

# **“I would love to know more” : Knowledge Acquisition in the Adoption of Ebooks**

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**Abstract** Digitization has been a major disruptive force within academia. Not only are books no longer available as print formats, but many primary resources are also being digitized. It is less clear, however, how the process of digitization is affecting the work of scholars. We employ Rogers’ diffusion of innovations model to examine the types of knowledge (awareness, how-to, and principle) that scholars have of Ebooks and the extent to which Ebooks are meeting their information needs. We conduct in-depth interviews to assess their concerns and expectations of Ebooks as a tool for their work. We focus in this study on historians because of their close relation with the book and their heavy reliance on primary and secondary sources for scholarship. In addition, we examine what role the librarian plays in the adoption of Ebooks by historians in terms of providing information, technical support, and guidance.

**Keywords** Innovation ; Ebooks ; Tablets ; Diffusion of Technology ; Social Context ; Scholars.

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## 1. Introduction

Humanities scholars work closely with the book; the book is both a research tool as well as a research goal. For historians in particular books serve as primary and secondary sources. With the recent trend in digitization, not all books continue to be available as print books. Many resources are only available as Ebooks. As Ebooks continue to become integrated with academic library catalogs and are widely available on the internet, they will impact how historians do research. The present study examines the adoption of Ebooks amongst historians. The goal of this preliminary analysis is to examine the three types of knowledge outlined in Rogers' Diffusion of Innovations in relation to the adoption of Ebooks by historians. We examine Roger's types of knowledge (awareness, how-to, and principle) in order to ascertain to what extent historians' information needs regarding Ebooks are being met. In addition, we examine what role the librarian plays in the adoption of Ebooks by historians in terms of providing information, technical support, and guidance.

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## 2. Literature Review

In his influential work *Diffusion of Innovations* (1983), Everett Rogers examined the ways that new technologies are adopted by various communities and based on his findings, he developed a five stage adoption model. Various studies use Rogers' model of adoption for understanding how new technologies are diffused within an academic setting (Martin & Quan-Haase, 2011; Nicolle & Lou, 2008; Rogers, 1999).

Patricia Rogers (1999) looked at barriers to technology adoption within the Electronic Academy, an online education system that delivers bachelor and master's degrees within the Midwestern United States. She found that "attitudes and perceptions" of the technology were most likely to become the largest barrier to adoption. Other barriers include technological concerns (such as the availability of software or hardware), the financial support of the institution, and adequate technical support in the form of knowledgeable staff. Almost a decade later, Nicolle and Lou

(2008) used Rogers' theories to create a mixed methods study to understand technology adoption by faculty. They also found that peer support and institutional support were most likely to improve technology adoption.

The research that has focused on Ebooks in an academic settings does not usually focus solely on a single discipline of scholars, but rather on the academy as a single unit (Shelburne, 2009; Stone, 1982; Tedd, 2005; Walton, 2008). Historians, however, have been shown to have a close relationship to the book (Barrett, 2005), to their subject-specialist librarian (Delgadillo & Lynch, 1999), and, despite the stereotypes associated with their field, are relatively comfortable using new types of technology (Barrett, 2005; Toms & O'Brien, 2008). It is for these reasons that this article focuses on historians' knowledge of Ebooks, in order to understand what a single discipline knows about a technology and how they put it to use before widening the population to include other disciplines under the humanities umbrella. We include librarians because they have often been describe as change agents, providing support to students, staff, and faculty in their adoption of new technologies. Librarians may also play an important role in the adoption process of Ebooks as historians have a close relationship with their subject-specialist librarian (Delgadillo & Lynch, 1999).

### **3. Methods**

Ten interviews with academic historians from institutions in Southern Ontario were conducted between October 2010 and December 2011. The interviews were then transcribed and coded using NVIVO9 software. The grounded theory approach put forth by Corbin and Strauss (1997; 2008) was used to analyse the transcriptions of these interviews, because their theory allows for researchers to use an existing theory to inform their data analysis (Corbin & Strauss, 2008). In this study we investigate historians' knowledge of Ebooks by using the three types of knowledge put forth by Rogers (1983) (see Figure 1).

