# LIS Students' Perceptions Toward the Assimilation of E-books in the Library: An Exploratory Analysis

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The present study explores LIS students' perceptions toward the assimilation of e-books in the library. The research was conducted during the summer semester of the 2010 academic year in Israel and 144 students participated in the research. The study used three questionnaires: a personal details questionnaire, students' perceptions towards e-books assimilation in the library, and a cognitive appraisal questionnaire. The main findings suggest that LIS students have positive perceptions regarding the assimilation of e-books in the library. They are aware of the change and possible effect it may have on library collections, budget, and policy. Those students who have higher perceptions towards the assimilation of e-books in the library are more challenged by this phenomenon. Older students feel challenged to experience, learn and assimilate e-books more than younger students. This study highlights LIS students' perceptions towards e-books and is relevant for librarians, information scientists and LIS educators, helping them better understand, assimilate and explore the phenomenon of e-books in libraries.

Keywords: e-books, LIS students' perceptions, exploratory analysis

## Introduction: e-books

istorians of the electronic book track its origins back to Vannevar Bush's concept of the Memex. They claim that Andries van Dam coined the term "Electronic Book" in 1967 as he was working with his students on the Hypertext Editing System (HEP), which enabled text to be read on a computer screen (Ardito, 2000). In 1968, Alan Kay presented the Dynabook device, which was similar to a laptop computer with a graphical user interface. In 1971, Project Gutenberg was launched to provide access to public domain titles freely available on the Internet. In 1996, Brewster Kahle founded the Internet Archive, a non-profit organization intended to preserve web pages and other content to prevent the internet from "disappearing."

In the late 1990's when Internet use became popular, some publishers and

vendors considered hosting and selling ebooks. In 1999, NetLibrary offered more than 2,000 e-books to libraries, and in 2000 and 2001 Questia and ebrary entered the marketplace with various access models. In 2004 two new e-book providers, E-book Library (EBL) and MyiLibrary, were launched, followed by Google's announcement of its Print Library Project in cooperation with the New York Public Library, the University of Michigan, Harvard, Oxford, and Stanford. This project allows searching digitized collections from those libraries using Google Book Search. Users can view and download entire books no longer protected by copyright, and can view information about and access limited portions of digitized books still under copyright. Different publishers, such as Elsevier, Oxford University Press, Springer, and Taylor & Francis, developed in-house e-book publishing enterprises

*J. of Education for Library and Information Science,* Vol. 54, No. 1—(Winter) January 2013 ISSN: 0748-5786 © 2012 Association for Library and Information Science Education that provided them the opportunity to host and sell e-books directly to libraries (Connaway & Wicht, 2007).

## **Problem Statement**

As the e-book phenomenon becomes more widespread in our information world, it is worth examining its presence in the library landscape. Various studies have focused on e-books in general and the impact of e-books on the academy, but this study presents an as-yet-unexplored dimension: LIS students' perceptions on the assimilation of e-books in libraries. The current study refers to the e-books definition in an inclusive way and aims to explore whether LIS students are familiar with these new technological innovations. Do they understand the power of e-books? Are they ready to adopt new applications in the library?

The three primary research questions are:

- 1. How do LIS students perceive the assimilation of e-books in the libraries?
- 2. Are students' perceptions towards the assimilation of e-books in the libraries influenced by their personality characteristic of cognitive appraisal [where cognitive appraisal refers to the individual's evaluation of the significance of events on his or her well-being, and the individual's efforts in coping in thought and action to manage specific demands]?
- 3. What are the possible correlations between descriptive variables and the assimilation of e-books in the libraries, and between descriptive variables and the cognitive appraisal variable?

This research may contribute to the theoretical and practical understanding of LIS students' perceptions towards new technology and of how individual differences affect their acceptance of technology. It may also open up further channels of research in this field.

