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Millennial Attitudes Toward Books and E-Books

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Millennial Attitudes Toward Books and E-Books

The Millennial generation is the most computer literate generation to enter the workforce. Also known as the Net Generation, those born from 1981- 2001 have been raised in an era of instant access. The 3x5 index card to them is an historic relic said to have been used for cross references in the library and recipes. Their learning and communication style is through multi-media. The common method of contact is text messaging and instant messaging as well as cell phones. Learning has even moved into web-based tools such as web-ct, online journals and i-pod downloads. The value of traditional books for learning and entertainment may be limited for these technologically savvy young people.

The attitudes of Millennial generation students from a small private college were measured regarding usage and intended usage of books, e-books and audio books. Their views give an illustration of the outlook of this generation toward the evolution of digital media and how dependent their research skills are on technology.

Millennials

The Millennials (born 1981 - 1999) has a unique set of values and insights (Howe & Strauss, 2000; Lancaster & Stillman, 2002). Another term used for Millennials is Echo Boomers as their large size, education and technical skills may echo the effect of the Baby Boomers on society and businesses (Allen, 2004). As the children of these idealistic Baby Boomer parents, Millennials have been called entitled and empowered due, in part, to their inclusion in decision making

since childhood (Coomes & DeBard, 2004; Lancaster & Stillman, 2002). According to Lancaster and Stillman (2002), the Millennials' personalities reflect the influence of the skeptical Gen Xers (their closest cohort) which has merged with the input of the Baby Boomer parents and the Millennials' own pragmatism resulting in their being described as 'realistic'.

Diverse and Tolerant

Millennials are from more diverse families, not just from divorced or single parents, but from various forms of family structures and ethnicities (Alch, 2000; Coomes & DeBard, 2004; Martin, 2005). Millennials are characterized as very tolerant of multiculturalism and have no qualms about dating people of other races and/or ethnicities. The multiracial background of many Millennials is also a change from earlier generations as Millennials account for 36% of the seven million multiracial populace of the United States (New Strategist, 2004). They have a more global orientation and understand the need for interconnectivity in the worldwide market (Alch, 2000).

Distrustful

Millennials are said to have a distrust of large companies that they have seen riddled with scandals and downsizings and are reported to "regard constant and turbulent change as normal" (Alch, 2000, p.4). After witnessing parents cut from jobs, Millennials plan to depend on their own skills and chart a career path. Millennials have been reported to be unappreciative of bureaucracy and do not

respect positions of authority but they will recognize competency (Alch, 2000, Howe & Strauss, 2000).

Social Conscience

Yet, Millennials do not harbor cynicism toward society and are said to be more socially responsible and care about community services (Allen, 2004). This generation is known for its volunteerism as well as its social and environmental consciousness (Breakey, 2005; Coomes & DeBard, 2004; Greenberg, 2004). According to a survey by Greenberg Quinlan Rosner Research Inc. of a sample of 971 (of 1,385 interviewed) young adults between the ages of 18 – 25, volunteerism had a higher priority than participation in religion, politics or scholastic activities (Greenberg, 2004).

Millennials' Generational Experiences

As noted by generational theorists, those who were raised during comparable events and environmental conditions, including technological change will have related outlooks (Marías, 1970; Smith & Clurman, 1997). Millennials are part of a generation that has experienced metal detectors at places of learning, the impeachment of a president, real-time war and reality television (Pelton & True, 2004). MTV, (music television), which premiered in 1981, has been around all of their lives (Coomes & DeBard, 2004). The War on Terror, Afghanistan and Gulf War II are the wars of their generation as was World War II for the Traditionalists, Vietnam for the Baby Boomers and Gulf War I for the Gen Xers (Pelton & True, 2004).

Millennials have been raised during years of exceptional wealth in the United States. According to generational consultant and researcher Cam Marston (2005), the Millennials “feel entitled to life’s rewards without paying their dues” (p. 93). Their experiences in school and society however have been guarded and strict. They have had less free time than any other generation as many Millennials shifted from supervision at school to adult supervised activities (Howe & Strauss, 2000). They are said to have “helicopter parents” who hover over them (the over-involved Boomer parent) (Sacks, 2006). They have always known to wear seat belts and helmets, grew up with parental advisory stickers on music cds and have come up against “Zero Tolerance” policies for behavior such as threats, fights or marijuana usage, which may have only caused a scolding for Gen Xers (Coomes & DeBard, 2004; Howe & Strauss, 2000).

