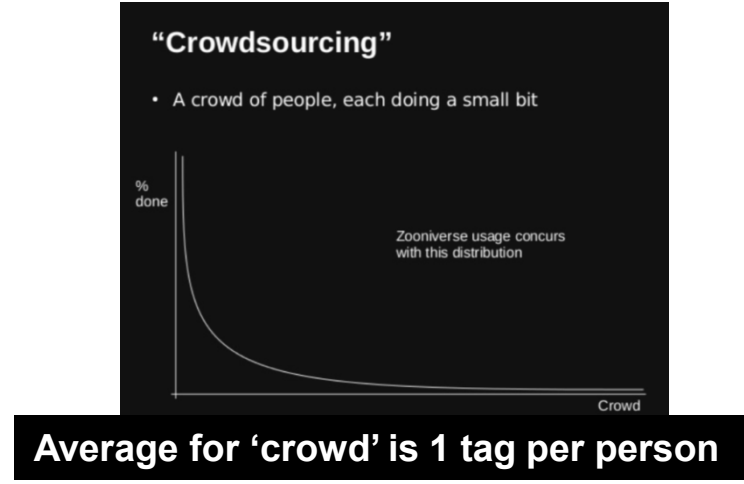


**Top British Library Flickr Commons Taggers**  
**18 hard core taggers**  
**How to reward and keep motivated?**



<http://www.metadatagames.org/>  
**Metadata Games**

**Mobile games for 'Ships', 'Covers' and 'Portraits'**



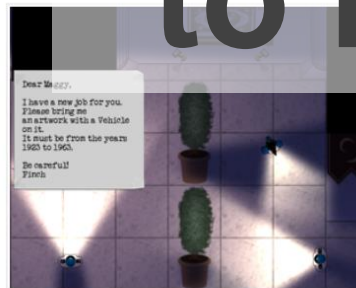
**Cardiff University's Lost Visions Project**  
**Interface for tagging**

<https://goo.gl/tVwqHF>

# Adam Crymble: Crowdsource Arcade



## Using Arcade Games to help Tag images



**Art Treachery**  
Headmade Games  
Other  
Windows, Linux, Mac OS X

Game Jam



**Tag Attack**  
Escuela de Bits  
Action tagging for the 2015 British Library Crowdsourci...  
Action  
Html

<http://goo.gl/OH9pOZ>



<https://goo.gl/7z0j8p>

30 mins talk  
Labs Symposium (2015)

<https://goo.gl/tVwqHF>

# Results of a Game Jam



<https://youtu.be/xoCgHo2rwN4?t=82>

<https://goo.gl/tVwqHF>

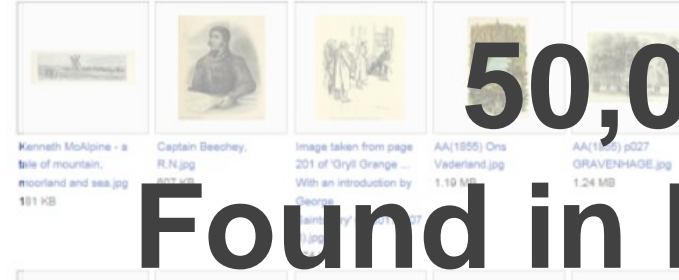
# Special Jury's Prize (2015)

## James Heald – Wikimedia and Map work

Media in category "Images from the British Library Mechanical Curator collection"

The following 200 files are in this category, out of 25,058 total.

