

Exploring the Impact of Digital Platforms on Publishing: A Bibliometric Analysis

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Abstract. *Platformization is a phenomenon arising from the process of digitalization and affects businesses of all types throughout the world. While platformization closely relates to digital business models, it also influences the traditional models to some extent, concerning the marketing and distribution functions. This paper focuses on the implications of the new media on the generation, dissemination, and reception of content in publishing. Specifically, the study examines the effects and implications of the platformization processes, and the role played by digital ecosystems in the value chain of the publishing business and the structures of the book market. For the current study, the research carries out a network analysis of scholarly literature on the integration of digital platforms in publishing using VOSviewer. It declared to provide an understanding of the field's conceptual directions, determine key articles, and depict the developmental process of this phenomenon. The paper contributes to the understanding of the primary discourses; the literature review reveals the research gaps and potential development. The contribution of this research shall be useful for both theorists and practitioners in the field. It can help practitioners analyze the current processes in the publishing industry's transition to digital formats and inform policy decisions. It can also help small and medium companies within creative industries that possess characteristics that are akin to publishing and other businesses clustered within the book market niche category. Given that current trends and potential directions for development and innovation in today's rapidly developing digital environment are traced and practical recommendations and further research questions are outlined in this study, it helps to get a detailed understanding of how platformization in the context of the publishing industry is addressed in the academic literature.*

Keywords: platformization, digital transformation, cultural and creative industries; publishing market, industry dynamics in publishing, bibliometric analysis

Introduction

The concept that has unfolded in front of our eyes in recent decades is the process of platformization that started in connection with the megatrend that the world is going through, the digital transformation. This has affected almost all industries in the society. Today, platforms are an essential part of people's communication, work, purchase of goods and services, leisure, as well as

tracking information about themselves. They have also assumed importance in how the populace engulfs and produces cultural and creative commodities, including music, films, games, and books. Some platforms even provide features with haptic interfaces that would enable users to emulate occurrences and interconnectivity that were considered feasible only in the physical space, such as attending a cultural show, a museum, a concert, and other related activities (Abbasi, Vassilopoulou, & Stergioulas, 2017).

The publishing sector is entering a new age with the help of new media technologies. Companies in the field have transitioned their businesses from printed media to electronic media and revolutionized the way information is produced, disseminated, and received across the world. In this setting, advanced applications affect the publishing dynamics on digital platforms as they get developed. Hence, it is pertinent to reflect on the nature and impact of their functions (Spjeldnæs, 2022).

The publishing industry has been tied to practices that are of the conventional kind for a very long time now. Hence, by evaluating the effects of platformization in this sector, it is possible to reveal valuable information on the nature of the digitalization process in the context of cultural and creative industries. The wide utilization of digital platforms has shifted not only the ways that readers consume published materials, but also how the publishers' industry, along with its stakeholders and workforce, is developing and disseminating the said products. Traditional media, which include magazines, newspapers, radio, and television, together with new media such as ebooks and audiobooks streaming services, online journals, blogging sites, co-creation platforms, and social media platforms, have made the dissemination of content easier, accessible and more diverse, so nowadays the public has access to find the work of many more authors through various means. Nevertheless, this shift also poses problems like piracy, content faking, and content monetizing issues, and the authors fear that if publishing is left solely to the dictates of supply and demand, then the quality of literature might degrade (Clark & Phillips, 2019; McGlone & Fazil, 2021). Besides, it is worth noting that there is still a strong preference for physical books on a global scale. However, this doesn't contradict the trend of platformization. In fact, it highlights that distribution is maybe the aspect most impacted by platformization in book publishing. In recent years, there has been a significant shift towards physical book orders through e-commerce platforms because of broader choices, better price analysis, less effort, and many more aspects related to efficiency and ease of use (Clark & Phillips, 2019; Rykkja, Munim, & Bonet, 2020; Wei, Yang, Zhang, Zeng, Li, & Xiao, 2024).

Considering the mentioned dynamics, the current study explores the ways digital ecosystems and platformization have impacted the publishing value chain and the wider book market structures by mapping the literature in this research area. A bibliometric analysis creates and analyzes a broad dataset from three different databases; it highlights the patterns in the existing body of knowledge by identifying key studies, emerging trends, and research gaps.