Teamwork

Millennials have become accustomed to team projects through participation in sports and through school based group work (Alch, 2000; Martin, 2005). They like teamwork, but they prefer to collaborate and work in teams with their generational peers (Lancaster & Stillman, 2000; Skiba, 2006). Their most widely used form of collaboration is through their cell phones and text messaging (McCasland, 2005). The experiences of connectivity through text messaging, instant messaging, blogging (Web logs, My Space) and video gaming are familiar to most Millennials. Millennials and Gen Xers have been referred to as ‘gamers’ for their mutual gaming interest and interactions (Smith, 2005/2006).

Technology in Their Lives

In a nationwide survey of 1,171 college students, 97% of these Millennials owned cell phones and over two-thirds had sent text-messages on them. Over half of the students in the study said that “instant messaging was their top choice of communication” (McCasland, 2005, p.8). They download podcasts and music, can take photos with their phones and text message one another in their created messaging language (McCasland, 2005).

Millennials are said to be experiential, engaging, and interactive (Skiba, 2006). As Millennials have a “curious blend of collaboration, interdependence and networking to achieve their ends” (Alch, 2000 p. 4), their technology seems to bring them and keep them together. Instant messaging, text messaging and chat rooms may be essential to the urban and suburban Millennial connectivity (Cox, 2004). Their style is high-tech and highly networked and Millennials “will want to be able to work quickly and creatively, and they want to do it their way” (Zemke, Raines, & Filipczak, 2000, p. 143). Their creativity and investigation with electronic media, free expressions, strong views and need for independence without restraint are noted facets of their generation (Alch, 2000).

General Traits

Common characteristics described in the literature of Millennials, based on their generational experiences, are their competence with technology, their concern for personal fulfillment over external rewards, their willingness to work in teams, their desire for flexibility and their social consciousness and volunteer

efforts. These traits, reiterated by the authors of generational studies, have been noted to categorize those from the Millennial generation and may affect their attitudes toward employment.

Millennials' Teamwork and Technology

Additionally, socializing for Millennials has become a comfortable fit through technology. Camera phones, e-mail, instant messaging and chat rooms keep friends connected. Daniel Drath, vice president for Teenage Research Unlimited (TRU), noted that many 'buddies' on their 'buddy list' (chat mail contacts) have never been met in person (Cox, 2004). Millennials are accustomed to relating and collaborating with others through technology. This form of group collaboration and being a team player (Howe & Strauss, 2000), is part of the abilities and traits of Millennials along with their technical savvy. They value new challenges and creative work methods (Hicks & Hicks, 1999).

Industries are already recruiting Millennials out of trade schools, high schools and colleges for their "technical abilities" (Lancaster & Stillman, 2002, p. 207). They are touted as possibly the best workforce to come as "they combine the teamwork ethic of the Boomers with the can-do attitude of the Veterans [Traditionalists] and the technological savvy of the Xers" (Hicks & Hicks, 1999, p. 302). Also described as self reliant and independent, Millennials are known for their ability to create with technology as well as use it to gather and share information (Marston, 2005; Martin, 2005).

In the workplace, it is expected they will be cooperative team players attracted to solid companies with standardized pay and benefits (Howe & Strauss, 2000). However, Millennials workers are also said to demand flexibility, immediate feedback, will challenge the status quo (the basis for the modification of the moniker Generation Y to “Generation Why” (Martin, 2005; Sacks, 2006)) and request shorter workweeks and teleworking options (Buckley, Beau, Novicevic, & Sigerstad, 2001). Customizing effective work environments with a focus on technology and using alternatives to the traditional office, including telecommuting is also suggested for successful employment of the Millennials (Buckley, et al., 2001). The flexible and technological interests of Millennials would seem to be aligned with the versatility of e-books. The following sections describe e-books and audio books followed by the results of the survey of the Millennials’ interest in them.

E-Books

Electronic monographs have been exchanged between scholars since the early years of the Internet, before windows and a mouse became the norm. They evolved through UNIX, gopher, FTP (file transfer), and, finally, hypertext transfer (HTTP) protocols (Snowhill, 2001). E-books have been around for quite a while although libraries didn’t really start paying attention until the turn of the century. It all began with Michael Hart and the creation of Project Gutenberg. It was 1971 when Hart began by keying in the Declaration of Independence, the U.S. Constitution, the Bill of Rights, the different books of the Bible, and then Shakespeare’s plays (Lake, 2003). By 1997, Project Gutenberg had over 1,000

titles freely available and several other similar sites were available. By 2006, two million free e-books were being downloaded monthly from Project Gutenberg's 19,000 offered titles ("E books by the number," 2006).

