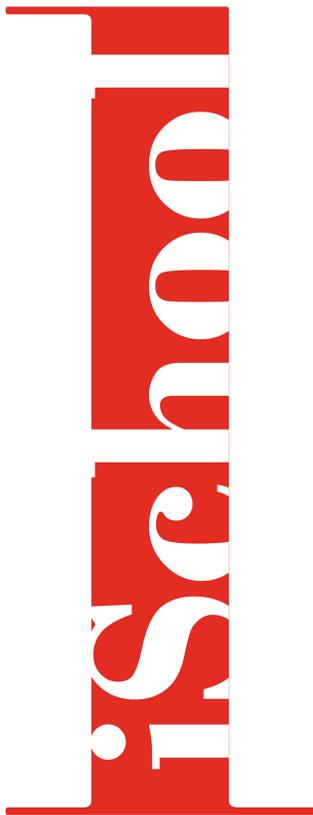# Re-Envisioning the MLS:
Issues, Considerations, and Framing

Presented to:
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September 30, 2014

The iSchool's MLS Program In Context

In order to ensure that the University of Maryland's MLS program continues to prepare information professionals who are equipped to navigate the modern information climate, it is imperative to consider relevant trends. This report has been prepared to highlight top trends in the field and provide an overview of the existing structure of the MLS program. The intent of the document is to inform the Board's discussion throughout the Re-Envisioning the MLS process. For information about how the MLS program currently operates, please see the Program Structure paper.

This report is informed in large part by our own analysis, but also the newly released report by the American Library Association's Office of Information Technology and Policy: *Trends Report: Snapshots of a Turbulent World*. Our report seeks to provide an initial analysis of key trends and identify potential implications for the iSchool's MLS program. Our hope is that this analysis can serve as a starting point for our discussion as we look to "Re-Envision the MLS." We welcome your input and insights, and leadership as we move forward with our efforts.

Our focus on information in an information economy is our competitive advantage. But what does the future MLS degree look like? What should it look like? What trends can we identify that impact the careers of librarians, archivists, and other information professionals – and how we prepare them for what will surely be dynamic and constantly evolving careers?

Changes in the Field and Cultural Climate

Along with many other sectors, the information field is undergoing a period of rapid change. In effect, we have three prevailing contexts that affect the MLS Program at the University of Maryland:

- Changes in the larger social, political, technology, learning, and information contexts that impact the larger information professions in general, and cultural institutions such as libraries, archives, and museums in particular.
- Changes in our immediate area (e.g., demographics, economic, congestion, and other) that impact the goals of our program, the intended employment agencies, and career paths for our students.
- Changes in the perception that librarianship is a viable career. Now almost annually, *Forbes* magazine publishes an article about how librarianship and libraries are "dead."[1] Hacklibraryschool.com has had a variety of threads on the employability of graduates and the value of MLS programs and degrees. To be sure there are stories published in Forbes and elsewhere about the value of libraries, but the sense that the viability of careers in libraries, and libraries themselves, is in peril persists.

More specifically:

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[1] http://www.forbes.com/sites/timworstall/2014/07/18/close-the-libraries-and-buy-everyone-an-amazon-kindle-unlimited-subscription/; http://www.forbes.com/pictures/efkk45ifij/no-1-worst-masters-degree-for-jobs-library-and-information-science/.

