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“Freely Ye Have Received, Freely Give” (Matthew 10:8):

How Giving Away Religious Digital

Books Influences the Print Sales

of Those Books

John Hilton III

A dissertation submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

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Instructional Psychology and Technology

Brigham Young University

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ABSTRACT

“Freely Ye Have Received, Freely Give” (Matthew 10:8):

How Giving Away Religious Digital Books Influences the Print Sales of Those Books

John Hilton III

Department of Instructional Psychology and Technology

Doctor of Philosophy

Lack of access prevents many from benefiting from educational resources. Digital technologies now enable educational resources, such as books, to be openly available to those with access to the Internet. This study examined the financial viability of a religious publisher’s putting free digital versions of eight of its books on the Internet. The total cost of putting these books online was \$940.00. Over a 10-week period these books were downloaded 102,256 times and print sales of these books increased 26%. Comparisons with historical book sales and sales of comparable titles suggest a positive but modest connection between this increase and the online availability of the free books. This dissertation may be downloaded for free at <http://etd.byu.edu>.

Keywords: open educational resources, e-books, open access, open culture, free books, free e-books

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I express love and gratitude to wife Lani and my parents. Without them I would not have completed this dissertation, nor be who I am. I love you.

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CHAPTER 1: INTRODUCTION

Sunil Bhopal is a medical student at the University of Leeds in the United Kingdom. Rossetta Cole is a medical student at the College of Medicine and Allied Health Sciences in Sierra Leone. In writing about their experience they state the following:

The starkest difference in our education has been in access to information. While in Leeds I (Sunil) have access to thousands of books through the university library, hundreds of journals in print and online and am a mere (university funded) bus ride away from a copyright library containing everything ever printed in the UK, in Freetown I (Rossetta) have had to make do with 20-year-old donated textbooks, no paper journals, and access to.... online journals once (through a local internet cafe) over the 6 year course” (Healthcare Information For All, n.d.).

Lack of access to educational resources is a serious problem in many parts of the world. India’s National Knowledge Commission wrote, “Our success in the knowledge economy hinges to a large extent on upgrading the quality of, and enhancing the access to, education” (National Knowledge Commission, 2007, p. 51). The need to enhance access to education naturally relates to the need for access to educational resources.

Even those with technological access to information may lack the financial means to access educational resources (Willinsky, 2006). According to the National Association of College Stores (2008) the average college student in the United States spends \$702 annually on textbooks. Another source estimates that annual per student cost of textbooks is as high as \$1100 (Mui & Kinzie, 2008). The United States Government Accountability Office (2005) reports that “increasing at an average of 6 percent per year, textbook prices nearly tripled from December 1986 to December 2004” (p. ii). In addition to formal educational resources, such as textbooks,

many individuals lack access to books of any kind. Some may live in areas where the cost of books is prohibitive; others may simply lack easy access to specific books.

One possible way to provide greater access to educational resources is to expand the availability of educational materials through the use of open educational resources (OER). According to the Organisation for Economic Co-operation and Development (OECD), “The definition of OER currently most often used is ‘digitised materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research’” (OECD, 2007, p.10). An OER may be an entire course, a complete book, or a more granular piece, such as a single PowerPoint presentation (Downes, 2007). These resources, made freely available on the Web, allow those with Internet access the opportunity to tap into a variety of educational material at no cost.

The Cape Town Open Education Declaration states, “Educators worldwide are developing a vast pool of educational resources on the Internet, open and free for all to use. These educators are creating a world where each and every person on earth can access and contribute to the sum of all human knowledge” (Cape Town Open Education Declaration, 2007). On the same topic, India’s National Knowledge Commission said that stimulating “the development and dissemination of quality Open Access (OA) materials and open educational resources (OER) through broadband Internet connectivity” would be one of the most effective ways to disseminate educational resources (National Knowledge Commission, 2007, p. 51).

An increasing number of institutions and individuals worldwide are producing and publishing OER, thus increasing the quantity of freely available educational materials accessible by individuals around the world. Amongst these institutions, perhaps the single most well known program is MIT’s OpenCourseWare initiative (<http://ocw.mit.edu>), which provides open access

to materials used to teach over 1,900 courses. One can find a growing list of higher education institutions participating in the creation of OER by visiting the OpenCoursewareConsortium website (<http://www.ocwconsortium.org>); as of November 2009 there were 196 members of the consortium worldwide (OpenCourseWare Consortium, 2009).

Some institutions, instead of offering full courses electronically, offer small units of instruction such as class modules, video files, or lesson plans online. Individual teachers also upload video or audio versions of lectures to YouTube or iTunes, post PowerPoint presentations to SlideShare, and share OER in a variety of other ways (Gurrell, 2008).

This trend of making educational resources available extends to many different areas. For example, several organizations are finding ways to make digital versions of textbooks available at no cost (Matkin, 2009). Some of these textbooks are distributed through non-commercial enterprises like Rice University's Connexions initiative. Similarly, Wikibooks, modeled after Wikipedia, is intended to facilitate a collaborative approach to textbook creation. As of January 2010, 38,634 content pages had been created in the Wikibooks website (Hilton, Graham, Rich, & Wiley, in press). Other electronic textbooks are part of for-profit enterprises, like those published by Flat World Knowledge.

In addition to open academic textbooks, some prominent Internet and publishing figures have spoken out on the importance of making other kinds of books openly available (Lessig, 2004, 2008a; Boyle, 2008a; Doctorow, 2008). Books are an important source of educational material, and increasing the number and quality of books available for free access could benefit those seeking educational resources.

Many authors believe they have a moral obligation to spread their work to others for free (Hilton & Wiley, in press-b). Because of this and other motivations, some authors are releasing

their books for free digital distribution, thus increasing access to their books. In the pre-Internet era it was difficult to make books available for free, as the only way to read a book was to acquire a physical object, which involved the costs of printing, binding, and shipping. However, the Internet has made it extremely simple and inexpensive for digital copies of books to be made freely available for online viewing and download.

Closely connected with the free digital distribution of a book is the extent of the book's impact. This increased impact may indicate that making the work accessible does indeed have educational value. Hilton (2009) relates the following example of a free digital book that generated an instant audience:

On March 25, 2004, Lawrence Lessig released his book *Free Culture* with a Creative Commons license that allowed people to access the digital PDF version on the Internet for free. The license also allowed people to legally make derivatives of the work (Free Culture, 2004). The next day the Reverend A.K.M. Adam made a blog post inviting others to join him in creating a free audio version of *Free Culture* (Adam, 2004). Within two more days, "most of the book was available as MP3 downloads" (IT Conversations, 2004) (para. 1).

Free Culture has sold fewer than 50,000 copies in the United States since being released. However, the book has been downloaded several hundred thousand times. Perhaps more significantly, "it has been translated into seven different languages, audio versions are freely available, and it has been put into sixteen different e-book formats. All of these translations and format changes are freely available for others to download and build upon. Allowing others to remix *Free Culture* expanded its reach" (Hilton, 2009, para. 9).

Although making books available as free educational resources may be beneficial, an obvious objection to the making of books available at no cost to the public is that the availability of free online copies may harm the commercial viability of printed books, thus making fewer quality books available (Rich, 2010; Adams, 2007). A spokesperson for the Penguin Publishing stated that Penguin Publishing believes that books are too valuable to be given away for free (Rich, 2010). Adams, the author of the Dilbert cartoon strip, wrote of his disappointment with readers after he released one of his older books for free online:

My hope was that the people who liked the free e-book would buy the sequel [which was newly available in hard copy]. According to my fan mail, people loved the free book. I know they loved it because they e-mailed to ask when the sequel would also be available for free. For readers of my non-Dilbert books, I inadvertently set the market value for my work at zero. Oops. (2007, p. A19)

Another author, Poole (2008), similarly expressed dissatisfaction with the idea that his creative work be valued at zero—particularly because he makes his living through writing (para. 7). At the same time, he found the interest shown in his e-book to be “extremely gratifying” (para. 2) and hoped that this “pretty good publicity stunt” of making one of his books available for free would influence bookstore sales of his future works (para. 3). In considering free downloads, Poole felt the need to weigh the value of increased exposure to himself and his work against the possibility of eroded sales.

In contrast to Poole’s view, other authors have suggested that print sales are not negatively affected by free digital books (Doctorow, 2008; Hardawar, 2009; Kusek, 2008). Keller (2009) reported that by giving away electronic copies of one of his books he gained a substantial number of fans whom he felt would purchase books. For some authors the question of

increased sales is a moot point because for most works, book sales taper off and decline to almost zero, and then the works go out of print. Lessig (2004) points out that books have two lives, with only the first life directly benefiting the copyright owner through sales:

Here is an idea that we should more clearly recognize. Every bit of creative property goes through different ‘lives.’ In its first life, if the creator is lucky, the content is sold. In such cases the commercial market is successful for the creator. The vast majority of creative property doesn’t enjoy such success, but some clearly does. For that content, commercial life is extremely important. Without this commercial market, there would be, many argue, much less creativity.

After the commercial life of creative property has ended, our tradition has always supported a second life as well. A newspaper delivers the news every day to the doorsteps of America. The very next day, it is used to wrap fish or to fill boxes with fragile gifts or to build an archive of knowledge about our history. . . .In this second life, the content can continue to inform even if that information is no longer sold.

The same has always been true about books. A book goes out of print very quickly (the average today is after about a year). . . .After [a book] is out of print, it can be sold in used book stores without the copyright owner getting anything and stored in libraries, where many get to read the book, also for free. Used book stores and libraries are thus the second life of a book. That second life is extremely important to the spread and stability of culture. (pp. 112–113)

Thus, Lessig believes there is an important life for a book after its commercial life is over. Online technologies now allow books and to have a life outside of libraries and used book stores. The can become valuable educational resources for readers around the world. .

But timing is important to consider. Some people are concerned that prematurely releasing a free e-version of the book might lead to a shortened commercial life. How soon could a free digital version of a book be available without harming print sales of that book? Many authors and publishers believe that giving away digital versions of their work will destroy the market for those books, at least as long as they are in print. They may also worry, as Adams (2007) perceived, that a trend of free downloads could encourage readers to wait for the free release rather than buying a work.

Until authors and publishers can be assured that turning their books into open educational resources will not negatively affect sales of those books, it seems unlikely that authors and publishers will be willing to make them freely available. If research could demonstrate that providing free electronic copies of books did *not* diminish a printed book's profitability, then making books available as open educational resources could become widespread, thus greatly expanding access to information. As will be discussed in Chapter 2, this dissertation specifically deals with the impact of turning religious books into OER by making free digital versions available.