This paper is divided into several parts. The introduction is followed by a literature review that covers topics such as the platformization phenomenon, the challenges and opportunities it presents, the impact of digital platforms on the publishing industry, and how this industry is transforming as part of its digitalization journey; the paper also presents a review of various platform types commonly employed in the publishing sector. VOSviewer software is utilized for the bibliometric analysis. The findings and discussions on the emerged bibliometric network figure are presented further. The results shed light on digital platforms' impact on publishing, offering insights into how the digital age is reshaping by what means knowledge is produced, shared, and consumed. Lastly,

the paper concludes general trends within the industry, research gaps, and areas for future development.

Literature review

Digital platforms are changing, at a fast pace, almost every industry today, and as a result, they are becoming more prevalent in mainstream information systems literature. However, digital platforms present a challenging research subject due to their distributed nature, their interdependence, and interconnectedness with institutions, markets, and various technologies. The rapid growth of platform innovation, the more sophisticated platform architectures, and their spread to various industries also pose new research challenges (De Reuver, Sørensen, & Basole, 2018; Zhu & Iansiti, 2019). Platforms such as social media, e-commerce sites, and content streaming services have become integral to how people communicate, purchase, and spend their leisure time. In fact, platformization had a disruptive effect on various economic sectors relying on traditional ways of operating, from retail to media and culture (Wichmann, Wiegand, & Reinartz, 2022).

Some digital technologies, including platforms, have special characteristics, for instance, flexibility and shareability of data and ease in enabling interaction. Such interconnected structures are often referred to as ecosystems. Generally, platforms can be owned and used by many different entities in various places instead of exclusively by a single one. These characteristics of dispersed ownership and use enable a co-created value proposition, which sets the digital platforms apart from a traditional structure. Classic economic systems of production and consumption typically occur within a firm's boundaries or a supply chain, while digital platforms rely on the coordination of a vast number of independent agents for the creation or exchange of value. This ecosystem perspective allows various entities, such as the owners of the platform, end users, and third-party application developers, to be involved and/or derive value from the platform (De Reuver, Sørensen, & Basole, 2018; Isckia, De Reuver, & Lescop, 2018).

Business factors, such as platform ownership, complement autonomy, and value-creating methods are the main pillars of platforms' ecosystems (Hein, Schreieck, Riasanow, Soto Setzke, Wiesche, Böhm, & Krcmar, 2020). These platform-specific ecosystems ensure that innovations are commercialized effectively by managing the connection between two subsystems: the innovation factory and the business development department of the company. This leads to the efficient, innovation process pertaining to the digital environment (Isckia, De Reuver, & Lescop, 2018). Digital ecosystems present new business models and dynamics that are anchored on collaboration as well as competition in the creation of value that is bundled and delivered through novel business models and strategies. It can be said that this model of value creation and capture that defies the traditional centralized approach and focuses on the synergy within an ecosystem of digital platforms stays at the core of the digital economy.

In the development process of the last few decades, digitalization has, in one form or another, influenced roughly all categories of cultural and creative industries. The contemporary environment is characterized by dynamic change, and in today's global business world, firms, irrespective of the industry they belong to, must be on their toes to notice technological changes and customer preferences (Li, 2020). For cultural and creative industries where the key concern is the entertainment of consumers and the ability to fulfill consumers' demands and requests, this proven strategy is particularly critical. Technological advancement has, therefore, transgressed the sphere of becoming the latest fashion as it has become part of life's norm and standard business practice. It is thus essential to comprehend how digitalization can be implemented into these business models to create value for organizations in today's business world in order to ensure their growth and survival (Benghozi, 2022).

In the dynamic context and the growing pace at the present-day business structures, organizations must never be caught off-guard and oblivious to the occurrence of technical innovations or shifts in clients' preferences. This is even more important for cultural and creative firms to get the best option and adaptation in the market (Li, 2020; Chagas Pegoraro, Cannarozzo Tinoco, & Schlabitiz Vanin). Digital technologies strongly affect business environments, and platformization takes a leading position in changing business models in creative firms. They have changed the way markets interact, introduced new ideas into product development and altered the ways through which revenue is generated. While the introduction of digital platforms has revolutionized the managerial approaches to the availability of products and services it has also provided new ways of value creation (Benghozi, 2022; Li, 2020). This process of platformization has led to the formation of new markets and new players and the creation of new forms of businesses while restructuring value chains and redistributing power within a sector like books, music, photography, and video games (Benghozi, 2022).