E-Books and libraries

Around the year 2000, many libraries became interested in e-books. Most libraries started by purchasing a collection from Net Library. As late as 2002, surveys showed that few in academia were using e-books. A survey by Outsell of students and faculty members found that only 18% of those polled regularly used e-books as compared to 88% using online indexes, and 75% using e-journals ("Academia still ignoring ...", 2002). Two other surveys in 2002 found users dissatisfied with e-books. The E-book Reader Survey conducted a usability study of 618 students comparing print textbooks and Gemstar e-textbooks. E-textbook respondents were "frustrated by printing restrictions, inability to loan or resell e-books, complained of high prices and lack of title availability" (Reid, 2002, p. 12). Another study at Ball State University found no significant difference in the test scores of students using print or digital texts. However, "there were plenty of student complaints about the usability of e-books" (Reid, 2002, p.12).

Other e-book disadvantages include proprietary software that has to be downloaded before the e-book can be used, and different formats for their display. As of 2001, there were 21 different e-book formats being used by various publishers (Dillon, 2001). In recent years, format choices have mostly been boiled down to two options: HTML and PDF. There have also been numerous

business models employed by e-book publishers such as the one book-one checkout model employed by Net Library, and other models that required the book be purchased after a limited number of uses. Publishers also experimented with selling both single titles and pre-packaged collections. Some e-books could only be accessed using a proprietary e-book reader. Most e-books requiring an e-book reader have failed to gain acceptance. “The tech landscape is littered with the remains of dedicated devices such as the Rocket E-book that tried to nreplicate the experience of a paper book. None of the devices achieved significant market penetration...” (Becker, 2004, p. 2). Despite these failures both Sony and Amazon released new e-book readers in 2007 (Sandoval, 2007).

E-book advantages

Despite the negative reviews, e-books have several important advantages over their print counterparts. Most important is the off-campus, 24 X 7 availability of e-books. This is the single most distinct advantage e-books have over print titles. E-books can also be helpful for those with disabilities. “Digital text can be enlarged, read via specialized devices, or easily converted into audio format” (Dillon, 2001, p.123). Another advantage over print is the searching capabilities provided by e-books. The ability to keyword search through the full-text of a manuscript is a big advantage over a table of contents or even the best index. Another “advantage of web-based e-books is that they are not subject to theft or loss and are therefore always available” (Dillon, 2001, p. 117).

At present, the future of the e-book is at a crossroads. Although e-book sales have steadily risen over the last five years, they have not met the expectations of either publishers or librarians (See Chart A).