Religious books could be of particular concern in the realm of OER because of their moral content. Authors of religious books may be particularly prone to feel an obligation to freely share what they write with others as there is an association of non-profit with religion. At the same time, issues of profitability still apply. The research question of this dissertation is this: How does giving away religious digital books influence the print sales of those books?

CHAPTER 2: REVIEW OF LITERATURE

The purpose of this dissertation is to explore whether making religious digital books available for free download correlates with a change in the print sales of these books. As stated previously, the purpose of this study is to determine how giving away religious digital books influences the print sales of those books.

This chapter reviews literature relating to open educational resources, sustainability issues as they pertain to open educational resources, and previous studies examining books as open educational resources.

Open Educational Resources

The Organisation for Economic Co-operation and Development (OECD; 2007) provides the following definition of open educational resources (OER): “Digitised materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research” (p.10; also quoted in Bissell, 2009, p. 97). The United Nations Educational, Scientific and Cultural Organization’s (UNESCO; 2002) definition of OER includes a noncommercial framework, describing OER as “educational resources, enabled by information and communication technologies, for consultation, use and adoption by a community of users for noncommercial purposes” (p. 24). Another important element of OER is permission to use the materials in new ways. D’Antoni (2009) cited the William and Flora Hewlett Foundation, a key donor for OER, as stating that OER are “resources that reside in the public domain or have been released under an intellectual property license that permits their free use or re-purposing by others” (p. 4).

The *open* in open educational resources is not a simple binary concept; rather, the construct of openness is rich and multidimensional. To use an analogy, openness is not like a

light switch that is either *on* or *off*. Rather it is like a dimmer switch, with varying degrees of openness. For example, the discoverability of an OER is an important aspect of how open it really is. If an OER cannot be discovered, from a practical perspective it might as well be closed (Brown, 2008; Dholakia, King, & Baraniuk, 2006).

Few frameworks describing the meaning of *openness* in the context of open educational resources exist in the literature. Geser (2007) and Schaffert and Geser (2008) used the following framework to explain the core characteristics of open educational resources:

Access to open content (including metadata) is provided free of charge for educational institutions, content services, and the end-users such as teachers, students and lifelong learners....

Content is liberally licensed for re-use in educational activities, favourable free from restrictions to modify, combine and repurpose the content; consequently, that the content should ideally be designed for easy re-use in that open content standards and formats are being employed....

For educational systems/tools/software is used for which the source code is available (i.e. Open Source software) and that there are open Application Programming Interfaces (open APIs) and authorisations to re-use Web-based services as well as resources. (Geser 2007, p. 20)

Hilton, Wiley, Stein, and Johnson (2010) outlined “4 R’s” that can be used to determine how open an OER is. They explain these four R’s as follows:

Reuse—The most basic level of openness. People are allowed to use all or part of the work for their own purposes (e.g., download an educational video to watch at a later time).

Redistribute—People can share the work with others (e.g., copy and e-mail a digital article to a colleague).

Revise—People can adapt, modify, translate, or change the form of the work (e.g., take a book written in English and turn it into a Spanish audio book).

Remix—People can take two or more existing resources and combine them to create a new resource (e.g., take audio lectures from one course and combine them with slides from another course to create a new derivative work). p. 39

Figure 1 illustrates how allowing these different R's increases the openness of an OER.

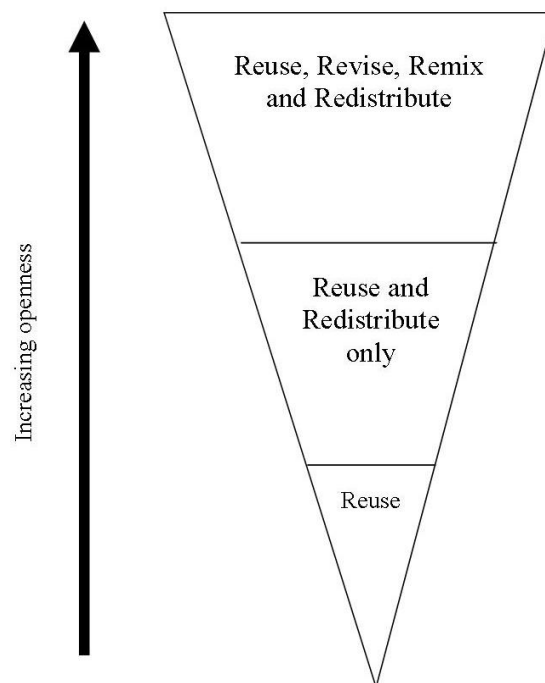


Figure 1. Increasing openness of an open educational resource related to a copyright owner's permission for the work to be used in various ways. Adapted from "The Creation and Use of Open Educational Resources in Christian Higher Education," by J. Hilton and D. Wiley, 2010, *Christian Higher Education*, 9(1), p. 51. Copyright by Taylor & Francis.

Thus a baseline definition of open requires that the owner or copyright holder freely allow others to reuse the work. Allowing others to reuse *and* redistribute the work increases the openness by permitting both access and circulation. Allowing others to remix and revise the work further enhances openness, and provides opportunities for new OER to be created.

Sustainability of Open Educational Resources

Individuals and organizations are creating OER in order to help others learn and teach more effectively. However, many have argued that one of the weak points of OER is the issue of sustainability (Downes, 2007). Most OER projects are funded by grants and are not financially self-sustainable. Although many people believe in the importance of sharing educational resources with others, if the activity is not financially sustainable, then the creation and sharing of OER might not be a viable long-term option.

A few individuals and organizations are conducting experiments to determine if OER creation and sharing can be made financially sustainable. For example, Johansen (2009) found that when online university and high school courses were made openly available for others to access, paying enrollments in those online courses increased. In his study, the revenues resulting from the increases in enrollment were more than sufficient to cover the costs of opening the courses.

Some companies, such as Flat World Knowledge (FWK), are trying to make money by giving away open textbooks (Hilton and Wiley, submitted). Why might an open source business model make sense for e-textbooks? One reason is that the digital version of a textbook is relatively inexpensive to distribute. Once created, the digital version is a non-rivalrous resource that can be utilized by many people with little marginal cost. Unlike a physical book from the

library (if one person has checked it out another cannot), digital books can be accessed by multiple people simultaneously. If offering a free textbook creates a situation in which the textbook is adopted by large number of faculty, then the opportunity to sell ancillary products to the users of free textbooks may be significant. FWK offers both low cost printed books and ancillary digital products such as study guides and audio versions to complement the free textbook. Its textbooks are written by professors who are recognized as experts in their respective fields.

In the Spring of 2009 approximately 750 students enrolled in classes using an FWK textbook. All of these students had access to the free online version of the textbook and no purchase was required of these students. Nevertheless, Hilton and Wiley (submitted) found that 442 students (59%) placed at least one order with FWK, with the average student spending \$28.20. In total, 294 printed textbooks were purchased by students. Thus, approximately 39% of students chose to purchase a print copy of the textbook, even though the free online version of the book provided them a means of successfully completing the course without making the purchase. The FWK leadership team feels that these numbers justify their belief that giving away textbooks for free is a financially sustainable possibility.

Aspects of Books as Open Educational Resources

In addition to using textbooks as OER (and sometimes trying to monetize them), the idea of general books as OER is becoming more common. A growing number of authors are using free digital distribution of their books in order to increase the visibility and sales of their work (Hilton & Wiley, in press-b). These authors include individuals writing to both academic and general audiences in a wide variety of genres, including technology, law, education, and science fiction.

Author Attitudes

Understandably, some authors suspect that giving away free copies of books may negatively affect how people perceive the value of print books (Adams, 2007). However, anecdotal evidence suggests that in some cases both the visibility of the author and sales of physical products increase when digital versions are freely distributed on the Internet (Doctorow, 2008; Hardawar, 2009; Kusek, 2008). Duke University Law professor and copyright scholar James Boyle and his publisher, Yale Press, made his book *The Public Domain* freely available on the Internet. Boyle (2008a) wrote, “Both the publisher and I believe that this will increase rather than decrease sales” (p. 4).

Boyle (2008b) later stated that he feels it is impossible to determine for certain whether making books freely available increases or decreases sales:

I am unconvinced by the basic assumption that this will hurt commercial success of academic/crossover books. Most of the academics I know who have [made books freely available]clearly did *much* better financially than those who didn’t—though this is hardly “proof” since it could be that only those with an established reputation can persuade publishers to go along, and also sell more books, get better terms, and so on. We can’t prove the counterfactual. (para. 5)

C. Anderson (2009) suggested that making products available for free might have important implications for authors who want to increase the sales of their work. Rich (2010) reports that many authors use free versions of older books to increase sales of newer works. Hilton and Wiley (in press-b) asserted that the question of how freely distributing an electronic version of a work affects print sales is impossible to answer through experimental research because there is no way to simultaneously release and not release free versions of a book. Nevertheless, some researchers are trying to figure out ways to determine whether there is a

correlation between the free availability of books and print sales of those books. For example, Heald (2008) showed that fiction books protected under copyright do not sell more copies than comparable fiction books in the public domain. This finding shows one circumstance in which a book that is freely available through public access can still do well in print.

Hilton and Wiley (in press-b) interviewed ten authors to learn how they perceived the effects of making their books available for free. Author Chris Kelty explained, “I would say that [making my book freely available] has been significant, though not dramatic. Responses to the book have come from all over the world, including markets where Duke [University Press] does no marketing, like Korea and Argentina, and all of the reviews have mentioned that it is freely available” (quoted in Hilton & Wiley, in press-b).

Doctorow (2008) conceptualized the effect of online distribution as follows:

Most people who download [a book I wrote] don't end up buying it, but they wouldn't have bought it in any event, so I haven't lost any sales, I've just won an audience. . . .

After all, distributing nearly a million copies of my book has cost me nothing. The thing about an ebook is that it's a social object. It wants to be copied from friend to friend, beamed from a Palm device, pasted into a mailing list. (p. 71)

In addition to increasing the sales of a specific book, open publishing has the potential to enhance an author's reputation. Boyle (2007) wrote, “Even professional authors make money in multiple ways other than by royalties—ranging from options on film production to commissions for magazine articles to consulting, teaching and speaker fees. Most are aided by wider exposure” (para. 9).

