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Storming the gatekeepers: Digital disintermediation in the market for books

Joel Waldfogel[a,*], Imke Reimers[b]

[a] Carlson School of Management, Department of Economics and Law School, University of Minnesota and NBER, United States
[b] Department of Economics, Northeastern University, United States

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ABSTRACT

Digitization is transforming the market for books. Lower marginal costs have reduced prices by 10–15% in the past four years, and digitization has given creators the ability to circumvent traditional gatekeepers and publish their work directly. The number of self-published works has grown by almost 300% since 2006 and now exceeds the number of traditionally published works. While e-book data are not systematically available, we are able to document that falling prices have increased consumer surplus by $2–3 billion per year. Given the inherent difficulty in predicting the ex post appeal of creative products at the time of investment, a growth in available new products can substantially expand the appeal of available products. Using bestseller lists in conjunction with title-level data on physical sales and our best estimates of e-book sales, we document that many self-published books have substantial ex post appeal to consumers. Works that began their commercial lives through self-publishing began to appear on bestseller lists in 2011 and by 2013 such works accounted for a tenth of both bestseller listings and estimated unit sales. In romantic fiction, self-published works account for almost a third. These changes challenge the role of gatekeepers while benefiting consumers.

1. Introduction

Technological change has transformed content industries such as recorded music, newspapers, movies, television, and books. The recorded music industry was the first to face challenges from digitization with the arrival of the Napster file-sharing service in 1999. Endowed with the opportunity to obtain music files without payment, consumers withdrew from purchasing recorded music. A large body of research documents harmful effects of file-sharing on recorded music revenue, plausibly explaining all of the reduction in recorded music revenue.[1] Newspapers too have faced substantial challenges from digitization, and their revenues have fallen as sharply as the revenues to recorded music, by half since the late 1990s.[2]

While the past decade has been challenging for participants in content industries, observers and participants have begun to appreciate that new technology brings benefits, in the forms of lower costs of production and distribution, along with threats arising from a handicapped

* Corresponding author. Tel.: +612 626 7128; fax: +612 626 1335.
E-mail address: jwaldfog@umn.edu (J. Waldfogel).

[1] See, for example, Oberholzer-Gee and Strumpf (2007), Rob and Waldfogel (2006), Zentner (2006) for empirical evidence on piracy in music. Liebowitz (2006) provides evidence that file sharing explains the bulk of revenue reduction in music.

[2] See http://stateofthemedia.org/2013/newspapers-stabilizing-but-still-threatened/newspapers-by-the-numbers/purchases-by-volume/.

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ability to harvest revenue. An emerging body of work documents counterbalancing beneficial effects of new technology on the flow of new musical works. Waldfogel (2012, 2015) documents that the service flow from new music has increased since the late 1990s, along with some evidence explaining how this could be so. Waldfogel (2015) examines related developments in the movie industry.

The beneficial effect of new technology on the availability of new products has been obscured in both the view of researchers and in public policy debates by the negative impacts of new technology on revenue. This is understandable given the timing of the various effects of new technology on music. It took four years from the dawn of widespread online stealing with Napster until the availability of a viable and attractive outlet for purchasing digital music in the form of the iTunes Music Store. Thus, for four years, digitization was visibly harming music producers without apparent offsetting effects.

Digitization has unfolded differently in the market for books. Until the launch of the Amazon Kindle in 2007, there was no widely adopted platform for legal or illegal consumption of digital books. While one could view, say, a pdf file on a computer, the legal and illegal markets for digital books remained small prior to Kindle. Since Kindle's launch, e-readers have diffused rather rapidly. By September 2013, the share of households with a digital reader had grown to 43%.[3] The US market for digital books has grown correspondingly, to 5% of the market for trade books in 2010, to about 15% in 2011, to 20% of the market in 2012, and to 27% in 2013.[4]

The evolution of the e-book market is interesting in itself as a case study of a new product; it is perhaps even more interesting as a context where digitization's possible impacts operating through cost reductions are not obscured by widespread digitally-enabled theft (see Hu and Smith, 2013). Rather than piracy, digitization has had two different major impacts on the market for books. First, digital distribution has reduced the marginal cost of books to essentially zero, which has substantially reduced prices.

The low costs of e-book distribution also allow for a second effect. Making a new book meaningfully available to consumers has traditionally required the assistance of one of the major world publishing houses, which have acted as gatekeepers of literary commerce. Now, by contrast, online platforms such as Amazon's Kindle Direct Publishing arm, Smashwords, Lulu, and others make it possible for authors to circumvent the traditional publishing gatekeepers to make their products directly available to consumers. Self-publishing has grown substantially since 2011: the number of new self-published works now exceeds the number released traditionally. Because many of these products would not previously have made their way to consumers, self-published works have augmented the available choice set. This is potentially a consequential phenomenon: some of the best-selling titles of recent years (the *Fifty Shades* series) all began their commercial lives as self-published works.[5]

New technologies may therefore have brought about welfare benefits through both a lower-priced format as well as a growth in product offerings. This paper seeks to document the effects of the growth in electronic books, and we proceed in four sections.

Section 2 presents background on the changes in the book market brought about by e-books (including the diffusion of e-readers, the appearance of effective channels for self-publishing, and the growth of product discovery institutions). Section 3 presents a simple theoretical characterization of the ways in which digitization may have changed the welfare of market participants. Section 4 describes the two basic data sets, from seven underlying sources, that we assemble for the study. Section 5 presents descriptive results on the evolution of book sales quantities, prices and the number of products brought to market over time, along with results on the evolution of sales concentration and the market penetration of self-published works. Section 5 also presents a rudimentary estimate of the welfare impact of the appearance of e-books.

We conclude that self-published books offer substantial welfare gains, both through reduced prices and by making available new varieties that would not earlier have been available to consumers. The evidence in this paper adds to emerging evidence elsewhere that digitization has important benefits for both consumers and creators, even as it creates challenges for many existing intermediaries.

2. Background

2.1. The traditional publishing industry

In order to make a book available to consumers, an author has traditionally needed the support of two kinds of entities. First, the author needed a major publisher to publish and promote the work. Second, the author also needed bookstores to choose to stock the work. Both of these kinds of entities have been dominated by a small number of gatekeepers.

The publishing industry has traditionally been dominated by a handful of major publishing houses. In 2012 there were six: Hachette, HarperCollins, MacMillan, Penguin, Random House, and Simon & Schuster. The merger of Penguin and Random House in 2013 reduced this to five.[6] Until the launch of Amazon, book retailing was dominated by bookstore chains such as Barnes & Noble and Borders and other retail chains (supermarkets, warehouses and discount clubs), which collectively had 81% of the retail market for trade books.[7] Independent bookstores had the remainder. While the big box retailers maintained

[3] See http://www.foliomag.com/2013/pew-research-center-reports-increases-tablet-and-e-reader-ownership#.UnVc8lPjWyM.

[4] See http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/53112-industry-sales-pegged-at-27-2-billion.html for data on 2010 and 2011, http://www.bookstats.org/pdf/BookStats-Press-Release-2013-highlights.pdf for data on 2012, and http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/61667-book-sales-rose-1-in-2013.html for data on 2013.

[5] See, for example, http://www.amazon.com/best-sellers-of-2012-for-books.

[6] http://www.nytimes.com/2013/07/02/business/media/merger-of-penguin-and-random-house-is-completed.html?_r=0.

[7] See Greco (2005, p. 177).