(previous page) (next page)



<https://commons.wikimedia.org/>

- geography -- 6583 [to georef](#)
- Synoptic index, USA -- 3625 [to georef](#)
- Synoptic index/France -- 2156 [to georef](#)
- Anthropology and Ethnology -- 2146 [to geo](#)
- other -- 1781 [to georef](#)
- Synoptic index, UK and Ireland -- 58 [to g](#)
- Synoptic index, Europe -- 1260 [to georef](#)
- Synoptic index/Germany -- 1120 [to georef](#)



<https://goo.gl/VPgffl>

# 50,000 Maps Found in Flickr 1 million

# Human & Computational Tagging & Community engagement Geo-referencing work



<http://goo.gl/HNq5e>

Geotagging maps

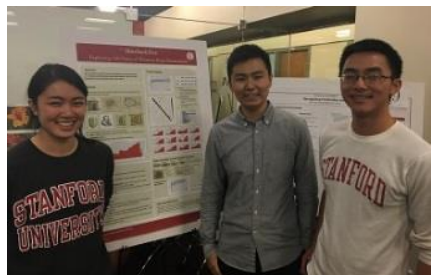


Maps: natural classification, given co-ordinates

<https://goo.gl/djtm1b>

Labs Symposium (2015)

# SherlockNet: Karen Wang, Luda Zhao and Brian Do



[bit.ly/sherlocknet](http://bit.ly/sherlocknet)

>15.5 million tags added  
>100,000 captions

## Tags



What are you looking for?  
architecture  
Suggest Synonyms  
Sort by: Relevance - Interest/age - Date Posted  
Page 1 of 2652



12 categories

## Tags

bidigital date1814 pubplacelondon publicdomain sysnum002099152  
leachwilliamelford medium vol01 page193 mechanicalcalculator  
imagesfrombook002099152 imagesfromvolume00209915201  
sherlocknet:tag=bird sherlocknet:tag=feather sherlocknet:tag=tail  
sherlocknet:tag=upper sherlocknet:tag=wing sherlocknet:tag=differ  
sherlocknet:tag=plate sherlocknet:tag=brown sherlocknet:tag=outer  
sherlocknet:tag=length sherlocknet:tag=kind sherlocknet:tag=black  
sherlocknet:tag=country sherlocknet:tag=band sherlocknet:tag=number  
sherlocknet:tag=lin sherlocknet:tag=fine sherlocknet:category=organism

Pooled surrounding OCR text on page from similar images



"a man standing in a field with a cow" *SherlockNet Caption (beta)*

## Captions



"a close up of a bird on a tree branch" *SherlockNet Caption (beta)*  
Used Microsoft COCO (photographs) & British Museum Prints and Drawings collections as training sets.

**Using Convolutional Neural Networks to Automatically Tag and Caption the British Library Flickr Commons 1 million Image Collection**

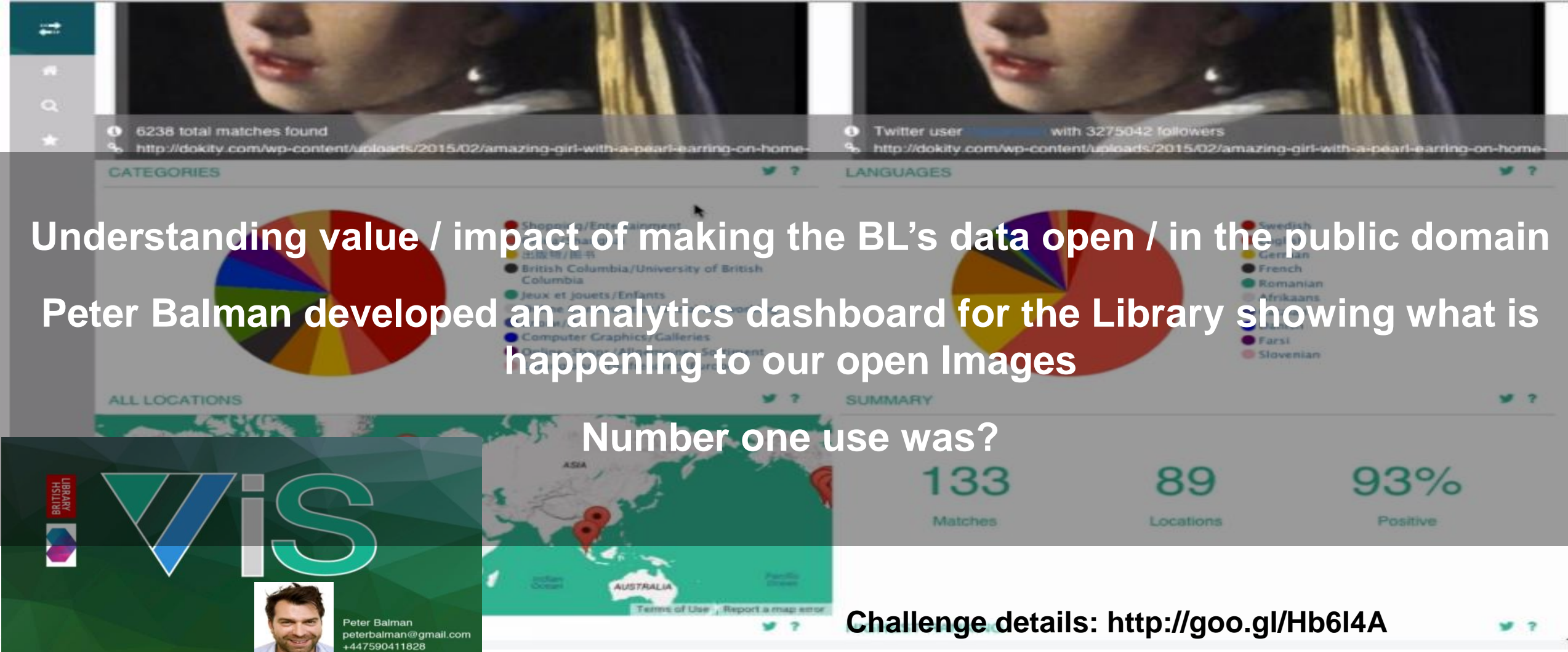
# Visibility – What happened to our Flickr images?