### Literature Review

### E-book Definition

Attempts made in the literature to define the e-book generally combine four primary features: media, content/file format, device, and delivery (Vasileiou, Hartley & Rowley, 2008). Armstrong, Edwards and Lonsdale (2002, p. 217) provided the definition accepted by most scholars: "any piece of electronic text regardless of size or composition (a digital object), but excluding journal publications, made available electronically (or optically) for any device (handheld or desk-bound) that includes a screen." The Oxford English Dictionary (2012) defines the e-book as "a hand-held electronic device on which the text of a book can be read" and also as "a book whose text is available in an electronic format for reading on such a device or on a computer screen; or a book whose text is available only or primarily on the Internet." According to the Online Dictionary Library and Information Science (ODLIS), an electronic book is "a digital version of a traditional print book designed to be read on a personal computer or an e-book reader (a software application for use on a standard-sized computer or a book-sized computer used solely as a reading device)." Vasileiou and Rowley (2008, p. 363) proposed the following two-part definition: The first part suggests that "an e-book is a digital object with textual and/or other content, which arises as a result of integrating the familiar concept of a book with features that can be provided in an electronic environment." The second part specifies that "e-books typically have in-use features such as search and cross reference functions, hypertext links, bookmarks, annotations, highlights, multimedia objects and interactive tools." This definition emphasizes e-books' constant characteristics and their dynamic nature caused by evolving technologies. Anuradha and Usha (2006) concluded that an e-book definition is based on its form,

content, mode of access, or the devices used for reading it. In other words, the e-book may be defined as an e-form of a printed book or as a text, converted into digital form, which can be presented on a personal computer or on a handheld device known as an e-book reader. E-books can extend printed media by embedding hyperlinks, bookmarks, annotations, text searching and cross- reference functions and by linking complex multimedia objects.

## E-book Types

We can differentiate between digitized and born-digital books. A digitized book is digitized or scanned, producing a text that can be manipulated and read on screen, and is similar to the original printed book. A born-digital book is one created for use only in a digital form, with no previous paper version: it is a book planned and designed for electronic reading. While it does have the essential qualities of a book—a substantive amount of related content or content with inherent continuity—it is accessible only on computers or on e-book readers (Armstrong, 2008).

Types of e-books include textbooks that contain text with embedded links, multimedia books that might contain sound and images, reference books such as dictionaries and encyclopedias, directories, and digitized versions of 'out of print' books. Soules (2008) explored new types of ebooks: print books issued or re-issued in eformat; a book created through e-feedback and e-revision, but whose formally-issued version is in print; a print book with URLs directing readers to the web for supplementary or complementary material; an electronic-only production primarily focused on images, audio, and video; or a continuously updated e-reference book with text, images, audio, and video.

## E-books in Research

The first part of this section deals with

literature on perceptions of e-books. Scholars assert various advantages of ebooks: they are probably cheaper, easier and quicker to produce than paper copies (Long, 2003); they can be updated frequently at a low cost (Hawkins, 2000; Marcinko, 2000); font size can be changed to aid the visually impaired (Rao, 2003); and many volumes can be held on lightweight reading devices (Long, 2003). Remote access and the possibility for various patrons simultaneously to use electronic reference products increase the availability of reference materials (Webster, 2003). Dillon (2001) claims that an advantage of e-books is the ability to search the full text with more speed and versatility. Sottong (2001) adds that the internal hyper-linking and updating of content add to the attraction of electronic books. E-books may offer the opportunity to open further windows that suggest additional information. The reader is able to shift around the text, to track other subjects, to send a message to the author, and to combine other nontextual materials such as moving and still images, tables and graphs, and audio and visual clips (Armstrong, 2008). Also, ebooks are commonly regarded as offering great potential for teaching and learning (Armstrong et al., 2006) and are attractive to scholarly communities (Nicholas et al., 2007).

Several disadvantages of e-books should be mentioned. There is a need for hardware and software, which are often expensive. Distributors can modify or remove content from customers' e-books readers, as Amazon did with Orwell's 1984 (Stone, 2009). There is not a clear visual cue to the length and the structure of the document, and there are restrictions on printing and on downloading. Other disadvantages might be the screen glare and eyestrain, which can be caused from some vendor's products.

