Editorial: Special selection on contemporary bibliometric analytics

First, we have to apologize for the long publication queue of *Library Hi Tech* though Emerald has strived to publish accepted articles online first at a fantastic speed. To address this problem, Emerald has increased the print from four to six issues per year and more article budget this year. Starting last year, we took the challenge of the long publishing queue to provide the opportunity of selecting and grouping articles of similar themes for regular issues, such as “Bibliometrics and literature review” (Chiu and Ho, 2021, 2022a) in 39(4) and 40(3), “Contemporary digital culture and reading” (Chiu and Ho, 2022b) in 40(5) and “40th anniversary: contemporary library research” (Chiu and Ho, 2022c) in 40(6). We write editorials to give our readers a better overview of the upcoming contemporary research in various fields covered by *Library Hi Tech*. We also use this venue to guide our readers to related articles recently published with us.

As for special issues, we found overwhelming responses from authors and readers on topics related to the COVID-19 pandemic (Huang *et al.*, 2021, 2022, 2023). As we continue efforts to combat the pandemic through knowledge sharing, we shall continue our call-for-paper for Part IV of the special issue focusing on the aftermaths, recovery and comparative studies. Please watch out for our upcoming announcement.

Bibliometric analytics are among the most popular topics in our regular and special issues. However, authors must be aware that since our editorship, we avoid accepting analytics, bibliometrics and review articles on areas unrelated to *Library Hi Tech*’s core themes to benefit our readers more. For this issue, we present 18 papers related to bibliometrics and related analysis on the following three themes.

1. **Bibliometric analytics on contemporary technologies and innovations**
   The first group of papers in this special selection focused on bibliometric analyses of the latest information technologies, including blockchain, cloud computing and artificial intelligence (AI).

   Alam *et al.* (2023) conducted a bibliometric analysis of blockchain research in Pakistan using data from the Web of Science (WoS) using the VOSviewer tool to generate a collaboration network of countries and co-occurrence network for co-word analysis, using a three-phase analysis. They presented the implications for developing blockchain’s trust and reputation management area. Recently, we have more articles on blockchains (Hasan *et al.*, 2021; Sicilia and Visvizi, 2019) and Bitcoin (Shen *et al.*, 2021).

   On the other hand, Awan and Abbas (2023) conducted bibliometric analyses on the frequency, impact and correlations of research produced on cloud computing in 48 countries and three territories in Asia using the Scopus database using Biblioshiny and VosViewer. They found that China was Asia’s most productive, impactful and collaborative country in cloud computing research. Amongst the research topics, mobile cloud computing and cloud data security were the most popular (Hui *et al.*, 2023; Wu *et al.*, 2022). We also have quite some recent articles on cloud computing as library infrastructure (Wang *et al.*, 2022; Loghmani Khozani *et al.*, 2022; Lai *et al.*, 2021).

   Concerning innovation convergence, Cui *et al.* (2023) presented a systematic review of innovation convergence. They analyzed relevant literature from the WoS database from 1990
to 2021 using several bibliometric software applications. Their findings help researchers to understand the research trends of innovations convergence. *Library Hi Tech* is very concerned with technological innovation. Readers may be interested in library information service innovation (Wójcik, 2019; Lee, 2021), AI innovation for libraries (Okunlaya et al., 2022; Huang, 2022), organizational learning aspects (Zhou et al., 2022) and knowledge absorptive capacity aspects (Kaffashan Kakhki et al., 2022).

In addition, Nawaz *et al.* (2023) studied the application programming interface recommendation systems using a systematic review of data collected from 2004 to 2021. Further, Shahzad and Khan (2023) investigated the adoption of integrated semantic digital libraries (SDLs) using a systematic literature review. They showed the key factors and challenges in developing SDLs. Readers may be interested in a recent article on enhancing adaptive access to digital libraries using ontology-supported collaborative filtering (Senthil Kumaran and Latha, 2023).