Understanding value / impact of making the BL's data open / in the public domain

Peter Balman developed an analytics dashboard for the Library showing what is happening to our open Images

Number one use was?

Challenge details: <http://goo.gl/Hb6l4A>



# David Normal - Artist



<https://youtu.be/Q3SBxO34Zlc>

*'It was beyond my wildest dreams'*



# Conflamingulation by David Normal



@BL\_Labs @mahendra\_mahey @uvic @uviclib @britishlibrary

labs@bl.uk

<https://goo.gl/tVwqHF>



# Curioscillotropy by David Normal



@BL\_Labs @mahendra\_mahey @uvic @uviclib @britishlibrary

labs@bl.uk

<https://goo.gl/tVwqHF>



# Ostrischizocracy by David Normal



@BL\_Labs @mahendra\_mahey @uvic @uviclib @britishlibrary

labs@bl.uk

<https://goo.gl/tVwqHF>



# Purcogitoresque by David Normal



@BL\_Labs @mahendra\_mahey @uvic @uviclib @britishlibrary

labs@bl.uk

<https://goo.gl/tVwqHF>

# Crossroads of Curiosity @ Burning Man

Four of these  
surrounded the  
Burning Man in  
Nevada Desert

Late August / Early September 2014

Music mix by DJ Yoda using British Library Sounds: <https://goo.gl/z3k4JT>

The collage features several key elements:

- Smartphone:** A hand holds a purple smartphone displaying a penguin on a screen. Text on the screen includes "Conflagration", "Somewhere between Conflagration and Conf", and "from the words 'Conflagrate', 'Cog'".
- Flickr Page:** A screenshot of a Flickr page showing a squirrel image. The page title is "flickr You Explore Create".
- Physical Book:** An open book showing a page with a squirrel illustration and text. The page number is 122. The text discusses the habits of the squirrel.
- Digital Book:** A screenshot of a digital book page, likely from the British Library, showing the same squirrel illustration and text as the physical book.
- Central Diagram:** A white rounded rectangle containing the words "Physical" and "Digital" in a cycle. Arrows point from "Physical" to "Digital" (top), "Digital" to "Physical" (right), "Physical" to "Digital" (bottom), and "Digital" to "Physical" (left).

