



# The National Library of Scotland

Over 31 million items in collection (excluding web archive, and owned-in-perpetuity digital collections)

'One Third Digital' by 2025

In-house mass digitisation programme

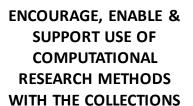
Strategy 2020-2025, 'Reaching People': strong focus on engaging with new audiences through the collections





### Digital Scholarship Service







ENSURE THAT THE
COLLECTIONS ARE USED
TO THEIR FULL POTENTIAL



ESTABLISH A LIBRARY
CULTURE WHICH
UNDERSTANDS DIGITAL
SCHOLARSHIP



PRACTISE AND PROMOTE
TRANSPARENCY IN OUR
DATA CREATION
PROCESSES



ANTICIPATE THE FUTURE
OF RESEARCH













**TEXT** 

**IMAGE** 

**METADATA** 

**AUDIOVISUAL** 







**MAPS** 

**WEB ARCHIVE** 

**ORGANISATIONAL** 





#### Collaboration

Projects

PhDs, residencies, fellowships

Beyond research community



3. Internal engagement

#### Awareness

Training

Champions

Culture





# No-nonsense data



## Identifying user needs

Pro	Intermediate	Beginner
All the tech skills!	Limited tech skills	No tech skills
Will find a way to get the data no matter how presented	Understands value of different formats and approaches for research	Wants to use online tools to explore datasets
But – has expectations of existing standards (where they exist) & consistency	questions: theoretical rather than practical understanding	Just wants the text
	Wants to get hold of the data easily to check what's there	
	Likely to employ an RA to do the work	

Plus broader audience includes other libraries (standards, presentation of data etc)



