Children's Books in the Digital World: The Bigger Picture for Our Graduates

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This paper highlights a unique pilot program to test the utility of providing award-winning children's literature in e-book format at an academic library. A high demand for quality PreK–12 literature exists at many institutions offering teacher education programs. Books whose authors or illustrators win one of the two oldest American children's book awards are often assigned as class readings and many are placed on reserve each semester. In a time of tight budgets, it became an issue of how best to supply the demand for certain titles. E-books were considered as a viable, low-cost solution to provide the greatest access to these high demand materials. The Access Services Librarian analyzed circulation statistics of the award-winning titles, evaluated e-book vendors, and purchased e-book copies. In collaboration with the Education Librarian, e-books were tested in the School of Education, and the participants surveyed to determine their overall experience with e-books and their reactions to children's picture books, in e-book form. The findings describe the effectiveness, convenience, and practicality of accessing and reading juvenile books in this format, as well as patron preferences for print versus electronic and the benefits of the technology experience for university students. What had initially started as a practical plan to stretch budget dollars while improving access, yielded greater lessons and unexpected insights into teaching and learning with technology.

The College of New Jersey (TCNJ) is a medium-sized (6,400 FTE) college with a focus on undergraduate studies including a large teacher education program. The library houses 639,848 volumes of which 2,148 were on print reserves in 2013. The project began when the Access Services Librarian examined best practices for collecting e-books together with an analysis of high-use collections. The assumption was that high-use collections would benefit the most from the unique characteristics of e-books—24x7 availability, off-site access, and simultaneous use options. Librarian perception of user preference for e-books also pro-

vided motivation for further investigation. A review of circulation by collection showed that the two highest circulating collections were Course Reserves and Juvenile. These statistics were further connected in that many of the juvenile volumes placed on reserve consisted of multiple copies of award-winning titles.

TCNJ Library routinely collects award-winning children's and young adult literature. A consistent demand exists for books winning two particular awards: the Randolph Caldecott Medal, awarded annually to the illustrator of the "most distinguished American picture book for children published in the United

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States,"[1] and the John Newbery Medal, presented each year to the author of the "most distinguished contribution to American literature for children."[2] Books receiving the either medal or chosen as honor books are singled out for special purchasing (multiple copies), additional processing (spine labels and catalog record note fields), and separate shelving. These are also the juvenile titles most often placed on reserve by faculty who assign them as required reading. TCNJ Library holds nearly all of the books that have received one of these awards. New titles are acquired annually in support of teacher preparation programs in the School of Education and for regular assignments in English, Gender Studies, and Arts programs.

After analysis demonstrated that print books from the Caldecott Collection circulate most heavily, a decision was made to investigate the options for acquiring Caldecott titles as e-books. The consistent level of demand for the Caldecott titles would benefit from additional copies for numerous reasons. Print copies need frequent repair or replacement. Class reserves often leave no copies of an award-winning book on the regular shelves, limiting general access. Any initial concerns about the appropriateness of the format for the genre were quickly alleviated when a literature review revealed a surprising variety of studies making use of e-books in teaching and learning at the early childhood and elementary levels. Although the number of children's book titles, particularly picture books, in electronic format is still limited, schools have started to explore and experiment with digital collections. Articles have been published on the results of using e-books with children in different grade levels and settings. In their article encouraging teachers and parents to support language development with both print and electronic materials, Hoffman and Paciga emphasize the need for shared reading and familiarity with the new format when presenting e-books to toddlers and preschoolers.[3] Houston argues that e-books are essential for today's "digital natives," offering new ways to experience children's literature.[4] Siegle sees e-books as an important resource for gifted children and outlines not only e-book reading options,

but authoring software to allow children to write their own e-books.[5] In their review of the literature (1990-2010) regarding the use of e-books in the classroom, Felvegi and Matthew document the significant impact of evolving technologies and new literacies on reading instruction in K–12 schools.[6]

After examining the available scholarship, the rationale for requesting funds to acquire children's books in electronic format became even more compelling. The overriding interest was providing improved access to TCNJ students, however, it made sense that many of the technological advantages for PreK–12 students described in the professional literature would also apply to college students. At the very least, e-books would provide preservice teachers with access to the technology they might encounter in school classrooms. If the titles could be acquired, their usage and possible benefits could be evaluated. The immediate challenge was to find Caldecott Medal winners and honor books in electronic format and in an affordable platform.