brought into the

# Mario Klingemann – Code Artist

## Our first Artistic Award winner!



<http://goo.gl/dM8ieA>



FOURTYFOUR GENTLEMEN WHO LOOK LIKE FOURTYFOUR  
**44 Men who Look 44**  
 (Notice the direction faces)



*Tragic Looking Women*



*A Hat on the Ground  
 Spells trouble*



**Mario Klingemann**

German artist

Mario Klingemann is a German artist and Google Arts and Culture resident known for his work involving neural networks, code, and algorithms. He is considered a pioneer in the use of computer learning in the arts. [Wikipedia](#)

Known for: Digital art, Conceptual art

# Mario Klingemann – AI Portraits



**The Butcher's Son**  
**2018 LUMEN Prize winner**

<https://lumenprize.com/a-i-portrait-scoops-gold/>

02.13.19

## The future of AI art goes up for auction at Sotheby's for \$50,000

Mario Klingemann's "Memories of Passersby I" generates portraits using neural networks. But that's not what makes it art.



1/8 [Image: Mario Klingemann/courtesy Sotheby's]

<https://goo.gl/ggpw1n>

<https://goo.gl/tVwqHF>

# Hey there Young Sailor – from Malaysia – Ling Low

Ling Low 2016 – Hey there Young Sailor



VIMEO.COM/SWEETANDLOWFILMS  
@SWEETNLOWFILMS ON INSTAGRAM  
@SWEETNLOWLING ON TWITTER

<https://www.youtube.com/watch?v=bcOP1E5bRE0>

# Hey there young sailor



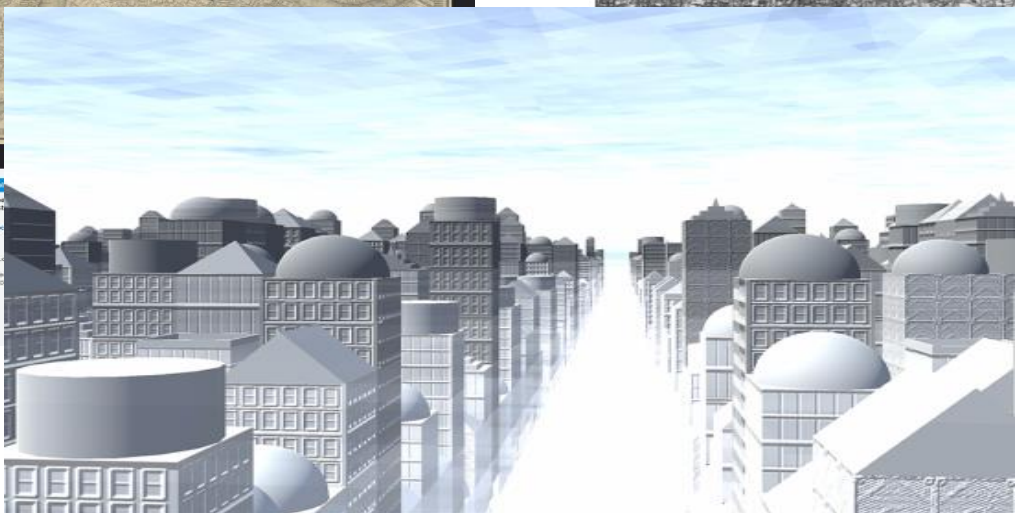
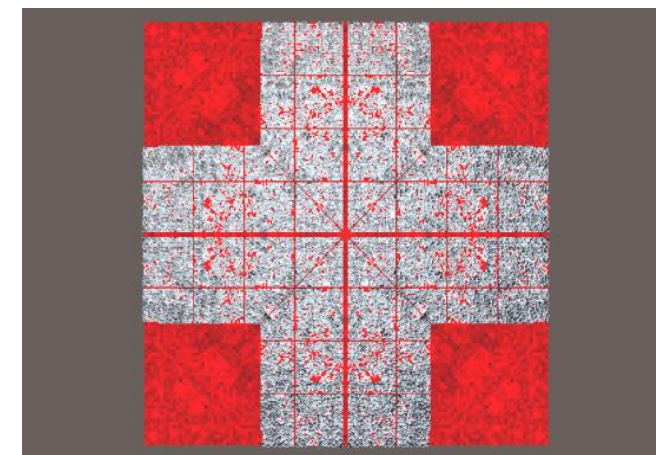
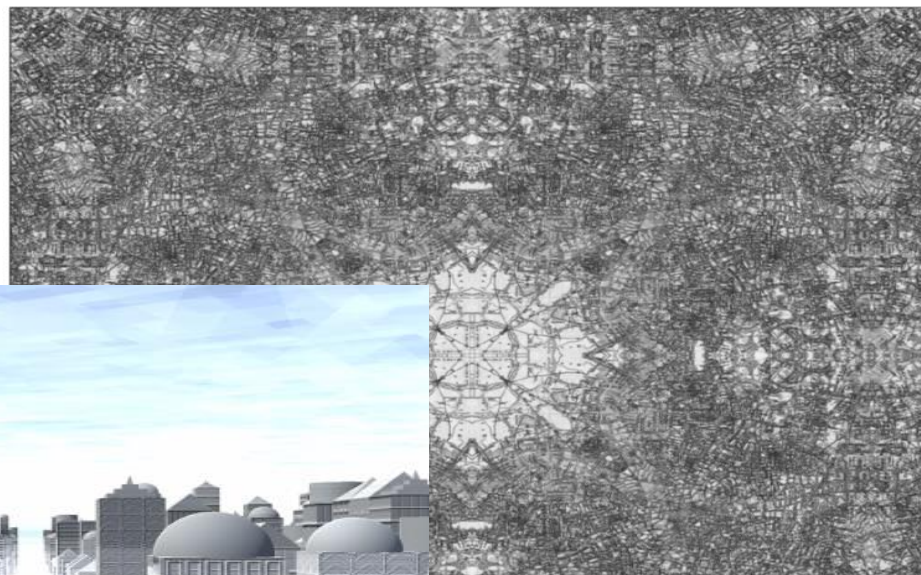
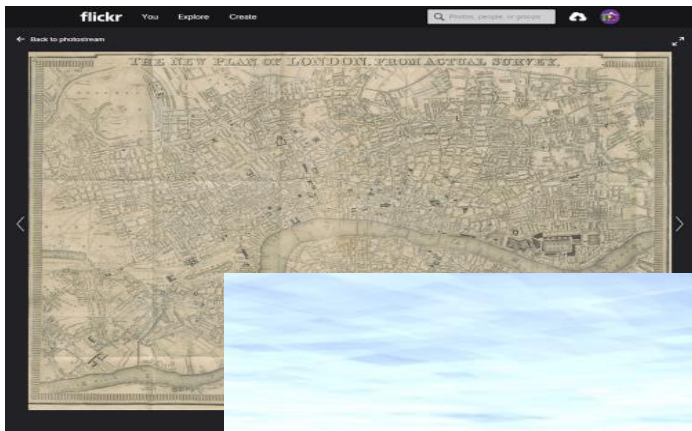
<https://youtu.be/bcOP1E5bRE0?t=99>

# Imaginary Cities

Exhibition: 4 April to 14 July 2019

BRITISH LIBRARY

## Exhibition 2019 (Michael Takeo Magruder)



Virtual Reality with Unity 3D



*An artistic exploration seeking to create provocative fictional cityscapes for the Information Age from the British Library's digital collection of historic urban maps*