US Trade Wholesale Electronic Book Sales

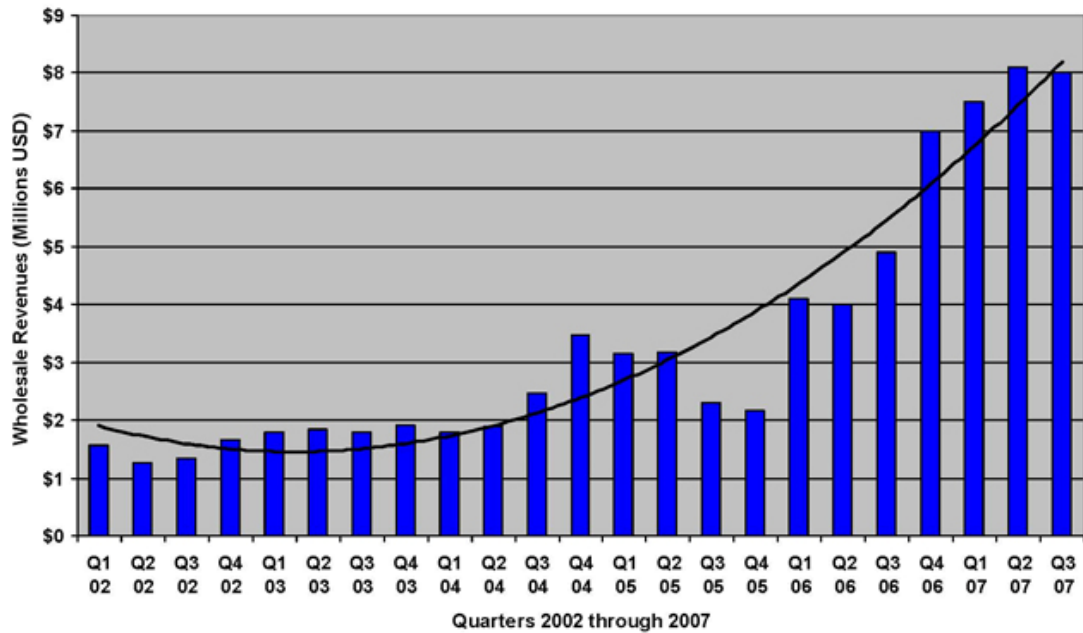


Chart A (Source International Digital Publishing Forum

http://www.idpf.org/doc_library/industrystats.htm)

Part of this is due to problems libraries have encountered with e-book publishers. Most libraries first foray into e-books was through a Net Library subscription. Among other problems the content was weak and the one user-one checkout process was cumbersome. In addition, after the Internet bubble burst in 2001, Net Library experienced serious financial woes until they were bailed out through OCLC acquisition (Connaway & Wicht, 2007). Many “librarians feared Net Library would go out of business altogether, and sales dwindled” (Connaway

& Wicht, 2007, p. 4). According to the Association of American Publishers (AAP), e-books sales were estimated to be 123 million in 2004 and 179 million in 2005 (“E-books by the number,” 2006). Sales were far below what had been forecasted in the late 1990’s. “If librarians learned anything from that first wave of e-book enthusiasm in the late 1990’s, it was that there was no penalty for waiting to adopt them” (Sandler, Armstrong & Nardini, 2007, p. 4). Digitization projects by Google and other companies could have a big impact on e-book use. The Google Print Library Project is working with major libraries to digitize a large body of literature in the public domain. Some librarians worry that if the “Google effort attracts users, there could be an adverse affect on the value of e-book subscription services” (Kaye, 2005, p. 65).

Audio Books

Audio books have been popular with library users for many years. “The technology that enabled the audio book was first developed in Britain in response to blinded soldiers returning from the front after the First World War” (Philips, 2007, p. 294). The Royal National Institute of the Blind created the first audio books on shellac discs (Philips, 2007). Although most people believe only commuters use audio books, they are popular with many different types of library patrons. Audiobooks are also popular with children, older students to reinforce learning, and for those with learning disabilities (Kenney, 2003). Over the years, format has changed from cassette to CD-ROM to MP3 downloadables. By 2003, the cassette era had ended and most libraries were purchasing most books on CD-

ROM. In 2003, audiobooks consumed 30% of public library media budgets but spending had increased by 72% over the previous three years, more than any other format (Kenney, 2003). In 2005, the breakdown of audiobook purchases was 74% on CD-ROM, 16% on cassette, and 10% on digital downloads (“Audiobooks by the number,” 2006).

By 2005, many libraries no longer collected audiobooks on cassette and were considering discarding those already in their collections. Many were already forecasting the end of tangible audiobooks completely. “A future dilemma will be whether to collect any tangible audiobook format or whether downloading digital audiobooks can be the sole answer” (Kaye, 2005 p. 63). Although there are problems with downloadable audiobooks, the biggest being their incompatibility with I-pods, they have become increasingly popular in the last two years. Many public libraries have purchased subscriptions from Recorded Books or Overdrive for collections of downloadable audiobooks. The I-pod market is now being filled with downloadable audiobooks from Apple I-tunes’ Music Store (Kaye, 2005). In the very near future, with the availability of cheap and ubiquitous laptops, audiobooks will be retrieved from download kiosks in bookstores (Kim, 2006).

Audiobook market

The market for audiobooks seems to be almost limitless. The first great leap in audio books sales occurred in the mid 1990’s. This occurred at a period of audio advances and in particular with the introduction of the Sony Walkman (Philips, 2007). Another similar leap is occurring currently with the prevalence of the I-pod and MP-3 players. According to the AAP, an estimated 832 million

dollars was spent on audiobooks in 2004. The total rose to 871 million dollars in 2005 (“Audiobooks by the number,” 2006). Of course, library audiobook purchases are mainly by public libraries. Academic libraries usually limit their audiobook purchases to classic fiction. This is not surprising when 58% of audiobook spending is on current popular fiction and a large proportion of the rest of spending is on travel literature (“Audiobooks by the number,” 2006).