None of the authors surveyed by Hilton and Wiley (in press-b) felt that open publishing had a negative effect on sales; rather, most believed that openly publishing books had or would increase sales. Doctorow (2008) expressed a similar sentiment when he wrote the following:

A tiny minority of downloaders treat the free ebook as a substitute for the printed book—those are the lost sales. But a much larger minority treat the ebook as an enticement to buy the printed book. They're gained sales. As long as gained sales outnumber lost sales, I'm ahead of the game....The number of people who wrote to me to tell me about how much they dug the ebook and so bought the paper book far exceeds the number of people who wrote to me and said, "Ha, ha, you hippie, I read your book for free and now I'm not gonna buy it." (pp. 71, 72, 110)

Some authors felt that free distribution increased awareness, which drove book sales. For example, Hilton and Wiley cited Eric Von Hippel, who reported that sales of his book were double the publisher's initial estimates—an effect Von Hippel attributed to electronic availability. In addition to these sales, Von Hippel's free e-book was downloaded 90,000 times from his website.

Boyle (2007) shared his view on the role of e-books as follows:

Why might free digital availability make sense for parts of the publishing industry? First, most people hate reading a book on a screen, but like finding out if it is worth buying. I am sure I have lost some sales, but my guess is that I have gained more new readers who otherwise would be unaware of my work, and who treat the digital version as a 'sampler,' to which they then introduce others. (para. 9)

Perspectives on Print Sales

Following the pattern of a study done by O'Reilly (2007), Hilton and Wiley (in press-b) used Nielsen's BookScan to gauge the impact of free digital distribution on book sales. BookScan tracks point of sales data from most major book sellers, meaning that it tracks the number of books actually sold to customers as opposed to books sold by distributors to retailers (Milliot & Zeitchik, 2004). They used BookScan to analyze the sales of Lawrence Lessig's book *The Future of Ideas*, first published in 2001. This book was selected because there was a clear point in time at which this book, which had formally been available only in print, was released in a free digital format. On January 14, 2008, Lessig announced that his book had been openly licensed (Lessig, 2008b). Hilton and Wiley research what impact (if any) did distributing the book for free online had on print sales of the book.

In order to determine the free distribution's influence they analyzed the sales data of *The Future of Ideas* for the year before and the year after it was openly licensed. Because book sales tend to decrease as time goes on, it seemed reasonable that sales would decrease. However, how much of a decrease should be expected?

Another of Lessig's books, *Free Culture*, is a fairly comparable book. Since it was released in 2004, *Free Culture* has been available under an open license. Therefore there would be no significant sales impact during 2007 and 2008 based on a change in the license. In addition, the comparison could be made without having to worry about differences in sales based on author popularity, although these were different books and may have had different audiences. Figure 2 plots the quarter-by-quarter sales of *Free Culture* and *The Future of Ideas* over this two-year period of time.

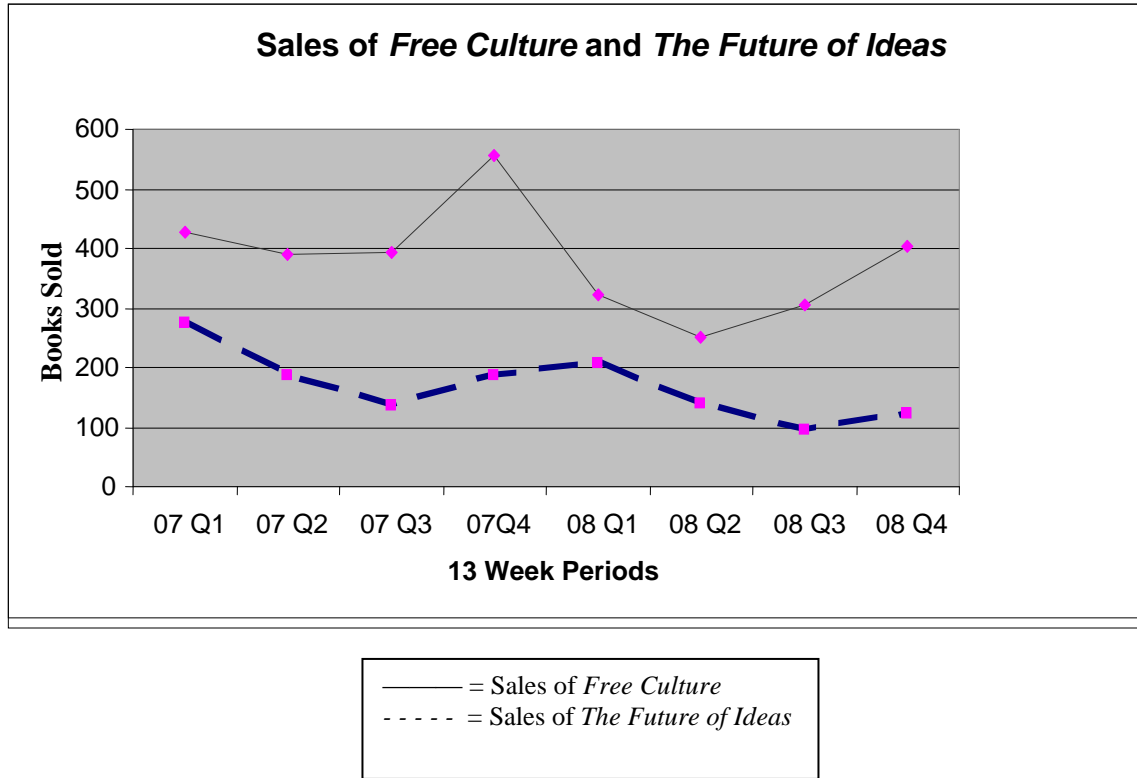


Figure 2. Quarterly sales of Lawrence Lessig’s books *Free Culture* (2004) and *The Future of Ideas* (2001; licensed for free download in January 2008). Adapted from “Free: Why Authors are Giving Books away on the Internet,” by J. Hilton and D. Wiley, in press. Copyright 2010 by Springer.

Hilton and Wiley’s most surprising finding occurred when they compared the sales figures for the two books. As a percentage, *Free Culture* sold 72.6% as many books in 2008 as in 2007. As a percentage, *The Future of Ideas* sold 71.9% as many books in 2008 than 2007. In other words, the decline in sales of each books almost identical. If openly releasing a book causes a significant drop in sales, a much sharper decline would have occurred in print sales of *The Future of Ideas*. This is particularly true considering that *The Future of Ideas* is three years older than *Free Culture*. While sales of both *The Future of Ideas* and *Free Culture* are declining, this is to be expected for books that have been in print for five and eight years, respectively. It is

impossible to know what would have happened to sales of *The Future of Ideas* had it not been released openly, but Hilton and Wiley's analysis of the sales data does not indicate a significant negative effect on sales. One of the strengths of this study was that it examined sales data for a lengthy period of time. However, the fact that it focused on just one title that became freely available was a weakness.

A few individual authors have reported on how making their books available for free has impacted sales. Owens (2008) and Scalzi (2008) claimed that free versions of science fiction books led to increased sales of selected titles. However, closer examination of the all the books that were part of the promotion discussed by Owens and Scalzi showed that many of the titles did not see increased sales (Hilton and Wiley, in press-a).

The concept of making digital versions of books available has also been applied internationally. Brazilian author Paulo Coelho, whose books have sold more than 100 million copies worldwide, makes his books available for free download (Kirkpatrick, 2008). Kirkpatrick told the story of Coelho's rise to fame in Russia:

In 1999, best-selling author Paulo Coelho, who wrote "The Alchemist," was failing in Russia. That year he sold only about 1,000 books, and his Russian publisher dropped him. But after he found another, Coelho took a radical step. On his own Web site, launched in 1996, he posted a digital Russian copy of "The Alchemist."

With no additional promotion, print sales picked up immediately. Within a year he sold 10,000 copies; the next year around 100,000. By 2002 he was selling a total of a million copies of multiple titles. Today, Coelho's sales in Russian are over 10 million and growing. "I'm convinced it was putting it up for free on the

Internet that made the difference," he said in an interview at this year's World Economic Forum in Davos. (para. 1–2)

Although most authors do not experience such a dramatic impact on sales, many feel that there is a positive correlation between making free digital downloads of books available and print sales of those books. T. Anderson (2009), an academic residing in Canada, wrote about his experience with making a digital version of *The Theory and Practice of Online Learning* (second edition) freely available:

During the first year of distribution 404 copies were sold and . . . my royalty check was for \$636. During that year 26,497 chapters or copies of the whole book were downloaded at no charge. This means 1.5% of readers choose the paid route. . . .In any case, this \$600 is about the same range of funding I have come to expect from the other 5 academic-type books I have authored or co-authored. But of course, the fame and glory from 26,000 PLUS readers is unmeasurable! (para. 2)

Anderson's statement is particularly valuable because he shares information about downloads in addition to sales. Many authors who make books available on the Internet do not track the number of downloads that occur. However, because a digital version of this book was always available for free, there is no way to determine whether the free version enhanced or detracted from his sales.

Attempts from Publishers

Some publishers have also reported how free publications have influenced their print sales. Jensen (2007), director of publishing technologies at the National Academies Press (NAP) reported that the NAP makes the text of all of its publications freely accessible. "Consequently," he wrote, "we are very well indexed by search engines" (para. 6). Jensen explained that as a

result of this indexing NAP receives many visitors, a small percentage of which purchase books. As one example of how free online access increased sales, Jensen reported on the NAP's 1997 publication called "Toxicologic Assessment of the Army's Zinc Cadmium Sulfide Dispersion Tests." Jensen said, "In 2006, that report had 11,500 online visitors, who browsed approximately four book pages each. Of those, four bought a print book at \$45, and two bought the PDF at \$37.50 online. So 0.05% of the visitors to that particular book purchased it, even though they could read every page free online" (para. 23). Thus, in Jensen's view, a publication that otherwise would likely have been inaccessible was viewed 11,000 times and purchased six times.

Similarly, the Oriental Institute at the University of Chicago has been digitally distributing free copies of its books, and reported that print sales actually increased. Specifically the institute noted, "After the complimentary distribution of twenty-one titles in 2008 that had for many years only been available in print, sales of these titles increased by 7% compared with the previous two years" (Oriental Institute, 2009).