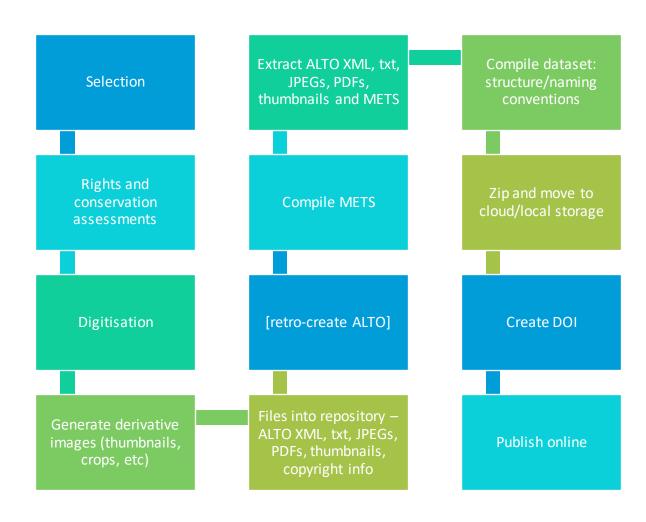
# Identifying user needs

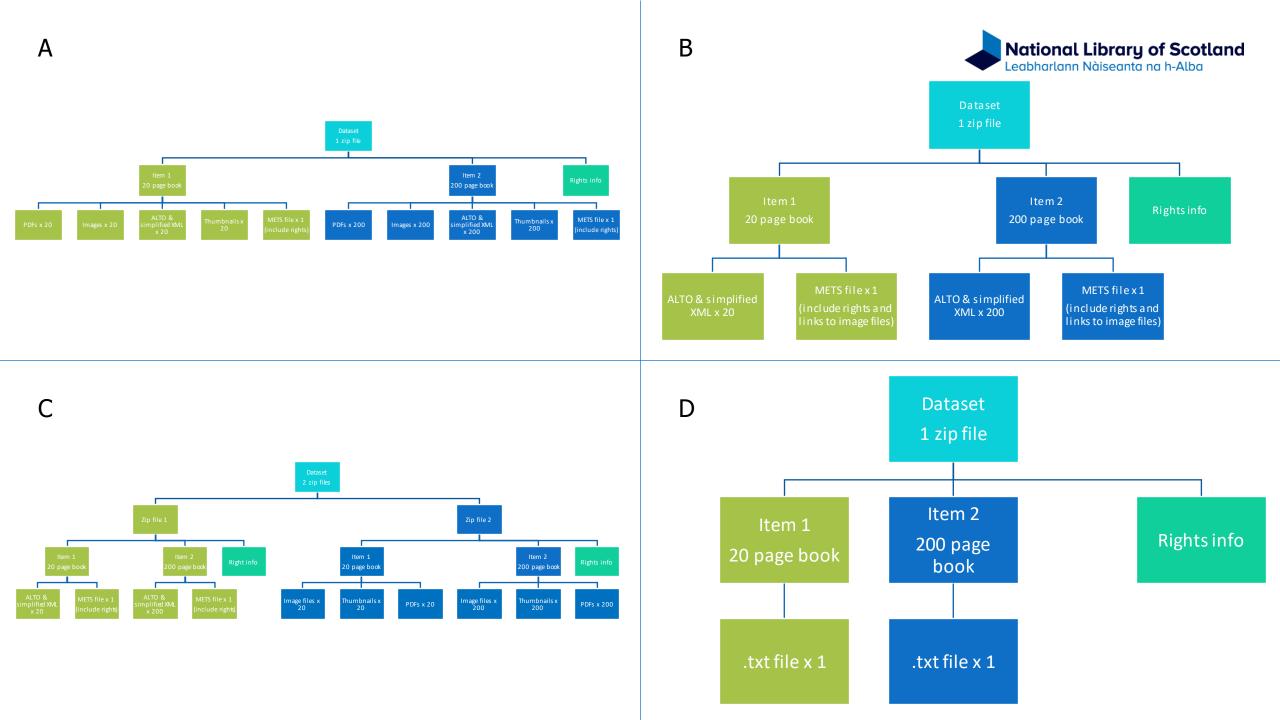
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## Changing processes: digitisation to data