Platformization is one major phenomenon that plays out in the publishing industry and intensifies the features of the cultural and creative industries, of which publishing is an integral part. From the literature, it is noticeable that cultural and creative industries provide a knowledge-intensive environment, with leadership and management typically formed of highly educated people. These industries are concerned with service innovation and like to keep small so that they can be profitable rather than investing in expansion. The sector's development depends on creative entrepreneurs' willingness to grow, and the opportunities presented by external factors. However, creative entrepreneurs often prioritize their artistic or cultural goals over commercial growth, resulting in a landscape dominated by small and medium-sized enterprises and freelancers. Digital platforms offer more flexibility that suits this type of economic actor. At the same time, the wide use of digital platforms further increases the already high competition within the creative field due to creative works' unique and unscalable aspects. Another challenge related to the unpredictable demand and an oversupply of creative outputs that result in low average prices and profits (Landoni, Dell'era, Frattini, Messeni Petruzzelli, Verganti, & Manelli, 2020; Loots & van Witteloostuijn, 2018; McKelvey & Heidemann Lassen, 2018).

The impact of digitalization and integration of digital platforms can be seen in all value chain stages, from content creation to reader engagement. For instance, regarding the content creation part of the publishing value chain, with the introduction of self-publishing platforms, authors can bypass the gatekeepers that characterize the publishing industry, as the creative industries and publishing, in particular, produce a surplus of works, and organizations in the field traditionally rely on talent scouts and editors who have discretion in selecting works based on certain quality or expected market success criteria (Hirsch, 1972).

Nowadays, authors can self-publish, and market forces have a higher influence on what literary work will be more successful in terms of sales. This has led to more diverse perspectives and topics being introduced into the market, contributing to a "democratization" of the publishing industry. Entire genres previously overlooked or nonexistent are now gaining an audience and benefiting from consistent market success. However, there is still a social bias against self-published works, sometimes considered less valuable than their counterparts published by recognized publishers (Bergström, & Oskarsson, 2022). To be entirely frank, there is a certain degree of validity in this concern. Many low-quality materials might indeed be published this way, which can be problematic, as culture has a deeper meaning than commercial success and entertainment; it also aims to educate and provide a quality standard, which has been diminished

by the broader exposure to market forces related to the rise of self-publishing platforms (Bergström & Oskarsson, 2022; Have & Pedersen, 2020; Waldfogel, 2022).

Not only business models such as self-publishing platforms are impacting the content creation phase, which is the core aspect of publishing, but also emerging trends such as co-creation platforms and applications where authors can share their work with the readers or fellow authors that contribute to the story's development, or the topics covered in a book. Moreover, with the development of artificial intelligence technology, authors can co-create with the use of AI, brainstorm storylines and topics to be discussed, check and validate various information, etc. Although such collaboration with other humans or machines can enrich the content itself, concerns about authorship, quality control, and copyright are only a few to emerge (Clark & Phillips, 2019; Cropley, 2020).

Platforms act as intermediaries that connect different user groups, such as consumers and producers, service providers and clients, or content creators and audiences. This way platform ecosystems obtain substantial control over interactions and the way value is created and distributed within their network. Moreover, they provide the advantage of reaching a more extensive consumer base, finding a suitable audience or niche, and sometimes even transitioning from local to global markets. This is even more valuable for the inventors and the business entities that deal with niche markets and unique products and services (Gielens & Steenkamp, 2019; Täuscher & Laudien, 2018). This global exposure proves positive mainly to independent workers and small-scale businesses that operate at short-term contracts hence the popularization of the concept of the "gig economy" (Vallas & Schor, 2020). Besides, global exposure implies higher perspectives for disseminating ideas for cultural actors and businesses; the platforms considerably influence cultural standards, discourses, and interconnectedness. However, algorithms usually care about the content with more engagement or that has been refined by the standards of the community, which may lead to "winner takes it all" situations (Duffy, Poell, & Nieborg, 2019; Nieborg & Poell, 2019).