The second part of this section presents research findings of various studies concerned mainly with e-books in the academy. Briddon, Chelin, Ince, Redman, Sleat and Williams (2009) explored how ebooks are used for learning, teaching and research by students and academic staff at a large university library in England. They found that e-books meet many of the needs of users, mainly in accessibility, but that questions remain regarding subject coverage and the impact on student learning. Noorhidawati and Forbes (2008) investigated the use and usability of e-books in higher education in Scotland, claiming that, in general, students presented positive attitudes towards e-books. They added that e-books need to be more strongly promoted and that their use was still limited. Jamali, Nicholas, and Rowlands (2009) aimed to discover the perspectives of students and scholars on e-books, finding that the convenience associated with online access in addition to searchability were the greatest advantages of e-books. They remarked that e-books should become more student-friendly by improving features such as printing and screen reading. In an additional study, they examined e-book usage and information seeking and reading behavior of thousands of business and management students, finding that e-textbooks can be popular for obtaining pieces of information and for fact finding, and that people used e-textbooks because of their ease of access and convenience (Nicholas, Rowlands & Jamali, 2010). In a survey conducted in the winter of 2010 by the Neiman library of exact science and engineering in Israel, the majority of faculty members (87%) were revealed as using electronic books for research and teaching purposes, and the majority of students (67%) as using electronic books for research and learning. In another study, Shrimplin, Revelle, Hurst and Messner (2010) examined attitudes and opinions about e-books among a group of faculty, graduate students, and undergraduates at Miami University of Ohio, finding four factors that reveal clusters of opinions on e-books: book lovers, technophiles, pragmatists, and printers. A further study (Pattuelli & Rabina, 2010) investigated how

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library and information science students use Kindle 2, showing that e-readers were integrated into day-to day activities. The e-readers were viewed as vehicles of content delivery that enhanced reading. Students reported satisfaction from portability and ubiquity that the Kindle offers.

In light of the above discussion on ebooks, the following section will focus on situational characteristics (cognitive appraisal: threat versus challenge) that might affect LIS students' tendency to assimilate e-books in the library. The researchers' assumption was that this variable may help us predict students' perceptions towards the assimilation of e-books in the library.

# Cognitive Appraisal: Threat Versus Challenge

Aharony (2009a, 2009b, 2010) in previous research has addressed some characteristics of the Lazarus stress theory, and they are discussed in the following section. The Lazarus stress theory displays two central processes that are very important to the person-environment relationship: cognitive appraisal and coping (Lazarus & Folkman, 1986). According to Lazarus (1993), cognitive appraisal points to the individual's evaluation of the significance of events on his or her well-being, and the individual's efforts in coping in thought and action to manage specific demands. The appraisal concept may clarify individual differences in coping with emotions in objectively similar environments. These appraisals are determined by personal and by situational factors. The most important personal factors are motivational dispositions such as values, goals, and expectations, while the most important situational factors are controllability, predictability, and imminence of a potentially stressful event (Krone, 2002). Threat and challenge are part of stressful appraisals: threat pertains to potential future harm and is accompanied by fear (Lazarus, 1991; Lazarus & Folkman, 1984), while challenge refers to situations in which there is potential for

gain or benefit. Blascovich *et al.* (2000) proposed that threat takes place when the individual evaluates resources as not meeting situational demands. With challenge, the individual evaluates resources as meeting situational demands. Challenge and threat are context bound and happen only in motivated performance situations that are goal relevant to the performer, require instrumental cognitive responses, and are active.

Aharony has noted (2009a, 2009b, 2010) that the literature indicates that threat is accompanied with potential danger to one's well-being or self-esteem (Lazarus, 1991; Lazarus & Folkman, 1984; Rapee & Heimberg, 1997). Threat characterizes those who experience anxiety in tests, sports, and stressful or social situations (Beck, Emery, & Greenberg, 1985; Rapee & Heimberg, 1997; Wilson & Eklund, 1998). In contrast, a challenge appraisal is associated with the feeling that the requirements of a stressful situation are under control and can be properly dealt with (Park & Folkman, 1997). Blascovich et al. (2000) and Blascovich and Tomaka (1996) assert that the challenge appraisal can be easily found in coping expectations, lower subjective stress and higher perceptions.

