Actually Existing AI Applications for Personal Digital Archives

Callum McKean, Digital Lead Curator, Contemporary Archives and Manuscripts LIBRARY

Remarks on 'unlocking' and 'the future'

 It is not inevitable that these collections will be made widely available in the future

 Our ability to leverage in any future 'AI revolution' relies upon our ability to build capacity now

Building this capacity relies, first and foremost, upon experimentation and failure



Three (partial) failures...

Writers' Lives PhD Placement Project (2022-3)

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- <u>Data Analytics and Network Visualisation for Hybrid Correspondence</u> <u>Collections (2023)</u>
- Automated Migration and Cataloguing Workflow (2024-)

Writers' Lives (2022-3)

- Used KNIME to parse, filter, modify and visualise collection metadata from a csv file created using DROID
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- Manually added tags to metadata in order to enrich the metadata for visualisation
- Outputs: visualisations from Andrea Levy and Will Self collections; enriched tagged metadata for subsets of both collections; KNIME workflow for use with other collections.

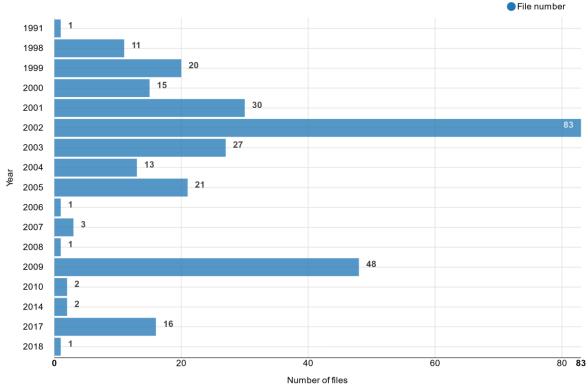
Andrea Levy's notes on Mary Seacole brought to light by IT experts

The writer's scripts for a TV series about the nurse were among those recovered from her old computer by the British Library

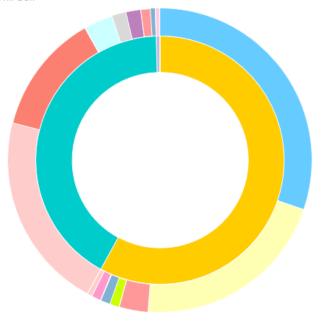


Small Island/ year

LΒ



Author& file breakdown





other creators
Will Self

student essay

teaching admin

(others omitted)

reading
info

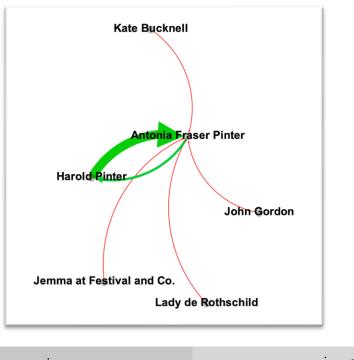
email

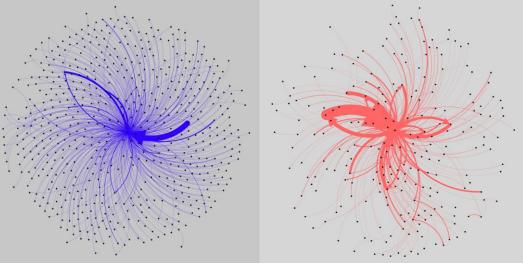
bl.uk

Hybrid Correspondence Collections (2023)

- Used Python and Gephi to visualise paper and digital correspondence collection of Harold Pinter as networks
- Manually created metadata sheets for subsection of paper correspondence, Python script for extracting equivalent data from Header and Body of emails.
- Enriched metadata (geo-coded IP addresses, NER for email bodies to extract works by Pinter)
- Outputs: Python script for creation of GDPR compliant email metadata; visualisations in Gephi







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Automated Migration Workflow (2024-)

- Uses Python and Aspose Total to sort, de-duplicate, arrange, re-name and migrate relevant files to PDF/A for further description and access
- Uses technical metadata, archival principles and limitations of our cataloguing system to make decisions about how to treat material using a strict if/else logic
- Prepares collection material and metadata for manual description and sensitivity review by Cataloguer

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Some concluding thoughts

- Transformer models (like Chat GPT) are most useful when connected to the internet.
- With rules based if/else approaches we write and understand the rules.
- Labelling datasets is time and resource intensive (and often complex)
- We need to build up human best practice before we can train good models
- We need resource beyond fixed, time-bound projects to allow us to integrate Al into our work



Thank you