- **Federal Challenges.** We've experienced sequestration, a shutdown, and years of continuing resolutions to fund the federal government. As noted in a recent report,[2] the number of new federal employees has declined by 37.5% since 2009, and many of those positions were hires for existing positions rather than newly created jobs. This situation has also created a renewed budget deficit in the states of Maryland and Virginia.[3]
- **State/Local Challenges.** State and local government workforces have faced significant reductions since 2009. In 2011 alone, state and local governments cut nearly 250,000 jobs. Though there has been some hiring in recent months, the state and local workforce reductions have been significant, and likely will not grow to pre-recession levels.[4]
- **Job Opportunities.** Securing a job can be challenging –
  - The Bureau of Labor Statistics data puts library job growth at 7%, which is defined as slower than average.[5] Archives fair better, with a projected 11% (as fast as average) anticipated growth rate.[6]
  - Libraries have faced budget cuts and hiring slowdowns. The MLS fits into a larger library narrative of budgetary constraints, hiring freezes, and the shift to part-time and/or non-professional positions. For example, between 2007 and 2012, the percentage of public library staff without a master's degree from an ALA-accredited program increased from 32.5% to 34.1%.[7] In short, hiring in at least public libraries is shifting to non-MLS degreed employees with a range of skills (education, public health, technology, Web design, and other areas of necessary skills).
  - State Library Agencies have witnessed stagnant and or budget reductions as well.[8]
- **Information Providers.** There are many market entrants who provide information and information services. Yes, Google is often mentioned, but it's not just Google. Individuals have many viable options to meet their information needs, and a library or librarian might (or might not) be a preferred source.
- **Nature of Information.** The nature of information is changing, and so too is what it means to be information literate. With the Internet of Things, Big Data, Smart Cities/Government, Open Data, and more, we are awash in all types of data and information. Having data and emerging information literacy skills (analytics, visualization, curation) will be critical to success in education, employment, and serving our communities.

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[2] http://ourpublicservice.org/OPS/publications/download.php?id=230

[3] See (http://www.washingtonpost.com/local/md-politics/maryland-panel-sees-238-million-revenue-shortfall-in-current-fiscal-year-and-next/2014/03/06/d23ed3ac-a57a-11e3-84d4-e59b1709222c_story.html and http://www.washingtonpost.com/local/virginia-politics/virginia-ends-fiscal-year-with-439-million-less-in-revenue-than-expected/2014/07/10/cb6ddd5e-0879-11e4-a0dd-f2b22a257353_story.html).

[4] See http://www.governing.com/gov-data/public-workforce-salaries/monthly-government-employment-changes-totals.html.

[5] (http://www.bls.gov/ooh/Education-Training-and-Library/Librarians.htm).

[6] (http://www.bls.gov/ooh/education-training-and-library/curators-museum-technicians-and-conservators.htm).

[7] U.S. Institute of Museum and Library Services. (2009). *Public Libraries in the United States Survey: Public Library Data Files, FY 2007*. Available at: http://www.imls.gov/research/pls_data_files.aspx; U.S. Institute of Museum and Library Services. (2014). *Public Libraries in the United States Survey: Public Library Data Files, FY 2012*. Available at: http://www.imls.gov/research/pls_data_files.aspx.

[8] U.S. Institute of Museum and Library Services. (2014). *The State Library Administrative Agencies Survey, FY 2003–2010, 2012*. Available at: http://www.imls.gov/assets/1/AssetManager/2012%20SLAA%20Report.pdf.

- **Community Changes.** We're growing older and more diverse in terms of race, ethnicity, income, ability, and many other factors. Meeting the information and technology needs of increasingly diverse populations is essential for future information professionals. While the nation is projected to become a majority minority country by 2050, the projection is that Maryland will transition to a majority minority state by the 2020 Census.

These changes are bringing about new opportunities for cultural institutions. The needs of our communities – to ensure access to information, to ensure equity, to ensure that we preserve our cultural record, to ensure an open and transparent government, to ensure that all students are ready to read and ready to learn – are great, if not greater, than they have ever been, and the information space is wide open and full of opportunities to innovate.