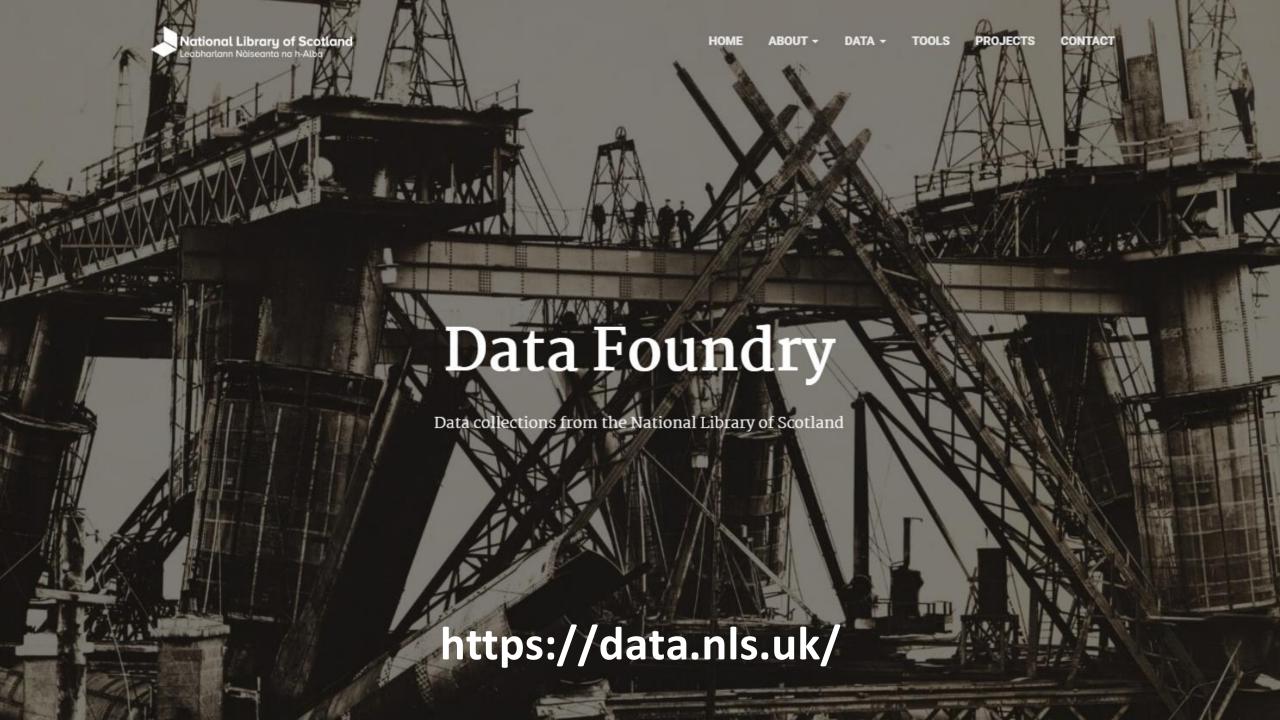






### Making decisions

- Standards:
  - METS/ALTO and Plain text
  - MARC/Dublin Core
  - Tiered downloads
- Image sizes/quality to include
- Storage (local/cloud)
- What metadata to include and what is available
- How to be transparent: gathering and presenting dataset context
- Now moving on to more metadata collections, web archive data, spatial data





## Our principles

#### National Library of Scotland data



Open

The National Library of Scotland publishes data openly and in re-useable formats.