Hilton and Wiley (in press-a) explored how free digital book distribution influenced book sales in the short term by examining a series of books that were released in print at one point in time, and then later released in a free digital format. They sought to discover if book sales in the eight weeks following a book's free digital release were different from the eight weeks prior to this release.

Again BookScan data was used to track the book sales before and after free versions were available. Hilton and Wiley organized the books they studied into four different groups. The first group consisted of seven nonfiction books whose digital versions were released at various times. The second group consisted of five science fiction/fantasy titles whose digital versions were released at various times. The third group consisted of five science fiction/fantasy books

published by different Random House imprints. These five books had all been in print for some time and free digital versions of all five were simultaneously released. The fourth group consisted of 24 science fiction/fantasy books released by Tor Books. The Tor group was different from the other three in that Tor's books required registration and were only available for one week. With the other three groups, no registration was required and once a book was released in a free digital format it remained available, at least for several weeks, and in most cases, indefinitely. Using the 4 R's framework described above, all of the books were 2R open: the books were available for reuse and redistribution, but not for revision or remixing (Hilton, Wiley, Stein, Johnson, 2010).

With one exception, sales of the nonfiction titles increased after a free digital release; when the sales of the books were averaged, they were up 5%. The majority of the science fiction/fantasy books that were not part of a group release also had increased sales, and as a group their sales increased 26%, largely as a result of one very popular book. Four of the five Random House books saw sales gains after the free versions were released; in total, combined sales of those five books increased 9%.

The results of the Tor study were quite different. Only four of the 24 books saw increasing sales the eight weeks after the free version was made available. Even when three outliers were excluded, combined sales of the remaining 21 books decreased 18%. As the Tor books were offered in a very different way from the other books reviewed (for only one week and requiring a registration), this difference in distribution method may account for the difference in outcomes.

Hilton and Wiley (in press-a) interpreted their findings as indicating that distributing free digital copies of books can have either a positive or negative influence on print sales. They said

that the timing of a free e-book's release, the promotion it received and other factors could significantly impact how a free digital version would affect print sales. They also pointed out that there are multiple purposes that publishers and authors have in releasing free e-books. They state, "For example, although Tor may have lost sales as a result of their free e-book promotion, the customer information harvested and the publicity gained may have been more valuable than the lost sales."

Although the Hilton and Wiley (in press-a) study included a large number of books, its primary weakness was that no information was available on the number of times that the books were downloaded. Thus it is difficult to determine whether the downloads themselves were sufficiently large to influence books sales. The study was also limited to books that were primarily academic or fiction titles.

Conclusion

This section has discussed the limited extant research regarding how free digital copies of books affect print sales. Most of the studies that have been done in this area center on either academic titles or popular fiction titles. No research has been published about how free digital religious books affect the print sales of those titles. While many of the results discussed in this chapter may relate to free religious books, no explicit studies have been done in this area. In addition, little research has been done that attempts to correlate book downloads with increases or decreases in sales. While some studies report on change in sales, few also include download data.

Thus from this review, it appears that a study that examines both the number of times free digital versions of books are downloaded and explores possible correlations between these downloads and changes in print sales would fill a gap in the current literature. In addition,

because the literature in this area is sparse, this study will contribute to the general knowledge surrounding free book downloads and print sales. More specifically, a study of how free downloads of religious books influence print sales would further add to an understanding of how offering free digital books affects print sales for a variety of genres.

CHAPTER 3: METHOD

As reviewed in the previous chapter, little research has been done to explore how free digital copies of books affect print sales. In particular, no research specifically reports on a correlation between free digital book downloads and print sales within the genre of religious books. This study addresses this gap in the research.

This chapter describes the publisher and specific books to be studied, how the books were made available, data collection procedures, and the analysis methods used. This methodology combines techniques used by Johansen (2009) and Hilton and Wiley (in press-a, in press-b).

Publisher and Books to be Studied

Deseret Book was selected as the publisher for this study because it is the largest commercial publisher of books for members of The Church of Jesus Christ of Latter-day Saints and the researcher has a previous relationship with Deseret Book as an author. Although Deseret Book is a large publisher in terms of the Latter-day Saint market, they are a relatively small publisher in comparison with publishers like Random House.

Independent of this study, Deseret Book had determined to do some experimentation with free books; thus, this study became a catalyst for something it already wanted to do. From a practical standpoint, this made the study more feasible, as persuading publishers to give material away is not easy. As part of Deseret Book's prior experimentation, it created a website, <http://deseretbook.com/free>, where free offers would be made available. It was determined that this would be a good location for the free e-books.

There were at least two concerns that Deseret Book had with participation in this study. First, there was some concern that sales of the printed versions of the free books would dramatically decrease. Thus it was agreed that the books selected for this study would be books

that were current backlist titles (meaning that they were not currently selling large quantities). That way, if free downloads did adversely affect sales, the overall impact would be less than if the books were currently producing a lot of revenue. This approach was similar to the one taken by Johansen (2009). A second concern was whether the authors who participated in the study would feel comfortable with digital copies of their books being given away.

Selecting Authors and Books

The researcher contacted 13 authors and invited them to participate in the study. These authors were selected because they had authored books published by Deseret Book that were not new releases. In some instances the researcher had a prior relationship with the authors. Of these 13, seven responded and said that they would be willing to participate in the study. Of the six remaining, three did not respond. The other three did respond to the query; two expressed concern about the financial impact on their book sales and one said that her book would not qualify for the study (presumably because it was still selling very well). The researcher chose to participate in the study as well, and when he was included there were eight authors participating.

Once the authors had been selected, they were given the opportunity to give input as to which of their currently backlisted books they would like to make available. Seven of the eight authors expressed a preference as to which book was made available for free, and all of these requests were honored. The books selected for the study, their authors, genre, and audience are listed below.

1. *The Book of Mormon Sleuth Part 3: The Hidden Path* by C.B. Andersen. Fiction for juvenile readers.
2. *What I Wish I Would Have Known When I Was Single* by John Bytheway. Nonfiction for young single adults.
3. *Digging Deeper* by Robert Eaton. Nonfiction for adults.
4. *Please Pass the Scriptures* by John Hilton III. Nonfiction for youth.
5. *Sisters at the Well* by Richard and Jeni Holzapfel. Nonfiction for adults.
6. *10 Secrets Wise Parents Know* by Brent Top and Bruce Chadwick. Nonfiction for adults.
7. *Growing Up: Gospel Answers About Maturation and Sex* by Brad Wilcox. Nonfiction for teenagers and their parents.
8. *Saving Kristen* by Jack Weyland. Fiction for teenagers.

Making Books Available

A prerequisite to having books for people to download was making the files available online. In order to accomplish this, a Deseret Book employee located the original PDF files that had been used to print the books. In addition, two members of the Deseret Book Internet team worked together to create links to the books in an attractive way. Figure 3 shows what they created.

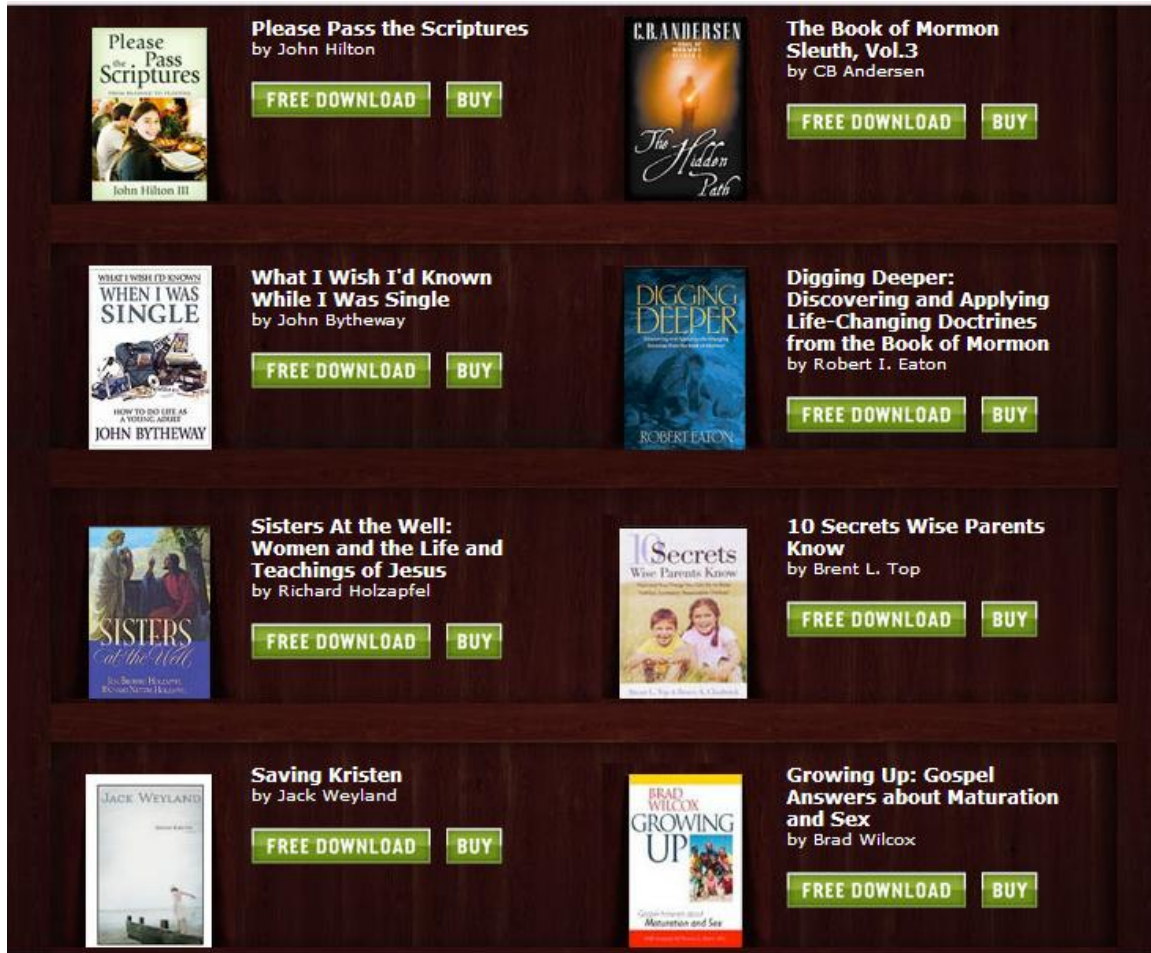


Figure 3. Screenshot of Deseret Book’s home page for free pdf book downloads, <http://deseretbook.com/free>. Retrieved September 29, 2009. Copyright 1996–2010 by Deseret Book Company.

