Guest editorial

#### 1

After more than three years, we start to see the end of the tunnel of the COVID-19 pandemic and are ready for reopening (Abbass *et al.*, 2022; Suh and Alhaery, 2022; Kumar *et al.*, 2021). Here, the guest editors and co-editors would like to wish all of our readers and authors good health and let us walk through the pandemic together. We continue to present part 3 of our special issue on the COVID-19 Pandemic and Health Informatics in this issue. In the past two parts (Huang *et al.*, 2021, 2022), we presented 28 papers; in this issue, we present the following 14 papers on three aspects of research.

**Guest editorial:** 

COVID-19 pandemic and

health informatics part 3

### Scientometrics and related studies on COVID-19

Through bibliometric analysis and related techniques, researchers can gain insight into a particular research area's trends and essential elements. Continuing from the efforts of previous special issues on this topic (Li et al., 2021; 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), Khazaneha et al. (2023) used the science mapping analysis approach and co-word analysis to explore and visualize research fields and the thematic evolution of the coronavirus. Yari Eili and Rezaeenour (2023) used process mining and other simulation techniques to study the effectiveness of COVID-19 prevention strategies on infection and mortality trends. Nadi-Ravandi and Batooli (2023) also analyzed research on libraries and COVID-19 using co-occurrence analysis to discover four clusters: roles of libraries and librarians, use of media and social media for library services, online library services and infodemic/misinformation. As for other recent bibliometric and literature reviews, we have recently arranged a special selection in our recent issue (Chiu and Ho, 2021).

#### COVID-19 impact on education institutions and academic libraries

Ubiquitous mobile Internet access has changed the reading and learning habits of the younger generation (Yu et al., 2022; Banshal et al., 2022; Chan et al., 2022; Ding et al., 2021; Pianzola et al., 2022; Ezeamuzie et al., 2022; Wang et al., 2016, 2022a) and facilitated anytime, anywhere learning activities (Chen and Chen, 2022; Yip et al., 2021; Zhang et al., 2021; Fan et al., 2020; Lau et al., 2020; Law et al., 2019), especially under the constraints of COVID-19 restrictions (Li et al., 2021; Sung and Chiu, 2022). While online learning has developed further to MOOCs (Cheng et al., 2022; Cheng, 2022; Wang et al., 2022b) for quite some time, online and virtual learning was not the major way until the pandemic. In this issue, Hsieh et al. (2023) studied nursing students' perceptions of adopting virtual learning and related educational technologies using regression analyses. They noted that virtual learning helped improve nursing students acquiring geriatric healthcare. Also, Chang et al. (2023) used a school's COVID-19 prevention website and two questionnaires (Perceptions of COVID-19 and the Information System Success Questionnaire) to study the opinion of university students from a southern Taiwan university on the website quality.

Following up on the research of Leung et al. (2022), Yu et al. (2023) studied the operations of academic libraries in Hong Kong during the COVID-19 pandemic. They discussed librarians' difficulties and challenges through data collected from semi-structured interviews, such as



Library Hi Tech Vol. 41 No. 1, 2023 pp. 1-6 © Emerald Publishing Limited 0737-8831 DOI 10.1108/LHT-02-2023-585 service quality concerns. They also provided suggestions to library management to handle the post-COVID-19 development. Concerning library management, similar arrangements occurred quite commonly, as reported in our previously published articles (Fasae *et al.*, 2021; Meng *et al.*, 2021). Readers may compare the results of their findings with those done before COVID-19 under similar contexts (Zhou *et al.*, 2021; Chan *et al.*, 2020), as well as the study on cultural library spaces by Noh (2021). Our recent issues also selected some articles on reading (Chiu and Ho, 2022a) and library management (Chiu and Ho, 2022b).

### COVID-19 impact on public services

The COVID-19 pandemic makes us develop, design and adjust many existing procedures and operations of public services to accommodate social distancing and related public health concerns. We have several papers discussing the difficulties and challenges these public services face. In this issue, Zhang et al. (2023) studied factors making Chinese citizens' dissatisfied with government services. They suggested government departments should be more patient with citizens, increase the speed of handling complaints and shorten the appeal processing time. Meng et al. (2023), on the other hand, studied the impact of the COVID-19 pandemic on the operations of public museums in Hong Kong through interviews developed based on the PEST (political, economic, social and technology) and AIDA (attention, interest, desire and action) models with museum staff and visitors. They discussed and highlighted the new practices of museums developed through digital transformation.

