

## **A National Forum on principles of Accessibility and Inclusion for the Design of Library Systems**

*“How do we simultaneously serve real-world computing needs and avoid perpetuating the marginalization of women and indeed any group in technology?” (Bardzell, 2010, p. 1304)*

Overview: Libraries are increasingly serving diverse and widely distributed communities; curating heterogeneous collections drawn from broadly distributed sources; and facilitating discovery of massive collections. This creates substantial pressures to provide services that are accessible to communities with a range of abilities and viewpoints [Liew 2012]; and raises concerns that the algorithms, interfaces, and ontologies embedded in current library systems incorporate substantial biases [Sadler & Bourg 2015]. We propose to convene a workshop to identify gaps, opportunities, and best practices for designing library systems that can incorporate local knowledge, accommodate different modes of learning and cognition, and foster diverse approaches to organizing information. The result will be a report recommending approaches for libraries to guide development of open source library systems, and to engage with vendors around implementing more diverse, inclusive and accessible library information systems.

Project Director and Partners: The project will be directed by Dr. Micah Altman, Director of Research for the MIT Libraries, and Head/Scientist for the Program on Information Science (<http://informatics.mit.edu>). Dr. Altman will be responsible for overall scientific design and execution of the project. Dr. Altman has authored numerous scientific papers in social and information science; has lead the development of digital repository systems and standards; and serves in leadership roles in many library and stewardship organization

The project will be co-directed by Dr. Chris Bourg, Director of Libraries at MIT, who will provide expert guidance on the identification and selection of conference participant; and will critique the white paper. (These efforts will be unpaid for these efforts and should not be considered cost sharing.) As director, Dr. Bourg has responsibility for the 5 libraries of MIT, special collections, university archives, and has oversight of the MIT Press. Dr. Bourg holds PhD in Sociology from Stanford University, and has written and spoken extensively on leadership and diversity, and the future of libraries and scholarly communication.

Proposed Work Plan & Preliminary Results: We propose to recruit 20-25 expert participants for a workshop, each of whom has expertise in library systems architecture and/or in expertise in accessible and inclusive design. The proposed project will build upon a range of previous research, and we aim to recruit participants in with research/development expertise in at least the following areas: feminist design principles for human computer interfaces and information visualization [Bardzell 2010; D’Ignzio and Klein 2016]; Universal Design for Learning [CAST 2011]; design for global public inclusive information infrastructure [Vanderheiden 2011]; design of web accessibility standards (W3C-ARIA) [World Wide Web Consortium 2014]; and approaches to accommodating neurodiversity in information systems [Dalton 2013] The workshop will complement existing workshops such as ARL’s *NDLC* ([nldc.info](http://nldc.info)) and IPAC’s *CIDLIS* ([ipac.umd.edu](http://ipac.umd.edu)), which focus on building diversity within library organizations and on identifying the needs of diverse groups of information users – and we will aim to recruit organizers of these workshops, and to present a summary of workshop results there.

In preparation for the workshop we will design an online survey that aims to identify perceived gaps in accessibility and inclusivity of current library systems and dissemination it through mailing lists for ARL, NDSA, ALA and related organizations. Then, we will prepare background material for workshop participants summarizing the survey result; describing exemplar use cases for discussion; and providing a concise annotated bibliography of research literature relevant to information accessibility and diversity.

The project director will participate in each workshop to solicit position papers and presentations; and facilitate ongoing discussion. We will then draft preliminary reports that gaps in current library system; design principles for accessible & inclusive library systems; and emerging practices and exemplars. We will then recruit 2-4 independent expert reviewers to comment on a draft of the report, and will revise accordingly.

Relevance: The proposed work will move library services in the United States forward by enabling them to design information systems that better address needs for accessibility, diversity and inclusion. Further, it will contribute to the systematic understanding in the field of library of information science on biases in information algorithms, interfaces, and organizational systems.

Impact: Libraries face increasing pressure to serve patron communities that are broad, diverse, and have a range of needs for accessibility. However, while diversity and inclusion are core library values, library information systems are rigid in the way that they incorporate, organize, and present information. This project will address this gap by providing a set of principles and practices that serve as a compass for those who aim to design or acquire library systems that reflect the diverse knowledge and perspectives of their communities. Further, expanding the inclusiveness of library systems will open opportunities for libraries to serve as platforms for communities that incorporate local community knowledge and unique community points of view.

Performance Goals & Outcomes: The direct outcomes of this work will be a workshop report and summary white paper, made available for open access, under a creative commons license. We will evaluate the results of this project through participant satisfaction surveys, and through measures of dissemination of the report: citations, downloads, social media mentions, and press coverage.

References:

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Budget: We estimate that a budget of \$70,071 will be sufficient for the project. This will support 20-25 expert participants in traveling to the workshop; will pay for staff time to support conference logistics; to record discussions; and to prepare the report. MIT will contribute conference hosting facilities. The breakdown is: salaries and wages \$11,687 ; fringe benefits\$ 3,798; office supplied \$500; professional services (copyediting, manuscript preparation, etc.) \$8,000; books \$250; meals and catering \$5,000; participant travel support \$21,750; indirect costs \$17,086.