Breaking traditional barriers: Collaboration, impact, and information technology in the humanities

ABSTRACT
The relationship between technology and scholars is changing, along with the definition of technology (information technology, ICT, instructional technology) and its applications in academia and in research (Zhang, 2014). While technology advances at a rapid pace, the sources of barriers and boundaries to extensive adoption in the humanities have remained the same. This panel brings together student, faculty, and professional speakers to examine key topics related to the role of information and technology in the development of research practices for, and about, the arts and humanities. Two core themes will be examined: 1) the importance of collaborative, cross-disciplinary programs, and, 2) the visibility afforded by technology and technology-based engagement allowing greater “impact” in arts and humanities disciplines. Within this context, panelists will discuss a collaborative interactive exhibit of library data, image classification of library collections using Flickr, engagement with digital methods, and an examination of altmetrics and current trends in research assessment. The current and potential impact of information and technology within the context of the arts and humanities is profound. Given the focus on cultural impediments and the need to foster a core set of e-based traditions in many disciplines, additional examination of the themes of collaboration and impact will help to define the continued importance of this topic within ASIS&T. Additionally, this panel responds to the need of information professionals and humanists for practical, implementable techniques to disrupt tradition and integrate information technology in new ways.

Keywords
Digital Humanities, cross-disciplinary research, altmetrics, interactive library exhibits, data visualization, social tagging, digital methods, research assessment, e-research.

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INTRODUCTION
This panel brings together student, faculty, and professional speakers to examine key topics related to the role of information and technology in the development of research practices for, and about, the arts and humanities. Spanning theory and practice across topical areas, two core themes will be examined: 1) the importance of collaborative, cross-disciplinary programs, and, 2) the visibility afforded by technology and technology-based engagement allowing greater “impact” in arts and humanities disciplines. Additionally, this panel responds to the need of information professionals and humanists for practical, implementable techniques to disrupt tradition and integrate information technology in new ways.
The relationship between technology and scholars is changing, along with the definition of technology (information technology, ICT, instructional technology) and its applications in academia and in research (Zhang, 2014). Regardless of the framework, methodology, or scope of the research, the context of traditions and disciplinary cultures, as they relate to information seeking behavior and technical engagement in the humanities, has remained a consistent focus. While technology advances at a rapid pace, the sources of barriers and boundaries to extensive adoption in the humanities have remained the same.

These boundaries are summarized as the particular research needs and traditions of humanists and include: concerns around the reliance on books as a primary source of data; perceptions of physical versus digital objects; the properties, value, and role of primary materials; the authority and trustworthiness of digital resources; lack of a standard quantitative research base; no reliance on networking or shared spaces; the importance of research and learning spaces to the research process; and, the limitations of traditional, non-journal publishing models (Blanke & Hedges, 2013; Kircz, 2004; Rimmer, Warwick, Blandford, Gow, & Buchanan, 2008).

The current and potential impact of information and technology on individuals, organizations, and systems within the context of the arts and humanities is profound. Given the focus on cultural impediments and the need to foster a core set of e-based traditions in many disciplines, additional examination of the themes of collaboration and impact will help to define the continued importance of this topic within ASIS&T.

Within this context, panelists will discuss a collaborative interactive exhibit of library data, image classification of library collections using Flickr, engagement with digital methods, and an examination of altmetrics and current trends in research assessment.

**PANEL ORGANIZATION: DIGITAL METHODS AND EMPIRICAL CASES**

Technology and digital methods in the humanities allow us to think about traditional disciplines, and to examine traditional questions, using a variety of new perspectives. Students, faculty, and professionals – humanist and information professional alike – who are interested in the changing role of technology in the humanities will benefit from the presentations and discussion. Panelists will provide examination of cases and theories as well as actionable takeaways for attendees to discuss and implement at their institutions.

**Visualization, images, and sound: Interactive exhibits and research collaboration**

Highly interactive and visual research, as is developed in the arts and computer science, can be challenging to an academic library. However, highlighting faculty research poses a clear opportunity to form new partnerships between the libraries and energetic faculty who are looking for ways to engage and integrate their work with the campus community. By joining forces, interactive exhibits such as The Invisible Library: A Forest of Information at The Ohio State University, integrate both the goals of the faculty and of the library.¹

Meris Mandernach and Alex Oliszewski from OSU will discuss a pilot project that was completed using projection and interactive software to explore minimally-invasive, flexible, and multi-modal ways of staging exhibitions in the University Libraries. This presentation will address the genesis of the project, the process as well as benefits and challenges of collaboration between research faculty and the library. It will also detail how collaboration and cross-disciplinary research can impact new knowledge creation and chart a course for lasting partnerships on campus. This process could easily be replicated at other institutions and the panelists will provide suggestions for implementation elsewhere.

**Structure, power, and social tagging**

Web 2.0 technologies have introduced new opportunities for user engagement and knowledge contribution and challenged the traditional approaches to description and organization of cultural heritage materials (Alemu, Stevens, & Ross, 2012; Matusiak, 2006). In particular, social tagging has transformed the Web from a static platform into a dynamic, shared information space (Ding et al., 2009).

Using the theoretical framework developed by Michel de Certeau in The Practice of Everyday Life, and an examination of image classification in Flickr and The National Library of Ireland’s Digital Collections, Melissa Higgins asserts that despite libraries’ adoption of some social tagging techniques to capture contextual detail, current strategies do not go far enough.

Through technology, the importance of collaboration and diversity will continue to permeate the social fabric of everyday life. Instead of existing uses of social tagging, which seek to fold these new methods into old systems, and thereby preserve them, new classification systems will involve changing the ways we think about knowledge and organization, and will need to be designed to truly reflect and respond to the tactics of individuals. While discrepancies between motives remain, Melissa argues that digital libraries and individuals can benefit from increased collaboration between traditional and emerging forms of classification. To be successful, information environments must embrace new forms of social discovery.