Another prerequisite to people downloading free digital books is people being aware that the books are there to be downloaded. Deseret Book made some minor efforts to let people know of the existence of the free books by posting messages on their Twitter and Facebook accounts. In addition, several of the authors sent e-mails to family members, friends, and readers to let them know that the resource was available.

Data Collection Procedures

Several key pieces of data needed to be collected for this study to be successful. Because the purpose of the study was to determine the financial impact of making free digital books available, it was important to calculate the financial costs and benefits of doing so. This section describes data that were collected to determine the costs and revenue changes that might accrue as a result of this study.

Cost of Making the Books Available

One purpose of this study was to determine whether it was profitable for Deseret Book to make these eight books freely available. Thus, it was important to know what it cost Deseret Book to put the books online. The main cost associated with this endeavor was the time spent by Deseret Book employees gathering the files and creating the code to put them online. Three employees were involved in this process. The managing director of Deseret Book's Internet division agreed to provide information about Deseret Book's costs.

Number of Downloads

The number of times each book was downloaded was tracked using Google Analytics. Deseret Book was already using Google Analytics; they also created a special script to count the number of book downloads. The purpose of collecting this data was to determine whether book downloads occurred. If sales changed but no books were downloaded, then the sales change could not be correlated with book downloads. In addition, tracking book downloads would also make it possible to look for correlations between high numbers of downloads and sales. For example, if a small number of books were downloaded over a three-week period of time, and during another three-week period of time a large number of books were downloaded, the

researcher could examine whether there were differences in print sales between the high and low download weeks.

Sales of Each Book

Any direct financial benefit for Deseret Book from making free books available would come in the form of increased book sales. Other benefits, including increased exposure for authors and any perceived change in consumers' opinions of the company, were not measured in this study. Specific sales data were collected from Deseret Book. Sales data were tracked for each book for 10 weeks before and after the book was made freely available. Because the books were made available for download during the middle of a week (September 9, 2009), this week was not counted in either the "before" or "after" sales data. The "before" dates were June 28, 2009–September 5, 2009, and the "after" dates were September 13, 2009–November 21, 2009.

It is important to note that although it is the book publisher, Deseret Book does not track *all* of the retail sales of books it publishes. It tracks its wholesale sales of books to other stores, sales from their retail stores, and sales from their online store; however, it does not track sales through other retailers. For example, Boyd's Bookstore in Orlando, FL, specializes in LDS books. Deseret Book sells books wholesale to Boyd's Book, but does not track when individual books are purchased from Boyd's. Thus if free online e-books prompted an individual in Orlando to walk into Boyd's Book and purchase a book, this purchase would not be reflected in the results of this study.

Although this is a weakness in the methodology of the study, there was no direct remedy. Most small retailers such as Boyd's Books do not report its retail sales to anyone. In addition, BookScan (which would account for some additional retailers) was contacted about a possible use of its database but BookScan did not respond. Nevertheless, the fact that the same group of

stores (Deseret Book's online and retail outlets) were included in the before and after sales ameliorates this weakness.

Aspects of Correlation between Downloads and Sales

It was anticipated that some weeks in the study would have more downloads than others. Because it might take time for word of mouth (or blog) to generate publicity about the free books, downloads might increase towards the latter part of the study. In order to determine whether there was any correlation between downloads and sales, a Pearson's r was calculated between these two variables. This was calculated both for downloads versus overall sales as well as downloads versus Internet-only sales.

Sales of Comparison Books

In addition to tracking the sales of the books that were released for free, sales of comparison titles were tracked. Books were chosen that would match as closely as possible with the books that were given away for free. Thus, if the free downloads had no sales effect, the comparison titles should have sales similar to those of the free e-book titles.

Because each book and author has unique audiences, it was determined that the best comparison titles for each book would be another book by the same author. In each case the book title closest in publication date to the free book was selected as a comparison book. Unfortunately, the books authored by Top and Holzapfel were unique in their style and audience, and no comparison book could be found for these titles. The comparison books for the other six books are as follows:

1. C.B. Andersen, *Book of Mormon Sleuth 4: The Forgotten Treasure*
2. John Bytheway, *What We Wish We Would Have Known When We Were Newlyweds*
3. Rob Eaton, *Extremes*

4. John Hilton III, *I Lost my Phone Number... Can I Have Yours?*
5. Jack Weyland, *Cheyenne in New York*
6. Brad Wilcox, *Raising Ourselves to the Bar*

If releasing the free digital books created a lift in sales for an author, it is possible that this sales benefit would extend beyond the free books selected for the study to other books by that author. For example, if 20% more copies of *Book of Mormon Sleuth 3* were sold as a result of the free e-copy, it is also possible that increased sales of *Book of Mormon Sleuth 4* would occur. However, because the length of the study was relatively short, the researcher believed that by the time people downloaded a free book, perused it, and decided to order it, there would be little time left to read that book and decide to purchase another book by the same author.

Year-Prior Book Sales

In addition to analyzing the sales before and after the books were made freely available, information was gathered on books sales for the previous year. This was to account for possible seasonal trends in book sales. For example, perhaps the 10 weeks prior to the books being made available for free download were historically the lowest sales weeks of the year. Without comparative historical data, it would be difficult to contextualize the sales data and determine if an increase in sales was more strongly related to the time of year or the free downloads. Sales trends for each book were compared year-on-year to further determine whether the free book downloads had a sales impact. The “before” dates were June 29, 2008–September 6, 2008, and the “after” dates were September 14, 2008–November 22, 2008.

Visits to Product Pages for Featured Titles

Ideally a system could be set up to determine whether customers who purchased a book via <http://deseretbook.com> had first downloaded a free e-book. Unfortunately Deseret Book was not able to implement such a system. Instead, they tracked the number of times the product page for each book was visited.

At the location on the Internet where people could download the books, there was also an option to “buy the book.” Clicking on this link brought people to the product page. Obviously, the ultimate hope of Deseret Book is to get people to buy the book, not visit the product page; however, if the number of people who visited the product page increased after the free books were available, it could indicate that something positive was happening or might happen in the future with sales.

Measuring Financial Impact

This study used an interrupted time-series (ITS) quasi-experimental design to determine whether book sales increased after digital versions were made freely available. The ITS design takes a series of measurements before and after an intervention (the “interruption”) and looks at the difference in results before and after the intervention. The availability of the books at <http://deseretbook.com/free> is the event that serves as the “interruption” in the ITS design.

Similar to the Johansen (2009) study, the key measurement was to be the number of books sold after the free versions were made available, as compared with the number sold before the free versions were available. This comparison was done for each of the eight titles. The comparison titles were also examined to see if any change occurred in their sales. All 14 of these titles were examined during the year-prior period as well to determine whether any sales changes appeared to be seasonal.

A consistent trend of higher sales across the eight books after the free versions were made available would indicate a positive correlation between making free books available and sales of the print books. A consistent trend of lower sales would suggest a negative impact.

For the financial impact to be positive, the revenues from increased book sales would need to be larger than the costs of making the books available. A simple calculation was performed to answer this financial sustainability question, similar to that used by Johansen (2009):

$$(\text{Cost to make available}) \Leftrightarrow (\text{Profit per book sale}) \times (\text{New attributable sales})$$

CHAPTER 4: RESULTS

This chapter presents the results of this study. As stated previously, eight books were posted online for free digital downloads at <http://deseretbook.com/free>. This study is directed toward determining how giving away religious digital books influences the print sales of those books. The sales data was obtained from Deseret Book and includes all copies sold in Deseret Book retail outlets as well as through its catalog and Internet division. The results have been made anonymous and will be represented as “Title 1,” “Title 2,” etc.

During data collection it was discovered that one of the books in the study was out of print and not available for purchase from Deseret Book during the study. Originally it was understood that the book was going to be made available again; however, it was not. Thus, although this book was downloaded 14,914 times, no sales were recorded. Throughout the remainder of this chapter, this book will be referred to a “Title 8,” and it is excluded from some analyses.

Publisher Costs, Downloads, and Sales

Data on the cost of posting the books on the Internet (as estimated by Deseret Book) were collected as well as data on book sales and downloads. Results are presented in the same order described in the data collection section of Chapter 3.

Cost of Making the Books Available

The managing director of Deseret Book’s Internet division estimated that getting the original eight e-books put together and creating the virtual display case for the e-books on the website cost \$940.00. He further estimated that once the virtual display case was in place, putting an additional eight books onto the website would cost \$425.00. This would be the cost to locate the digital files and put them on the Internet. Thus there were approximately \$500.00 in initial

fixed costs, with each free e-book costing \$55.00 to post online. Future e-books would also cost about \$55.00 per title to post online.

Number of Downloads

Table 1 contains the number of times each book was downloaded for each of the 10 weeks that the books were made freely available. On average, each book was downloaded 12,820 times over the ten-week period ($SD = 1,943$).

Table 1

Downloads

	Downloads, week ending (all dates 2009)										Total
	20-Sep	27-Sep	4-Oct	11-Oct	18-Oct	25-Oct	1-Nov	8-Nov	15-Nov	22-Nov	
Title 1	92	382	172	53	270	1631	1496	2104	1961	1242	9403
Title 2	87	572	253	79	390	2125	1962	2628	2406	1587	12089
Title 3	214	631	315	71	385	2150	2070	2785	2633	1632	12886
Title 4	238	701	318	86	511	2718	2592	3488	3193	1991	15836
Title 5	119	647	288	73	387	2162	2080	2809	2651	1636	12852
Title 6	104	722	328	84	353	2084	2026	2689	2609	1585	12584
Title 7	100	625	278	79	404	2071	1927	2568	2426	1514	11992
Title 8	125	873	369	91	456	2488	2358	3156	3029	1969	14914
Total	1079	5153	2321	616	3156	17429	16511	22227	20908	13156	102556

It should be noted that Deseret Book tracked downloads on a Monday–Sunday week, so the “week endings” in Table 1 are one day different from those in Tables 5 and 6. Those tables track sales, which were calculated on a Sunday–Saturday week.

Sales of Each Book

Table 2 contains the sales data for each book for the 10 weeks before and after free digital versions were made available on the Internet.