At TCNJ Library, the heavily-used Caldecott print collection consisted of multiple copies of 298 Caldecott Medal and honor books (907 copies). (The Caldecott Medal winners and honor books from 1938-2013 total 315 titles.) Collectively, these copies circulated 26,809 times in the 2013 academic year, including the 104 copies on course reserves. Analysis of circulation statistics over a 13 year time span showed items in the General Collection circulated on average two times per volume; items on Course Reserves circulated on average 19 times per volume; and items in the Caldecott Medal and Honor books circulated 29.55 times per volume. The top five circulating Caldecott titles span several decades, indicating the enduring use of these books for course assignments: "Stone Soup" (Honor 1948), "The Snowy Day" (Medal 1963), "Mufaro's Beautiful Daughters" (Honor 1988), "Lon Po Po" (Medal 1990), and "Grandfather's Journey" (Medal 1994).

Many e-book vendors were evaluated to determine the best platform for access to these picture books. Traditional vendors (EBSCOhost, EBL, MyILi-

brary, and NetLibrary) did not offer Caldecott Medal and honor e-books. Several online sites that provide children's e-books were reviewed, such as those recommended by Roy Doiron in his presentation at the 77th International Federation of Library Associations (IFLA) General Conference and Assembly: World E-Book Library, the School E-Book Library, Tumble Books, and the Digital Gallery of World Picture Books.[7] After exploring many avenues, the researchers were disappointed to find very few Caldecott Medal and honor books available as e-books anywhere. Amazon's Kindle Editions collection offered 49 titles at a very low cost, ranging from $1.99 to $12.89. The average cost of Caldecott books in print was determined to be $12.75 and the average cost of Caldecott books as e-books $7.20. The popular circulating titles at TCNJ range in publication date, however, it was assumed that most of the e-book titles would be recent publications. After close analysis, it was determined that the available Kindle Editions books ranged in publication date from 1942–2013. With a Caldecott e-books supplier identified, access to the content was the next consideration. TCNJ Library did not have a platform to provide Amazon's Kindle Editions the desired books. In 2011 Amazon Kindle began a partnership with Overdrive to provide libraries a way to lend Kindle compatible e-books to patrons to download on their e-readers.[8] The cost of Overdrive was prohibitive, so another solution was needed. As early as 2007, libraries began experimenting with lending e-book readers to their patrons. Studies conducted with the Sony Reader, the Kindle, and iPads revealed two main models for lending e-book devices. The first is to lend devices without titles downloaded. Libraries then allow patrons to select titles to be added. Others "lend Kindles pre-loaded with specific titles."[9] Several types of e-readers have been tested in the library setting including, the Apple iPad, Sony Reader, Amazon Kindle, and Barnes and Nobel's Nook.[10] There were concerns, however, about creating loan policies since, as John Rodzvilla notes "a single e-book on multiple devices violates copyright laws in most countries."[11] In a discussion of libraries lending Kindles, Cris Ferguson cites Amazon's Terms of Use, "users may not 'sell, rent, lease, distribute, broadcast, sublicense of otherwise assign any rights to the Digital Content of any portion of it to any third party.'"[12] In the end, the researchers chose to conduct a study of a select audience and not to circulate a pre-loaded e-reader. For this pilot project, purchase of new devices was not considered. The solution was to employ iPads recently acquired for the purpose of librarian research as the e-book delivery method. Once the Kindle app was installed on each device, all 49 available Caldecott titles were purchased for a total cost of $314.61 and downloaded to the individual iPads.

To test the appeal and possible use of these e-books for teaching and learning, the researchers visited seven School of Education classrooms (a total of 122 students enrolled in either in a children's literature course or a junior year teacher preparation course block) to demonstrate the use of the Kindle Reader on the iPads and give the students hands-on experience. In addition to providing students with the opportunity to experiment with downloaded Caldecott books on an iPad, a demonstration of the functionality of the e-books was given to the each class of students on the classroom overhead screen. Print copies of the Caldecott titles were also available for students to peruse. An attempt was made to keep the presentations as "neutral" as possible, meaning without specific commentary as to how the e-books might be used in instruction. The intention was to avoid influencing the survey answers. The course professor, however, was not instructed in advance to refrain from commenting until after the students had completed the survey. This step is recommended for future studies.