Speaking at a macro level, the publishing industry is in the middle of a paradigm shift because of the processes of digitalization and platformization. However, this transformation is not without some problems. One of its most important vices is market dominance being established by a few players that set the market trends, terms of the market, and prices of products. Also, the degree of global exposure enhances the prospects for literature of a globally circulating language like English, a disadvantage for authors of other native languages (Clark & Phillips, 2019). Another significant issue is piracy, which is an especially urgent problem in the context of digitalization. The digital content is easy to copy and share without any authorization. This represents a threat to the revenues of the digital business models, especially for organizations that are small in scale. At the same time, there is a rivalry problem regarding the content freely available over the internet, whether it is by piracy or not (Casilli & Posada, 2019). Nevertheless, the benefits of digital content, like the scope of potential audiences, community building, direct ways of engaging readers and customers, as well as fewer costs of production, place digital models among the main future trends for the publishing business (Clark & Phillips, 2019; Greco, Milliot, & Wharton, 2014). Thus, platforms are an important component of digital business activities within the publishing industry. While not all digital publishing activities necessarily require a platform, platform use is prevalent, and practical, covering many digital publishing activities in terms of broad outreach and the provision of extensive services (Murray, 2018). In Table 1 there is presented a list of platform typologies that are commonly used in publishing.

Table 1. Platform typologies for publishing business

Platform Typology	Description	Exemplifying services
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E-commerce Platforms	Platforms that facilitate book distribution to end-consumer, other retailers, and libraries.	Amazon, Adlibris, Powell's, Rokomari.com, Booktopia
Streaming Platforms	Platforms that are specializing in subscription services for e-books, audiobooks, and other similar products.	Kobo Plus, Scribd (Everand), Storytel, Perlego
Academic Publishing Platforms	Platforms that manage the submission, peer-review, and publication process for scholarly articles.	Atypon, Scholarly Publishing Collective, Scholastica
Print-on-Demand Platforms	Platforms that offer printing and shipping of books or other publishing materials after an order was made.	Amazon KDP, Blurb, Lulu, IngramSpark, Bookvault
Rights and Licensing Platforms	Platforms that facilitate the licensing of content and management of copyright permissions.	Frankfurt Rights License, Copyright Clearance Center (CCC), RightsLink
Self-Publishing Platforms	Platforms that give authors the possibility to self-publish and distribute their own books online.	Amazon KDP, Apple Books, Barnes & Noble Press, Kobo Writing Life, Draft2Digital, PublishDrive
Book Community Platforms	Platforms for community engagement, that connect readers, but also authors and publishers.	GoodReads, Litsy, LibraryThing, AuthorsDen.com, Red Room

Source: Authors' own research

The use of publishing-related platforms that have been detailed in Table 1 affects certain elements of publishing business models, enabling firms to optimize and build upon prior processes, as well as offer targeted customer experience (Li, 2020). Their application is not only in production and distribution but also in establishing cooperation and management of infrastructure, clients, and finances (Benghozi, 2022). Within the publishing supply chain, a major shift is witnessed in the distribution phase. Publishing companies intensely innovate in this area, cutting costs and even creating additional income sources (McGlone & Fazil, 2021). The extensive application of e-commerce, especially for digital products including ebooks, audiobooks, and other materials, represents the shift from the conventional structures of distributing books to digital ones in that they can be accessed from any place with a few clicks while posing less or no costs to the disseminators and also increasing on accessibility (Al Moaiad, Aseh, Abdullah Al-Qudah, Yusoff, Pathmanathan, Abdul Latiff, Jusoh, & Abu-Ulbeh, 2021; Heinemann, 2023). Subscription services through book streaming apps have now become one of the novel forms of digital business models for distribution that replace the one-off sales business model with the ongoing patron model. This type of model is ideal for managing customer relations since it is possible for a business to interact with a customer over a long period and hence get many chances to contact the customer, understand them through data analysis, and persuade them to purchase more (Chagas Pegoraro et al., 2023; Tattersall Wallin & Nolin, 2020; Tattersall Wallin, 2021).