Table 2

Pre-Post Sales

Book	Sales before	Sales after	Change in sales	Change in sales (%)
Title 1	19	29	10	53%
Title 2	22	19	-3	-14%
Title 3	21	30	9	43%
Title 4	62	38	-24	-39%
Title 5	21	19	-2	-10%
Title 6	30	39	9	30%
Title 7	88	157	69	78%
Title 8	NA	NA	NA	NA
Total	263	331	68	26%

Overall, sales of these books increased 26% during the 10 weeks after the free digital versions were available. Four of the seven books had increased sales. Because the free books were available online it is reasonable to speculate that online sales may have had larger sales gain than retail sales gains. Tables 3 and 4 show the sales data when retail and online sales are separated.

Table 3

Pre-Post Sales: Retail Stores Only

Book	Sales before	Sales after	Change in Sales	Change in Sales (%)
Title 1	16	25	9	56%
Title 2	20	13	-7	-35%
Title 3	16	25	9	56%
Title 4	48	32	-16	-33%
Title 5	21	12	-9	-43%
Title 6	26	26	0	0%
Title 7	77	128	51	66%
Title 8	NA	NA	NA	NA
Total	225	261	36	16%

Table 4

Pre–Post Sales: Direct (Internet and Catalog) Sales Only

Book	Sales before	Sales after	Sales after	Change in Sales (%)
Title 1	3	4	1	33%
Title 2	2	6	4	200%
Title 3	5	5	0	0%
Title 4	14	6	-8	-57%
Title 5	0	7	7	*
Title 6	4	13	9	225%
Title 7	11	29	18	164%
Title 8	NA	NA	NA	NA
Total	39	70	31	79%

*percentage cannot be calculated: 0 copies sold in the “pre” phase, 7 in the “post” phase.

As shown, book sales increased both in retail outlets and online, but the increase in online sales (79%) was dramatic compared with the increase in retail sales (16%).

Aspects of Correlation between Downloads and Sales

The download and sales data previously cited were combined to determine whether there was a correlation between downloads and sales. Did weeks that had higher downloads also have higher sales? Table 5 shows the total number of sales and downloads each week.

Table 5

Total Sales vs. Downloads

Week Ending	Downloads	Sales
September 19, 2009	954	12
September 26, 2009	4280	20
October 3, 2009	1952	44
October 10, 2009	525	26
October 17, 2009	2700	40
October 24, 2009	14941	34
October 31, 2009	14153	58
November 7, 2009	19071	39
November 14, 2009	17879	38
November 21, 2009	11187	20

The Pearson correlation coefficient for these numbers was $r = .42$. This positive, albeit moderate correlation suggests a positive correlation between downloads and print sales. Figure 4 shows a scatter plot of these data.

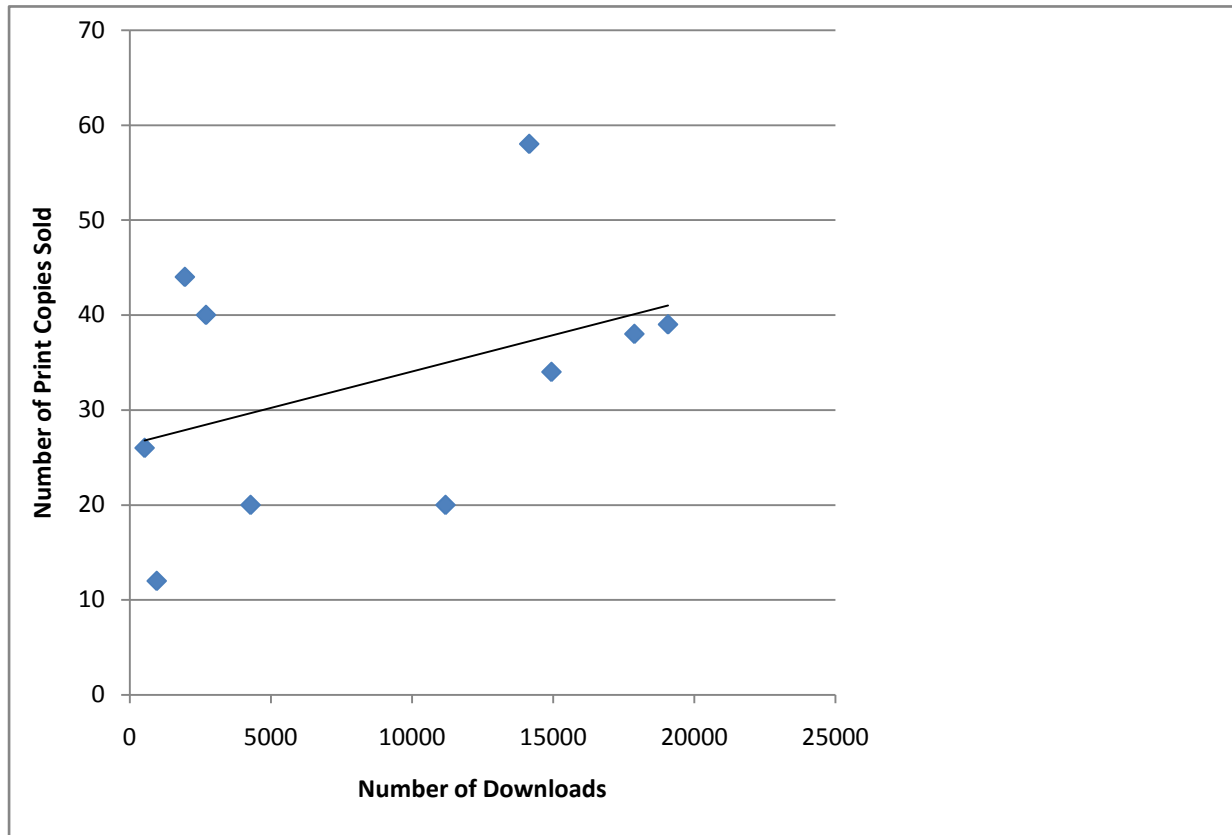


Figure 4. Downloads vs. total books sold, September 13, 2009 to November 21, 2009.

It seems plausible that Internet downloads would have a larger effect on Internet sales than on retail sales. Thus, the same calculations just described were performed again to determine whether a relationship existed between downloads and Internet sales. Table 6 shows this comparison.

Table 6

Total Internet Sales vs. Downloads

Week Ending	Downloads	Internet Sales
September 19, 2009	954	0
September 26, 2009	4280	2
October 3, 2009	1952	13
October 10, 2009	525	3
October 17, 2009	2700	3
October 24, 2009	14941	8
October 31, 2009	14153	9
November 7, 2009	19071	10
November 14, 2009	17879	13
November 21, 2009	11187	9

The Pearson correlation coefficient between downloads and the number of copies sold online was $r = .65$. This is much higher than the correlation between downloads and total sales. Figure 5 represents the relationship between Internet sales and downloads.

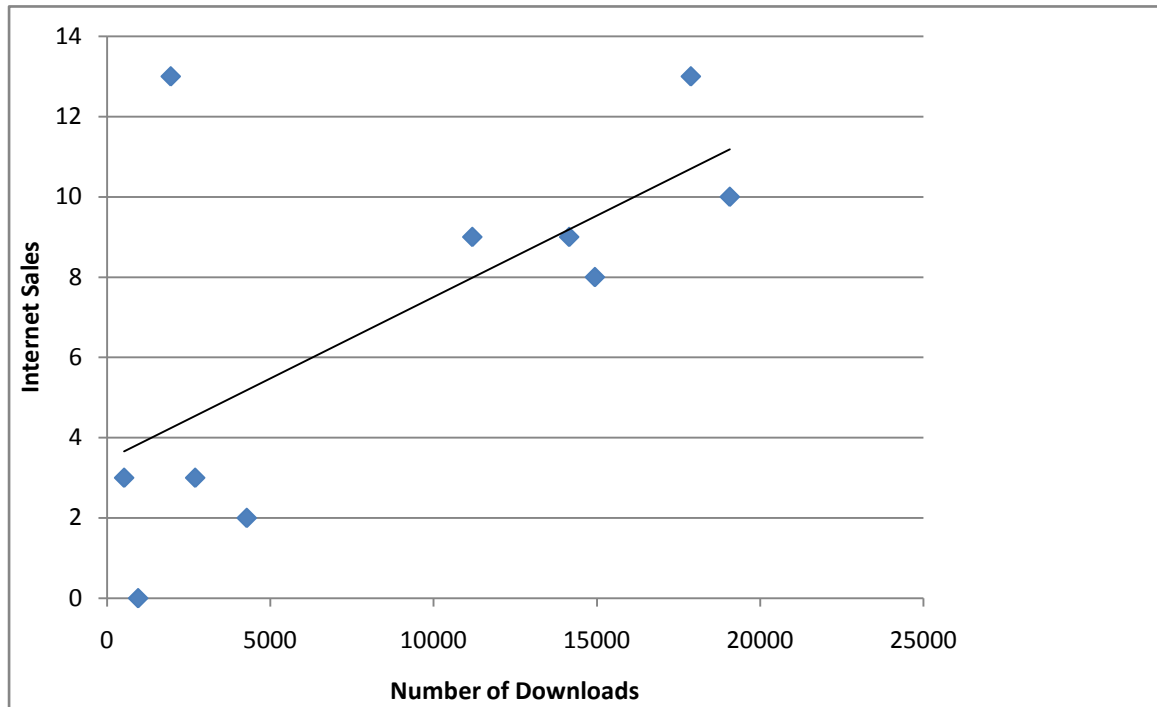


Figure 5. Downloads vs. total books sold on the Internet, September 13, 2009 to November 21, 2009.

Thus it appears there is a stronger relationship between downloads and Internet sales than downloads and total sales.

Sales of Comparison Books

Table 7 shows the before and after sales of the comparison titles. As described in Chapter 3, there were no comparison titles available for Titles 5 or 8.

Table 7

Pre–Post Sales of Comparison Titles

Book	Sales before	Sales after	Change in sales	Change in sales (%)
Comparison Title 1	33	30	-3	-9%
Comparison Title 2	354	47	-307	-87%
Comparison Title 3	8	12	4	50%
Comparison Title 4	18	12	-6	-33%
Comparison Title 5	NA	NA	NA	NA
Comparison Title 6	261	183	-78	-30%
Comparison Title 7	33	61	28	85%
Comparison Title 8	NA	NA	NA	NA
Total	707	345	-362	-51%

Overall, sales of the comparison books decreased 51% after the free digital versions were made available. It is clear that the majority of the difference in sales can be attributed to Comparison Title 2. This book was part of a large summer sale, and the large drop in sales occurred after the sale ended. When this title is excluded, sales of the comparison titles were down 16%.