@BL\_Labs @mahendra\_mahey @uvic @uviclib @britishlibrary

labs@bl.uk

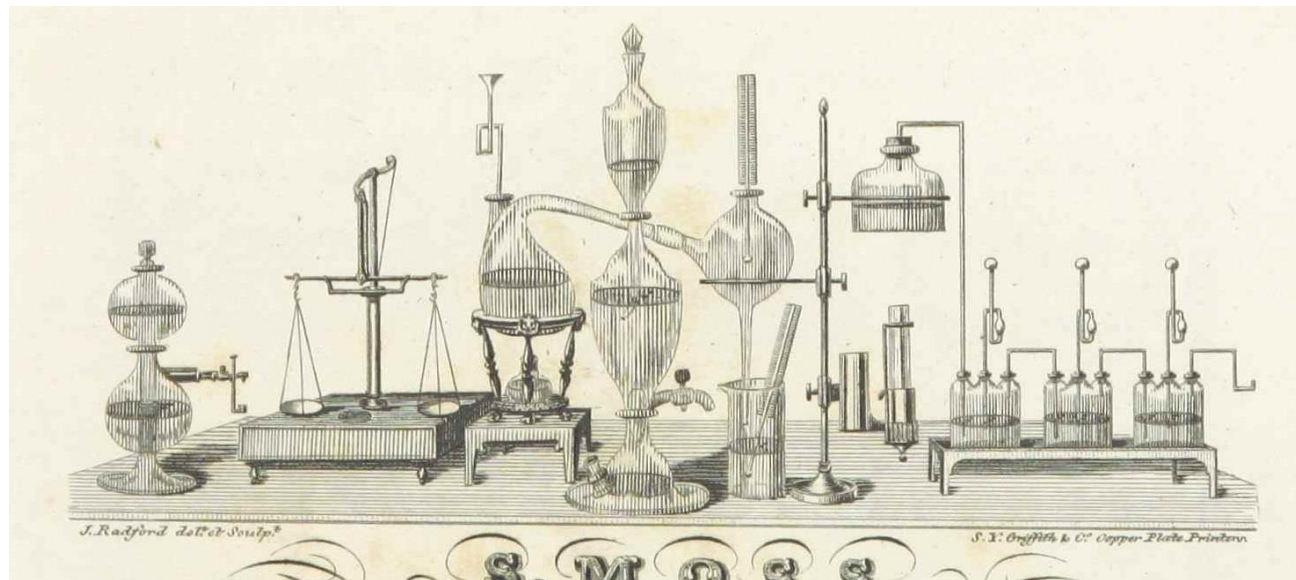
<https://goo.gl/tVwqHF>

# Michael Takeo Magruder – Artist Residency



[https://youtu.be/hUWhc\\_nLyZU?t=208](https://youtu.be/hUWhc_nLyZU?t=208)

# Building GLAM Labs The Cookbook and Showcase! Coming soon!



# Why this presentation?

- GLAM Labs are emerging around the world
- We share common goals to
  - Understand the value of a digital Lab for GLAMs
  - Share what we know and learn from others!
  - Explore differences in approaches
  - Build a support network
  - Build better GLAM Labs
  - Join our mailing list: <http://www.jiscmail.ac.uk/lists/LIBRARYLABS.html>

# We want you to join us if you work in GLAM Labs!



Next event is in Copenhagen, 4-5 March 2019, see programme: <https://goo.gl/xNRxaS>

# Outcomes of GLAM Labs network

- Make existing or planned GLAM Labs be the best they can be
- Increase our joint understanding
- Build a supportive, kind, generous caring network
- Tell the world what we do and what you do!

# Many miles to go...

Thanks to:

Eleanor Cooper (0.5) BL Labs

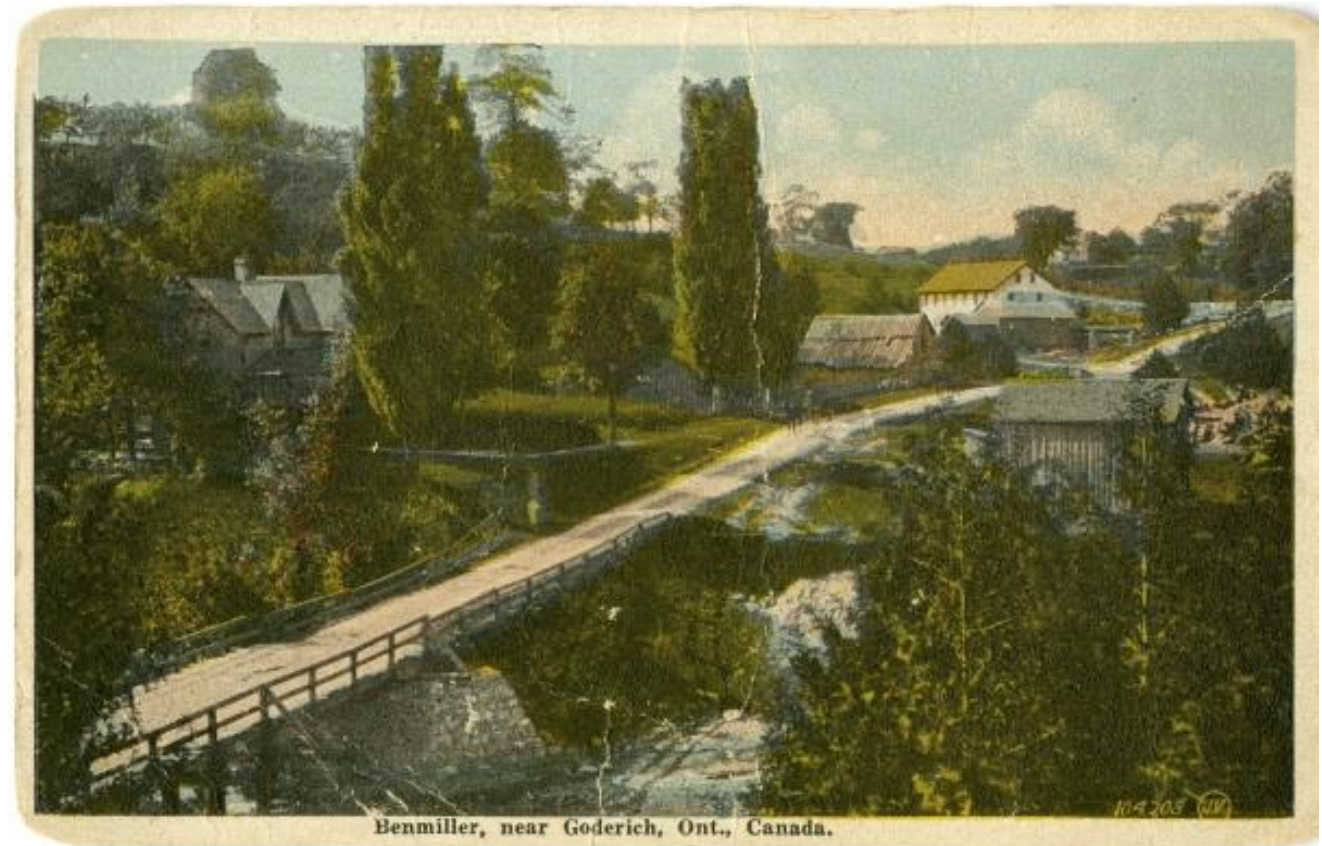
Adam Farquhar (Principal Investigator)

Alumini

Ben O'Steen – Tech Lead

Hana Lewis (0.5) BL Labs Project Officer

Digital Scholarship team at the BL



# British Library Labs Experiment with our digital collections

<http://www.bl.uk/projects/british-library-labs>  
Funded by the Andrew W. Mellon Foundation and the British Library

<https://goo.gl/tVwqHF>



@BL\_Labs @mahendra\_mahey @uvic @uviclib @britishlibrary

labs@bl.uk

# Thank you!

British Columbia Research Libraries for inviting me and supporting this trip, University of Victoria for hosting and supporting this trip and especially Scott Johnston from the McPherson Library, University of Victoria for helping organising this trip!

**In honour of...**

**my Canadian Indian/Punjabi family (past and present)...who settled in Vancouver and Victoria  
...from the early 1960s via India & Fiji**

# Questions?

Prompt Question	
I didn't understand....	Can you tell me more about...
Why did you...	I am not sure about...
What if...	Why didn't you...
What's the best thing about...	What was the worst thing...
If you could have your time again, ...	How did you...
I am not sure I agree about...	What was the biggest challenge...
What was the most successful thing about...	Who did...