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Digital Public Library Ecosystem 2023

Executive Summary

The **Digital Public Library Ecosystem** is the network of digital book collection and circulation specifically through public libraries.

Digital book collection and circulation have never been more important than they are today. Nearly 1 in 3 Americans has read an ebook in the last 12 months. Audiobook listening is also high; nearly 1 in 4 Americans has listened to an audiobook in that same time period.[1] Libraries are one way in which readers gain access to ebooks and audiobooks. Despite this, a holistic view of the digital library ecosystem is largely opaque.

Three factors contribute to current confusion about the digital public library ecosystem. One,

essential terms like **reading**, **library use**, **circulation**, and **holds** have been inconsistently defined across the industry and in other reports. Two, the digital public library ecosystem is complex, and different elements of the ecosystem do not necessarily work or communicate with each other directly. Three, availability of books in the digital public library ecosystem is limited by digital licensing and the contractual limitations for digital materials.

This report:

- Defines terms related to digital library lending and licensing
- Identifies the current players and processes in the digital public library ecosystem

- Explains how digital licensing and circulation work
- Contextualizes why these matter:
  - Digital book borrowing has increased 34% since 2019, with a 10% growth "post-pandemic" between 2021–2022.[2]
  - Gen Z and millennials don't understand that digital books provided through services like OverDrive's Libby app are connected to their local public library.[3] As the book industry competes in an increasingly crowded entertainment marketplace, flexible licensing terms of digital books reduce patron waits, and allow libraries to maximize their digital collections budgets.[4]

This *Digital Public Library Ecosystem 2023* report offers a comprehensive overview of the current state and operations of the Digital Public Library Ecosystem, including an introduction to the relationships and roles of the many stakeholders: authors, agents, publishers, distributors, library community, governments, and trade organizations, as illustrated in the infographic below (**Figure 1**).

