

Digital Humanities and Information Visualization: Innovation and Integration

by Joan Beaudoin and Sarah Buchanan, guest editors

Digital Humanities and Information Visualization

EDITOR'S SUMMARY

The chairs of Special Interest Group/Arts & Humanities and Special Interest Group/Visualization, Images and Sound have assembled articles that cover a range of research and projects reflecting the confluence of the two topics. Papers describe expanded access to resources in the humanities previously unavailable, leading to a digital renaissance. This access enables data mining and new insights for research and analysis, as well as enhanced possibilities for presenting results with interactive capabilities. Case studies explore information visualization technologies used to enrich a thesis presentation, cast literary analysis in a new light and reveal associations among scholars. The advantages of visualization extend to thesaurus-powered search interfaces but are shown to be an under-exploited tool for music research.

KEYWORDS

humanities	information technology
electronic visualization	data mining

Joan Beaudoin is an assistant professor in the School of Library and Information Science at Wayne State University. Her research focuses on the access, retrieval and use of visual information, digital preservation practice and the information behaviors of humanities scholars. She can be reached at Joan.Beaudoin@wayne.edu.

Sarah A. Buchanan is a librarian and archivist at the Meadows School in Las Vegas, Nevada. She also serves as archivist at the Neon Museum (www.neonmuseum.org/). Her research interests include the use and accessibility of archival materials and information resources in the arts and humanities. She can be reached at sarahab@ucla.edu.

We are pleased to bring you this special issue of the *Bulletin* dedicated to the fields of digital humanities and information visualization. As the current chairs of two ASIS&T special interest groups (SIGs), SIG/Arts & Humanities (SIG/AH) and SIG/Visualization, Images and Sound (SIG/VIS), we recognize that the two SIGs have long-shared, common interests related to the access, retrieval and use of visual, textual and auditory information in the online environment. With these shared interests in mind we decided to highlight the remarkable range of current activities within digital humanities and information visualization. The various papers included in this issue represent a cross-section of topics falling within these two areas. Our mutual interests in coordinating this collection of articles would have borne no fruit without the efforts of many individuals. The *Bulletin's* dedicated editor, Irene Travis, shared her advice and guidance, for which we are very grateful. We also wish to thank the many authors who responded to our call for papers. These authors bring an engaged perspective to their writing as they share current developments and innovative technologies from the profession.

As the pace of change in the information field continues to quicken, many observers and theorists strive to contextualize and understand the research potential of new technologies. The authors of the papers presented here are no exceptions, with each of their papers discussing how technology has the potential to advance research in their respective areas of expertise. The papers selected for this issue range from the theoretical to the practical, from those that identify how the mere act of digitizing and providing electronic access to resources can benefit scholarship to those that present highly sophisticated tools and techniques for data analysis and display. One aspect holds all of

these papers together: each paper shows a commitment to the development of knowledge within their respective domains.

The issue begins with Jordan Ballor's paper elucidating our current digital renaissance and how the Post-Reformation Digital Library offers theological researchers a greater scope of resources than was previously available.

Continuing the discussion concerning the advantages of digitizing paper documents into machine-readable text is Jonathan Hagood's practical survey of the practice of data mining and the tasks it can enable. Hagood discusses how data mining has enabled researchers to investigate patterns and trends that were previously imperceptible. He also summarizes several existing literary research projects and tools useful to this line of research.

The use of tools to analyze materials anew is also discussed by Stephanie Margolin in her paper on how research in the field of American studies might be enhanced through the use of digital tools. Margolin's paper surveys a range of presentation methods using video and collaborative programs.

Researchers and practitioners in the digital humanities have for several decades made use of literary studies to expand the depth of analysis of textual works. Sarah Jones presents an educational discussion of how computers can enhance the practice of literary analysis and suggests that such technologies blur the distinction between the "authority" and the "learner."

Jones' challenge for a re-examination of the analysis performed within a discipline is mirrored by Chris Sula, who draws attention to limited research attention paid to the humanities within the domain of library and information science. Sula notes the limitations of bibliometrics for the study of the humanities and offers a constructive discussion for other types of relationship studies that could benefit future humanities-based and scientific research.

A paper that truly bridges and combines this issue's two fields of investigation is the discussion by Stan Ruecker, Ali Shiri and Carlos

Fiorentino of two visual user interfaces – Searchling and T-Saurus – and their innovative multilingual features. The authors also provide an informed discussion of user behaviors that has broader interest and implications across ASIS&T's membership.

A similar combination of an interactive tool for the visual display of data can be found in the paper describing the Library of Congress's recently launched Viewshare.org. This free, open-source toolkit for creating maps, timelines and other interfaces for digital collections is the subject of Jefferson Bailey and Trevor Owens's article. These authors guide readers through the platform's design and workflow in addition to providing a case study of the Fulton Street Trade Card Collection interface.

The final paper, by Margaret Lam, incorporates the subject of music informatics into the discussion of the digital humanities. In focusing on the "meaning" of studying music, Lam provides basic guidelines for the development of tools useful to examining music. Lam emphasizes the socio-cultural focus of this vein of research, which is so often lost in purely technical studies.

The digital humanities and information visualization are unique in that they combine the best of humanistic thought and scientific ingenuity to develop innovative means of analyses useful to the creation of knowledge. Much of the research in the library and information science domain has revolved around developing innovative techniques and technologies useful for the analysis of information. Examining the many applications that these techniques and technologies have outside of our own domain is an exciting and instructive endeavor. We hope you will find these articles as engaging as we have, and we encourage you to share your ideas and reactions by joining SIG/AH or SIG/VIS. We promise you will find colleagues sharing these common interests. ■