Key Trends

The trends discussed in this paper are grouped into the following categories:

- ***Technology*:** The continuing implications of rapid advances in how we use technology to engage with, access, and share information are currently unknown. However, libraries and cultural institutions must prepare for these changes to adequately serve community needs.
- ***Data and Analytics***: Open data, open government, and community challenges in areas of health, education, workforce, environment, and various other key issue areas increasingly rely on data in a variety of formats. Moreover, they rely on a range of analytics skills, from data curation, manipulation, analysis, and visualizations. The role of libraries in local data infrastructures will take on increased significance.
- ***Learning***: Learning strategies are changing as evidenced by the move of a majority of states to the Common Core. So too are the types of knowledge and skills that our learners require so that we have life-long learning and skills development opportunities. Increasingly this means more STEM, digital technologies, digital literacy, data, visualization, coding, hacking, etc. At the core is the need to build inclusive opportunities for continual learning.
- ***Demographics***: The US is undergoing significant demographic shifts that will influence the configuration of the communities we serve. Population growth, an aging public, and increased diversity will all contribute to changing demands for information services, content, and engagement.
- ***Policy***: Current policy decisions being made at the international, national, state, and local levels will have significant impacts on the future of technology, education, equity, and many other aspects of society. These decisions hold great potential to dramatically affect the role of cultural institutions in the community and challenge long-standing library values.
- ***Resources***: Libraries exist in an environment of increasingly limited resources; tight budgets, environmental shifts, and increasing strain from growing population will necessitate operational changes in the coming years.

The implications of these trends are not mutually exclusive, nor do they operate in isolation. Often policies are a reflection of our society and can shape the availability of resources;

resources impact the technologies to which various populations have access and use, as well as educational opportunities; and the economy is dependent on have a work-ready workforce.

The following table attempts to identify specific trends and implications/questions for MLS education. They are not exhaustive, and indeed you may think that we haven't gotten them "roughly right" as of yet – or have missed some critical trends that we need to consider and factor into the discussion.

The iSchool celebrates its 50th year in 2015. During that time, it has provided a high quality and innovative MLS program that has grown to include the Shady Grove campus and online instruction. This discussion is about the next 50 years. Given the context in which our MLS program resides – and will reside in the coming years – we seek to reinvent our program to ensure a vibrant and high quality MLS program that prepares our future leaders. We welcome all input as we work towards this goal.

Selected Trends & Implications

Technology

As information technology continues to advance, libraries must find ways to integrate these technologies into their operations. These rapid developments have the potential to destabilize and disrupt traditional ways of viewing the economy and cultural institutions. There are broad implications of these emerging trends, including:

Trend	Explanation	Questions
Ubiquitous Computing	Technology is becoming increasingly integrated into our everyday lives through cloud computing, the Internet of Things, and the constantly evolving capabilities of mobile devices. Augmented reality and wearable tech inventions such as Google Glass are on the horizon. These advancements will change the way people interact with technology and user expectations.	• How will libraries respond to hyper-connectivity? • How will increased remote access impact the library as a physical space? • How do library services fit into the "Internet of Things" with interconnectivity across a broad spectrum of devices, technologies, and sources of data/information?
Future of the Internet	Many groundbreaking projects are being encouraged and funded by major players in the field, like developing new network architecture and ultra-high speed internet. Restructuring the internet will open the door for innovations and applications that will revolutionize yet again the way we interact with the internet.	• How will libraries continue to adopt new structures? • Will librarians be able to maintain relevant skills as the Internet – and its increasingly advanced applications – evolves?
Privacy and Security	As more services migrate online there are more opportunities for users' privacy to be compromised. Government agencies and companies have increased their surveillance, tracking, and data collection activities. Emerging technologies, changes in internet governance, and an increased awareness of the vulnerability of the internet will continue to influence how people choose to interact with technology.	• Will libraries be equipped to serve users' needs and provide access to emerging technologies while maintaining adequate security and ensuring privacy of information? • How will libraries weigh the benefits of using data collection to improve their services against the risks to user privacy?