E-book usage studies

There is surprisingly little literature in the area of e-books and their usage. There were a few studies at the turn of the century but very little follow up in more recent years. Almost every study has looked at the usage of pre-packaged Net Library collections. Studies of e-book collections from other vendors or single title purchases are almost nonexistent. In 2001, Lonsdale & Armstrong looked at e-book publication in the United Kingdom. Of the 80 UK publishers identified, only 29% were publishing e-books in 1998; by 2000, this number had risen to 35% (Lonsdale & Armstrong, 2001). Another interesting feature of this study was its look at undergraduate research habits. When performing research undergraduates utilized search engines 74% of the time, the library Online Public Access Catalog (OPAC) 30%, email 28%, online databases 2%, and e-journals 1% (Lonsdale & Armstrong, 2001). The numbers for postgraduate students, while higher, were also low.

Also in 2001, Dillon wrote a two-part article on the experience of the University of Texas system with e-books from NetLibrary. E-books “received a surprising amount of steadily growing usage” at UT (Dillon, 2001, p. 115).

Subject area usage was highest in the areas of computer science, economics, business and medicine (Dillon, 2001). The study also compared the usage of e-books to their corresponding print counterpart. Usage was comparable although the sample was small and many of the print titles were missing (Dillon, 2001). In a final statistic, the eight million printed titles at UT Austin were used 50% of the time in a year while e-books were used at a 200% rate (Dillon, 2001). Dillon also noted another important point that many other studies have discovered that e-book use increases considerably after Machine-Readable Cataloging (MARC) records have been placed in the library OPAC.

In 2002, Littman examined e-book use in Colorado academic libraries. In a study involving nine colleges that all subscribed to Net Library and all had MARC records for e-books in their OPAC, Littman found e-book use to be low. “Scaled e-book accesses per student ranged from .55 for Colorado College to .04 for Pueblo Community College” (Littman, 2002, p. 41). However, Littman (2002) did find that usage per volume of print and e-books was comparable. He also found a difference of rate of use based on the type of institution. “Usage of e-books is low in community colleges relative to print e-books. However, for other academic libraries, in aggregate, e-books are getting as much or more usage than their print counterparts” (Littman, 2002, p. 41).

In a small study of 27 library school graduate students, Chu (2003) looked at e-book usage and preferences. One third of respondents had used e-books in the past. The two main reasons for lack of e-book use were “hard to read and browse” and “need special equipment” respondents also complained of cost, lack of title

availability, and safety concerns (Chu, 2003, p. 342). The biggest reasons for using e-books included “around the clock availability” and searchability (Chu, 2003, p. 343). Users also liked space considerations, timely access to new titles, conservation features, and bookmarking capabilities. Chu concluded that the future for ebooks was not encouraging although he did acknowledge the limitations of his non-random survey.

In 2004, Littman & Connaway performed a circulation analysis of print and e-books at Duke University Libraries. Once again a Net Library collection of approximately 50,000 titles was studied. Print and e-books numbering 7800 were matched for the comparison. Usage data was pulled from circulation statistics for print titles and Net Library usage statistics for e-books. “Of the 7,880 titles that were available in print and e-book, 3,158 e-book titles were accessed and 2,799 print titles were circulated during the study period” (Littman & Connaway, 2004, p. 259). It was determined that e-books received 11% more use than their print counterparts. Littman and Connaway concluded that although e-books had more usage than print books, the results should be tempered by the inherent differences between looking at print circulations and e-book accesses.

Another study of the use of e-books in the University of Texas system was performed in 2006. This study looked at usage of e-books only and compared usage among different publishers and packages. UT subscribes to numerous e-book packages and has access to over 350,000 e-books. The study found that the majority of usage was split between NetLibrary at 49%, Safari at 15% and Ebrary at 11% (Safley, 2006). E-books were accessed 63,079 times in 2005 compared to

50,993 print circulations. Once again the most popular areas for e-book use were in computer science, engineering, business, economics and natural sciences (Safly, 2006).

The longest study of e-book usage occurred at Auburn University which conducted a longitudinal study from 2000 through 2004. Once again NetLibrary was the focus while also compared to print circulations. During the time period print circulations declined from 36,471 in 2001 to 24,089 in 2004, in comparison e-book accesses rose from 30 in 2000 to 5,534 in 2004 (Bailey, 2006). Once again, computer science, economics and business were the most heavily used subject areas. Bailey concluded that certain subject areas were more suitable for e-book collection, and that it was more cost-effective to purchase pre-packaged collections rather than individual titles.

