

Abstracts: Collecting and Collections: Digital Lives and Afterlives, 14-15 November 2019

Min Chen, Oxford

Discovering Treasure Troves in Digital Humanities

In digital humanities (DH), scholars conducted their data-informed research in ways similar to the analytical processes in the sciences. Large and complex datasets are collected, processed, summarized, and observed; hypotheses are formulated, explored, and scrutinized; analytical evidences are computed or uncovered; and findings are presented and communicated. Visualization can be an enabling tool in every stage of such a workflow, especially in many situations where fully automated approaches cannot adequately handle the high dimensionality of the data, address the sparsity of sampling, or capture the knowledge of the scholars. Therefore, DH problems are treasure troves, offering a broad spectrum of challenges and opportunities to the application as well as the advancement of the visualization technology. In this talk, the speaker will share his team's experience in collaborating with DH scholars, conducting DH projects, and making new technical advancements while fulfilling the requirements of DH research.

Mary-Ann Constantine, Wales, and Nigel Leask, Glasgow

Romantic-era travel for a digital age: Thomas Pennant and the Curious Travellers Project

An introduction to an AHRC-funded project creating digital editions of the letters of the pioneering C18th antiquarian, naturalist and traveller Thomas Pennant (1726-1798); and of a selection of previously unpublished tours of Wales and Scotland, many of them indebted to Pennant's own tours in those countries. We will share our experiences, as relative newcomers to digital editing, of the advantages and frustrations of turning C18th manuscripts into C21st digital texts.

Michelle Di Meo, Hagley Museum and Library

Recreating Early Modern Digital Collections: Five Tips and Five Challenges

This paper draws on fifteen years of experience working on four collaborative digital collection projects. As the Collective Wisdom team considers the possibility of building an online version of the original Royal Society Repository Museum and Crane Court, I will reflect on my own experiences building digital repositories comprised of early modern history of science and medicine collections. This talk will begin by presenting five challenges that summarize some repeated issues I encountered, including data inconsistencies and software limitations. These challenges do not have easy solutions, and my goal is not to solve them here, but rather to raise awareness and propose we discuss them further. Next, I will offer five tips for getting started, including reflections on defining audience, scope, and purpose. These tips will not walk us through the entire process of digital collection creation; instead, they will suggest some easy steps for beginning the project with a realistic conceptualization. This early planning can help facilitate necessary cross-professional conversations and prepare for potential hurdles.

Louisiane Ferlier, The Royal Society
The Royal Society Digital Collection

The digital turn provides academies with new platforms and innovative tools to present their historical collections to scholarly audiences as well as the wider public. This presentation will survey the various digital resources built by the Royal Society Centre for the History of Science, from the [Philosophical Transactions](#) to digital exhibits on [Google Arts&Culture](#). As well as emphasising the limitations of the tools, we hope to discuss the largely unexploited possibilities these resources offer to digital humanists in their effort to re-evaluate the 17th and 18th century collections of archives, printed books, instruments and specimens of the Society. As new journeys of discovery of early collections emerge, this contribution will finally call for the adoption of standards that support inter-operability, collaborations as well as solid citation practices (for digital projects, digital objects and the people who make them), a way to ensure recognition of collective wisdom in the digital space.

Rainer Godel and Torsten Roeder, Leopoldina
Digital Humanities at The Leopoldina Academy and Center of Science Studies: definitions, data modelling and analyses

After a short introduction to the Leopoldina Academy and Center for Science Sciences, we will define how we understand 'Digital Humanities', outline our work on the early history of the Academy, and present two projects focused upon collections, collecting and cataloguing. We will then ask the crucial question how early modern history of science requires special modelling approaches, and present two case studies.

Neil Johnston, The National Archives, UK
Record Revelations: Beyond 2022 and the virtual reconstruction of the Public Record Office of Ireland

After the Public Record Office, Chancery Lane, London opened in 1838 there was a demand for a similar institution to be established in Ireland but it was not until 1867 that the Westminster parliament enacted legislation for a Public Records Office of Ireland [PROI]. Located at the Four Courts, Dublin, the PROI initially housed legal records but its remit was soon expanded to accommodate and preserve records from across the breadth and range of royal government in Ireland since the beginning of the English colony in Ireland in the late twelfth century. For over fifty years the PROI centralised collections from across Ireland and in the process massively expanded its holdings, but this ended abruptly on 30 June 1922 when the repository and its contents were completely destroyed by an explosion and fire at the outset of the Irish Civil War.