Digital Public Library Ecosystem

ALA & Other Organizations

Funding & Government

Publishers

Distributors

Libraries   Libraries

Libraries

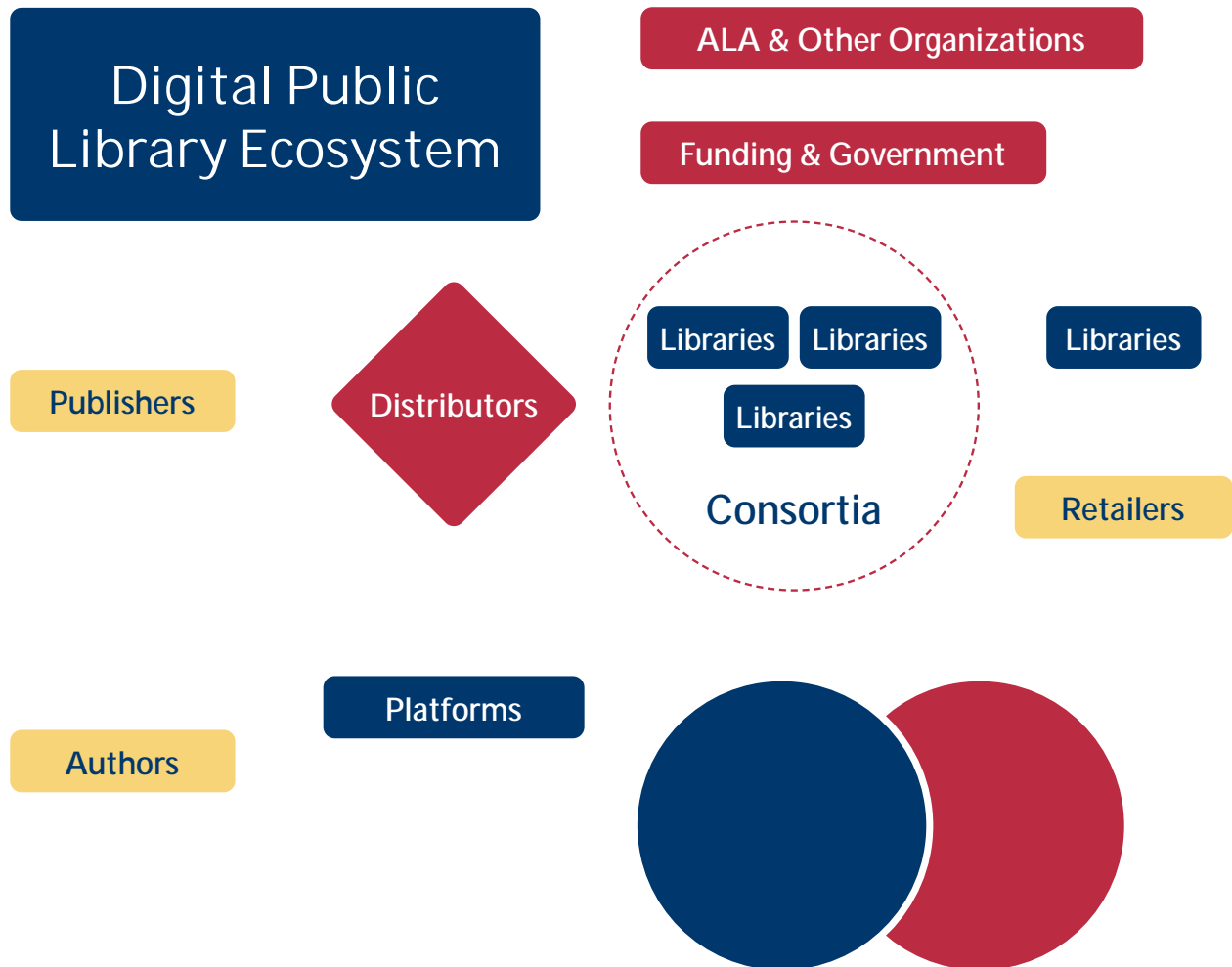Consortia

Libraries

Retailers

Platforms

Authors

Figure 1. The digital library ecosystem is complex. Different actors in the ecosystem do not necessarily understand how others outside their sphere operate. This report aims to increase transparency and communication among the actors.

Introduction

The Digital Public Library Ecosystem is the interconnected network of digital book consumption specifically through public libraries.[5] This *Digital Public Library Ecosystem 2023* report offers a comprehensive overview of the current state and operations of the Digital Public Library Ecosystem, including the relationships and roles of the many stakeholders: authors, agents, publishers, distributors, library community, governments and trade organizations. Knowing the full ecosystem helps foster communication between stakeholders. It will be easier to find consensus and identify challenges if people understand the various actors and their needs in the system.

This report addresses what previous studies and other research about the digital public library ecosystem have lacked. First, this report does not conflate physical library visits with "library use;"[6] it validates that digital library use should be factored into how communities measure libraries' impact. Second, this report acknowledges digital reading and consumption of ebooks and audiobooks is reading (listening *is* reading).[7]

Despite the growing importance of this ecosystem, it is challenging to comprehend. There is no singular, comprehensive dataset that could capture more than a set of snapshots of digital public library ecosystem activity. The Institute of Museum and Library Services (IMLS) captures only national library data, and its data on digital books is limited. Meanwhile, NPD BookScan does not capture sales to the library market. This makes proprietary data from publishers, distributors, or Amazon (which is

both) the only option—but those organizations do not publicly share data. Individual library systems have their own data collected in their Integrated Library Systems (ILS), but ILSs are not constructed to gather longitudinal borrowing histories due to library protection of patron data and privacy. Individual library systems can collate their ILS data with digital collection use-data from OverDrive (the

> **This report**
>
> 1. Begins by defining key terms and concepts;
>
> 2. Maps central players in the ecosystem;
>
> 3. Ends with other important topics such as collections spending and data privacy.

most commonly used digital content distributor in the library sector), but there is no sharing of this comparative data between library systems. The specifics are discussed below in the section *Data Privacy*.

The *Digital Public Library Ecosystem 2023* report redresses the lack of a comprehensive view by providing an overview of both the nuts-and-bolts of digital lending and the big picture: how digital collection licensing terms affect patron access to digital books; and how mobile computing changes readers' expectations of access, in-app customization, and data privacy.

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1 | DEFINITIONS AND KEY CONCEPTS

To understand the digital public library ecosystem we must define its components clearly. Too often different actors are not on the same page when it comes to defining these basic elements, which makes discussion confusing and ineffective.

At a basic level, the heart of the digital public library ecosystem lies in the licensing of rights from the author or publisher for the use of the intellectual

property of the ebook or audiobook. Distributors/aggregators then connect the author and publisher to the reader, often through libraries. To maximize their purchasing power and pricing leverage, individual libraries often band together in consortia. This section defines key concepts and terms including **reading**, **library use**, **rights**, **lending/licensing models**, **distributors**, and **library consortia**.