Methodology

Using the existing literature, it is possible to uncover the main topics and significant publications that make up the theory of this subject of study. To this aim, a bibliometric dataset was created by compiling information from three reputable academic databases chosen for their comprehensive coverage of literature in both the sciences and humanities: Scopus, Web of Science, and Google Scholar. There were introduced specialized keywords based on each database's specifics to obtain documents with reference to digital platforms and the publishing sector.

1. Scopus: The use of a search with the keywords [digital platform] title and abstract and [publishing industry] or [publishing sector] or [book market] revealed 172 documents.

2. Web of Science: Entering the search string (((TS=("digital platform")) AND TS=("publishing industry")) OR TS=("publishing sector")) OR TS=("book market")) and including all the documents that contain the word "platform" has yielded 23 results.

3. Google Scholar: A search using Harzing’s Publish or Perish tool with the query "digital platform" AND "publishing industry" OR "publishing sector" OR "book market", limited to the years 2014 to 2024, resulted in the retrieval of the top 200 most relevant documents.

The initial resulting database size of 395 documents was adjusted to 367 after manual review and deduplication in Zotero, preparing it for a bibliometric analysis with VOSviewer. The documents were first screened for relevance, then the datasets were imported into Zotero, combined, and duplicates were removed. Once cleaned through this process, the dataset was imported into VOSviewer for analysis, focusing on keyword co-occurrence to identify key themes. Using "Co-occurrence" and "Full counting" with a minimum threshold of 4, the study narrowed 999 keywords to 26 significant ones. Some of the terms have been merged through a thesaurus file, and the refined search yielded 19 keywords. These 19 keywords, along with information on whether they were included or excluded from the final analysis, are detailed in Table 2.

Table 2. Keywords for analysis

Keyword	Occurrences	Total link strength	Action taken
electronic publishing	59	72	Included in the analysis
publishing industry	30	40	Excluded from the analysis, search term
electronic books	26	28	Included in the analysis
electronic commerce	11	27	Included in the analysis
economics	6	16	Included in the analysis
digital networks	10	14	Included in the analysis
copyrights	4	13	Included in the analysis
digital platforms	7	13	Excluded from the analysis, search term
DRM	4	11	Included in the analysis
publishers	4	10	Excluded from the analysis, search term
sales	4	10	Included in the analysis
social media	8	10	Included in the analysis
marketing	4	9	Included in the analysis
platform	4	9	Excluded from the analysis, search term
open access	4	8	Included in the analysis
digital libraries	4	7	Included in the analysis
book publishing	4	5	Excluded from the analysis, search term
books	4	3	Excluded from the analysis, search term
education	4	3	Included in the analysis

Source: Authors’ own research with the use of VOSviewer

The final analysis concentrated on 13 keywords, excluding terms similar to the search criteria. The minimum cluster size was set to 2 to visualize interconnected themes more clearly. The resulting bibliometric map provides insights into the network of conceptual associations within the field of digital platforms in the publishing sector. The VOSviewer's resulting visualization describes prevalent and emergent themes and identifies research clusters signifying areas of major

interest. By following this methodology, the study captures the main research trajectories, which can aid in understanding the field's dynamics, developments, and possibilities for future research.

Results and discussions

The bibliometric co-occurrence network created with the use of VOSViewer is represented in Figure 1. The respective illustration shows the interconnections and thematic clusters within the research area of digital platforms in the publishing industry. The "electronic publishing" term emerges as the central keyword, confirming the deep interconnection between the search terms. There are 35 links between the 13 keywords, further demonstrating that the field is interconnected, with various aspects of electronic publishing being frequently discussed in relation to each other. However, the total link strength of 80 across 35 links, suggests that although there is good interconnectivity among the keywords, there is still potential for developing the current key points of research or discovering emerging trends within this academic domain. It seems that some aspects, such as "electronic books," "electronic commerce," "copyrights," and "digital networks" represented through stronger links are more intensively researched than the other concepts.