## COVID-19 impacts on the society

During the COVID-19 pandemic, people were asked to have home quarantine, take vaccination (Li et al., 2022; Mir et al., 2022; Thanh et al., 2022) and use contact-tracing apps (Ho et al., 2023; Nguyen et al., 2022; Rocha et al., 2021). This situation made people stressed and affected people's well-being (Avçin and Can, 2022). Ye and Ho (2023) studied the relationship between generalized trust and psychological well-being in college students in Japan before and during the pandemic. They showed the pandemic changed their communication behaviors. Nguyen et al. (2023) also studied contact-tracing apps in Vietnam and noted people's privacy concerns offset the perceived benefits of using such apps. On the other hand, the COVID-19 pandemic also increased people's stress and anxiety. For example, when most children were asked to stay home and study online, parents faced the stress of helping their kids study online (Wang et al., 2023).

When facing this uncertain period, people relied more on information available online and on social media to get the latest development of the pandemic. While people understand the importance of information quality at this critical juncture (Wu et al., 2022; Nguyen and Le, 2021; Hasan et al., 2021), much misinformation may be spread on the internet and traditional media (Naveed et al., 2021; Ho et al., 2022). Nabi et al. (2023) reported their finding from data collected in Bangladesh, which showed how to use social capital to establish trust between people and healthcare facilities through social media. Soroya and Faiola (2023) also studied the impact of information sources on the information-seeking behavior of the Pakistani Z generation and showed that they felt information from conventional media caused them information overload and information from social media and personal networks caused them information anxiety. Lastly, Yi and Chiu (2023) conducted a qualitative study to summarize public information needs in mainland China during the pandemic.

Readers may note many new information behavior patterns have become more common. For example, mainland Chinese may consider not just browsing and searching on platforms like Zhihu but also paying for knowledge there (Feng *et al.*, 2021, 2022). Also, telemedicine is getting more common to avoid further infections (Rahi, 2022). Readers may also be interested

in our recent special issue on "Data for better health" (Wu and Yu, 2020). We hope our readers Guest editorial enjoy our selection for this special issue and wish our community good health and safety.

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#### References

- Abbass, K., Niazi, A.A.K., Qazi, T.F., Basit, A. and Song, H. (2022), "The aftermath of COVID-19 pandemic period: barriers in implementation of social distancing at workplace", Library Hi Tech, Vol. 40 No. 2, pp. 569-585.
- Allen, R.M. (2021), "When peril responds to plague: predatory journal engagement with COVID-19", Library Hi Tech, Vol. 39 No. 3, pp. 746-760.
- Avcin, E. and Can, S. (2022), "The relationship between the stress experienced by parents and cyberchondria during the pandemic process", Library Hi Tech, Vol. 40 No. 2, pp. 548-568.
- Banshal, S.K., Verma, M.K. and Yuvaraj, M. (2022), "Quantifying global digital journalism research: a bibliometric landscape", Library Hi Tech, Vol. 40 No. 5, pp. 1337-1358.
- Chan, M.K.Y., Chiu, D.K.W. and Lam, E.T.H. (2020), "Effectiveness of overnight learning commons: a comparative study", The Journal of Academic Librarianship, Vol. 46 No. 7, 102253.
- Chan, V.H.Y., Chiu, D.K.W. and Ho, K.K.W. (2022), "Mediating effects on the relationship between perceived service quality and public library app loyalty during the COVID-19 era", Journal of Retailing and Consumer Services, Vol. 67, 102960.
- Chang, J.-H., Wang, C.-J., Zhong, H.-X., Chen, P.-W., Pan, A.-J. and Chiu, P.-S. (2023), "Implementation and evaluation of the school's COVID-19 prevention website", Library Hi Tech, Vol. 41 No. 1, pp. 71-90, doi: 10.1108/LHT-10-2021-0348.
- Chen, X. and Chen, R. (2022), "Examining the influence of the performance of mobile devices on teaching quality based on the technological acceptance mode", Library Hi Tech. doi: 10.1108/ LHT-12-2021-0489.
- Cheng, Y.-M. (2022), "Which quality determinants cause MOOCs continuance intention? A hybrid extending the expectation-confirmation model with learning engagement and information systems success", Library Hi Tech. doi: 10.1108/LHT-11-2021-0391.
- Cheng, J., Yuen, A.H.K. and Chiu, D.K.W. (2022), "Systematic review of MOOC research in mainland China", Library Hi Tech, in press, doi: 10.1108/LHT-02-2022-0099.
- Chiu, D.K.W. and Ho, K.K.W. (2021), "Editorial", Library Hi Tech, Vol. 39 No. 4, pp. 913-914.
- Chiu, D.K.W. and Ho, K.K.W. (2022a), "Editorial: special selection on contemporary digital culture and reading", Library Hi Tech, Vol. 40 No. 5, pp. 1204-1209.
- Chiu, D.K.W. and Ho, K.K.W. (2022b), "Editorial: 40th anniversary: contemporary library research", Library Hi Tech, Vol. 40 No. 6, pp. 1525-1531.
- Danesh, F., Dastani, M. and Ghorbani, M. (2021), "Retrospective and prospective approaches of coronavirus publications in the last half-century: a Latent Dirichlet allocation analysis", Library Hi Tech, Vol. 39 No. 3, pp. 855-872.