Some studies conducted within LIS have dealt with this variable. Aharony's study (2009a), which explored Web 2.0 use by librarians, found that librarians who scored highly on the challenge scale also scored highly on Web 2.0 use. Another study (Aharony, 2010), focusing on librarians' attitudes towards knowledge management, revealed that the more librarians feel threatened by knowledge management, the lower their attitudes towards knowledge management. A further study, which delved into the influence of LIS students' personality characteristics on their perceptions towards Web 2.0 use, found that the more challenged the students, the higher the importance they attribute to Web 2.0 applications and the higher their motivation, capacity, and Web 2.0

use (Aharony, 2009b). This study assumes that these variables are important as they may predict the individual's tendency towards assimilation of e-books in libraries.

The research hypotheses are:

- 1. LIS students will have positive perceptions concerning the assimilation of ebooks in libraries.
- 2. The more positive the LIS students' perceptions are towards the assimilation of e-books in the library, the more challenged they feel.
- 3. The older the students are, the higher their attitudes towards the assimilation of e-books in libraries, and the less threatened they are.
- 4. There will be a significant difference between university students and professional academic students in their attitudes towards the assimilation of ebooks in libraries.
- 5. There will be a significant difference between university students and professional academic students in the cognitive appraisal variable.

# Procedures

The research was conducted during the summer semester of the 2010 academic vear in Israel, where there are about 800 LIS students. The researcher sent 50 questionnaires via mail and 200 online questionnaires to LIS students who study in the university and in an academic college that provides professional librarian or information specialist certificates. Of this group, 144 students answered the questionnaires. Seventeen respondents (11.72%) were male and 127 (87.58%) were female. Most (n = 99, 68.27%) were 20–40 years old, and the older group (41-60, 38.62%) was smaller. As far as their place of education 59 (40.97%) were BA university students, 45 (31.25%) were MA university students, 16 (11.11%) were PhD university students, and 24 (16.66%) were professional academic school students that receive a professional practical certificate of librarians or information scientists after graduation.

The study used three questionnaires: a personal details questionnaire (Questionnaire A), students' perceptions towards e-books assimilation in the library questionnaire (Questionnaire B), and a cognitive appraisal questionnaire that measured threat versus challenge (Questionnaire C). (See Appendix for questionnaires.)

Questionnaire B, developed especially for the current study and consisting of 21

statements rated on a 5-point scale (1 disagree; 5—agree), measured students' perceptions toward the assimilation of e-books in the library. Further details are provided in the analysis of results section.

The cognitive appraisal questionnaire, consisting of 10 statements rated on a 6-point scale (1—disagree; 6—agree), measured librarians' feelings of threat versus challenge when confronted with new situations (Questionnaire C). This questionnaire, which has been previously validated (Aharony, 2009a, 2009b, 2010)

Table 1. Pactor Louding Perceptions Questionnaire on the Pour Pactors.							
Statement	First Factor	Second Factor	Third Factor	Fourth Factor			
8. The use of e-books will empower librarians and improve their professional image	0.73	0.04	0.08	0.17			
6. The library should encourage the use of e-books	0.71	0.13	0.22	-0.03			
12. e-books will increasingly draw patrons' attention to the variety of library services	0.71	0.10	-0.05	0.34			
7. The use of e-books will increase in the library	0.70	0.20	0.12	0.18			
11. e-books will allow the library to "reinvent" itself	0.64	0.16	0.18	0.20			
5. The library plays a major role in the assimilation of e-books	0.63	0.05	0.28	-0.04			
13. The use of e-books will change patrons' search behavior in the library	0.42	0.18	0.16	0.23			
20. e-books will cause the disappearance of the traditional library	0.16	0.80	-0.05	0.13			
21. The use of e-books will completely change the use of tradi- tional books	0.18	0.78	0.05	0.02			
18. e-books will decrease the number of library patrons	0.11	0.75	0.13	0.04			
16. e-books will cause libraries to market themselves differently	0.12	0.59	0.11	0.35			
17. In the future, libraries will be evaluated according to the access to e-books they provide	0.33	0.55	0.22	0.11			
14. Libraries will transform into archives that include printed books only	-0.11	0.55	0.31	-0.00			
4. The library should change its budget in order to buy more e- books	0.09	0.13	0.75	-0.11			
3. The library should change its technological platform in order to use e-books	0.22	-0.02	0.69	0.18			
19. Libraries will offer free access to e-books	0.22	0.19	0.59	-0.12			
1. The use of e-books will change the library	0.37	0.12	0.58	0.15			
2. The use of e-books will change the library's collection policy	0.11	0.24	0.51	0.44			
15. Libraries will not buy e-books, rather access to e-books only	-0.41	0.20	0.44	0.43			
9. The use of e-books will change library users' attitudes towards the library	0.27	0.07	-0.06	0.74			
10. The use of e-books will affect users' expectations of the library	0.28	0.13	-0.01	0.71			
A	0.83	0.78	0.72	0.65			