For almost a century the cataclysmic destruction of the PROI was thought to be total, but **Beyond 2022: Ireland's Virtual Record Treasury** seeks to confound this by digitally and intellectually recreating the record repository and its holdings as they were on 30 June 1922. Based on a major international collaboration and a 1919 inventory, the project seeks to identify replacement material of whatever quality and scale to repopulate the holdings. This paper will consider some of the issues the first generation of staff faced at Public Record Office of Ireland and how this shaped the international, inter-governmental nature of the collection as it continues to determine Beyond 2022's investigations. The paper will then discuss the technical and intellectual challenges to digitally reconstructing a destroyed archive, including source identification and veracity, prioritisation and scope creep.

Miranda Lewis, Oxford

Early Modern Letters Online and the Royal Society

This talk will provide a brief introduction to Early Modern Letters Online, the union catalogue of metadata for sixteenth-, seventeenth-, and eighteenth-century correspondence. Using the Royal Society's Early Letters catalogue as a case study, it will consider the work involved to create a listing in EMLO that links back to the Royal Society website, to the Early Letters catalogue, and to the Fellows' pages, while considering the ever-growing combination of FRS epistolary inventories in EMLO and the implications of this convergence on scholarly research.

Alessio Mattana, University of Leeds, and Giacomo Savani, University College Dublin

Scientific and Antiquarian Images and Texts in ECCO

With over 180,000 titles and 32 million pages digitised, the Eighteenth-Century Collections Online (ECCO) is the largest online repository of publications for the century. It represents an indispensable resource for international scholars interested in texts published between 1700 and 1799. In this contribution, we explore how the structure of ECCO (both old and new versions) tends to promote a text-focused approach that underplays the importance of images.

Querying the database for antiquarian and scientific publications reveals that these texts were often accompanied by a panoply of engravings. However, the fairly low quality of these digitisations, most of which are scans of the British Library microfilm archives, hinders the appreciation of how pervasively text and image interacted to shape the reader's experience in the past. By analysing a set of significant case studies ranging from anatomical treatises to county histories, we attempt to reconstruct the complexity of this experience and reveal the potential of a more nuanced approach to the visual components of eighteenth-century texts. Our contribution concludes with a brief presentation of our ongoing project for an online database of eighteenth-century images that could ideally integrate ECCO. As we explain, the immediate goal of this database is to give a sense of the number, function, and relevance of illustrations in antiquary and scientific publications. In the long run, we hope to encourage further scholarly research on the role of images in these two domains, problematising the ways in which knowledge was constructed and disseminated in the century.

Brent Nelson, University of Saskatchewan

Reconstructing the Ark: Best Practices for Digital Curation of Object-Oriented Collections

This paper presents the work of "The Culture of Curiosity in England and Scotland, 1580-1700," a SSHRC-funded project at the University of Saskatchewan to reconstruct from historical records early modern collections of curiosities in England and Scotland. The first part of this talk will summarize and demonstrate the results of the first phase of the project, where our focus has been on how these collections are represented in catalogues, inventories, travel diaries, letters, and others kind of documents, and how we might best represent and reconstruct these collections with current digital tools and technologies (chiefly XML-encoded documents linked to a project database). It will offer some lessons learned and suggestions of best practices for digital representation of object-oriented historical materials. Focusing on the Royal Society's Repository, the second part of the talk (as time permits) will introduce the second phase of the project, where we are using these data with visualization tools to trace the movement of objects within the networks of early modern collectors.

Marzia Niccolai, Google
Google Arts & Culture - Content Management for the Cultural Sector

This talk describes how Google Arts & Culture works with museums, archives, and cultural institutions in over 80 countries to manage their collection for a digital audience. From storytelling, augmented reality, and large- scale data experimentation – we'll show what we've done and what's next.

Julianne Nyhan, UCL
Critical reflections on 'Enlightenment Architectures: Sir Hans Sloane's Catalogues of his collections

Enlightenment Architectures (2016-19) is a Leverhulme-funded research project based at the British Museum and undertaken in collaboration with University College London which investigates Sir Hans Sloane's (1660-1753) original manuscript catalogues of his collections. It seeks to understand their highly complex information architecture and the intellectual legacies of this 'meta-data of the Enlightenment'.