Audiobook usage studies

Although a literature search was performed in several online databases, not a single audiobook usage study was located. This may be because the format does not make up a large part of academic library collections or budgets. Audiobooks are much more in demand in public libraries. Still this is an area that is primed for future research efforts.

Survey method

Students of a small, private New England university were invited to participate in an online survey through an e-mail invitation. Approximately 2,000 students received an email inviting them to take part in the survey. The survey response

rate was 5% due to the limit of 100 responses for prompt analysis. Of the 100 surveys returned, 74 were usable. The other 26 returned surveys were missing data and therefore not included in the study.

Results

Of the respondents, 78.4% were female and 21.6% were male. This disparity is not surprising considering the demographics of the school; only about 30% of students are male. Of respondents, 96% were born between 1985 and 1989; the other 4% were born between 1980 and 1984. Freshmen accounted for 24.3% of the respondents, 32.4% were sophomores, 24.3% were juniors, and 16.2% were seniors.

In response to question 1a “reading the whole book or large sections, I prefer e-books” 7% strongly agreed, 16% agreed, 48% disagreed, and 29% strongly disagreed.

Question 1b “reading the whole book or large sections, I prefer print” 56% strongly agreed, 34% agreed, 7% disagreed, and 3% strongly disagreed.

Question 1c “ebooks provide more effective access for most research” 17.5% strongly agreed, 57.3% agreed, 19.4% disagreed, and 5.8% strongly disagreed.

Question 1d “print books provide more effective access for most research” 11.9% strongly agreed, 36.6% agreed, 44.6% disagreed, and 6.9% strongly disagreed.

Question 1e “e-books are easier to use for most of my research” 16.8% strongly agreed, 46.5% agreed, 27.7% disagreed, and 8.9% strongly disagreed.

Question 1f “print books are easier to use for most of my research” 20% strongly agreed, 40.0% agreed, 35% disagreed, and 5% strongly disagreed.

In response to question 2 “what types of electronic resources do you use or not use for your assignments” 16.8% frequently used e-books, 34.7% seldom used e-books, 32.7% never used e-books, and 15.8% had never heard of e-books (See Chart B).

2. What types of electronic resources do you USE and/or NOT USE for your assignments?					
	Frequently	Seldom	Don't Use	Never heard of	Response Count
E-books (Ebrary, NetLibrary, Credo, etc.)	17.0% (17)	35.0% (35)	33.0% (33)	16.0% (16)	100
E-journals (Ebsco Academic Premier, JSTOR, Wilson)	45.0% (45)	30.0% (30)	17.0% (17)	8.0% (8)	100
E- newspapers (Proquest, LEXIS/NEXIS, etc.)	30.0% (30)	37.0% (37)	24.0% (24)	9.0% (9)	100
Audio books	5.0% (5)	14.0% (14)	76.0% (76)	5.0% (5)	100
Web sites (personal)	58.0% (58)	29.0% (29)	13.0% (13)	0.0% (0)	100

2. What types of electronic resources do you USE and/or NOT USE for your assignments?					
Web sites (corporate)	67.0% (67)	31.0% (31)	3.0% (3)	0.0% (0)	100
Web sites (educational, governmental, professional)	82.0% (82)	16.0% (16)	2.0% (2)	0.0% (0)	100
Blogs/wikis	24.0% (24)	18.0% (18)	48.0% (48)	10.0% (10)	100
Google	88.0% (88)	9.0% (9)	3.0% (3)	1.0% (1)	100
Wikipedia	51.0% (51)	25.0% (25)	22.0% (22)	2.0% (2)	100
Alerts/RSS	8.0% (8)	14.0% (14)	32.0% (32)	48.0% (48)	100
Social web applications (Discussion boards, YouTube, etc.)	23.0% (23)	34.0% (34)	39.0% (39)	5.0% (5)	100

Chart B

For question 3 “what do you feel would make e-books more suitable for your use” most respondents found the listed factors either very important or important (See Chart C).

