

# A digital crescendo: The unsustainable state of the digital textbook market

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## Abstract

The purpose of this paper is to show how even a forward-thinking implementation of digitally available books can be vulnerable to changing markets and moreover how it has fostered a dangerous environment for book publishers. Physical book sales are suffering in the face of an expanding and robust used book market, powered by online resellers, while the digital textbook has become a goldmine for cost-averse higher education students, who can acquire these digital books illegally, quickly and most importantly, free of charge, from a glut of easily accessible websites. The main aspect explored by this paper is the prevalence of illegal downloads through data gathered via torrent sites that host many thousands of common textbooks along with secondary aspects regarding the sales of digitals and physical books and trends for this data over the past ten years. This research and analysis will provide valuable information regarding the state of digital textbook market and digital textbook piracy while hopefully revealing the precarious condition of the textbook market as a whole.

*Keywords:* publishing industry, digital textbooks, copyright infringement, digital piracy

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## Introduction:

The digitalization of print materials in the 21st century has significantly decreased the base cost for the creation and distribution of media-based goods and hence it has affected the profits of writers and publishers alike, in many cases for the better. This is in large part due to the effects of globalization on the interconnectedness of world society. Production and duplication of these works have become tasks that are both low-cost and simple to do, increasing the gamut of media products available for purchase in the open markets. However while this phenomenon has made the legal distribution of creative works easier, it does so while also making the illegal dissemination of those same works incredibly simple, even for the technologically impaired. However, for those in Generation Y, currently attending higher educational institutions across the globe this has led to a new development – the digital textbook. This is only the natural progression of technology, as the written copy leads to the photocopy which, with the advent of internet distribution platforms, has become the digital copy. This begs the question of how does the illegal distribution of textbook content affect the legal sales of the work and, more importantly, is the current status quo sustainable? This question and the associated concerns will not dissipate in the coming decades, as the nefarious side of technological innovation competes with the copyright holders and enforcement

agencies for control over the digital media space, and more specifically the copyrighted content that is seemingly impossible to adequately protect.

## Economic impact of the piracy

In the year 2000, the total market for books in the United States was 25 billion dollars, and book sales via the internet represented 5% or 1.25 billion dollars (BISG, 2014). While the total market for books is now worth over \$100 billion annually, digital books account for more than 20% of that market, and that percentage is increasing (Gilbert, 2015, p. 167-172). This trend is following for textbooks in the same manner – except the younger generations currently in college have found increasingly more efficient ways to acquire textbooks. An article in the *Washington Post* outlines the concerns of these digital textbook publishers, as it tracks digital books being offered in college classes for purchase by students. Tracking five of the most popular classes from several different universities, all the textbooks that could cost between \$100 and \$400 when purchased from a retailer could be obtained at no cost online (Strauss, 2014). And because of this fact, thousands of college students take to Twitter, Facebook and other social media platforms to celebrate their savings at the beginning of each new semester. The very public announcements of bypassing the existing copyright systems are bold and proud –

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highlighting the fact that society has taken the side of the so-called “underdog”, and has banded together against the giant corporate behemoths. Taking introductory courses means that students in some large schools can save upwards of \$1000 per semester in book costs (Strauss, 2014). But this model is not sustainable, since, if students resort wholly to downloading their books illegally, then there will be no monetary incentive to provide digital copies of the books – and the trend that has made books so convenient and free for many may disappear entirely.

In the context of downloading textbooks off the Internet, illegal is any action meant to bypass the distribution channels of the book’s publisher, and this type of action has grown increasingly common in the past decade. A resource that underscores the deeply technological nature of textbook piracy, and the young group it attracts, is the *Reddit.com* group called “r/Piracy”. In a post by Reddit user “ChopperHunter”, he asks the community for suggestions on websites for textbook piracy, and a response by another Reddit user “siomi” suggesting the Ecuador-based and Russian-affiliated site “gen.lib.rus.ec” garnered 48 upvotes; the page itself has had over 50,000 unique page views (ChopperHunter, 2015). This is simply one small example of a much larger issue - that textbook piracy is not a taboo issue and people are not afraid to discuss the best methods and strategies for locating these expensive textbooks for free. On the contrary, there is not an open discussion by textbook publishers and authors about how to prevent these piracy methods – and a discussion of this nature is sorely needed, as the technologically savvy and internet-fluent generation of college students is pirating their way through school. An investigation of the website “gen.lib.rus.ec” shows that the site hosts over 1.5 million books, from all genres and all free to download by anyone who is interested; not only this but functions for uploading your own eBooks to the site are also available. Listings are organized by Name, ISBN and have multiple links for each book, should one of them be taken down for copyright infringement (Library Genesis).

### **A case study: Textbook piracy in Portugal**

In many ways the challenges that are facing the book industry now are epitomized by the textbook industry, where books required for all students are costly and a young population is being forced to acquire them by professor who may not even use the book more than once or twice during the semester. The problem is also exacerbated by the high level of technological fluency in the college-attending population, along with the limited economic resources of college students in many circumstances. This means that the incidences of textbook piracy are greater than piracy when comparing the two book types, and the issue will only increase in

severity as technology, in the form of larger cellular telephones and tablet computers mean access to technology with which to read electronic books, pirated or not, is higher than ever.

