Mapping Manuscript Migrations: Building and Using a Linked Open Data Environment for Medieval and Renaissance Manuscript Studies

Lynn Ransom  
*University of Pennsylvania*, lransom@upenn.edu

Toby Burrows  
*University of Oxford*, toby.burrows@uwa.edu.au

Follow this and additional works at: [https://digital.sandiego.edu/symposium](https://digital.sandiego.edu/symposium)

Part of the Cataloging and Metadata Commons, Digital Humanities Commons, European History Commons, and the Medieval Studies Commons


This Event is brought to you for free and open access by Digital USD. It has been accepted for inclusion in Digital Initiatives Symposium by an authorized administrator of Digital USD. For more information, please contact digital@sandiego.edu.
Mapping Manuscript Migrations: Building and Using a Linked Open Data Environment for Medieval and Renaissance Manuscript Studies

Presenter 1 Title
Curator, SIMS Programs

Presenter 2 Title
Senior Researcher

Session Type
Event

Abstract
“Mapping Manuscript Migrations” is a digital humanities project that brings together three distinct data sets about the histories of more than 215,000 medieval and Renaissance manuscripts for browsing, searching, and visualization. Four leading institutions from Great Britain, France, Finland, and the United States collaborated on this project, pooling their expertise in Semantic Web technologies and medieval manuscript curation and research, as well as contributing their own data from the three contrasting datasets. The Schoenberg Database of Manuscripts at the University of Pennsylvania, the Medieval Manuscripts Catalogue at the University of Oxford, and the Bibale database from the Institut de recherche et d'histoire des textes—are brought together in a Linked Open Data environment, constructed by the team members from the e-Research Centre at the University of Oxford and the Semantic Computing Group at Aalto University in Finland, to aggregate, enhance, and present the data, with a data model based on the CIDOC-CRM and FRBR00 ontologies.

While also considering the challenges and successes of this international collaboration, Dr Lynn Ransom (Schoenberg Institute for Manuscript Studies, University of Pennsylvania) will show how the project builds on the data and functionality of the source datasets and enables new approaches to research in manuscript history and provenance.

Location

Keywords
Linked open data, manuscript studies, provenance studies, databases, data modeling, semantic web, interfaces, rdf query, SPARQL

Creative Commons License

This work is licensed under a Creative Commons Attribution-Noncommercial 4.0 License

This event is available at Digital USD: https://digital.sandiego.edu/symposium/2021/2021/13
Session Title

“Mapping Manuscript Migrations”: Building and Using a Linked Open Data Environment for Medieval and Renaissance Manuscript Studies

Type of Session

45-minute concurrent session

Abstract

“Mapping Manuscript Migrations” is a digital humanities project that brings together three distinct datasets about the histories of more than 215,000 medieval and Renaissance manuscripts for browsing, searching, and visualization. Four leading institutions from Great Britain, France, Finland, and the United States collaborated on this project, pooling their expertise in Semantic Web technologies and medieval manuscript curation and research, as well as contributing their own data from the three contrasting datasets. The Schoenberg Database of Manuscripts at the University of Pennsylvania, the Medieval Manuscripts Catalogue at the University of Oxford, and the Bibale database from the Institut de recherche et d'histoire des textes--are brought together in a Linked Open Data environment, constructed by the team members from the e-Research Centre at the University of Oxford and the Semantic Computing Group at Aalto University in Finland, to aggregate, enhance, and present the data, with a data model based on the CIDOC-CRM and FRBR00 ontologies.

While also considering the challenges and successes of this international collaboration, Dr Toby Burrows (Oxford e-Research Centre, University of Oxford) will discuss the ways in which the datasets are aggregated, structured, and presented by the “Mapping Manuscript Migrations” project. Dr Lynn Ransom (Schoenberg Institute for Manuscript Studies, University of Pennsylvania) will show how the project builds on the data and functionality of the source datasets and enables new approaches to research in manuscript history and provenance.

Longer Description

This session focuses on the work of the “Mapping Manuscript Migrations” project. Funded by the Digging into Data Challenge of the Trans-Atlantic Platform from 2017 to 2020, Mapping Manuscript Migrations is a digital humanities project that brings together three distinct datasets about the histories of more than 215,000 medieval and Renaissance manuscripts, for browsing, searching, and visualization. Four leading institutions from Great Britain, France, Finland, and the United States collaborated on this project, pooling their expertise in Semantic Web technologies and medieval manuscript curation and research, as well as contributing their own data from the three contrasting datasets: the Schoenberg Database of Manuscripts at the University of Pennsylvania, the Medieval Manuscripts Catalogue at the University of Oxford, and the Bibale database from the Institut de recherche et d'histoire des textes (Paris). These datasets have been brought together in a Linked Open Data environment, constructed by the team members from the e-Research Centre at the University of Oxford and the Semantic Computing Group at Aalto University in Finland, to aggregate, enhance, and present the data, with a data model based on the CIDOC-CRM and FRBR00 ontologies.

The session will be presented by two of the project’s principal investigators: Dr Toby Burrows (Oxford e-Research Centre, University of Oxford) and Dr Lynn Ransom (Schoenberg Institute for Manuscript Studies, University of Pennsylvania). They will explain how the Linked Open Data environment has been constructed, how a unified data model has been developed, and how the source datasets have
been transformed and mapped into this common environment. They will also look at the ways in which key elements of the source datasets (manuscripts, persons, organizations, places, and works) have been matched and reconciled to each other and to external vocabularies.

The user interface developed by the project will also be presented and demonstrated. As well as enabling sophisticated browsing and searching, using a variety of semantic filters, the interface also provides several map-based visualizations of the histories and movements of more than 215,000 manuscripts. Methods for exporting and reusing the data will also be discussed, including the ability to run sophisticated queries with the SPARQL query language. The session will also examine the way in which the Mapping Manuscript Migrations interface builds on and extends the functionality of the source datasets, through a detailed comparison based on a series of specific research questions identified by project researchers and a project focus group.

Finally, the presenters will also discuss the organizational and cultural challenges and requirements of this kind of international interdisciplinary collaboration, which has brought together manuscript researchers, librarians and curators, and computer science experts from four different countries. They will also consider future directions for building on the exciting possibilities demonstrated by these new approaches to research in manuscript history and provenance.

**Learning Outcomes**

- Basic principles and processes for creating a unified Linked Open Data model
- Research benefits of learning and using RDF query languages such as SPARQL
- Strategies for successful international and cross-disciplinary collaboration

**Keywords**

Linked Open Data, manuscript studies, provenance studies, databases, data modeling, Semantic Web, interfaces, RDF query, SPARQL