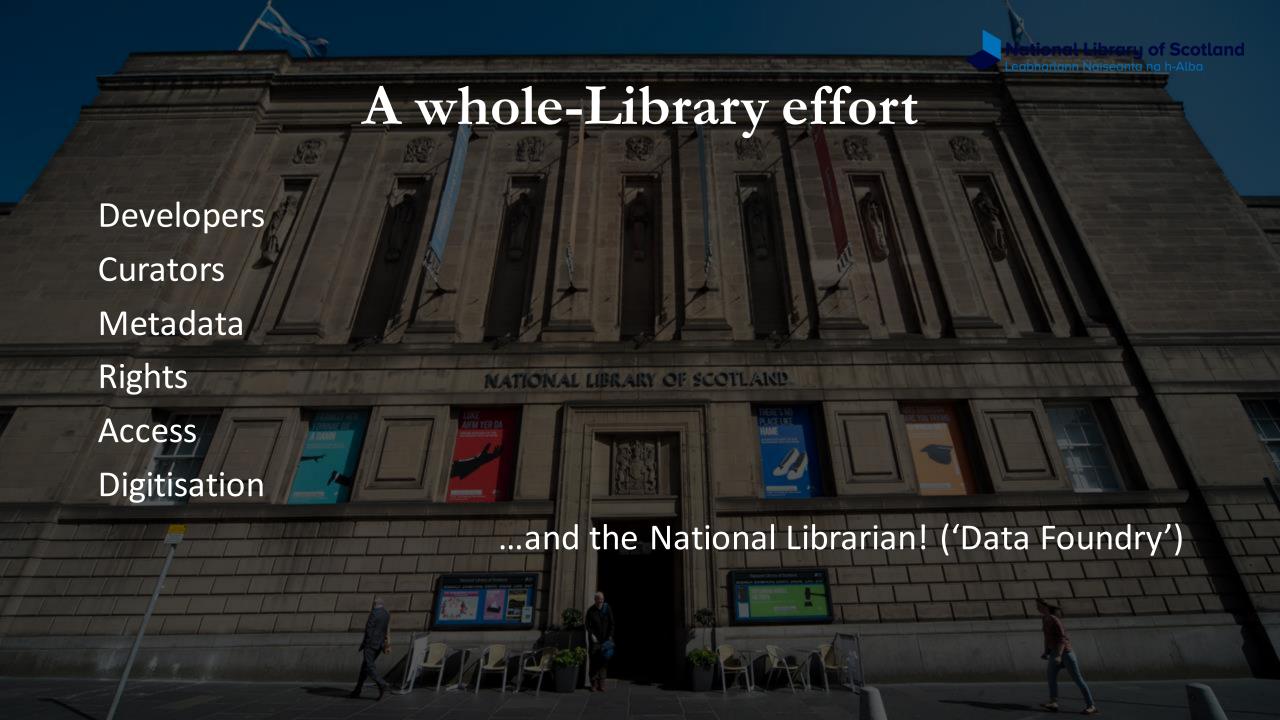
Transparent

We take the provenance of our data seriously, and are open about how and why it has been produced.



**Practical** 

We present datasets in a variety of file formats to ensure that they are as accessible as possible.











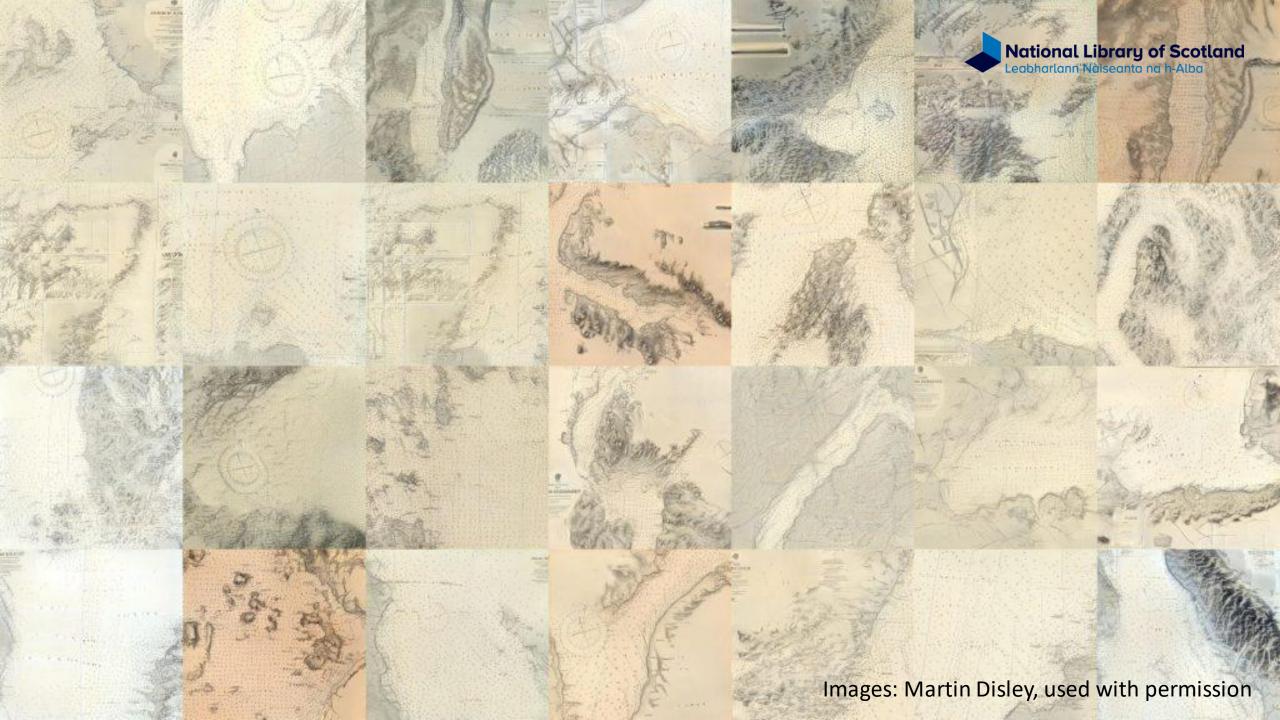






## the dataset is not the map is not the territory

- Martin Disley @martin\_disley
- Funded by Creative Informatics (University of Edinburgh)
- Using GAN techniques with the collections
- https://data.nls.uk/projects/artist-in-residence/







How do we construct an archive? How do we construct truth? Using Artificial Intelligence to create a fake archive, our Artist in Residence @Ma\_rionC asks these questions using #NLSdata in her new work, Selective Memories.