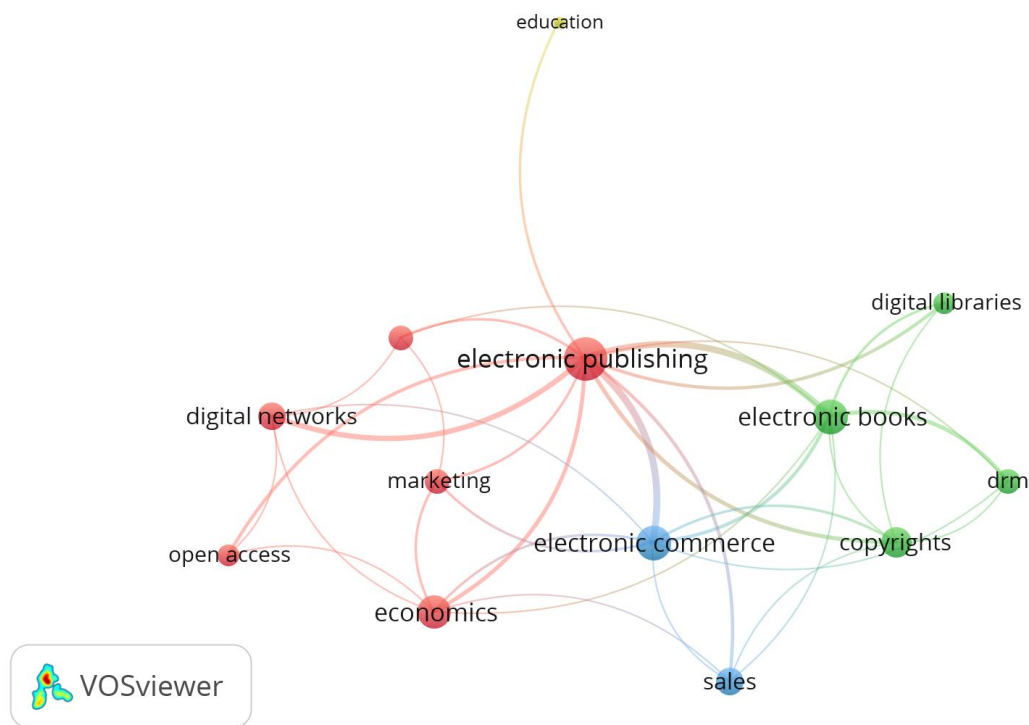


Figure 1. Resulted VOSviewer bibliometric network

Source: Authors' own research, VOSviewer screenshot

The keywords have been classified into three clusters, represented by different colors in the visualization. Table 3 shows the list of words in each cluster.

Table 3. Keywords per cluster

Red cluster	Green cluster	Blue cluster
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digital networks	copyrights	electronic commerce
economics	digital libraries	sales
education	DRM	
electronic publishing	electronic books	
marketing		
open access		
social media		

Source: Authors' own research based on VOSviewer

The red cluster consists of the highest number of items and has more links with higher link strength than the other clusters. From the VOSviewer illustration, results that the red cluster is central to the overall thematic analysis, showing the main research patterns and directions. It consists of 7 keywords that can be understood as describing the macro landscape of digital publishing. The fact that “electronic publishing” which includes digital publishing, is the most substantial node supports the idea that electronic publishing is heavily influenced by and even dependent on digital platforms. Its development is essential for all digital platforms related to publishing, as without electronic publishing, there would be no books in electronic format and, therefore, no need for the respective platforms. The strongest link of this term is with “digital network”, signifying that IT developments at the network level (including speed, interoperability, and manageability) are required precursors to electronic publishing. This VOSviewer link also implies the global character electronic publishing achieved, including its potential to reach wider audiences, but also the increasing competition in the field. These terms reinforce the idea discussed by De Reuver, Sørensen, and Basole (2018) that digital platforms have a transformative influence across various industries, acting as ecosystems. The “economics” keyword that is also found in this cluster may refer to financial elements such as revenue streams and monetization strategies, management aspects like product development, collaborations, and partnerships, or how much of the publishing business is happening with the use of digital platforms. At the same time, this term may refer to digital platforms in publishing, in the general context of a country, a region, or even a global economy, and how it contributes to the overall economic growth. This term supports the significant impact of platformization on business models within creative firms, including market interactions and product development innovation, as Benghozi (2022) outlined, as well as the high interest of researchers in investigating the economic facets.