Rights

Authors and publishers license the copyright of ebooks and audiobooks. Authors can decide to sell rights and to whom; often an author will license rights to a publisher, who will in turn license rights to libraries through distributors/aggregators. Not all publishers or distributors work with libraries, and it is important that authors understand for which rights licensing is **exclusive**. For example, Audible, the

Simplified initiative, accessible through its SimplE app, built on open source software.[20] The **Internet Archive's Open Library** was discussed above in the context of CDL (Controlled Digital Lending); see *Lending/Licensing Models*, above.

Consortia

Many individual libraries, usually within the same state, band together to form **library consortia**, a collection of libraries who share and centralize resources, purchasing, etc., including both physical and digital materials. For small and rural libraries, consortia models can be even more important gateways to library access because the administrative costs may be prohibitive and consortia membership can give these library patrons access to a wider range of resources than otherwise possible. As almost four out of ten of America's public libraries are located in rural communities,[21] consortia are crucial alliances for rural patrons.

In the digital public library ecosystem, shared digital books can be prioritized for certain libraries in the system. These are called *Advantage* copies, developed by OverDrive in 2009. The library patrons from the prioritized library/libraries will get priority for the available copies, helping to ensure access.

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2   MAPPING THE ECOSYSTEM

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The digital public library ecosystem involves many players—including authors and agents, publishers, distributors and aggregators, libraries, and retailers which have both common and competing interests. Therefore, understanding their various roles and challenges, and how they can work together is important. While the ecosystem is dominated by large companies—publishers, distributors, aggregators— and often prioritizes bestselling authors, there are a myriad of smaller actors, such as indie authors and local bookshops, that play a role as well. This section o ers an overview of these groups and their relationship within the digital public library ecosystem.

Authors and Agents

Authors and agents are essential entities in the digital public library ecosystem. However, communication from publishers and distributors to authors and agents regarding digital library sales is opaque. Digital sales are typically lumped together rather than broken down into library sales and trade/consumer (sentia (arious r)10 (oles)-10 ( )]TJETEMC /P Lang (en-Uonication fr)10 (om publishers and dissJypic 6JETEMC /P Lang (en-US)

Mason, and May ask: "While we might never expect library digital cost-per-title to be as low as print, the metered models' higher title costs suggest that cost-per-use for digital on average is certainly higher—likely much higher—than print. . . . Are current publisher practices squeezing libraries into a popular-title-only collection model, even when we might wish to provide and conserve more in digital?"[23]

In other words, if current pricing models tend to drive libraries to focus primarily on big titles, to what extent are midlist and début authors losing out? Already, backlist sales in trade publishing are the majority of sales, making it harder for debut authors to break out and find audience. Similarly, the *2020 Immersive Media & Books* data illustrates that author brand is the #2 preferred way for readers to discover books. Nearly one quarter (23%) of readers bought a book specifically because of the author brand, meaning that those authors who do not yet have name recognition are at a disadvantage—a hurdle exacerbated by libraries spending their limited digital budgets on known authors.

Self-Published Authors and Library Collections

While self-published (or "indie") authors have made inroads in the book market in recent years, they are even more disadvantaged than traditionally published debut authors when it comes to standing out in the digital library landscape. The lack of marketing around almost all self-published titles may mean that few ebooks will have sufficient reach to attract a readership beyond people the author personally knows. In this context, how can libraries and local/indie authors work together to break down barriers to digital access?

Initiatives to invite local, self-published writers into locally-curated digital collections, such as the Indie Authors Project and the Multnomah County (OR) Library (MCL) Writers Project, may be one answer. Projects like these have potential to strengthen connections between local libraries and local writer communities. Libraries can help the writers reach readers. And the writers, in turn, can draw the community into library spaces by hosting readings and other events at the library.