3. What do you feel would make e-books more suitable for your use?				
	Very important	Important	Unimportant	Very unimportant
Greater breadth and depth of collection	37.6% (38)	56.4% (57)	5.9% (6)	0.0% (0)
More current titles	45.0% (45)	48.0% (48)	7.0% (7)	0.0% (0)
Ability to download	57.0% (57)	41.0% (41)	2.0% (2)	0.0% (0)
Better research tools	49.0% (49)	46.0% (46)	5.0% (5)	0.0% (0)
Multimedia capabilities	36.0% (36)	52.0% (52)	11.0% (11)	1.0% (1)
PDA accessibility	21.0% (21)	34.0% (34)	35.0% (35)	10.0% (10)
Better e-book readers	22.0% (22)	49.0% (49)	28.0% (28)	1.0% (1)
Multi-user access	30.0% (30)	42.0% (42)	28.0% (28)	0.0% (0)
Less restrictions on printing and copying	58.0% (58)	35.0% (35)	7.0% (7)	0.0% (0)
Better training and instruction	29.0% (29)	53.0% (53)	15.0% (15)	3.0% (3)
More information about E-books	38.6% (39)	47.5% (48)	11.9% (12)	2.0% (2)

Chart C

For question 4 ““what do you feel would make audiobooks more suitable for your use” most respondents found the listed factors either very important or important but were not as definitive as they were with e-books (See Chart D).

4. What do you feel would make audio-books more suitable for your use?				
	Very important	Important	Unimportant	Very unimportant
Greater breadth and depth of collection	30.6% (26)	35.3% (30)	21.2% (18)	12.9% (11)
More current titles	31.8% (27)	34.1% (29)	21.2% (18)	12.9% (11)
Ability to download	32.9% (28)	37.6% (32)	16.5% (14)	12.9% (11)
Better research tools	25.9% (22)	35.3% (30)	25.9% (22)	12.9% (11)
Multimedia capabilities	25.6% (22)	36.0% (31)	23.3% (20)	15.1% (13)
PDA accessibility	16.3% (14)	26.7% (23)	39.5% (34)	17.4% (15)
Multi-user access	20.0% (17)	31.8% (27)	35.3% (30)	12.9% (11)
Less restrictions on copying	31.8% (27)	30.6% (26)	25.9% (22)	11.8% (10)
Better training and instruction	25.9% (22)	34.1% (29)	27.1% (23)	12.9% (11)
More information about Audio-books	30.2% (26)	32.6% (28)	23.3% (20)	14.0% (12)

Chart D

For question 5, most of the respondents were quite familiar with technology and used it daily (See Chart E).

5. Please indicate your usage, if any, of the following						
	Daily	Weekly	Monthly	Yearly	Never	Response Count
Laptop computer	95.3% (81)	0.0% (0)	3.5% (3)	0.0% (0)	1.2% (1)	85
Desktop computer	21.2% (18)	31.8% (27)	24.7% (21)	8.2% (7)	15.3% (13)	85
PDA	8.2% (7)	9.4% (8)	8.2% (7)	1.2% (1)	72.9% (62)	85
I-Pod	49.4% (42)	27.1% (23)	2.4% (2)	0.0% (0)	21.2% (18)	85
Course Management software (such as WebCT)	24.7% (21)	29.4% (25)	16.5% (14)	10.6% (9)	18.8% (16)	85
Facebook/MySpace	85.9% (73)	12.9% (11)	0.0% (0)	0.0% (0)	1.2% (1)	85
Second Life	3.5% (3)	1.2% (1)	2.4% (2)	2.4% (2)	90.6% (77)	85
Text Messaging	72.9% (62)	10.6% (9)	4.7% (4)	0.0% (0)	11.8% (10)	85

5. Please indicate your usage, if any, of the following

Downloading music	36.5% (31)	25.9% (22)	23.5% (20)	1.2% (1)	14.1% (12)	85
Downloading research	18.8% (16)	43.5% (37)	23.5% (20)	4.7% (4)	9.4% (8)	85
Downloading lectures	16.5% (14)	17.6% (15)	15.3% (13)	11.8% (10)	38.8% (33)	85
Cell Phone	94.1% (80)	3.5% (3)	2.4% (2)	0.0% (0)	1.2% (1)	85
E-book	3.5% (3)	9.4% (8)	27.1% (23)	15.3% (13)	44.7% (38)	85
Audio book	3.5% (3)	1.2% (1)	9.4% (8)	10.6% (9)	75.3% (64)	85
Book (non text)	31.8% (27)	29.4% (25)	20.0% (17)	4.7% (4)	14.1% (12)	85
E-newspaper	14.1% (12)	17.6% (15)	29.4% (25)	11.8% (10)	28.2% (24)	85
Newspaper	15.3% (13)	35.3% (30)	30.6% (26)	8.2% (7)	11.8% (10)	85
E-Journal	5.9% (5)	14.1% (12)	22.4% (19)	9.4% (8)	49.4% (42)	85
Journal	7.1%	16.5%	12.9%	21.2%	42.4%	85