Data & Analytics

Open data, open government, and community challenges in areas of health, education, workforce, environment, and various other key issue areas increasingly rely on data in a variety of formats. But moreover, they rely on a range of analytics skills, from data curation to manipulation to analysis to visualizations. The role of libraries in local data infrastructures will take on increased significance. There are broad implications of these emerging trends, including:

Trend	Explanation	Questions
Data Management/ Curation	Libraries are increasingly inundated with data as more library procedures are managed digitally. Decisions must be made about the curation of digital assets, data management practices, and digital collections practices.	• In light of big data, increased mobility, and digital overload, what is the role of libraries in curating and managing data for users? • How will libraries manage their own digital records? • Can libraries take advantage of crowdsourcing and citizen science efforts? • What is the libraries' role in the preservation of digital media?
Building local data infrastructures	The creation of community data repositories to inform decision making, civic engagement, open government, hacking, and other support structures requires a range of data infrastructures. While large cities may have this infrastructure, smaller communities do not, and the library can have a key role to play in this space.	• What is the role of libraries in building, maintaining, and sustaining local data infrastructures? • What types of data analytics skills do librarians need? • How can community analytics feed into engagement, open government, and other community building and transparency efforts? • How can libraries help fill in the gaps left behind by the lack of local investigative journalists – by perhaps helping build local citizen journalism capacity?

Learning

Learning strategies are changing, for example, with the move of a majority of states to the Common Core. But so too are the types of knowledge and skills that our learners require so that we have cradle to grave learning and skills development opportunities. Increasingly this means more STEM, digital technologies, digital literacy, data, visualization, coding, hacking, and other skills. At the core is the need to build inclusive opportunities for continual learning. There are broad implications of these emerging trends, including:

Trend	Explanation	Questions
Librarian Training	The advancements in information technology are changing the nature of work in most sectors. But so too is the content that users need to succeed in learning and the workforce. Libraries play an important role in supporting learners and workers by offering tools and training to help them build future-ready skills. In this climate of rapidly evolving technology, librarians are increasingly required to maintain a complex set of skills and knowledge base.	• Will librarians have adequate training to address the needs of users in an environment of ever-changing technology? • How will librarians develop the necessary STEM skills? • Are libraries equipped to provide ongoing training to ensure that staff skills remain relevant? • Do MLS programs need to provide curriculum development, lesson plan development, instructional design, and other pedagogical tools?
User Instruction	The needs of individuals – from ready to read to STEM to digital content creation (and more) requires a range of math, science, engineering, programming, and other skills.	• How do libraries support/continue to support STEM (STEAM) learning in their communities (schools, public, academic, other)? • What types of candidates do MLS programs need given this context?
Learning	Learning content and techniques are changing. A significant shift to the Common Core is occurring now, which has an impact on all learning subjects – and how learning is facilitated.	• How do libraries support/continue to support national, state, and local education efforts? • What types of skills do librarians need to lead learning activities? • What type of expertise and skills do librarians need to meet the needs of children/youth to ensure libraries offer 'connected learning' experiences?

Demographics

Changing demographics in the US will lead to changing user needs. The implications of the following population shifts will vary depending upon the type and location of the library. However, all libraries will be affected by these changes. The major demographic trends include:

Trends	Explanation	Questions
Population Growth	A rapidly growing population has many implications for communities. The trend of people moving into cities and suburbs, as well as concentrated growth in the South and West continues. Growth from a higher birth rate, a lower death rate, and immigration will put a strain on the economy, the environment, and other resources relevant to library services.	• Are libraries prepared to provide services to a growing population? • How will libraries respond to larger communities without increased funding?
Aging Populations	As the population grows, there will also be a significant increase in adults above the age of 65. This change will require libraries to adjust their services and address conflicting interests between generations.	• Will considerations like pension payouts affect the funding pool shared by libraries? • What library services will older adults expect or need to meet their information needs?
Persons with Disabilities	As the population ages, so too does the number of persons with a range of motor, visual, and/or other disabilities.	• What skills do librarians need to better meet the information needs of persons with disabilities? • How do librarians take leadership roles in the building of inclusive communities?
Youth Populations	The number of individuals younger than 18 continues to grow overall, requiring continued and rethought engagement with future readers and learners. Moreover, the careers into which these future generations will enter are changing.	• What skills do librarians need to better meet the information needs of new learners? • How do librarians ensure that the next generations value libraries? • What learning strategies, programs, and skills do librarians need to promote and support learning in children?