After the technology demonstration and after interacting with the iPads, the students were asked to fill out a 10-question paper survey to gauge their reactions to picture books in electronic format. The survey was kept short to limit the amount of class time taken for the overall interaction and to be certain students had time to answer all questions. Answers could be quickly circled or boxes checked. In some cases multiple answers were an option. The first two

questions gathered background information regarding the students' familiarity with e-books. In strong contrast to librarian expectations, the survey results revealed that only 10% of students had ever read an e-book, accessible via the library catalog. Only 1.64% of those claimed to do so frequently. In response to a question about personal e-book usage, nearly 54% indicated that they had never downloaded an e-book and another 18% answered that they had rarely done it. The surprising finding that 90% of students had never read an academic e-book in the course of their studies, and another 72% had never or rarely downloaded an e-book to read for recreational or personal reasons, meant that students were not proficient in e-book and e-book reader technologies.

Students were asked two questions about their knowledge of and experience with Caldecott Medal winners. When asked about the extent to which they been required to use Caldecott Medal or honor books in TCNJ coursework, 90% indicated that they had been assigned the award books for one or more education courses. The largest number (68%) were assigned the books in only one course, likely the children's literature course in which they were currently enrolled. In answer to the question "For lesson plan preparation and other assignments, how likely are you to purposely seek out Caldecott books, when you need children's books?" 84% noted that they would be likely or very likely to do so. This indicated that the students understood the significance of the award-winning titles and valued them for instructional purposes.

The importance of e-books to students' current situation as preservice teachers and to future needs in their chosen profession was evaluated in two further survey questions. Based on descriptions in the scholarly literature describing particular uses of e-books in elementary schools, the students were provided options and asked to check all that applied. In their K-5 classroom observations, 24% had seen children have access to e-books on computers or readers in the classroom as a reading choice; 5% had seen children required to read e-books in a system that required questions be answered at the end of the story; and 10% had

observed the classroom teacher project an e-book for read-alouds. The researchers feel that the percentages would be higher, if the survey results from students enrolled in teacher education programs had been analyzed separately from those enrolled in a children's literature class as an elective. Although the majority of students surveyed had not observed e-book usage in elementary schools, they rated access to children's e-books at TCNJ Library to be important to preparation for teaching in the 21st Century. 10% found the electronic format to be extremely important, 46% found it important, and 33% selected somewhat important. Only 11% did not find children's e-book access important at all. These findings, along with anecdotal information collected in discussion sessions following the survey, contributed to the researchers' interest in learning more about e-book benefits for college students.

Results were mixed regarding student preferences for electronic or print Caldecott picture books. On one end of the spectrum, only 3% of those surveyed preferred e-books over print, while on the other end, 7% stated they would never use an e-book. 49% would plan to use Caldecott Medal and honor books in both formats for teaching and learning. Fifty participants (41%) preferred print. When asked the top three reasons to use children's picture books in the traditional, print format, the greatest number of respondents chose the options: "Easy to Use," "Easy to Share with a Group" and "Appeal to Children." Similarly, the students selected the top three reasons to use children's picture books in electronic format: "Available When Needed," "Good Selection of Books" and "Appeal to Children." "Appeal to Children" was ranked equally high for both formats. "Quality of Images" received the fourth highest number of responses for print picture books, but was chosen the least number of times for electronic books. Answers varied only slightly for print or electronic, with three major exceptions: 61% chose "Available When Needed" for electronic books, while only 23% selected that option for print books; 57% felt that print books were "Easy to Share with a Group," but only 22% made that choice in reference to

e-books; and, finally, 50% responded that the "Good Selection of Books" was a top reason to use e-books as opposed to only 20% for print copies. Students chose "Easy to Use" and "Convenience of Borrowing" slightly more often for print. The final survey question asked students to indicate how likely they would be to use Caldecott Medal and honor books in e-book form, if they were available at the library. A 61% majority was very likely or likely to use children's e-books.

