RAILS 7 Research Student Consortium

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Research topic: The mobile library and staff preparedness: Exploring staff competencies using the Unified Theory of Acceptance and Use of Technology model

Abstract: Provision of effective service delivery within the mobile environment challenges the way in which libraries operate. Development of staff capability characterises the way in which libraries have responded to the challenge. The ability to predict and explain intended response to innovation assists organisational planning. This paper presents preliminary findings of a study investigating the current state of preparedness of vocational education training (VET) libraries across Australia and New Zealand to develop confident and capable staff engaged in the delivery of mobile services. The study investigated the skills, knowledge and competencies and specific on-the-job training required by library staff to develop and deliver mobile technology services in the vocational education training (VET) sector. A slightly-modified version of the Unified Theory of Acceptance and Use of Technology (UTAUT) model was employed as a predictor of behavioural intention and use behaviour.

Research questions: This study investigates the following questions:

> What skills, knowledge and competencies are required by library staff to develop and deliver mobile technology services in the vocational education sector?
>
> What specific on-the-job training is required by library staff in the vocational education sector to acquire the skills, knowledge and competencies to effectively develop and deliver mobile technology services?

Theoretical considerations: The purpose of this study was to examine the current state of preparedness of vocational education libraries to deliver mobile services within a framework of innovation and technology adoption. Particular focus was upon the impact on library staff of implementing service delivery to mobile devices. The overall study examined, in detail, how staff respond to the concept of the m-library, their perceived levels of confidence and capability within this environment, their actual levels, and how best to address any gaps identified in a systematic and replicable manner able to inform strategic planning processes. Technology competency indexes or surveys are not new to the library field (McNeil & Giesecke, 2001; State Library of North Carolina, 2007; WebJunction, 2009), but they do not address the factors and relationships that influence technology acceptance nor necessarily measure the benefit of using a technology or adopting innovation. I, therefore, looked at a number of models that investigated innovation (Everett Rogers' Diffusion of Innovation) and, more particularly, the adoption of technology.

Methodical issues:

Measures

Two survey instruments were designed for staff – one for direct interviews with the library staff (either in person or using appropriate communication technologies such as Skype, video conferencing or telephone) to assess their capability and competence in developing mobile library service delivery; the second a short, web-based (SurveyMonkey), questionnaire utilising the Likhert scale to gather data on library services staff are aware of that are currently delivered online. The online survey tool was modelled on the 2008 survey tool constructed and used by Char Booth for her research on tracking student interest in emerging library technologies at Ohio University (Booth, 2009).

The primary staff survey comprised two main sections, all open-ended questions –the first section contained six questions looking at general technology adoption by the library and requiring participants to provide their demographic information. The second part contained six questions which probed the skills and training aspects involved in mobile delivery: performance expectancy (three items), effort expectancy (one item – overlap with social influence), social influence (one item – overlap with effort expectancy) and facilitating conditions (two items).

Research Model

A modified version of the UTAUT model has been employed in the present study to examine what skills and competencies and specific training participants believe are required to enable them effectively to develop and deliver mobile technology services. The model was selected from a range of theoretical models as a result of its comprehensiveness, proven ability to adapt to a variety of studies and to demonstrate meaningful results, and its focus upon complex and sophisticated organisational technologies as opposed to relatively-simple, individual-oriented information technologies (Venkatesh et al., 2003, 427).

Sampling Strategy

The grounded theory approach was adopted as being most relevant to the topic under investigation and the methods of approaching the study. It enabled participants to be selected according to their relevance to the research topic (Flick, 2009, p. 91).This sampling technique allows for the selection of "individuals or groups according to their expected level of new insights into the developing theory in relation to the state of theory elaboration to date" (2009, p. 118).

Research participants and data collection

A sampling across the New Zealand Institutes of Technology and Polytechnics (ITP) and Australian Technical and Further Education (TAFE) sectors was undertaken. The VET sector was identified as suited to the focus of this research as it has received less investigation than the university/higher education sector from the point of view of library service delivery. The inclusion of the two trans-

Tasman neighbours, Australia and New Zealand, is the result of similarity in cultural contexts, education systems, employment and economic conditions, the alignment of education provision and the transferability of qualifications between the two.

Contribution to field:

There are a number of aspects that contribute towards making the planned study of an emerging area of research and practice in vocational education librarianship significant. Two specific areas are being examined – what mobile delivery skills are needed by library staff and what specific, on-the-job training is required to deliver those skills – neither has been fully addressed to date.

Firstly, very little is known about how libraries can most effectively utilise mobile technologies to deliver services in a systematic manner and the skills and knowledge required of librarians to undertake this successfully. The literature review will inform approaches to building a capable and competent staff within the library environment and highlight those features with the potential to create barriers to successful implementation and delivery. It will also be used as a basis to inform the design of the survey phases. Data gathered relating to knowledge required by library staff for implementing mobile service delivery and building capability will have the potential to illustrate mobile library environments, and the changes that occur in these environments.

Secondly, an internationally- proven technology adoption model against which the data gathered can be analysed and tested to act as a predictor of user intention and behaviour will allow systematic design of training based upon robust prediction. To date, the UTAUT model has not been applied to the prediction of successful professional development. A slightly-modified version of the model will be tested in this study.

The research proposed in this study is intended to be viewed as making a contribution to the larger research field of mobile library studies. The framework developed will contribute to the body of knowledge required by planners for the sustainable implementation of mobile library services. Additionally, the two survey instruments developed and used for data collection will be made available for use across various library sectors, beyond vocational education, and will provide results which can be compared for further research and analysis.

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