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Tablet diffusion, adoption and implementation in academic libraries: A qualitative content analysis of librarians' discourse on blogging platforms

Abstract:
This study examines the evidence on blogs and tweets about the diffusion of tablets in academic libraries to find out why do early adopters or academic librarians adopt tablets and implement them into library services? Results reveal two factors why academic librarians and libraries adopt and integrate tablets.

Résumé:
Cette étude examine les traces sur les blogues et les microbillets concernant la diffusion des tablettes dans les bibliothèques universitaires. L'objectif est de déterminer pourquoi les acheteurs précoces ou les bibliothécaires universitaires adoptent les tablettes et les intègrent dans leurs services en bibliothèque. Les résultats révèlent deux facteurs expliquant pourquoi les bibliothécaires universitaires et les bibliothèques adoptent et intègrent les tablettes.

With exponentially growing e-resources, academic libraries today are investing in devices to facilitate users' access. The size and mobility of tablets make them seem like a perfect parallel to traditional reading. Further, their design towards facilitating Internet access make them compatible with the academic library's initiatives to provide access to growing electronic resources. However, most tablet devices are not cheap, with some even equaling or totaling more than the costs of laptops. The decision to adopt tablets and implement them into library services is therefore an intriguing problem for study with both practical and theoretical implications.

Tablet technologies in libraries are part of the narrower ongoing scholarly and professional discussion on mobile technologies (Barile, 2011). The discussion on tablets in libraries is also situated within the larger topic of information technologies in libraries. Aharony (2009) concludes that librarians see technology as being important to their work and are attuned to scanning, understanding, discussing and disseminating 'technological innovations' (p. 599). Yet, the adoption of new technologies in libraries is generally a complicated matter (Tiwari, 2007). Critics argue that the non-neutrality of technologies introduces certain social and economic tensions within libraries (Buschman & Leckie, 2009). Notwithstanding, North American public and academic libraries that value innovation, usually adopt new technologies (Rubin, Gavin & Kamal, 2011).

This paper furthers the ongoing discussion on tablets and the adoption of new technologies in libraries by introducing a theoretical perspective into a body of research that is largely professional or practitioner based. Rather than situating the research in practice, the researcher observes the online discourse on tablets in academic libraries in informal channels of

communications in blog postings and tweets about tablets in academic libraries. The researcher then applies the theoretical approach of Rogers' (2003) theory of the diffusions of innovation to analyse these media. Rogers' diffusion of innovations theory is described as the most appropriate model for investigating the adoption of technology in higher educational environments (Sahin 2006), and as being applicable to innovation in library and information science research (Rubin, Gavin & Kamal, 2011; Martin & Quan-Haase, 2011). It is therefore from Rogers' (2003) theory that three terms in the title of this research paper are derived, namely 'adoption', 'implementation' and 'diffusion'.

The study undertaken during the period of October 15 to November 15, 2011, looks at the research questions of what evidence can be found on blogs and tweets about the diffusion of tablets in academic libraries and why do early adopters or academic librarians adopt tablets and implement them into library services? This is supported by a brief review of the current literature contextualizing tablets and their adoption and implementation in academic libraries as well as insights into how university libraries use tablets. The author used GoogleBlog Search and Twitter Search to locate sources for analysis. Sources retrieved include blogs and tweets discussing tablets in academic libraries and/or providing hyperlinks to other online channels including websites, press releases, online newsletters or newspapers and other electronic library professional media including (e-magazines or journals). Online sources discussing tablets in academic libraries are either a) primary sources where academic librarians who are early adopters provide personal accounts on tablet adoption and implementation in their libraries or b) secondary sources that report on academic libraries or librarians adopting or implementing tablets. However some sources could not easily be placed into these two categories. For example, there were online sources that included ephemeral information on library events for the period of October 2011 discussing tablets in academic libraries.

These communication media were then analysed using a theory driven approach to interpreting and analysing qualitative textual data. Such approach is referred to as theory verification or 'analytic induction' (Taylor & Bogdan, 1984, p. 125; Patton, 2002, p. 454). For this paper, blogs and tweets were categorised and linked to central themes using Rogers' (2003) diffusion of innovation theory. Two concepts from Rogers' (2003) theory emerge as most relevant in explaining why academic librarians adopt tablets, namely 'compatibility' and 'relative advantage'. A discussion of these two themes with excerpts provide a rich report narrative of the varied discourse of what various academic librarians are saying about the phenomena of adopting tablets in the academic library.

The method used limits analysis to the accounts of academic libraries that adopt tablets that are publicly available on the Web in English. However, it seems reasonable that academic libraries providing tablets for users would somehow have some communication about this online that is generated either by the institution itself, others connected to the academic institution or other librarians who know about the library's adoption or implementation of tablets.

Results reveal that academic librarians and libraries are adopting and integrating tablets in academic libraries and some of the reasons behind their adoption. The findings also confirm that academic librarians do discuss innovations in online channels and strongly confirm the theoretical view that libraries adopt technologies based on comparison with other technologies available to libraries. The results also show that academic librarians adopt technologies and use their prior experiences with implementing other technologies to guide them in how to implement a new technology. The findings also confirm that diffusions of innovations such as tablets in academic libraries are taking place in various formal and informal online channels.

Finally, though generalization from this subset is not justifiable, the findings do suggest that Rogers' (2003) theory may be applicable to studying innovation in academic libraries, albeit with some modification, as some concepts may be more applicable that others. It is recommended that further studies build on investigations as to whether or not 'compatibility' and 'relative advantage' are applicable to investigating the adoption, implementation and diffusion of other technologies in libraries. Another recommendation for research is the area of whether blogs and tweets contain discussion that indicates the social and economic tensions of tablet adoption in academic libraries, a perspective/focus that was omitted from this study on this occasion.

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