2:55 PM · Nov 11, 2021 · Twitter Web App

# Is it true? The post-truth archive factory

- Marion Carré @Ma\_rionC
- Collaboration with Goethe-Institut Glasgow, Alliance Française Glasgow and Institut Français d'Ecosse
- Challenge: how does AI open up new ways of interacting with library and archival collections and what are the challenges and dangers of using this technology in archival research?
- Will you archive 'fact' or fake news?
- Take part: <a href="https://data.nls.uk/projects/artist-in-residence-marion-carre/">https://data.nls.uk/projects/artist-in-residence-marion-carre/</a>





```
ACQUEST: or Acquist, in law, signifies goods got by purchase or donation. See
ACOUI: "a town of Italy, in the Dutchy of Montferrat, with a bilhop\u2019s see,\
 \ and commodious baths. It was taken by the Spaniards in 1745, and retaken by\
 \ the Piedmontese in 1746; but after this, it was taken again and diffcantled\
 \ by the French, who afterwards forsook it. It is seated on the river Bormio,\
 \ 25 milesN.W. Genoa, and 305. Cafal, 8. 30.E. 44. 40. lat."
ACQUIESCONCE: in commerce, is the consent that a person gives to the determination
 given either by arbitration, orbyaconful
ACQUIFTANDIS plegiis: in the English law, is a writ that lies for a surety, againd
 a creditor, who refufes to acquit the complainant after the debt is paid.
ACQUIETANTIA de Jhiris et hundredhs in England, signifies the privilege of being
 free from suit and service in filires and hundreds.
ACOUISITION: in general, denotes the obtaining or procuring something. Among lawyers,
 it is used for the right or title to an estate got by purchase or dona
ACQUITABS: in ancient law-books, signifies to difcliarge or pay off the debts
ACQUITTALL a discharge, deliverance, or setting of a person free from the guilt
 or suspicion of an offence.
ACQUITTANCE: a release or discharge in writing for a sum of money.
ACRA: a town of Africa, on the coast of Guinea, where the English, Dutch, and
 Danes, have strong sorts, and each sort its particular village, o. 2.W. 5. o.
ACRASIA: among physicians, signifies the predominancy of one quality over another.