Year-Prior Book Sales

Table 8 summarizes the sales of the studied books during the year 2008, which serves as comparison data to the 2009 pre–post data. Sales of these books decreased 38% during this time period. Only one of the seven books had increased sales.

Table 8

Sales of Featured Books in 2008

Book	Sales before	Sales after	Sales after	Change in Sales (%)
Title 1	73	37	-36	-49%
Title 2	64	49	-15	-23%
Title 3	40	27	-13	-33%
Title 4	250	110	-140	-56%
Title 5	37	59	22	59%
Title 6	118	56	-62	-53%
Title 7	95	80	-15	-16%
Title 8	NA	NA	NA	NA
Total	677	418	-259	-38%

When each title's performance was compared to itself during the two time periods studied, all but one of the books did better during 2009 (the time period when the free books were available). Table 9 shows a comparison of sales of each book. This table compares sales of individual titles. As stated previously, the dates being compared are June 29, 2008–September 6, 2008 versus September 14, 2008–November 22, 2008, and June 28, 2009–September 5, 2009 versus September 13, 2009–November 21, 2009.

Table 9

Change in Sales of Each Featured Book, 2008 vs. 2009

Book	2008 change in sales	2008 change in sales (%)	2009 change in sales	2009 change in sales (%)
Title 1	-36	-49%	10	53%
Title 2	-15	-23%	-3	-14%
Title 3	-13	-33%	9	43%
Title 4	-140	-56%	-24	-39%
Title 5	22	59%	-2	-10%
Title 6	-62	-53%	9	30%
Title 7	-15	-16%	69	78%
Title 8	NA	NA	NA	NA
Total	-259	-38%	68	26%

Thus, six of the seven books that were given away for free had better sales in 2009 than in 2008. Books also tended to sell better when only online sales were considered. Table 10 illustrates the changes in sales, title by title, when Internet-only sales are considered.

Table 10

Change in Online Sales of Each Featured Book, 2008 vs. 2009

Book	2008 change in Internet sales	2008 change in Internet sales (%)	2009 change in Internet sales	2009 change in Internet sales (%)
Title 1	-10	-77%	1	33%
Title 2	-1	-13%	4	200%
Title 3	1	100%	0	0%
Title 4	-27	-87%	-8	-57%
Title 5	-1	-20%	7	*
Title 6	-5	-24%	9	225%
Title 7	8	67%	18	164%
Title 8	NA	NA	NA	NA
Total	-35	-38%	31	79%

*percentage cannot be calculated: 0 copies sold in the “pre” phase, 7 in the “post” phase.

Every title except Title 3 saw large gains in Internet sales in 2009 relative to 2008. Title 3 only sold three copies online during the time studied in 2008, so the gain of 100% must be interpreted in that context.

In addition to historical comparison of the eight books that were distributed for free, historical analysis was also done on the comparison titles. Table 11 shows the before and after sales of the comparison titles in 2008.

Table 11

Pre-Post Sales of Comparison Titles in 2008

Book	Sales before	Sales after	Change in sales	Change in sales (%)
Comparison Title 1	701	67	-634	-90%
Comparison Title 2	400	400	0	0%
Comparison Title 3	1693	190	-1493	-88%
Comparison Title 4	48	32	-16	-33%
Comparison Title 5	NA	NA	NA	NA
Comparison Title 6	269	231	-38	-14%
Comparison Title 7	115	116	1	1%
Comparison Title 8	NA	NA	NA	NA
Total	3216	1036	-2180	-68%

Sales of the comparison books decreased 68% during this time period. As with Title 2 during 2009, the vast majority of change in sales for the comparison titles in 2008 was due to large summer discount sales, this time of Comparison Titles 1 and 3. When these titles are excluded, sales of the comparison titles decreased 6%.

Figure 6 summarizes the historical and comparative sales data.

	Featured Books	Comparison Books
2009	26%	-16%
2008	-38%	-6%

Figure 6. Summary of historical and comparison sales data.

Thus print sales of featured free books increased in 2009 (when they were available for free), but decreased in 2008. Print sales of the comparison books decreased in both 2008 and 2009.

Visits to Product Pages for Featured Titles

As stated in Chapter 3, Deseret Book was not able to calculate the number of people who purchased books after looking at the free version; however, it did track the number of visits to the online product page of each book. Table 12 shows the number of times each book's product page was visited during the 10 weeks before and after the free books were made available.

Table 12

Visits to the Product Pages of Featured Titles

Book	Visits pre-free books	Visits post-free books	Change in visits	Change in visits (%)
Title 1	10	302	292	2920%
Title 2	105	636	531	506%
Title 3	43	469	426	991%
Title 4	63	1686	1623	2576%
Title 5	15	578	563	3753%
Title 6	111	931	820	739%
Title 7	174	738	564	324%
Title 8	0	834	834	*
Total	521	6174	5653	1085%

*percentage cannot be calculated—0 copies downloaded in the “pre” phase.

These data make it clear that the number of people viewing the product pages increased dramatically after the free e-books were made available.

Table 13 shows the number of times each comparison book’s product page was visited during the 10 weeks before and after the free books were made available. Overall, these visits decreased in the second 10 weeks by 201 visits, or a decrease of about 34%.

Table 13

Visits to the Product Pages of Comparison Titles

Book	Visits pre-free books	Visits post-free books	Change in visits	Change in visits (%)
Comparison Title 1	9	13	4	44%
Comparison Title 2	324	300	-24	-7%
Comparison Title 3	349	52	-297	-85%
Comparison Title 4	64	75	11	17%
Comparison Title 5	NA	NA	NA	NA
Comparison Title 6	88	125	37	42%
Comparison Title 7	92	140	48	52%
Comparison Title 8	NA	NA	NA	NA
Total	593	392	-201	-34%

The data leave no doubt that hits to the product pages increased dramatically after the free books were made available. Particularly when compared to the comparison titles, it is evident that the free e-books had a large positive impact on Internet visits to product pages.

Measuring Financial Impact

As stated in Chapter 3, one way to measure financial impact is to use the following equation:

$$(\text{Cost to make available}) \Leftrightarrow (\text{Profit per book sale}) \times (\text{New attributable sales})$$

There are at least two different ways that “new attributable sales” could be determined based on the data obtained. One would be to take the number of sales over the 10-week period after the free e-books were made available and subtract the sales of the ten previous weeks. This would

result in a gain of 68 sales. A second way to calculate new attributable sales would be to compare the 2009 sales with the 2008 sales. In 2008 sales of the seven books decreased 38% in September–November, versus July–August. If a similar decline had occurred in 2009, 162 books would have been sold during the same time period as the 10 weeks after the free e-books had been made available. Thus, it could be said that there were 169 new attributable sales; that is, 331 (total number of sales) minus 162 (sales if 2008 change in sales figures had held constant). Profitability calculations will be made using both of these figures.

The third aspect of the equation is the “profit per book sale.” The average price of the seven books that were available for purchase was \$14.53. Because the actual profit that Deseret Book makes per book sold cannot be determined, we will make this calculation based on margin. Margin estimates here are based on the study’s 10-week time period. Longer time periods are discussed in detail in chapter 5.

The more conservative estimate for new attributable sales is 68. Thus the formula for making a profit on the original eight free e-books would be as follows:

$$940 < (\text{margin } \%) \times (14.53) \times 68$$

In order for Deseret Book to make a profit from making the books freely available for ten weeks they would need to have a 95% profit margin. It is extremely unlikely that they could have such a profit margin.

If the less conservative estimate for new attributable sales is used the formula would be as follows:

$$940 < (\text{margin } \%) \times (14.53) \times 169$$

In this scenario, for Deseret Book to make a profit from making the books freely available for ten weeks they would need to have a 38% profit margin.

In addition to calculating the profit margin necessary to recoup the costs of making the free books available, the financial viability of putting up additional free books was calculated. Because much of the cost of making the books available for free was in the initial design, the marginal cost of making additional books available is substantially less. Assuming that sales of future books increased the same as in the present study, the cost-benefit analysis is as follows. For the conservative estimate of attributable new sales the formula would be as follows:

$$425 < (\text{margin \%}) \times (14.53) \times 68$$

Deseret Book would need a profit margin of 43% per book sold to recoup costs over a ten-week period.

For the less-conservative estimate of attributable new sales the formula would be as follows:

$$425 < (\text{margin \%}) \times (14.53) \times 169$$

Deseret Book would need a profit margin of 17% per book sold to recoup costs over a ten-week period.

CHAPTER 5: DISCUSSION

While the results of this study cannot be construed to imply causation, they nevertheless have interesting implications. In this section, some of the key results of this study are reviewed and discussed, and suggestions are made for future research directions.

During this study, 102,556 free e-books were downloaded. This number seems to be sufficiently large to indicate that there is a demand for free e-books and that enough people viewed the e-books to plausibly impact sales. It is particularly interesting to note that Title 8, which was not available online or in retail Deseret Book stores was the second-most frequently downloaded book; it was downloaded 14,914 times. This would seem to indicate that there is continued interest in accessing the work. These downloads may support the argument that books can be important open educational resources as stated by Lessig (2004). While Title 8 did not contribute to any financial gain seen by Deseret Book, it may have contributed to an educational gain to some of those individuals who downloaded the book.

Commercial Implications

The purpose of this study was to determine how giving away religious digital books influences the print sales of those books. In the 10 weeks following the free books being made available, sales of the seven books studied increased 26%. In contrast, the previous year sales of these seven books decreased 38% over the same time period. Furthermore, in 2009 the comparison books declined 16% (even after the title with the largest decreases in sales had been excluded). In 2008 the comparison books declined 6% (after the two titles with the largest decreases in sales had been excluded). Based purely on historical and comparison sales, one would expect that print sales of the seven books in this study would have decreased during the 10 weeks following the free versions of the books being made available. This drop in sales would be

expected not as a result of the free versions; rather, it would be expected based on the fact that sales decreased for those titles the previous year as well as for the comparison titles. However, sales did not decrease. The fact that sales increased when a decrease was to be expected is one of the most important findings of this study. This increase is similar to that seen by some of the free books reported on in Hilton & Wiley (in press-a). The fact that sales of the comparison books did not increase may indicate that in the present study any influence that free e-books had on print sales did not extend to other works by that author.

