Tools for Building our Information Future: Emerging Technologies Vital to Medical Libraries

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Research Question
What skill sets do medical librarians need to be strong partners of continuing effectiveness to the changing environment of technology?

Objective
As healthcare professionals steadily incorporate emerging technologies into their practice and education, health sciences libraries need to investigate, adopt, and provide learning opportunities on relevant and forthcoming technologies. This study identifies emerging technologies central to medical librarianship and serves as an exploratory project for research on skills and information structures medical librarians need in this changing environment.

Methodology
To gather insight on the emerging technologies critical to medical librarianship, the authors identified forthcoming trends and newly adopted tools through an online survey and two focus group sessions. First the authors identified tools and technologies of interest to medical librarians and/or their communities, collaborating by using mind-mapping software to develop a flowchart that shows their relatedness. This map informed trends to explore in the survey and focus groups. The online survey and two Twitter-based focus groups, conducted in summer 2013, were distributed through a variety of media (Twitter, blogging, email), targeting medical librarians and healthcare leaders.

Focus Groups and Survey

Consensus between Think Tanks

Interesting Overlaps between Groups

Example of Anticipated Outcomes

<table>
<thead>
<tr>
<th>Database Searched</th>
<th>Number of results</th>
<th>Search Strategy for 3D Printing</th>
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Results
The data from the survey and focus groups enriched the flowchart with additional technologies, also identifying appropriate roles for medical librarians. The flowchart includes over 80 main groups of emerging technologies, some being broken down for more detail about the technologies. The main roles for librarians were identified as that of an organiser and provider of information and a guide and teacher. Collected data was analyzed to determine gaps, most significant technologies, and potential applications.

Conclusion
These technologies have the potential to be used for communication and education by librarians, on the human body, in health care delivery and public health, and in traditional librarianship. Additional research should address barriers for adoption and concerns of librarians for these and other emerging technologies.

Current and Future Outcomes
This project has currently generated one infographic, two presentations, and three posters at professional meetings. A final report as a white paper and a journal article are forthcoming later in 2014. The white paper will include search strategies with highlighted examples of targeted technologies for other medical librarians to use and adapt in their work.