

Evidence-Based Practice and Emerging Educational Technologies:

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In recent years, I have become increasingly aware of conversations regarding emerging technologies in the higher education and library fields. I have attended workshops and conference sessions on the topic, read annual NMC Horizon Reports (Higher Education and Library editions), followed the conversations of my colleagues online and off, and taken this graduate course on current issues in educational technology. Through these avenues, I have learned of many exciting technologies and learned of many educational applications for them. I have even heard it said that you must not use a technology for technology's sake but to fill a specific pedagogical need. However, in the climate of academic libraries where evidence-based practice is expected, I have struggled with how to go about actually adopting emerging technologies before they have become the tools of yesteryear. Implementing or promoting a new technology within the UAA/APU Consortium Library on the hopes that it will work out as anticipated is irresponsible. I need something to show that success is likely. How can I possibly demonstrate the efficacy of a technology so new that rigorous research has not yet been published?

When I stumbled upon Hayman and Smith's recent article, "Sustainable decision making for emerging educational technologies in libraries" (2015), I immediately recognized it as a must-read. The article spoke directly to my concerns. The authors explored the issue of evidence before presenting a model for the responsible review and selection of emerging educational technologies based on evidence in the absence of research on that specific technology or application (Hayman & Smith, 2015). Though the model was developed specifically for

academic libraries, I would argue its relevance to other contexts, such as other library types, higher education institutions in general, and K-12 education.

Hayman and Smith (2015) argued that the hang-up that librarians have when reviewing emerging technologies through the lens of evidence-based practice is a narrow definition of what counts as acceptable evidence. Certainly, we would prefer to have hard evidence, rigorous research on the exact technology and application we are exploring to which we can point. The authors encourage readers to look for research on similar technologies or applications for their hard evidence. They go further to point out that evidence-based practice does not necessarily require hard evidence, but rather the “best available evidence” (p. 11, p. 15). They pointed to the research of Koufogiannakis (2012) to argue for the value of “soft evidence,” “experience and accumulated knowledge, opinion, instinct, and what other libraries or librarians do” (p. 11). Hayman and Smith (2015) added “input from colleagues, tacit knowledge, user feedback and anecdotal evidence” as examples of soft evidence that may be used (p. 11). Taken together, hard evidence related to the technology and application in question and more directly targeted soft evidence provide a compelling body of evidence on which to base a decision.

Having established what constitutes acceptable evidence in evidence-based practice related to the review of emerging technologies Hayman and Smith (2015) present a model for decision-making model for their selection. First, one must “[articulate] instructional goals and learning outcomes” (Hayman & Smith, 2015, p. 12). Next, one must determine whether use of the technology in question supports the learning outcomes. Lastly, the model requires one to gather informal or soft evidence by searching the web and asking one’s professional network for leads.

In many ways, Hayman and Smith's article (2015) comes across as common sense, meaning that nothing presented is shocking or novel even to a relatively new practitioner. However, their thorough literature review puts that common sense into a context of research, thereby legitimizing it. Having a clearly articulated and evidence-based model provides a framework for proceeding with the review of emerging technologies that withstands later questioning in a way that "common sense" cannot. I appreciate feeling empowered to use different types of evidence to inform decisions rather than being stuck on a desire for direct, rigorous research on a particular technological tool or application of it.

References

- Hayman, R., & Smith, E. E. (2015). Sustainable decision making for emerging educational technologies in libraries. *Reference Services Review, 43*(1), 7-18.
doi:10.1108/RSR-08-2014-0037
- Johnson, L., Adams Becker, S., Estrada, V., and Freeman, A. (2015). *NMC horizon report: 2015 Higher education edition*. Austin, TX: The New Media Consortium.
- Koufogiannakis, D. (2012). Academic librarians conception and use of evidence source in practice. *Evidence Based Library and Information Practice, 7*(4), 4-24.