In this talk, I will reflect on the key findings pertaining to the digital humanities aspects of the project and address topics that include: the challenges of making early modern museum catalogues machine readable using the Guidelines of the Text Encoding Initiative; our experiences of training a Handwriting Text Recognition machine learning model to automatically transcribe the handwriting of Hans Sloane; and the ethical questions that we encountered in the course of our work, like how we could use digital methods to detect, and present online, the many voices that are absent from Sloane's catalogues due to issues like the colonial contexts of his collecting. As such, my aim will be to critically reflect on the application of digital methods to early modern scholarship and the many contributions that projects in this area can make to the wider field of Digital Humanities.

Cornelis (Kees-Jan) Schilt, Oxford
Historia Newtonia: A digital reconstruction of Isaac Newton's chronological studies

Over the past twenty years, the Newton Project has been diligently transcribing all of Isaac Newton's papers. With close to ten million words completed, including his alchemical writings on the *Chymistry of Isaac Newton* site, and his Mint papers, Newton's manuscripts have come full circle. Physically dispersed all over the world, from Cambridge to California and from Jerusalem to Geneva, their digital reunion has allowed scholars to engage with the totality of Newton's written output for the first time in history. Only now can we perform truly comparative research, greatly assisted by the availability of high quality images and tools for corpus linguistics and data mining. The first major results of this approach have been Rob Iliffe's outstanding religious biography of Newton, *Priest of Nature* (OUP 2017), and my own forthcoming volume on Newton's working methods and the development of his chronological studies. In this lecture, I will present a radically new picture of how, when, and why Isaac Newton, natural philosopher and mathematician par excellence, decided to devote fifty years of his life to the histories of ancient Egypt, Greece, Persia, and the various other Mediterranean civilizations, and demonstrate how these studies were intrinsically connected with his studies of the prophecies in Scripture.

Tom Scott, Wellcome Collection
Lessons and thoughts on (re) combining digital collections

From surgical instruments to statues of gods and saints, from manuscripts about enchanted fairies to sex workers' phone box cards — the fascinating collection started by Sir Henry Wellcome (1853–1936) represents medicine across world cultures and time periods.

Today some of Wellcome Collection's objects reside in institutions across the world, but the core collection of 3D objects, around 120,000 items related to medicine, are on long term loan to the Science Museum. The manuscripts, artworks, ephemera and books remain at Wellcome Collection as part of a growing collection.

Wellcome Collection provide researchers, academic and professional and amateur, with access to a diverse and fascinating collection of materials. In doing so we hope to challenge how we think and feel about health, by connecting science, medicine, life and art. Digital media, products and services are vital in realising this mission.

From a digital perspective, our aim is to design and build a free and unrestricted digital space where more people than ever can engage, be inspired and explore the connections between science, medicine, life and art. And do this through ongoing innovation and continuous improvement in: digital preservation, collection discovery, editorial content and digitisation. To achieve this vision, we have need to tackle three overarching areas:

1. How to support researcher's finding and discovering our collections in a way that supports their goals and fits with their mental model, not one that requires an understanding of the underlying systems, cataloguing standards or location of those items;
2. How to provide context to those items so that researchers can understand both the historical context of those items and how they relate to other items within the collection?
3. How to provide access to the digitised items in an open and (re)usable way?

In this talk I explore how we have tackled those questions by developing:

- a coherent domain model that has allowed us to join together different sources of data, provide context to those items and provide a unified search and discovery experience across our entire collection;
- A set of open APIs (IIIF image and presentation API) that serves permissively licensed digitised content accessible and available to all, and;
- an open source storage service that allows us to preserve our digital assets;

I will also discuss how this infrastructure has allowed us to experiment with Machine Learning techniques so that we can enrich our collection metadata and, for example, identify named entities to allow for programmatic linking of contemporaneous and semantically similar items within the collection (and potentially beyond those collections we hold at Wellcome); and advanced search techniques that don't rely on metadata e.g. colour search, image similarity and machine vision.

Matthew Symonds, CELL, UCL

An archaeology of reading: early modern library reconstruction through digitisation

The recently-completed four-year research project *The Archaeology of Reading in Early Modern Europe* set out to transcribe, translate and make available online the marginalia and other interventions left behind in their books by two well-known Elizabethan readers and book collectors, Gabriel Harvey and John Dee. This paper surveys the projects methodologies and some initial findings. One outcome of this project has been to more clearly discern the links between the books in Dee and Harvey's ownership and the intellectual programmes of which they were an integral part. Data gathered through the process of transcription allows us not only to capture the other books and authors referenced in annotations, but also to analyse the linguistic features of the annotations in a way suggestive of new strategies for studying collections of annotated books.

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