Readers may also be interested in bibliometric analytics of the evolutions and trends of AI (Borgohain *et al.*, 2022; Nugroho *et al.*, 2023; Shao *et al.*, 2022), mobile privacy and security (Beg *et al.*, 2022), fifth generation mobile communication technology (Farooqui *et al.*, 2021), accessibility of the statistical charts published in top library information science (LIS) journals (Alcaraz Martínez *et al.*, 2022) and ecopreneurship (Guleria and Kaur, 2021). Besides, Amjad *et al.* (2022) designed a study to compare the citation advantage of open-access and toll-access articles. We also have recent articles on analyzing patients regarding innovation (Lee, 2021; Janavi and Emami, 2021; Yamada, 2022).

2. **Bibliometric analytics on education**

For education, Rafique *et al.* (2023) examined the use of e-book databases in higher education in Pakistan. They used a transaction log analysis method to study the usage patterns of higher education institute e-books databases. They suggested that higher education institutions maintain subscriptions to the most required e-books databases and that the LIS professionals conduct orientations and information literacy programs to help their users. Readers may be interested in recent articles on literacy issues, like teachers’ information literacy (Li *et al.*, 2021b), parents’ health literacy (Batool *et al.*, 2022) and information literacy self-efficacy (Soroya *et al.*, 2021).

More institutions have moved to online learning mode in the past few years due to COVID-19 (Kabigting *et al.*, 2023; Li *et al.*, 2023; Tse *et al.*, 2022; Ye and Ho, 2022; Yi and Chiu, 2023; Yu *et al.*, 2023) and changed information habits of youths (Ding *et al.*, 2021b; Dong *et al.*, 2021; Yu *et al.*, 2022) and curricula (Ho *et al.*, 2023; Yew *et al.*, 2022; Li and Chiu, 2022; Ng *et al.*, 2022). Thus, a focus is on the dropout rates of massive open online courses (MOOCs). Wang *et al.* (2023b) conducted a bibliometric study with data obtained from WoS and Scopus. They showed that psychological, social, personal, course-related and time factors and the unexpected hidden cost were the antecedents of the MOOC dropout rate, with motivation and interaction also having a decisive impact. Readers may also be interested in recent research on MOOC continuance intention and dropout (Cheng, 2022, 2023) and a systematic review of MOOCs (Cheng *et al.*, 2022).

Wang *et al.* (2023a) also studied the research hotspot of ethics education in science and technology using bibliometrics methods and suggested room for improvement in this research area. Readers may be interested in bibliometric analyses on urban education (Chen *et al.*, 2019), intelligent education research (Ma *et al.*, 2022), technical vocational education training (Abd Majid *et al.*, 2022), maker education (Feng *et al.*, 2022c) and metaverse research (Feng *et al.*, 2022a; Guo *et al.*, 2023). In addition, a special issue on “Contemporary learning behaviors on mobile devices and social media” will soon be published this year.
3. Bibliometric analytics for academic ranking

Bibliometric analytics provide fundamental metrics for the ranking of academic excellence. Qureshi et al. (2023) investigated academic ranking using “Open Rank”, a new ranking method based on publicly verifiable datasets, ArnetMiner and DBpedia. They suggested that such a transparent and reliable database would help higher education institutions improve their academic planning.

There are also papers researching some general topics of interest using these techniques. Bedogni et al. (2023) studied the correlation between the impact of computer science conferences and conference venues using a 30 years dataset. They showed that conference impact is correlated with country-wide touristic indexes.

Readers may be interested in some related articles on whether authors play fair or manipulate Google Scholar bibliometric indicators, such as h-index and i10-index (Loan and Shah, 2022), and the analysis of Sci-Hub use with Google Trends (Behboudi et al., 2021); Chen et al. (2021) studied the effect of interdisciplinary components’ citation intensity on scientific impact, whether proceedings papers in science fields have higher impacts than those in social science and humanities (Yang and Qi, 2021), characteristics analysis and evaluation of discourse leading for academic journals (Wang, 2022), the ecosystem of research tools for scholarly communication (Rao et al., 2022), the scientific outcome in the domain of grey literature (Wani and Ganaie, 2022), early discovering highly cited academic papers (Tang et al., 2023) and textbook citations (Maleki et al., 2023).