An excellent case study was conducted by Francisca Rebelo of Católica-Lisbon School of Business and Economics in Portugal, in which they collected data and subsequently analyzed the textbook piracy. Rebelo surveyed students at the Católica- Lisbon School of Business Economics, and found that a majority of students, when faced with the decision whether to purchase a book or to pirate it, they predominately chose the latter (Rebelo, 2015, 24-26). It is also interesting to note that Rebelo found that the greatest motivation for students to pirate a textbook was not the cost, but actually it’s the perceived use-value of the book – if the student felt that the professor would rarely require the book be used, or the class was focused on a different textbook, then this would drive piracy of said textbook (Rebelo, 2015, 8). In fact, Rebelo even discovered that the price of the book and the probability of piracy were *negatively* correlated, whereas the piracy rate is positively related to the “diffusion of technology that facilitates pirating” (Rebelo, 2015, 24). According to Rebelo, there is a correlation between these results from student surveys of textbook usage and similar studies of the music industry. This is in contrast to the study’s results about whether students prefer reading on paper or via a digital screen. The results were surprising, as 87% of students preferred paper to electronic books, despite the penetration of laptops and tablets in the classroom. In 7 of the classes sampled, of the students who acquired the book required for their class, only 58% actually purchased the book – with the remainder either photocopying it or downloading it from the internet.

The Berkeley Technology Law Journal’s June 2016 article concerning “Copyright, Libraries, and the Textbook Arms Race” observes, and poignantly states, that the ever-increasing cost of textbooks has led to a “flourishing sharing economy”, wherein piracy is tied to an “increase of freedom and knowledge”, and can be construed as a beneficial part of our society (Acharya, 2016). The fact presented here is this: that the current model, where piracy can be viewed as a positive aspect by the society at large is ridiculous. On the horizon is nothing but the same – the top Google search results for textbook piracy bring up tutorials on how to get away with it (Acharya, 2016).

### **Things are only getting tougher**

The future of the digital textbook is truly hanging in the balance, as more and more books are being released in digital formats. Just as the music industry

has been dominated by the likes of Pandora and Spotify, who are able to license the music at a fraction of the cost and then resell it in bulk to end users, who pay a flat fee to access as much content as they want (Gilbert, 2015). Audible, an Amazon company, has designed its audiobook market with a similar approach—sign users up for a monthly subscription and then supply them with a certain number of audiobooks from the collection (Coyle et al, 2009, 1036-1037). The difficulty with books that music typically does not face is that a book is usually read once, maybe twice, and then put aside for a time before being read again. This means that, unlike a new hit album, once a book has been read by a user they are unlikely to read it again soon, leading to challenges about ensuring new content is always available.

It also means that authors who are already struggling to make ends meet may have to deal with a corporate giant to get their book out there—and by doing so sacrifice most of the money they would have made. But this pales in comparison to the growing issue of digital textbook sharing, which is only increasing in prevalence as the effects of the internet spread rapidly through the society. Textbooks published recently and in the future will be released in both digital and physical formats, meaning that unlike older out-of-print books, there are readily available digital versions, which, after being purchased by only one user can be distributed across the Internet (Bae, 2006). The most popular sources for this illicit content are torrent sites, which provide a peer-to-peer distributed file-sharing system, where the server does not host the file, only a link to the swarm of peers who have copies of it. Once a user joins this swarm, they download the book in pieces from different users and then it is assembled once the download completes. This method means it is very difficult to take down the source of the file, since hundreds, even thousands of users all have copies they are sharing, and there is not one server that hosts the file.

### **A right answer must be somewhere**

A consortium of universities intent on changing the way digital technologies are used in higher education, Unizin, has laid out the shortcomings of the current textbook model and have posited a new theory to combat it. The cause, according to Brad Zurcher of Unizin, is supply and demand relationships in the textbook market (Zurcher, 2016). The former refers to the position of the student, teacher and the textbook publisher in the typical

higher education institution, where the textbook publishers approach the teachers to advertise their new book, and the students are nowhere to be found in this conversation. After the teacher has selected a book, and been given a complimentary copy, the students are then required to purchase it. The professor, at this point, has no investment with regard to the cost of the textbook (Zurcher, 2016). The problem here is the student is free to seek out the textbook wherever they like and the textbook publisher then compensates by raising the prices and charging more for supplementary materials. The supply and demand therefore determines the price, and, for textbooks, the demand is low once the book is available for download for free, therefore the price has to be increased dramatically to make up for the lost revenue.

This process has replicated itself, according to Zurcher, and has driven the price of textbooks up 1104% since 1977, more than tuition costs, healthcare or even home prices (Zurcher, 2016). This type of unprecedented price increases is wholly unsustainable and Zurcher, Gilbert and the Berkeley Law Journal authors are not shy about this point – something must change.

### **Conclusion**

Through the first decade of the 21st century, the world of textbooks has been turned on its head. Exploring the economic impact of the internet and piracy in digital textbook sales in the coming decades will be a key subject for researchers, as the continued transition from physical books and digital books will lead to more and more reliance on electronic textbooks for profits from the biggest publishing houses. This issue is further compounded for textbooks because those titles cost far more than traditional books such as a typical fiction novel and the book budgets for college students are generally very limited. There is great incentive to pinch pennies during one's college tenure, and one of the easiest ways to do so is to cut down on spending for required textbooks. When it is as easy as typing the book title into Google, it is difficult to fault the student for doing so. It is important, rather, to recognize that the system is broken in its current state. The economics of supply and demand fight constantly against reasonably priced textbooks and piracy of these same books just increases the price for those legitimate consumers. Without a doubt there is much to be done on this front, and the first step is for the biggest players in the market to realize that things much change – and soon.

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