¹ The Invisible Library: A Forest of Information (August-December 2014) was a temporary exhibit that utilizes projection and interactive technology to engage library users. A full video of the exhibit is available: go.osu.edu/invisiblelibrary
**Historical thinking with digital methods**

Over the last three decades, history educators have advocated a new form of instruction that relies less on lectures and information delivery and more on critical thinking and interactive student engagement. Recent technological advancements have influenced and complemented historians’ calls to implement these reforms.

Historian T. Mills Kelly (2013) – a proponent of historical thinking with digital methods – asks, “if new media are changing our discipline, then how can the teaching and learning of our discipline not change as well?”

By enabling students to easily access and interpret the past, and providing new ways to present their work, digital technology has helped create new ways to teach the humanities. Christian James will review recent publications that promote the teaching of historical thinking fused with digital technology. Through focusing on engagement with digital archives and primary sources and contributing to digital projects, history education reformers can encourage students to improve information literacy and increase their technical engagement with information sources. The presentation will conclude with a discussion of possible ways that the library and information science field can collaborate with history education reformers to promote historical thinking in the classroom.

**altmetrics, social media reach, and impact in the humanities**

Social networks, open access, and new models of publishing afford humanists more options and opportunity to share their research, find potential collaborators, and increase their academic visibility and influence. While supporters are careful to note that altmetrics are not a replacement for traditional citation metrics, information professionals and humanists have a greater potential role to play in disrupting research assessment in the humanities.

Citation indexes and bibliometrics analysis are difficult to apply to humanities research because of the focus on non-journal and/or foreign language publishing, fewer social platforms for sharing, a lack of consistent annual citation data for humanities publications, and “nuances” in footnoting and referencing style (Ardanuy, 2013; Hellqvist, 2010). Even though altmetrics do not currently resolve contested issues associated with all of these problems, there is significant evidence that these measures may provide humanists with new indicators of influence not previously available with traditional forms of research assessment (Hammarfelt, 2014).

Jeremy L. McLaughlin and Stacy Konkiel will discuss the findings of a recent research project examining the distribution of humanities content in the open repository figshare and the availability and distribution of altmetrics counts for this content compared with previous humanities-based and cross-disciplinary studies. Jeremy and Stacy will explore specific examples of how humanists can maximize the online visibility and social media reach of their research-related outputs and begin incorporating altmetrics into the discussion at their institution.

**Panel Discussion and Participants**

These presentations and discussion points represent the nexus of technology and the humanities in studies of images, historical methods, social media, cross-disciplinary and collaborative research environments, data visualization, and assessment of research outputs. Each panelist will focus on practical, relevant, and actionable suggestions for attendees to implement as part of the discipline-specific information technology strategy within their organization.

Led by our moderator, Dr. Krystyna Matusiak, panelists and attendees will address the following questions and discussion points:

- Why are there still cultural impediments to digitization in certain disciplines?
- Should the humanities be compared to the sciences as it relates to the application of eResearch principles or to the processes of digitization in general?
- How does technology influence pedagogy and what role do faculty and libraries play in the discipline-based digital literacy of students?
- How do collaborative, cross-disciplinary programs increase researcher visibility and the notion of researcher impact?

**Jeremy L. McLaughlin (panelist)**

Jeremy L. McLaughlin is the Chair of the ASIS&T Special Interest Group for Arts and Humanities, a MLIS Candidate at San Jose State University, and a Research Solutions Specialist at ProQuest. His research interests include the representation of humanities content in discovery platforms and open repositories, author profiling, bibliometrics, research metrics and assessment, text mining, and data visualization.

**Meris Mandernach (panelist)**

Meris Mandernach is an Associate Professor in University Libraries and is the Head of Research Services at The Ohio State University Libraries. Her MS in Library Science is from the University of Illinois at Urbana-Champaign. Her research interests include user access to resources and services and focus on highlighting faculty research through interactive exhibits, developing innovative research spaces and services, and providing students with alternative learning experiences through hackathons.

**Alex Oliszewski (panelist)**

Alex Oliszewski is the Assistant Professor of Media Design for Live Performance and Installation at The Ohio State University. He holds a joint appointment between the
Department of Theatre and The Advanced Computing Center of Arts and Design (ACCAD.) In 2014 Alex taught a series of advanced skills workshops in media design and its attendant technologies for Live Design Institute at Arizona State University, Fort Lewis College in Durango Colorado.

Christian James (panelist)
Christian James is a MLS Candidate at University of Maryland, College Park and Digital Curation Fellow at the National Agricultural Library. He earned his MA in History from George Mason University and has worked for the Center for Population Economics at the University of Chicago and at ProQuest.

Melissa Higgins (panelist)
Melissa Higgins is a first-year Library and Information Science student at the University of Denver. Previously, she graduated in 2013 with a Master’s in English Literature from the University of South Carolina, concentrating in 20th century British Literature. She is primarily interested in digital collections, the digital humanities, and the changing landscape of research in academic settings.

Stacy Konkiel (panelist)
Stacy Konkiel is Research Metrics Consultant at Altmetric, a data science company that helps researchers discover the attention their work receives online. She studies incentives systems in academia, research metrics, and disciplinary attitudes towards the idea of “impact”. Since 2008, she has worked at the intersection of Open Science, research impact metrics, and academic library services with teams at Impactstory, Indiana University & PLOS.

Krystyna K. Matusiak (moderator)
Dr. Matusiak is an Assistant Professor in the Department of Research Methods & Information Science, Morgridge College of Education, University of Denver. Her research interests include digital library development and evaluation, indexing and retrieval of images, information seeking behavior, and use studies.

REFERENCES