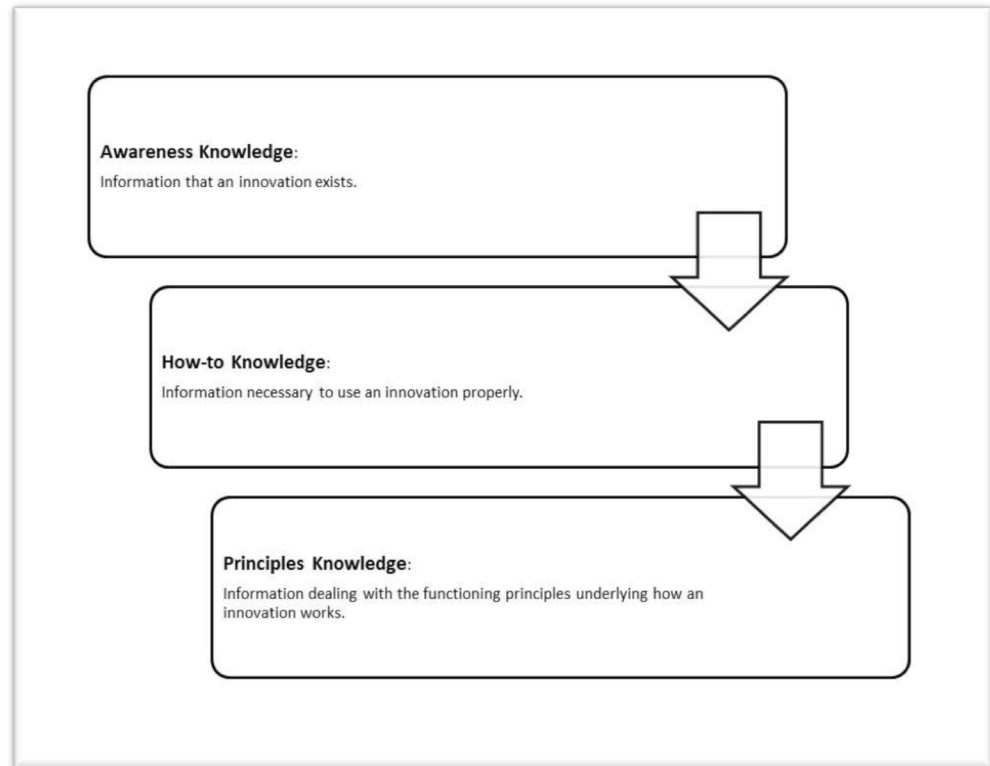


Figure 1 - Three types of knowledge. From Rogers (1983).

By coding the data in order to investigate which level of knowledge the participants had, we were able to examine to what extent their information needs regarding Ebooks were being met. At the same time that Corbin and Strauss allow for data to be informed by theory, they also insist that researchers remain open to the possibility of new ideas stemming from their own research (Corbin & Strauss, 2008). This openness to code for new information when limited by the existing theory allowed for codes such as “workshop requested”, “curiosity - fulfilled”, “curiosity - self-fulfilled” and “curiosity - remaining” to be created. These additional codes provided new avenues for discussion amongst the researchers, and helped to re-structure some of the interview questions for the next round of data collection.

## 4. Results

### 4.1. Stages of Knowledge

Of the ten participants interviewed, only two answered the question “How familiar with Ebooks are you?” with a positive answer followed by a definition that addressed some of the important aspects of this

technology as discussed in Vassiliou & Rowley (2008). The other participants, though somewhat familiar with the technology, did not feel they knew enough about Ebooks to adequately describe them. Further on in the interviews, when the definition was provided to the participants, it became clear that they were somewhat more familiar with this technology than they might have thought. Two of the participants confused the Ereader (the device used to read the digital document) with the Ebook (the digital document itself). For example, Frank states

“I’ve seen [Ebooks], but only to look at them as a curiosity. I’ve never purchased one, and I’ve never had something published as an Ebook, or ... umm, I’ve only ever looked at them when someone’s said, “hey, I’ve got this new thing, look at it, I can read a book on it” that’s about it.”

When the difference between devices and digital documents was pointed out, nine of the ten participants noted that they had indeed read an Ebook, and seven of them did so on a regular basis.