 Table 1. Factor Loading Perceptions Questionnaire on the Four Factors.

Measures Institution	University Professional					
	М	SD	М	SD	F (1,144)	eta <sup>2</sup>
Renewal	3.33	0.78	3.51	0.80	1.11	0.01
New Attitude	2.88	0.79	3.00	0.67	0.50	0.00
Change	3.79	0.61	3.92	0.49	1.01	0.01
Patrons	3.53	0.84	4.30	0.61	19.55***	0.12

Table 2. Means and Standard Deviation of Students' Perceptions of E-books According to Place of Education.

\*\*\**p* < 0.001

consisted of two measures: threat (6 items) and challenge (4 items). The Cronbach's alpha was 0.86 for the threat factor and 0.79 for the challenge factor.

## Results

A principal components factor analysis of varimax rotation with Kaiser Normalization was conducted and explained 55.25% of the variance of the students' perceptions towards the assimilation of e-books in the library questionnaire. The principal components factor analysis revealed four distinct factors. Table 1 presents the factor loading perceptions questionnaire of the four factors.

Table 1 shows that the first factor relates to library renewal (items 8, 6, 12, 7, 11, 5, 13) focusing on the role of e-books in the revival of the library environment. The second factor refers to new approaches toward the library (items 20, 21, 18, 16, 17, 14), emphasizing new attitudes toward the library, resulting from the assimilation of e-books in the library. The third factor addresses changes in the library (items 4, 3, 19, 1, 2, 15) caused by the assimilation of e-books in the library. The fourth factor points to library patrons (items 9–10), relating to their attitudes and expectations resulting from the assimilation of e-books in the library.

To examine the relationship between personal characteristics (gender, age, and place of learning) and categorical variables (perceptions towards e-books and cognitive appraisal), a MANOVA was performed. A significant difference was found between those students studying at the university and those studying at the professional academic school: F(4,141) = $5.21, p < 0.001, eta^2 = 0.13$ . Table 2 presents means and standard deviations of students' perceptions of e-books according to their place of education: university and professional academic school.

A significant difference was found only for the measure of patrons. Students who study at the professional academic school believe more than university students that library patrons' attitudes and expectations will be influenced by the assimilation of e-books in the library.

Table 3. Means and Standard Deviation of Students' Cognitive Appraisal According to Place of Education.

Measures Institution	University Professional					
	М	SD	М	SD	F (1,143)	eta <sup>2</sup>
Threat	1.69	0.84	2.42	1.04	14.65***	0.09
Challenge	3.49	1.20	3.76	1.37	1.06	0.01

\*\*\**p* < 0.001

Measures	Refreshment	Approach Change		Patrons	
Threat	-0.06	0.15	-0.02	0.16	
Challenge	0.43***	0.22**	0.32***	0.18*	

Table 4. Pearson Correlations between Cognitive Appraisal and Perceptions towards e-books Assimilation in the Library (N = 144).