The Library Writers Project team at MCL, for example, has curated a collection of self-published works on OverDrive by local authors.[24] At the time of this writing, the collection has 125 titles across genres. Authors must publish their works on Smashwords, Kobo Writing Life, or Draft-2Digital (all services that are available for free)

and fill out a submission form, including their library card number. Each book is reviewed independently by two library staff members with a wide range of reading interests. After library staff review submissions, the best ones are added to the library's ebook collection on the OverDrive platform, which the MCL website notes is "visited by over 8,000 MCL patrons every single day."[25] Meanwhile, eighteen states and provinces across the U.S. and Canada participate in the Indie Authors Project, indicating significant potential reach.[26] Inclusion in the Indie Authors Project is recognition from libraries that "creates credibility and visibility for indie authors in a growing marketplace of digital content and indie-published books."[27]

Publishers

Trade publishing in the United States is highly consolidated, which impacts libraries and digital book lending. The largest 5 trade publishers (called the Big 5) are Penguin Random House, Simon & Schuster, HarperCollins Publishers, Macmillan Publishers, and Hachette Book Group. The trade book sales of these 5 publishers accounts for approximately 60% of the overall market.[28] In 2021, Big 5 titles accounted for 91% of bestselling adult hardcover sales and 77.4% of bestselling adult paperback sales.[29] Since the Big 5 control so much of the trade book market, the terms they set for digital library loans impact a wide swath of books (see **Figure 2**). Based on data from OverDrive, the Big 5 offer digital material licensing terms to libraries, as depicted in Figure 2, as of July 2023.

Library Access to Ebooks and Audiobooks (as of July 2023)			
Model			**Examples**
One-Copy/One-User (OCOU)	Libraries or schools purchase one unit at a time to serve one patron or student at a time (like physical loan)	None	More than 3 million titles from thousands of publishers
Metered Access OCOU	Same as OCOU with term limits	Title must be repurchased after "term limit" based on time (e.g., 24 months) or checkouts (e.g., 52)	See table below
Class Set	EDU & Academic—access limited by single assignment and time limit (typically 90 days)	Varies, typically 90 days	Thousands of titles key to learning success in K12 and

HarperCollins and Penguin Random House offer the most licensing flexibility to libraries, while Hachette and Macmillan offer the least. Library access to audiobooks is influenced by whether or not Amazon's Audible, which holds up to 90% market share for trade audiobooks, has exclusive rights to distribute a particular title. More on this below in the section "Retailers."

Notably, the ultimate control of U.S. book publishing is not centralized in New York as one might assume, but in Europe. Due to the multimedia and multinational conglomeration of the U.S. publishing industry starting in the 1960s, 3 of the 5 largest trade U.S. publishers are owned by companies outside of the country. Penguin Random House is owned by German Bertelsmann, Hachette Book Group is owned by French Lagardère Group, and Macmillan Publishers is owned by German Holtzbrinck Publishing Group.

Distributors/Platforms

Surging Demand; OverDrive Is the Dominant Player

Increased demand for digital book materials during COVID lockdowns has not just been sustained, but surpassed post-lockdowns. From 2019 to 2020, OverDrive saw 33% growth for digital book lending, with an increase from 366 million to 430 million loans[30], and another jump to 500 million in 2021.[31] Marshall Breeding, a library technology consultant, notes that "other players in the sector—such as bibliotheca cloudLibrary, ODILO, Baker & Taylor's Axis 360, and hoopla—represent 'significant' competition."[32] But for library systems that can't afford to offer more than one digital platform to patrons, the extent to which the rivals present a significant challenge to OverDrive is unclear.

OverDrive is the largest commercial provider of ebooks, audiobooks, and other digital content such as streaming movies (via Kanopy) to public libraries in North America. The for-profit media company is owned by the investment firm KKtnsand hooaanoTEMC /H1 ALang (en-US)/MCID 1122 BDC C BT0.

authorize you as a valid library patron. You may be required by the third party service to create an account. Any information you submit to the third party is not shared with OverDrive."[33] If library patrons are reading ebooks borrowed through Libby on their Kindle apps, then Amazon—a third party to OverDrive's policies—is likely to have access to the patron's Kindle-specific borrowing history and book completion data. OverDrive's published privacy policies indicate that it does not control what Amazon does that this information; though there could be an agreement between OverDrive and Amazon about Libby users' data privacy that is beyond the scope of this report's review of publicly available information. While several third parties are named in OverDrive's privacy policies, such as Google Analytics, Salesforce, Alchemer and OnceHub, Amazon is not.