ACRE: "or Acra, a sea-port town in Syria. It was formerly called Ptolemais, and
 \ is a bishop\u2019s see. It was very famous in the time of the crusadoes, and\
 \ underwent several sieges both by the Chrif Hans and Saracens. It is now an\
 \ inconsiderable town, being entirely supported by its harbour, which, is frequented\
 \ by (hips of several nations. It is 20 milesS. Tyre, and 37N. Jerusalem, 39.\
 \ 25.E. 32. 40. lat. Acre, in the Mogul\u2819s dominions, the same with lack,\
 \ and signifies the sum of 100,000 rupees; the rupee is -of the value of the\
 \ French crown of 3 livres, or 30 fols of Holland; an 100 lacks of rupees make\
 \ a couron in Indofton, or 10,800,000 rupees; the sound Sterling is about 8\
 \ rupees; according to which proportion, a lack of rupees amounts to 12,500\
 \ pounds Sterling. Acre, a measure of land used in several provinces of France,\
 \ particularly in Normandy. It is larger or less according to the different\
 \ places ; but commonly contains 160 perches. The Acre of woods in France, consists\
 \ of four roods, called verg es; the rood is 40 perches, the perch 24 feet.\
 \ the foot 12 inches, the inch 12 lines. Acre, the universal measure of land\
 \ in Britain. An acre in England contains 4 square roods, a rood 48ACR or poles\
 \ of 16\xA3 feet each byftatute. Yet this measure does not prevail in all parts\
 \ of England, as the length of the pole varies in different counties, and is\
 \ called cujiosnary measure, the difference running from the 16feet to 28. The\
 \ acre is also divided into xo square chains, of 22 yards each, that is 4848\
 \ square yards. An acre in Scotland contains 4 square roods ; 1 square rood\
 \ is 40 square falls; 1 square fall, 36 square ells; 1 square ell, 9 square\
 \ feet, and 73 square inches; 1 square foot, 144 square inches. The Scots acre\
 \ is also divided into 10 square chains; the measuring chr. in Ihould be 24\
 \ ells in length, divided into 100 links, each link 8 r \u2019 c ?I and sol\
 \ chain will contain 18,000 square links. The English (latute acre is about\
 \ 3 roods and 6 falls standard measure of Scotland."
ACREME: in old law-books, signifies ten acres of land.