\**p* < 0.05, \*\**p* < 0.01, \*\*\**p* < 0.001

Another significance difference was found in the MANOVA performed to examine the relationship between cognitive appraisal and place of education: F(2,142)= 8.08, p < 0.001,  $eta^2 = 0.10$ . Table 3 presents the means and standard deviations of students' cognitive appraisal according to place of education: university and professional academic school.

A significant difference was found for the threat measure, with students at the professional academic school feeling more threatened than university students by the assimilation of e-books in the library.

Pearson correlations were performed for age, and students' perceptions and cognitive appraisal. Significant positive correlations were found for age and challenge: r = 0.22, p < 0.01, and for age and patrons measure: r = 0.18, p < 0.05. The older the students, the greater they experience the challenge when confronting the assimilation of e-books, and the more they think it will influence library patrons. Pearson correlations were also performed for cognitive appraisal and students' perceptions.

Table 4 shows that a significant positive correlation was found for students' perceptions and challenge. Those students with more positive perceptions towards the assimilation of e-books in the library are more challenged and less stressed by this situation.

# **Discussion and Conclusion**

Hypothesis One was supported. LIS students in general have positive perceptions about the assimilation of e-books in libraries (ranging from 2.88 - 4.30, on a 5 point scale). The perception questionnaire

reveals that the change factor received a higher score within LIS students who study at the university than within those who study at a professional academic school (3.79, 3.92 respectively). Both groups are aware of the change that the e-books phenomenon may cause in the library, and of its possible effect on library collections, budget, and policy. The patrons factor received the second highest score, with a significant difference between university students and those who study at the professional academic school (3.53, 4.30 respectively). Both groups (academic and professional) score the third factor of renewal as moderately high (3.33, 3.51 respectively), indicating that both groups perceive the phenomenon of e-books as one that will renew and empower the library, and that may bring the library to "reinvent" itself in order to remain relevant to its users.

The results show support of Hypotheses Two. Threat addresses potential harm and is accompanied by fear, and challenge addresses potential gain or benefit and is accompanied by high expectations and perceptions. It turns out that, in general, those students with more positive perceptions toward the assimilation of e-books in the library are more challenged, and less threatened, by this situation. This finding is commensurate with research on threat and challenge that portrays those people who experience challenge as characterized by higher perceptions, lower subjective stress, and higher coping expectancies (Blascovich & Tomaka, 1996; Blascovich et al., 2000).

Hypothesis Three was also confirmed. The older the students, the greater they experience the challenge when confronting the assimilation of e-books, and the more they think it will influence library patrons. Older students, it seems, feel challenged to experience, learn, and assimilate e-books more than younger students. In addition, those older students, in contrast to young students, assume that the e-book will most affect library patrons. Maybe these older students draw on their life experience, thus regarding e-books as a challenging, refreshing experience in the library, and assume that it will have greater influence on library patrons.

Hypothesis Four was partially confirmed. Students at the professional academic school believe more than university students that library patrons' attitudes and expectations will be influenced by the assimilation of e-books in the library. This difference between LIS university students and those studying at the professional academic school may be associated with previous studies that found differences between these two groups concerning their professional image, Web 2.0 use, and their participation in an online course (Aharony, 2006; 2009b; 2011). This finding may be explained as follows: students at the professional academic school are usually university graduates (with first, second and sometimes even third degrees), and they often work in libraries, studying to attain professional certification. The learning process in these two institutions is quite different, as the university emphasizes the more theoretical aspects of the profession, while the professional school focuses more on practical work. Thus, those students spend more time in practicum and in the library itself, and perhaps they "feel" the landscape differently from their university counterparts.

Hypothesis Five was confirmed. A significant difference was found for the threat measure, with students at the professional academic school feeling more threatened than university students by the assimilation of e-books in the library. Perhaps those students who spend more time in libraries because of their more practical and less theoretical program of learning assume the assimilation of the new technological application to be a threat to their profession, causing them to have less work and possible job loss.