This pilot study informed library work in more ways than initially anticipated. Taking a collection development issue directly to the end users in the form of a hands-on experience, together with a chance to anonymously express an opinion, proved not only insightful, but was an excellent public relations opportunity. TCNJ Education faculty members reacted very positively to the e-book project proposal, welcomed the visits to their classrooms and were anxious to learn the results of the student survey. They not only provided class time for the demonstration and survey, but often initiated open discussion sessions from which much valuable anecdotal information was gained. Faculty shared their thoughts on how e-books could be shared with an entire class by projection or read to a small group by using handheld tablets. Students related experiences "in the field," in which they felt lost when asked to assist elementary students with iPads or a literacy software program. One student noted, "We will encounter this in the schools, because I babysit a 3-year-old who reads e-books." TCNJ students also recognized the advantages of projecting a book, because they had struggled to hold a book so that all children could see the pictures. The initial project to provide better access to heavily-circulating children's picture books quickly took on a broader significance even before the data was analyzed, as librarians interacted with faculty and students on their "turf."

A second review of the professional literature revealed studies involving preservice teachers and e-books that document positive outcomes for both future teachers and school children. Almaguer and Pena had college students enrolled in reading and educational technology classes prepare a shared reading les-

son based on self-made, electronic "big books" using PowerPoint to bring children's books to the big screen. The results of the study indicated that the addition of technology improved participation while benefiting the acquisition of reading skills by young children.[13] From the preservice teachers' self-assessments, it was determined that they struggled to varying degrees with the technology skills required to create and deliver the "big books," but they were gratified by the elementary school students' reactions indicating that the lesson was successful.[14] Both sides benefited from the technological innovation and its integration into classroom learning. In another study preservice teachers enrolled in an elementary education literacy course were required to read a children's book in electronic format. Students completed a pre-reading questionnaire about their prior experience with e-books, the type of device used to access the text and technical details involved in downloading and reading the book.[15] Following the class reading, students reflected on their experiences with the e-book and the functions and tools of the e-readers.[16] As learned from TCNJ survey results, students were not accustomed to reading books in digital format. Similarly, students were glad for the digital experience, but were split about the use of digital texts over traditional print. In Larson's study "…most of them (63%) had no prior experience with eBooks" and when asked their preference, "…65% reported they would have preferred reading a print copy…"[17] Schugar, Smith and Schugar observed preservice teachers required to use a single iPad in elementary classroom literacy instruction.[18] They concluded that careful planning is necessary to familiarize both the future teachers and the elementary school students in the functionality of the iPad, so that experiencing the device does not become the focus of the language arts lesson, rather than the intended content.[19] In other words, the delivery system and interactive features of an e-book may distract from the literature, if the teacher is not fully comfortable with the device and features of the e-book.

Librarians must be prepared to answer detailed questions about e-book functionality and availability.

E-book features are not always obvious and are complicated by the lack of consistency by vendors. Patrons encounter multiple e-book formats and options when using the library catalog. Some books may be downloaded and others not; some vendors require an individual account login; and the number of users or pages that may be printed varies. These options all require knowledge on the part of the user. These TCNJ survey results make clear that digital natives are neither aware of academic library e-book offerings nor comfortable with e-books and e-readers. When the library promotes e-books, more instruction should be included in consideration of the valuable lessons to be learned from mastering the technology. Academic libraries can play a greater role in providing critical ICT (Information, Communications and Technology) skills for all disciplines. The International Society for Technology in Education (ISTE) sets standards for both students and teachers. Librarians, often focused on conveying the basics of catalog and database searching, could be inspired by the "ISTE Standards for Teachers,"[20] in particular, Standard 2: "Design and develop digital age learning experiences and assessments." and Standard 3: "Model digital age work and learning." Subject librarians could take a closer look at what it takes to be a digital professional using the technology systems in their assigned disciplines and explore how library technology can better support students preparing for a career. Librarians might see the bigger picture by taking cues from teacher education. "Teacher preparation programs must prepare teachers to use technology to motivate students, bridge the gap between students' social and academic uses of technology and, in many cases, provide access to technology for students."[21]

Notes

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