Presumably, patrons who opt to read Libby-loaned books via Kindle are already Amazon customers. But when patrons opt-in to connecting their Libby app with Kindle in Libby's prefer

**Patron Confusion that Libby Is
Paid for by Their Local Library**

many shows and songs are never released in physical formats. Lack of library access to new content exclusive to subscription services may become bothersome, particularly as Gen Z and millennials age. Data from *Gen Z and Millennials: How They Use Public Libraries and Identify Through Media Use* show that people of those generations look first to digital apps on their mobile devices to discover new content.

Perhaps most urgently, as noted earlier, Audible-exclusive titles are mostly not available to libraries.[38] Amazon licenses a smattering of its Originals to the approximately 400 libraries that use the Palace Marketplace Exchange.[39]

author event coupled with a book signing; likewise, library patrons may discover a new book or author via an in-person author event or a librarian's recommendation and go on to borrow or buy the ebook or audiobook.

Libraries often work directly with retailers, such as local independent bookstores, for author events held in the public library building. The 2019 Public Library Events and Book Sales Study from the Panorama Project revealed the following about library part-

3   HOW DIGITAL COLLECTIONS WORK

In the preceding two sections we have discussed key terms and key players in the digital public library ecosystem. But, how do digital loans work in practice? And what related challenges, barriers, and opportunities exist for libraries?

reads the book. Libraries do not have data about what patrons do with digital books and do not know if a particular book was read/listened to or how much was read/listened to.[48] It is unclear whether distributors like OverDrive collect such data. In contrast, one of Amazon's great competitive advantages (though not great for protecting individual privacy) in the publishing industry is its collection of data, not only about sales but also about digital reading behavior.

Library Control Over

Digital Holds, Circs, and Reads

At the most basic level, the digital public library ecosystem is driven by library circulation of digital materials. For some licensing models, circulations also determine how fast the license expires or how much the library is charged.

With OverDrive a digital circulation is counted against a library's account when a patron borrows a book. If a patron places a digital book on hold, it is not counted against the library's account until borrowed. Both digital loan periods and hold periods are set by the library. If a patron has had a digital book on hold, then once that book becomes available, the patron is given 72 hours to borrow the book, suspend the hold, or cancel the hold. Library patrons can choose the length of a hold suspension (anywhere from 1 to 180 days) and once that time has passed, the hold resumes. If library patrons do nothing during the 72-hour hold period, then the hold is automatically suspended for 7 days. After those 7 days, the library patron gets another 72 hours to choose whether to borrow the book or cancel the hold. This is called *automatic hold redelivery*.

Once a digital book is borrowed, libraries (using metered access or pay-per-circ) are charged for the digital circulation regardless of whether the patron

their titles–less flexible licensing terms (metered v. CPC) create conditions where librarians need to make harder choices. This can include weighing the likelihood of longer hold times and patron frustration against spending too much on one title and having fewer funds to license a broader range of materials.

This is why expensive digital licensing disadvantages midlist authors: librarians are less likely to afford the digital version of a midlist title if the budget is gobbled up by high-visibility authors such as Stephen King or Emily Henry.

Increased Digital Collection Spend and Higher Digital License Costs

With the increased demand from readers for digital materials, libraries are spending more on digital. The cost difference between digital licenses and print materials limits how much libraries can meet these needs, even with larger digital materials budgets.

According to a *Library Journal* survey of library spending, materials budgets were up 1.3% on average for libraries in 2021, with an estimated 27% of materials spending going to digital content. Digital materials spending was even higher for suburban and urban libraries at 30%.[49] Since libraries pay on average 3 times the consumer price for ebooks and audiobooks, the price tag of increased digital spending adds up quickly.[50]

These circumstances pose challenges for libraries. In the *New Yorker* article, "The Surprisingly Big Business of Library E-Books," a Denver public library director observes: "Digital content gives publishers more power over prices, because it allows them to treat libraries differently than they treat other kinds of buyers. Last year, the Denver Public Library increased its digital checkouts by more than sixty per cent, to 2.3 million, and spent about a third of its collections budget on digital content, up from twenty per cent the year before."[51] Meanwhile, at Cuyahoga County Public Library, digital now accounts for 33% of total collection spend, serving the 12% of cardholders who use OverDrive services. These readers are voracious, checking out proportionally more books than patrons who are print-only.

Data Privacy

Libraries are data privacy shrines, but the general public and even library patrons are not always aware of how fiercely libraries both avoid collecting unnecessary data and protect the data that they do collect. Libraries' commitment to data privacy is valuable and unusual when compared to big media companies' use of leverage to collect all the data they can. Despite the many benefits of library data privacy, this practice does limit app customization and collection efforts to a degree.