ACRIBETA: signifies great accuracy.
ACRID: a name for any thing that is of a (harp or pungent taste.
ACRIDOPHAGI: "signifies locujl-eaters. It has been much disputed whether the inhabitants\
 \ of Arabia, Ethiopia, <bc ever eat locusts. We Ihall give the substance of\
 \ what Hoffelquill says on this fubject, who travelled in Syria and Egypt so\
 \ late as the year 1752. This ingenious gentleman, who travelled with a view\
 \ to improve natural history, informs us, that he asked Franks, and many other\
 \ people who had lived long in these countries, whether they had ever heard\
 \ that the inhabitants of Arabia and Ethiopia, &c. used locusts as food. They\
 A answered that they had. He likewise alked the same question of Armenians.
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## Annual fellowship

- Dr Giles Bergel (University of Oxford)
  - VGG computer vision tools
  - Chapbooks dataset
  - Exploring what can be learnt from their illustrations about chapbooks' origins; about relationships between chapbook printers, publishers and distributors; and about the type and range of imagery available to their readers.
- Dr Rosa Filgueira (St Andrews University)
  - Al toolkit for the collections: bringing Al tools to those who can't code
  - Initially with the Encyclopaedia Britannica dataset
- Dr Gustavo Candela (University of Alicante)
  - Linked Open Data Moving Image Archive metadata



### PhD studentships



#### **Joe Nockels**

'Adopting Transkribus in the National Library of Scotland: Understanding how handwritten text recognition will change management and use of digitised manuscripts'.

Supervisors: Professor Melissa Terras (University of Edinburgh), Dr Paul Gooding (University of Glasgow), Dr Sarah Ames and Stephen Rigden (National Library of Scotland).

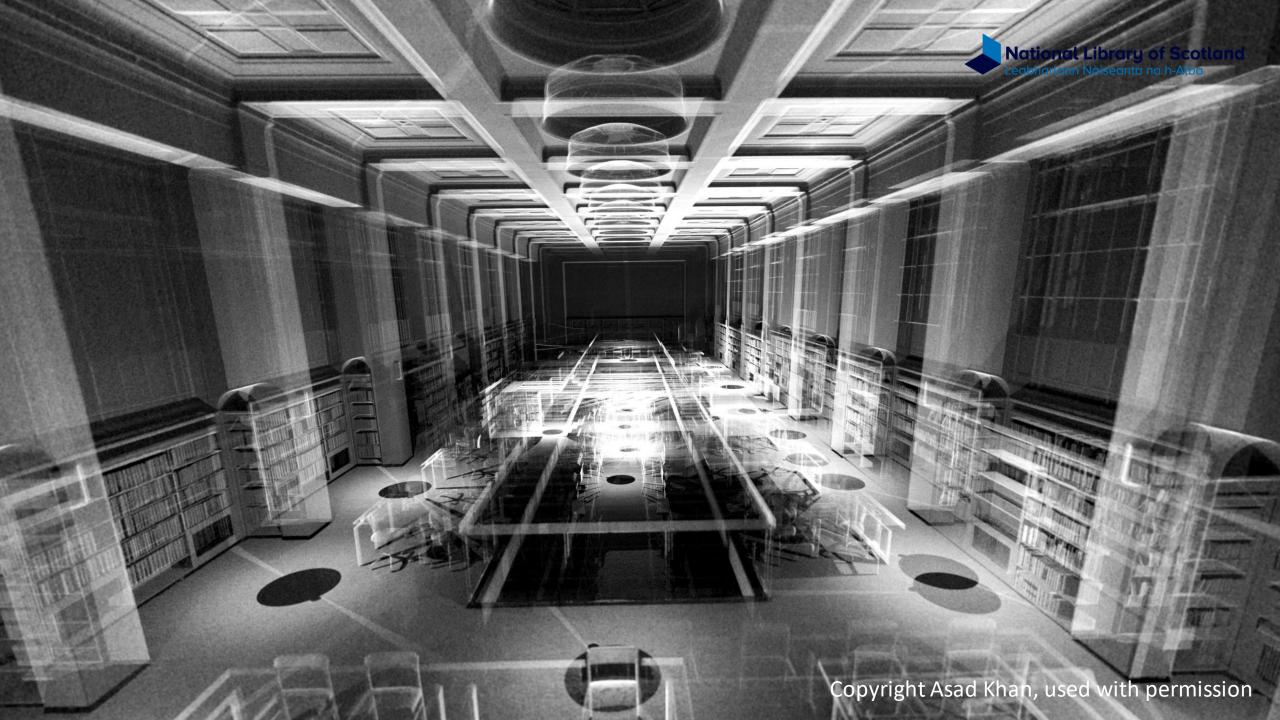
Funder: Scottish Graduate School for Arts and Humanities, AHRC Collaborative Doctoral Award

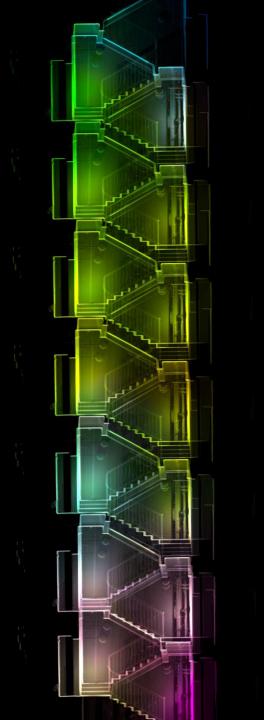


#### **Ash Charlton**

'Slavery and Race in the Encyclopaedia Britannica (1768-1860): A Text Mining Approach'.

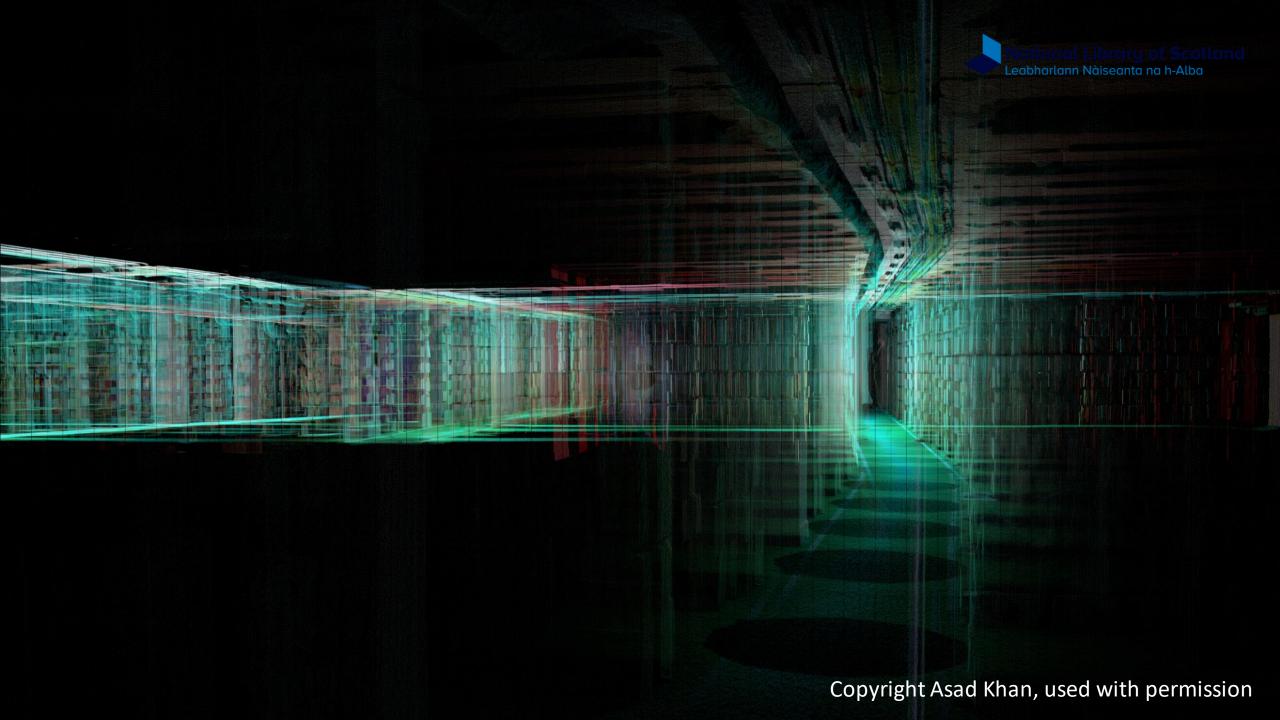