Another important finding in this study was that there was a positive (albeit moderate) correlation between book downloads and print sales. One theme uncovered through an analysis of the data is that free e-book distribution had a considerably stronger relationship with Internet sales than in-store sales. Internet sales increased 79% after the free e-books were made available, while in-store sales increased 17%. Hits to the product pages of the books that had been made freely available increased 1,085%. This facet of the research may have important implications for publishers that deal primarily or exclusively in online (versus in-store) retailing. Because most of Deseret Book's sales are in-store versus online, the overall impact of free e-books in this study was smaller than it might have been had a larger proportion of total sales been Internet-based.

One aspect of the visits to product pages that merits special attention is the number of visits to the product page of Title 8, the out-of-print title excluded from sales data in this study. Although the book was out-of-print, the product page still remained; however, if people went there they saw information about the book and were informed that it was not available for sale. During the 10 weeks prior to the free e-books being made available, the product page for Title 8 received 0 hits. In the ten following weeks it received 834 hits. Because the book was not

available for purchase, zero copies were sold. However, it is reasonable to assume that had it been available for sale, some copies would have been purchased. Collectively, the increased hits to the product pages of the seven other titles were associated with an increase of 31 book sales. Comparing the increased hits to product pages with increased Internet sales shows that every 155 additional hits to a product page resulted in one additional book sale. If these numbers had held true for Title 8, five copies would have been sold.

With the advent of print-on-demand, one strategy booksellers might consider is placing free versions of out-of-print books on the Internet. If people wanted a printed copy of these books, they could order it online and have it shipped to them without the bookseller having to carry any inventory. If the results of this study could be extrapolated over one year, a book such as Title 8 could reasonably sell 25 copies. Although this is a relatively small number of sales, if many out-of-print titles were made available, the sales figures could become significant. This is the “long tail” approach in which digital technologies enable consumers to purchase more niche products that otherwise would not be available. This approach is discussed more in depth by Anderson (2006).

Although book sales increased during the 10 weeks that the e-books were available for free download, the increased sales during these 10 weeks alone were likely not sufficient to recoup the costs of making the books available. When the conservative estimate for attributable sales was used, Deseret Book would need to have a 95% profit margin to make a profit. It is extremely unlikely that they could have such a profit margin. When the less-conservative number of attributable book sales was used the sales margin needed to break even was 38%.

But both of these scenarios assume that any increased sales due to the free books being made available occurred during the 10 weeks the books were made available online for free. This

assumption is suspect for at least two reasons. First, it is possible that many of the people who downloaded books did not immediately read them. These people might later read (and purchase) the books.

Second, there is little cost to keeping the free books available on the Internet once they are online. Thus, if continued free availability of e-books led to continued increased sales, the profit calculations described in Chapter 4 would change significantly. If the free e-books were left on the Internet for 20 weeks and sales increases were consistent with what was experienced in the first 10 weeks after the free books were available, then the profit margins just described would be cut in half (to 48% and 19%, respectively). If the free e-books were left on the Internet for one year and sales increases were consistent with what was experienced in the first 10 weeks after the free books were available, then the profit margins necessary to break even would be 18% and 7%, respectively.

As stated previously, the marginal cost of making additional books available is substantially less than the cost of the original books because the fixed costs of creating a virtual display case had already been accounted for. The figures obtained in Chapter 4 regarding the profitability of putting additional free books online would change if future free e-books remained on the Internet and continued to be downloaded. If the free e-books were left on the Internet for 20 weeks and sales increases were consistent with what was experienced in the first 10 weeks after the free books were available, then the profit margins needed for sustainability would be 22% using the conservative attributable sales figure and 9% using the less conservative figure. If the free e-books were left on the Internet for one year and sales increases were consistent with what was experienced in the first 10 weeks after the free books were available, then the necessary profit margins would be 8% and 3%, respectively.

Another factor when considering financial impact is that Deseret Book made little effort to market the free e-books. If people went to <http://deseretbook.com> during the study period they would find no link to the “free” page. If Deseret Book had promoted the site, it is possible that more free e-books would have been downloaded and many more printed books would have been sold.

One facet of financial impact that was not explored in this study was the benefit Deseret Book received by increased exposure. A Google search of “<http://deseretbook.com/free>” during the time period of this study showed approximately 35 blog entries about Deseret Book giving away free books. The web page was also mentioned multiple times on Twitter and Facebook. On some weeks, hits to <http://deseretbook.com/free> represented almost 3% of total traffic to Deseret Book. Between September 13, 2009 and November 21, 2009, more people entered <http://deseretbook.com> through <http://deseretbook.com/free> than any other page (except the home page). During this same time period <http://deseretbook.com/free> was viewed more than any other pages, with the exception of the homepage and the checkout cart pages. In contrast, visits to <http://deseretbook.com/free> were negligible in the two months prior to the free books being available.

What would be the marketing cost in sending fliers to get so many people to visit its website? Although the benefit of this increased publicity is difficult to quantify, it should nonetheless be considered by those considering making free e-books available. As C. Anderson (2009) points out, this additional exposure could be monetized.

Limitations

One limitation of the present study is the relatively small number of books studied. Eight was a small number to begin with and the elimination of one book was detrimental to the study.

To strengthen this area, future studies could include a larger number of both experimental and comparison books.

Related to this weakness is the fact that the study did not fully account for events that had happened to the books in the past. For example, three of the comparison titles had compromised results because they were part of large summer sales. This could be remedied in future studies by having both the researcher and publisher verify that none of the books being studied had been a part of abnormal events that would affect books sales. In addition, a weakness with the books chosen for this study is that their overall sales numbers were relatively low. For example, although sales of “Title 1” increased 53%, this represented an increase of only ten books sold. Thus, although there may be practical significance to this study, there was no statistical significance. This could be remedied not only by having more books in the study but also by choosing books with higher sales volumes.

Another weakness of this study was that it only included sales data from Deseret Book retail stores and its catalog and online sales. Although this captured a significant portion of sales, it would have been possible to capture a broader range of sales data by using the BookScan database. BookScan did not respond to requests to use its database for this study; however, it may be possible that they would be willing to grant access for future studies.

The study could also have been strengthened if it were of a longer duration. In this study sales data was compared for 10 weeks before and after the free books were made available. Future studies could compare sales data over longer periods of time. This would be particularly helpful in determining the financial impact of making free books available. As stated previously, if the higher sales that occurred in the 10 weeks after the books were made available continued for 20 or 40 weeks, there would be significant financial implications. The present study, being

limited to 10 weeks, cannot provide evidence on what would have happened to sales if the free e-books had continued to be available. This should be remedied in future studies.

Future Research

In addition to strengthening techniques to uncover the financial implications of free book downloads, important research remains to be done on the educational benefits of these downloads. Although more than 100,000 books were downloaded, were any of the books read? To what extent was an educational benefit received because these books were freely available? This study deliberately did not require any registration by those downloading books so as to encourage book downloads. Those conducting future studies might consider requiring or encouraging e-mail registration to download books so that a survey could be sent at a later time to determine whether those who downloaded books read and felt they benefitted from them. An optional e-mail registration could be offered to notify readers of future releases of free books in order to gather contact information for future research participants.

Another area that remains to be researched is the perspective of the authors whose books were downloaded. Prior research, such as Hilton and Wiley (in press-b), focused on the perspectives of authors who were proactively trying to spread the word about their books via free downloads. The authors who participated in the present study were different in that the majority of them did not initiate the idea of sharing their work online for free. In informal conversations with the authors whose books were used in this study, they expressed positive feelings about their work being disseminated more widely. It may be that authors, particularly those with books that are not currently selling well, would desire the increased exposure to the work that free digital downloads might bring. Future research could seek to elaborate on how authors perceive the benefits or detriments of their work being available for free online.

Ultimately, the main benefit of the present study may be to publishers who are trying to find a strategy for releasing books electronically. Although this study provides some interesting results, there are many other questions publishers will wish to consider. One question that might arise is, “What would have happened if the e-books had been for sale for 99 cents each?” If 10% of the people who downloaded the books for free would have paid 99 cents for the e-books, that would have provided a nice profit for Deseret Book. While it is possible that some people would have paid 99 cents for the e-books, it seems likely that people would have been less inclined to e-mail friends and blog about a “99-cent” offer than a “free” offer.” C. Anderson (2009) wrote that free is a “radical price”; people act much differently when something is “free” rather than merely “very inexpensive.” Future studies are needed to determine how many downloads would occur if they were very inexpensive instead of free.

Another aspect that should be considered is how much the popularity of electronic book devices (such as the Kindle or iPad) will change people’s proclivities to read digital books. For example, Amazon.com reported that they sold more e-books on Christmas Day 2009 than physical books, marking the first time this had ever happened (Paul, 2009). Perhaps most important, if publishers made all or most of their books available for free digital consumption, would that have an overall negative effect on sales? In other words, in the present study the seven books saw increased sales, likely due to the special attention they received from being downloaded 102,556 times. If all books were available for free online would they see this same sales benefit?

Conclusion

Future research should elaborate on the findings of the present study and further address the questions raised above. Given remaining uncertainty about the effects of making free books

available, the results of the present study should provide an impetus for further research in this area. Although the main research question of this study focused on print sales of religious books, the more important issue may be the potential of books as open educational resources. In the past, when a book went out of print it was not practical for others to access it outside of libraries or used-bookstores. Today however, the Internet makes it possible for every book ever published to be available online as a free educational resource. Lessig (2004) makes a point that bears repeating:

One crucially important consequence of the emergence of digital technologies is to enable [a digital archive of books.] Digital technologies now make it possible to preserve and give access to all sorts of knowledge. Once a book goes out of print, we can now imagine digitizing it and making it available to everyone, forever. . . . It is now possible to preserve and assure universal access to this knowledge and culture, whereas before it was not. . .

[As Internet archivist Brewster Kahle describes,] There are about twenty-six million different titles of books. All of these would fit on computers that would fit in this room and be able to be afforded by a small company. So we're at a turning point in our history. Universal access is the goal. And the opportunity of leading a different life, based on this, is . . . thrilling. It could be one of the things humankind would be most proud of. Up there with the Library of Alexandria, putting a man on the moon, and the invention of the printing press. (pp. 226, 114)

The present study indicates that in certain contexts making books available for free online does not appear to have a negative effect on sales. If authors and publishers discover that

offering books for free is financially feasible, the use of books, including religious books, as OER will certainly increase—creating broader access for readers around the world.

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