Trends	Explanation	Questions
Increased Diversity	As minority populations continue to grow, libraries (and individual librarians) must be prepared to address the complex needs of increasingly diverse user groups. The US is on track to become majority-minority by 2050. Maryland will reach that status by the 2020 Census. Shifting demographics will change the types of services the library is expected to offer. For example, minority populations are disproportionately affected by low literacy, numeracy, and digital skills and are therefore are more likely to benefit from instructional courses.	• Are libraries prepared to adjust services to meet the changing needs of their community? • How do we prepare future librarians to serve diverse communities?
Increased Inequality	The persistence and increase of wealth and income gaps in the US are exacerbated by disparities in access to education, technology, and economic opportunities. Libraries have long been addressing the digital divide by providing free access to technology.	• What is the role of libraries for those "left behind" as technology continually moves forward? • Will libraries continue to play a part in bridging gaps as users increasingly move to mobile computing?

Policy

Four particularly relevant and contentious topics are being discussed by policy makers, which have implications for every facet of information services. They are as follows:

Trend	Explanation	Questions
Net Neutrality	Decisions being made at the national level about open access versus the interests of large corporations and internet service provides will have an impact on the internet practices of library users.	• How will recent net neutrality rulings affect libraries' ability to offer access to users?
Privacy and Security	Privacy and security concerns will continue to be affected by policy decisions at all levels, as well as by the advancement of technology. Global conflicts and disparate national priorities will impact how well the infrastructure of the internet is regulated worldwide.	• What impact will current conflicts over privacy and the fear of cyber attacks have on open Internet collaboration in a global context? • Will the Internet continue to be a trusted worldwide medium for communication?
Rights Management	The shift to digitization and digital publishing of books, music, television, and other materials has given rise to a complicated new idea of ownership. Sharing and replication is easy and common, which confuses copyright and digital rights management.	• How will digital piracy affect collection and lending policies in libraries? • What other implications will emerge as digitization increases?
Accessibility and Usability	Though not often at the forefront of policy debates, usability and accessibility are greatly impacted by policy decisions. These decisions will affect the usability of future innovations.	• As libraries strive to provide equal access to all populations, how will they be affected by policy decisions and enforcement?
Equity/Social Justice	As inequality grows, there will be debates on how best to ensure opportunity for all.	• What policy skills do MLS students need to advocate on behalf of their libraries, their profession, and their communities?

Resources

The value society places on resources is shifting rapidly. These changes will affect how libraries allocate resources in the coming years. The following trends will impact how libraries navigate this new environment:

Trend	Explanation	Questions
Shifting Revenue Models	Many businesses in the information field are taking innovative approaches to stay relevant. For-profit businesses are focusing on delivering social good in financially sustainable ways. The sharing economy is also a rapidly growing part of the current economy. Libraries are already beginning to participate through collaborations like HathiTrust, the Digital Public Library of America, and innovate lending programs such as tool libraries.	• How will libraries be affected if a financially self-sufficient model of cultural institutions becomes viable? • Will libraries continue to be competitive in the field?
Decentralization of Information	Mobile technology and increased access have served to disconnect information from time and place. We live in an on-demand culture where access is not dependent upon location.	• Can libraries attract users who want and expect immediate, convenient access? • What do they have to offer as a physical space that solely online entities do not?
Information Deluge	More information than ever is available to users, and much of it is free. While this increased access has many benefits, there are downsides as well. Information providers must help users navigate this flood of information and data.	• Does this make libraries less relevant? • What do libraries offer that differentiate them from other information providers? • How can libraries help users combat digital overload?
Content	Libraries work more and more with data and digital materials rather than traditional materials. The changing nature of the content we create and make available to users has an impact on how libraries serve user needs.	• How does this shift change collection strategies? • What impact does this have on how library space is allocated?