Supervisors: Professor Melissa Terras and Professor Diana Paton (University of Edinburgh), Dr Sarah Ames and Robert Betteridge (National Library of Scotland) Funder: Scottish Graduate School for Arts and Humanities, AHRC Collaborative Doctoral Award







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High Performance Computing meets Encyclopaedia Britannica



Data visualisation student projects



3,000 Scottish chapbooks...as music!



Text and data mining platform



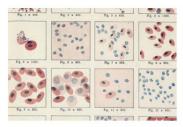
Artist in Residence



The National Librarian's Research Fellowship in Digital Scholarship



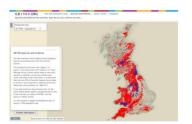
Finding lost footpaths using GB1900



Teaching digital humanities with A Medical History of British India



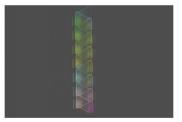
Al in Residence



Mapping quarries and collieries



Geoparsing the Gazetteers of Scotland



The Library as LiDAR (coming soon)



#### **Projects**

https://data.nls.uk/projects/

Examples of collaborative and individual projects over the past 6 months



Change! Workflows, processes, culture...

**OCR** quality

Copyright

Resourcing! No developers

What does collections data look like?

Versioning

How can we be clear about Scale and the provenance of our data? scholarsh

Scale and scope of digital scholarship

National Library Of Scotland



I.—CIRCULARS.

#### II.-PAPERS

SET AT THE

#### EXAMINATION FOR LEAVING CERTIFICATES, 1889,

HELD BY THE

SCOTCH EDUCATION DEPARTMENT.

III.—RESULTS OF THIS EXAMINATION.

IV.-REPORT BY PROFESSOR J. EGGELING,



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BY EYRE AND SPOTTISWOODE.

PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.

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1889.

Price Sixpence.



#### What have we learned so far?

- 1. It's worth putting effort and resource into presenting and promoting data collections
- 2. There is more to digitisation than online image galleries
- 3. DS has implications across the Library
- Historic practices affect everything: it's difficult to break the cycle
- 5. Our users have exciting, refreshing, innovative approaches to using collections, which we can learn from