5. Please indicate your usage, if any, of the following						
	(6)	(14)	(11)	(18)	(36)	

Chart E

On question 6a, “awareness of electronic resources at library” 27.1% had very good competence, 42.4% described their competence as good, 25.9% felt their competence level was fair, and 4.7% thought their competence level poor. On question 6b, “competence in using computers” the respondents were more confident. 62.4% had very good competence, 25.9% described their competence as good, 11.8% felt their competence level was fair, and 0% thought their competence level poor. On question 6c “competence in research using computers” 42.4% had very good competence, 42.4% described their competence as good, 11.8% felt their competence level was fair, and 3.5% thought their competence level poor.

Question 7 addressed the use of Google by the respondents. 27% felt Google was a more useful tool than the print resources the library provides, 8.1% felt Google was a more useful tool than the online resources the library provides, 41.9% described Google as a powerful tool for finding what you need, 20.3% described Google as an occasionally useful tool for finding what you need, and 2.7% described Google as not a very valuable resource.

Limitations

Although large enough to make generalizations about attitudes, the sample size of Millennials may reflect a distinguishable attitude of a population from a private school in the northeast United States. The sample also only included those Millennials in the advanced stages of education, an opportunity not available for all Millennials. The study also only reached those with Internet access. Web based surveys may not get the responses from those who are not comfortable with technology (Shannon et al., 2002).

Finally the greatest limitation was probably in those who chose to respond to the survey. The possibility of self-selection bias problems with the survey was pointed out through an informal poll of Millennial students. The poll of 80 students revealed that only three had used audio books and only one had used an e-book. Since the survey was described as determining user usage and attitudes toward e-books, it is very probable that strictly print users chose not to respond to the survey accounting for the relatively low response rate.

Conclusions

Several conclusions can be drawn about e-books from the survey. Although Millennial students are quite familiar with and use many forms of technology daily, when it comes to reading a book even they prefer good, old fashioned print. For research purposes, Millennial students prefer e-books. The ease of cutting and pasting and the keyword searching features make the format preferable. When it comes to ease of use, Millennial students are split; about half prefer print and about half like e-books.

Other conclusions that can be drawn are that e-books are still not heavily used. This is due to a number of factors, including lack of acceptance by librarians and library users, lack of suitable content, format problems, publisher restrictions, and cost. The low use and acceptance is demonstrated through both the survey results and usage statistics. Only 16.8% of survey respondents frequently used e-books for assignments, and usage statistics while rising annually are still very low compared to e-journal usage.

Audiobooks are heavily used in public libraries but not as popular in the academic setting. Academic libraries purchase far fewer audio books than their public counterparts, and those that are in the collection get less use. This is mostly due to content restrictions. Audio books tend to consist of popular fiction, travel literature, language instruction, and romance novels. The one sure thing that can be said about the audiobook market is that the format is continually changing. Cassettes are dying out, CD-ROMs make up the lion's share, and downloadable titles are the wave of the future.

Millennial students feel quite confident about their technology expertise. 88.3% described their computer competency as "very good" to "good." Numbers were similar for their competency in using computers for research purposes. However, they were not quite so confident about their ability to use library electronic resources; only 69.5% described their competency as very good to good, with only 27.1% in the very good range. As expected, Google usage among Millennial students is quite high. When doing an assignment, 87.1% of students used Google frequently, and 35.1% thought Google a more useful tool than those

provided by the library. Even more disconcerting was the heavy use of Wikipedia¹ by Millennial students, 51% frequently used it for assignments.

Future research

There are a number of opportunities for future research about both e-books and audio books. There is definitely a need for more studies comparing usage of e-books and print. No usage studies of audio books seem to exist. Studies involving surveys would benefit from larger sample sizes, more inclusive samples, and comparison with other generations. Faculty attitudes toward e-books and studies that look at the personality of participants are also fertile ground for further research. Lastly, although no discernable gender differences were noticed in this survey, a larger sample may uncover such differences.

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