The other keywords in this cluster point towards research around specific platform types. For instance, “marketing” and “social media,” which are strongly linked to one another may refer to research related to book community platforms. Marketing through social media is a standard practice in almost all industries facing the end consumers, and the use of social media strategies is even more important when it comes to cultural and creative industries, due to the increased competition for end-user attention. Many existing reading community platforms start from social media groups and further extend into this business model. At the same time, even in the case of already existing reader community platforms, many times, readers start discussing on social media and then move on to such specialized platforms to engage in more in-depth discussions on the respective topics; many discussions are also happening in parallel, between social media groups and community platforms, being exchanged links and references. Social media is also the “place” where people learn about different communities to which they can adhere. Reader engagement and community platforms are, at the same time, important marketing tools for publishers and authors to make their products known and to gain feedback directly from the end consumers (Bergström &

Oskarsson, 2022). Some such platforms can also serve as co-creation spaces, where authors interact with readers during the manuscript writing process, seeking feedback or engaging in interactive "games" that let readers direct the storyline. These practices serve as feedback and beta reading mechanisms and, at the same time, as marketing tools, finding the right niche of potential customers before the book is even released. Even though less than authors, publishers also engage on these platforms to maintain the connection with their audience participating through comments on forums, promoting book releases, conducting giveaways, and organizing virtual book tours or discussion sessions with authors.

The "education" keyword points towards existing research regarding academic publishing platforms. The research and education publishing segment of the publishing industry is constantly trying to keep up with technological advances due to the sensitive aspect related to copyright and piracy threats. Currently, this aspect can be improved, even though only to a certain degree, and kept track of with the use of digital technologies. These platforms may be used for submissions, peer reviews, access to research findings through centralized repositories, metrics, academic networking and collaboration, etc. The development of these platforms suggests that there is a growing emphasis on accessibility, collaboration, and knowledge exchange in the academic community (Ospina García, Díaz Velásquez, Tavera Romero, Ortiz Monedero, & Khalaf, 2021). The "education" keyword may also point to platforms specially designed for nonacademic educational content, such as skill-based courses, trainings, science popularization podcasts, many of them with the aim of making education accessible to a broader range of users. This aspect of free access to education is also the central idea of the "open access" keyword that can be found in the same cluster. There are ongoing discussions about consumers' right to open and free access to educational materials. One important topic is the accessibility gap that still exists in the current digital age and is even widened by the digital divide. People with fewer financial resources are deprived of the same opportunities their richer peers enjoy, such as reading high-quality articles or books with high prices that only a limited audience can access. Scholars and policymakers in many developed countries continue debating the need to modify the copyright and digital rights management laws to try and achieve a fair and proper balance between the unique roles of creators, consumers, and the public domain.

Next, the green cluster is associated with copyright and digital rights management which has close relation with the ebooks and digital libraries in the broader perspective of digital platforms. The keywords included in this cluster support the idea that a general sense of worry exists about digital platforms' impacts, particularly on privacy, competition, content regulation, and data protection, as observed by Casilli and Posada (2019). Based on the last word in this cluster "electronic books", which is also the most relevant, the focus of this cluster is on books in digital/electronic format, which reflects an obvious transition from the physical to the digital in the publishing industry. Books in electronic format have changed the way people read and thus have introduced different gadgets, apps, and services that reflect people's tendencies and needs, which is general evidence of the alteration in the ways people consume content. The financial performance and consumer preferences of electronic books versus physical book formats are areas where research is particularly focused. Electronic books are distributed and sold on various platforms, such as e-commerce, streaming, and self-publishing platforms. Digital libraries are repositories of digital books, widely used in the case of book streaming platforms. Nowadays, the subscription business model is on the rise in digital publishing, so managing digital libraries represents an important area of research at the intersection of the publishing industry and digital platforms (Clark & Phillips, 2019).

With the developments in digital aspects of book publishing, especially the availability of books and articles in digital format, which makes them easily replicable, there has been increased research in copyrights and digital rights management. The copyright issue became even more delicate requiring more sophisticated tools, with the rise of self-publishing platforms where algorithms are not always sufficiently accurate to distinguish every attempt at fraud, either by publishing works that do not belong to the respective person or written by artificial intelligence tools. Technology such as artificial intelligence and blockchain might be part of the solution for this high-level issue, to which the research on copyright and digital rights management points. Such advancements can help simplify the complexities of rights management, automate and secure the licensing and intellectual property management processes (Schoenhals, Hepp, Leible, Ehret, & Gipp, 2019).