In conclusion, this study, highlighting LIS students' perceptions towards ebooks, is relevant for librarians, information scientists and LIS educators, helping them better understand and explore the phenomenon of e-books in libraries. The research findings emphasize both the importance of individual differences in technology acceptance, and the importance of the kind of institution where students study. LIS educators should be aware of these differences while teaching their students. They should understand that not all students are technology oriented. Thus, they should present their students with technological innovations that may help them in their future job as librarians or information specialists. They should enable students to practice new technological platforms, explaining that in order to stay relevant to their patrons, they should experience and master new technological devices. They should also expose students who study at academic schools with professional (rather than theoretical) focus to technological advantages, emphasizing their added value to librarians' or information scientists' future work.

The limitations of this study are the small sample size of LIS students, which turns the study into an exploratory one, and the fact that the research included only Israeli LIS students. However, it seems that Israeli LIS students in general have positive perceptions regarding the assimilation of e-books in the library. They are aware of the change and renewal it may bring about in libraries and on library patrons. Furthermore, those students who have higher perceptions are more challenged by this phenomenon. Considering that the information world is in a state of constant flux, and that more and more people regard the library as irrelevant, perhaps LIS students understand that libraries

should make a greater use of e-books to attract more patrons and remain relevant in our changing dynamic information world. Further research on e-books assimilation in libraries should be conducted in other countries too, to gain a more thorough understanding of the e-book phenomenon in libraries worldwide. Further studies can be conducted examining the following themes: student and faculty assimilation of e-books; the correlation between using ebooks and students' success; and the effect of using born-digital books for teaching and learning in LIS programs and beyond.

# Appendix—Questionnaires

# *Questionnaire A: A Personal Details Questionnaire*

Please circle the right answer

Sex: Male / Female

Age: 20–30 / 31–40 / 41–50 / 51–60 / > 60

Place of education:

university / professional academic school

Level of education:

Bachelor's degree / Master's degree / PhD

# Questionnaire B: Students' Perceptions Towards E-books Assimilation in the Library

Listed below are several statements regarding one's perceptions towards the e-books assimilation in the library.

Please indicate the degree to which you agree or disagree with each statement by placing the corresponding number from the scale on the line after each statement (1 = strongly disagree, 2 = disagree, 3 = inclined to agree, 4 = agree, 5 = strongly agree).

1. The use of e-books will change the library.

- 2. The use of e-books will change the library's collection policy.
- 3. The library should change its technological platform in order to use e-books.
- 4. The library should change its budget in order to buy more e-books.
- 5. The library plays a major role in the assimilation of e-books.
- 6. The library should encourage the use of e-books.
- 7. The use of e-books will increase in the library.
- 8. The use of e-books will empower librarians and improve their professional image.
- 9. e-books use will change library users' attitudes towards the library.
- 10. e-books use will affect library users' expectations from the library.
- 11. e-books will allow the library to "reinvent" itself.
- 12. e-books will increasingly draw patrons' attention to the variety of library services.
- 13. The use of e-books will change patrons' search behavior in the library.
- 14. Libraries will transform into archives that include printed books only.
- 15. Libraries will not buy e-books, rather access to e-books only.
- 16. e-books will cause libraries to market themselves differently.
- 17. In the future, libraries will be evaluated according to the access to ebooks they provide. \_\_\_\_\_
- 18. e-books will decrease the number of library patrons.
- 19. Libraries will offer free access to e-books.
- 20. e-books will cause the disappearance of the traditional library.
- 21. The use of e-books will completely change the use of traditional books.

## Questionnaire C: Cognitive Appraisal Questionnaire: Threat versus Challenge

Below are statements concerning your attitudes towards new situations. Please placing the corresponding number from the scale on the line after each statement (1 = not at all, 2 = very slightly, 3 = slightly, 4 = average level, 5 = more than averate; 6 = at a very high level).

- 1. The situation stresses me.
- 2. The situation seems difficult to me. \_\_\_\_\_
- 3. The situation threatens me.
- 4. The situation challenges me.
- 5. The situation will harm me.
- 6. You think you can benefit from this situation.
- 7. The situation makes me angry.
- 8. This situation causes anxiety.
- 9. This situation causes certainty.
- The situation enables me to show my capacity. \_\_\_\_\_

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