Librarians, as a bedrock principle, do not collect personally-identifiable borrowing histories. While it's possible that patron data collected and owned by libraries (such as patron names, addresses, and the like) could in theory be correlated to digital collection use via the patron's library card number, such data profiling would not be consistent with library's protection of reader privacy. Libraries have instructed OverDrive to not collect user data tagged to patrons' card numbers. On its end, OverDrive has a user privacy customization tool, where patrons can request that one's personally identifiable information (PII) be removed from OverDrive's systems. This process doesn't affect the status of one's library card.

Librarians who manage digital collections through the OverDrive Marketplace have instantaneous access to real-time checkouts, holds, and unique users but not to personally-identifiable information. This, and other features of the interface, gives librarians curatorial enrichments of the library user experience. For example, librarians can curate digital collections that correspond with initiatives of the physical library. They can also curate collections that relate to digital phenomena, such as "Popular on Tik-Tok." Patrons, in turn, can customize in Libby what they see in the digital collection by using filters and tags.

The tradeoff between privacy and customization that people make in all of their apps is true with library apps, too. Reader privacy as a library core is true with

work would be labor-intensive. It would require the collation of datasets from OverDrive (or another digital distributor) and the local library's ILS. Most libraries are barely able to fund their existing services, let alone a novel layer of data informatics. As an alternative, snapshots of depersonalized user data could guide or inform digital collection development. For example, super-users are easily identified by the volume of their checkouts. Their preferences can be examined in isolation ("what do super-consumers borrow?") or they can be removed from a dataset, giving a more accurate picture of the behavior of average borrowers who consume 1-3 digital books/month.

More research needs to be done around attitudes toward data privacy, and demand for customization features, to learn whether generational differences affect the perception of data privacy as a core value.

Undeniably, digital collections are the fastest-growing sector of library borrowing. Librarians are well-positioned to think through the unique value of libraries' digital collections as a space free from surveillance compared to the commercial. How important is it to people that they can seek information on library computers and not have those searches part of their personally-identifiable search history? Intellectual freedom is a foundational library value.

CONCLUSION AND FURTHER RESEARCH

People's use of public libraries' digital collections has surged in recent years. Accelerated by COVID lockdowns, use of digital collections continues to grow and will likely persist as a behavioral change. As such, the need for stakeholders to comprehend the digital public library ecosystem—to understand each others' needs, and come to consensus—has never been more urgent. Commercial entertainment subscription services are competing for peoples' attention; and they make original content that

libraries often cannot license. The more habituated people become to consuming "content" on their phones, the more urgent it is for libraries to offer a compelling experience: simple access, short hold durations, and the freedom to sample books and other media robustly.
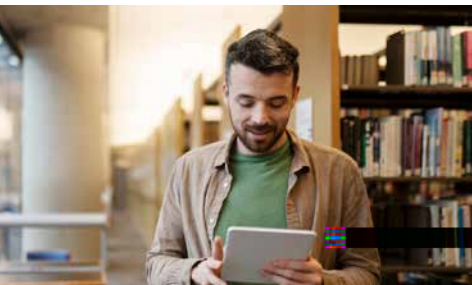
The digital public library ecosystem is complex, and this report has mapped the major actors,

Digital library stakeholders must understand each other and come to consensus as digital collection use continues to surge.

defined key terms, and provided context for understanding how digital collections get books from publishers into readers' hands.

Beyond this descriptive report, there is research to be done:

- Do libraries cannibalize book sales? Boost sales with free marketing in every community in the U.S.? Have a net-neutral effect? If libraries and publishers were to collaborate in sharing circ and sales data for a select number of titles, the community could discern the financial impact of digital library book circulation on publishers' bottom line.
- To what extent do authors and agents know about library sales and circulation for their own titles?
- To what extent do people realize that Libby is their public library—and what are the most effective strategies to increase this understanding?

Libraries, publishers, distributors, authors, agents, book retailers: all are aligned in helping this 500-year old medium, the book, continue to exert its spell on readers. This report aims to make the quickly morphing digital public library ecosystem comprehensible. Next steps should be taken to assure libraries' continued vitality for the increasingly digital reading public.

Acknowledgments

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