The final participant, who had never accessed an Ebook, either via the library portal or online, was very informed about this technology because he received a lot of information from publishers about the benefits of Ebooks to both students and faculty. He was aware of a faculty member who he believed “worked entirely online” and said that he felt he was too old to learn new technologies and keep up with the younger faculty in his department. Despite not wanting to use Ebooks himself, he was concerned about the cost of supplies for students and stated that, if it could be proved that Ebooks were less expensive than print, he would gladly offer that as an option for his classes.

#### **4.2. Information Needs**

The information needs of these participants regarding Ebooks were not being met. Several of the participants claimed that they had no source of information to go to when they had questions about the Ebooks on the library website, and found that the various platforms for accessing Ebooks were very confusing. Five of the historians specifically praised the work of their subject-specialist librarian as they felt, they were involved and available for consultation. At the same time, they noted that they had not heard much about Ebooks directly on behalf of the library. Instead, these scholars turned to unofficial sources of information, such

as friends and family, in order to learn more about Ebooks. Co-workers were also a good source of information, as Marleen states

“I’ve talked to probably the person in our department who’s most knowledgeable about this, and also to someone else I know that is using a Kindle, and between the two of them they’ve persuaded me and what I’ve been able to see myself that this really would be a useful tool.”

Like other participants, Marleen was first going to use Ebooks for her own research before attempting to use them in the classroom, as she was unable to gain any information about how this might work.

After the first two participants to be interviewed noted that it would be beneficial for the library to hold a workshop on Ebooks so they could ask questions and gain more information about this technology, the researchers decided to add to our interview guide a question about the usefulness of workshops to further prompt into this direction. Six of the ten participants said they would attend an information session on Ebooks because, as Samantha puts it

“I would love to know more about the Ebook collection, the types of books they’re looking for in the collection so I can think about, as I’m designing my course, to maybe tap into that resource, to meet the students’ needs as well.”

#### **4.3. Role of the Librarian**

It became evident that the subject-specialist librarian had an influential role to play in the adoption of Ebooks by the history faculty at these institutions. The opinion of the librarian about Ebooks could directly affect whether or not the participants decided to try out the technology. For example, when asked if she would ever consider using Ebooks for teaching purposes, Linda replied

“I’ve thought about it a bit, and umm, and I’ve talked about it a little bit to one of the librarians here about it. She is actually warned me and warned our department, she said ‘I can order ebooks for you, if you want me to as opposed to the print edition, but be aware that you won’t be able to assign them to all your students at the same time.’”

This discussion with her subject-specialist librarian prevented Linda from trialling Ebooks with her classes, though she did say that it was something that she would consider in the future, if access to multiple copies of Ebooks is provided.

Historians were also very willing to work with librarians in their classrooms and for research. For some of the participants, librarians offered a new perspective on their work. As they were aware of all of the resources available through the university library, Samantha thought that

“maybe librarians, because they work with so many other disciplines, can say ‘have u thought about -----?’ since the Department of Philosophy or the Department of Sociology has thought about using them in this way.”

These new perspectives, as well as the information that librarians have about Ebooks, makes them a vital part of the integration of this new technology to academic life.

## **5. Conclusions**

From these interviews with historians, it is evident that they are in the first stage of knowledge, the “awareness stage”. They know that Ebooks exist, and nine of the ten of them have read an Ebook in one format or another. However, they are still seeking “how to information” about Ebooks, particularly for the use of this technology in their research and teaching. As the participants did not feel that their institutions were providing enough information about the pros and cons of adopting Ebooks, they were relying instead on “interpersonal channels of communication” for new information about Ebooks (Rogers, 1983).

The importance of the subject-specialist librarians’ role in providing “how-to knowledge” to these scholars was also apparent. The historians could be positively or negatively swayed about Ebooks based on the opinions of the subject-specialist librarian at their library. While the opinion of these professionals must be held in high regard, the historians themselves might benefit further from the opportunity to work with other scholars who have used Ebooks for various purposes before coming to a conclusion about whether or not to try them for themselves. Scholars depend primarily on their informal social networks for knowledge about Ebooks and they would like their institutions to provide them with further opportunities for professional development in this

area. Wenger (2006) defines communities of practice as “groups of people who share a concern or passion for something they do and learn how to do it better as they interact regularly.” The opportunity for a community like this at academic institutions would allow for a better resource of information seeking for history faculty, and perhaps for other faculty as well.



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