The blue cluster refers to the commercial aspect of publishing through digital platforms. It includes only two elements, "electronic commerce" and "sales", which might refer to publishers' strategies for monetizing their content shared through digital platforms. These keywords point to several types of commercial platforms in the publishing field, such as e-commerce, streaming, self-publishing, and print-on-demand. It is worth noting that both books in physical and digital formats widely are commercialized with the use of e-commerce, print-on-demand and other types of platforms, with the market being dominated by global e-commerce big companies and regional or country-level e-commerce platforms that sell books and related products (Li, 2020). Although consumers still prefer physical books over electronic ones, e-commerce is becoming increasingly important in terms of sales, often at the expense of traditional physical bookstores. The topic of this cluster is particularly important, as it is directly linked to the financial aspect, vital for any company's survival and growth.

Conclusion

The keywords related to the bibliography resulting in the bibliographic map identify electronic publishing as associated with digital technology, legal, economic aspects, and social effects. From this, it is evident that the publishing industry is in a state of dynamic change owing to the exponential growth in allied technologies in the field of digital networks and platforms. Current research interest is therefore laid on the effects of digital platforms on different activities within the value chain and value network of the publishing industry. The next research topics may focus on certain aspects, for example, the application of artificial intelligence and blockchain technologies in rights management and licensing, content recommendation and delivery systems, and securing and transparency in the transaction within the context of the publishing industry (Isckia, De Reuver, M., & Lescop, 2018). Further, proposing new sustainable economic models for authors and publishers in the digital environment and evaluating the outcomes on society can be considered important directions for further research. The need for additional investigation with regard to broad structures like digital business models and their value chains and value networks within the publishing industry is another aspect to be taken into consideration when designing future studies. Embedding knowledge from fields of law, economics, and social sciences could be of help to achieve a wider perspective of the digital transformation in publishing. From the VOSviewer analysis, it seems that the nature of the relationship between digital platforms and the publishing industry portrays a blend of diverse online activities executed by the publishers. This integration concerns different dimensions, including marketing communication and social media, e-merchandising, open access, privacy, and copyright.

In the recent period, electronic books have quickly evolved from being equivalents/substitutes to physical books to being add-ons/complementary products. It means that almost all sectors of media participate or will participate in a strategic shift, compelling publishers to build portfolio strategies that shall balance the physical and digital realms. The current state of the industry requires a portfolio approach, where the publisher is able to offer a variety of products and formats. The ultimate purpose of these actions and strategies is to intensify the availability and visibility of their products, to develop new sources of income, as well as to fulfill the expectations of viewers/listeners/readers.

In this rapidly progressing environment, publishers are suggested to integrate e-commerce platforms more enthusiastically than ever before. Through these means, they have unprecedented opportunities to reach a broader, even global audience, find their niche, and add new sources of income to their revenue streams, which are sine qua non in developing and maintaining business organizations in a highly competitive economy. This approach implicates a profound understanding of the digital marketplace, which comprises knowledge of online sales channels, the most effective forms of digital marketing campaigns, and the role of data analytics in the assessment of consumers' buying behaviors. Furthermore, the entrance of streaming technology across the entertainment industry is an emerging market that the publishing sector could venture into even more. An instance could be streaming services in which publishers can include audiobooks, podcasts, or perhaps stories written with artificial intelligence or co-written with readers. This conforms with the changes in the producer-consumer relationship, especially among the youthful population who may prefer digital consumption patterns. The trend is focusing now on co-creation and personalized content, which opens up new markets to players in the field. However, for the publishers to harness these opportunities, they have to pursue investment in digital skills and capital. Key competencies that will have to be developed include digital marketing and e-commerce, data analysis, and digital product development. Identifying new opportunities for doing business, which is in tune with the existing environment and structure of the new world of the digital economy, like subscription services, PPV, or bundled content, can be valuable sources of revenues and per customer value. Therefore, innovations in value proposition would become essential for publishers to set themselves apart.

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