4. Bibliometric analytics for research topics

A fundamental objective of bibliometric analytics is to reveal and investigate research topics of individual subject areas and their interrelationships. Chen et al. (2023) used a semi-automatic character social network relationship map tool (CSNRMT) to explore the character social network relationships from ancient Chinese texts for analyzing data collected from a counterbalanced design, semi-structured in-depth interview and lag sequential analysis. As a result, they developed an ancient book digital humanities research platform. Readers may also be interested in a recent bibliometric study of cultural and creative design in China (Feng et al., 2022b) and the topic trends of documentary heritage preservation and conservation (DHPAC) research in China (Yun et al., 2022).

Even though the COVID-19 pandemic is slowly moving away, most of us are following up on the aftermath of its impact. To better understand its impact on research, Cao et al. (2023) used topic modeling, a machine learning algorithm, to analyze COVID-19 research literature using the latent Dirichlet allocation and topic visualization method. They discovered 14 research topics in this area which can help specialists in health and medical areas to grasp the structured morphology of the current COVID-19 research. Readers may also notice our wealth of articles on bibliometrics related to COVID-19 (Li et al., 2021a; Shueb et al., 2022; Loan and Shah, 2022; Riahinia et al., 2022; Zhu and Lei, 2022; Danesh et al., 2021; Saab et al., 2021; Allen, 2021; Yari Eili and Rezaeenour, 2023; Nadi-Ravandi and Batooli, 2023) and healthcare (Balaei-Kahnamoei et al., 2022).

On a more general topic, Lei et al. (2023) investigated the research trends in accounting. They used a new dependency-based method focusing on noun phrases to analyze abstracts from six premier accounting journals published between 2000 to May 2019. They discovered 48 key research topics. Readers may also be interested in Chuang and Kuan’s (2022) study of collaboration patterns, research productivity patterns and publication patterns for management information systems research in Taiwan.

Song et al. (2023) studied the extent of the development of LIS research using Barnett aging model and suggested that the LIS field was aging slowly and reached a relatively mature stage. On the other hand, Wijewickrema (2023) also studied LIS and information
systems together as a research domain using Quartile 1 Journals from SCImago from 2010 to 2019 and data obtained from the Scopus database using VOSviewer data visualization tools. Readers may also be interested in other LIS-related bibliometric studies, such as the study by Nwankwo et al. (2022) on the relative deprivation and implicit bias in LIS research publications, the study by ong et al. (2021) on the current law of aging in LIS, the study by Ding et al. (2021a) on knowledge diffusion characteristics of LIS and notably, the study by Kim et al. (2021) and Zhang et al. (2023) on the scientific profile and knowledge diffusion of this journal.

5. Bibliometric analytics on environmental, social and governance (ESG)

The world has been more concerned about environmental, social and governance (ESG) issues in the past few years. Pu et al. (2023) investigated how knowledge economy and sharing are related to ESG issues through a bibliometrics-based visualization analysis. They discovered five clusters to map the evolution of the knowledge economy related to ESG.

Some research studies used governmental databases. For example, Soleimani et al. (2023) presented a framework for reusing research data in Iran through United Nations Development Program based on mixed-method research. On the other hand, Xiang et al. (2023) studied international innovation collaboration using data from the United States Patent and Trademark Office. They showed that international intellectual property treaties influenced global innovation.

Readers may also be interested in related bibliometrics studies on the psychological processing of contextual cues (Zhao et al., 2021), land use and carbon emissions (Liu and Li, 2021), the science research output of top Indian universities from 2015 to 2019 (Mahala and Singh, 2021) and the evolution and trends of local food research (Şahin and Yılmaz, 2022).

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References