- Ding, S.J., Lam, E.T.H., Chiu, D.K.W., Lung, M.M.-w. and Ho, K.K.W. (2021), "Changes in reading behavior of periodicals on mobile devices: a comparative study", *Journal of Librarianship and Information Science*, Vol. 53 No. 2, pp. 233-244.
- Ezeamuzie, N.M., Rhim, A.H.R., Chiu, D.K.W. and Lung, M.M.-W. (2022), "Mobile technology usage by foreign domestic helpers: exploring gender differences", *Library Hi Tech*, in press, doi: 10.1108/ LHT-07-2022-0350.
- Fan, K.Y.K., Lo, P., Ho, K.K.W., So, S., Chiu, D.K.W. and Ko, K.H.T. (2020), "Exploring the mobile learning needs amongst performing arts students", *Information Discovery and Delivery*, Vol. 48 No. 2, pp. 103-112.
- Fasae, J.K., Adekoya, C.O. and Adegbilero-Iwari, I. (2021), "Academic libraries' response to the COVID-19 pandemic in Nigeria", Library Hi Tech, Vol. 39 No. 3, pp. 696-710.
- Feng, X., Sun, L., Liu, Y., Li, J. and Wu, Y. (2021), "Bibliometric analysis on OA articles of public health emergencies from multidimensional perspective", *Library Hi Tech*, Vol. 39 No. 3, pp. 722-745.
- Feng, X., Wang, X. and Zhang, Y. (2022), "Research on public emotional polarization and public opinion evolution of OTC and learning during the COVID-19 epidemic: taking the topic of OTC on Zhihu as an example", *Library Hi Tech*, Vol. 40 No. 2, pp. 286-303.
- Hasan, M.R., Deng, S., Sultana, N. and Hossain, M.Z. (2021), "The applicability of blockchain technology in healthcare contexts to contain COVID-19 challenges", *Library Hi Tech*, Vol. 39 No. 3, pp. 814-833.
- Ho, K.K.W., Chan, J.Y. and Chiu, D.K.W. (2022), "Fake news and misinformation during the Pandemic: what we know, and what we don't know", IEEE IT Professional, Vol. 24 No. 2, pp. 19-24.
- Ho, K.K.W., Chiu, D.K.W. and Sayama, K.L.C. (2023), "When privacy, distrust, and misinformation cause worry about using COVID-19 contact-tracing apps", *IEEE Internet Computing*, Vol. 27 No. 2, pp. 7-12, doi: 10.1109/MIC.2022.3225568.
- Hsieh, P.-L., Yang, S.-Y., Lin, W.-Y. and Huang, T.-C. (2023), "Facilitated virtual learning for advanced geriatric education among nursing students during the COVID pandemic in Taiwan", *Library Hi Tech*, Vol. 41 No. 1, pp. 59-70, doi: 10.1108/LHT-12-2021-0472.
- Huang, P.S., Paulino, Y.C., So, S., Chiu, D.K.W. and Ho, K.K.W. (2021), "Editorial", Library Hi Tech, Vol. 39 No. 3, pp. 693-695, doi: 10.1108/LHT-09-2021-324.
- Huang, P.-S., Paulino, Y.C., So, S., Chiu, D.K.W. and Ho, K.K.W. (2022), "Guest editorial: COVID-19 pandemic and health Informatics Part 2", Library Hi Tech, Vol. 40 No. 2, pp. 281-285, doi: 10.1108/LHT-04-2022-447.
- Khazaneha, M., Tajedini, O., Esmaeili, O., Abdi, M., Khasseh, A.A. and Sadatmoosavi, A. (2023), "Thematic evolution of coronavirus disease: a longitudinal co-word analysis", *Library Hi Tech*, Vol. 41 No. 1, pp. 7-24, doi: 10.1108/LHT-10-2021-0370.
- Kumar, G., Kumar, A., Khan, F.M. and Gupta, R. (2021), "Sprawl of the COVID-19 in changing scenario: a methodology based on social interaction", *Library Hi Tech*, Vol. 39 No. 3, pp. 903-911.
- Lau, K.S.N., Lo, P., Chiu, D.K.W., Ho, K.K.W., Jiang, T., Zhou, Q., Percy, P. and Allard, B. (2020), "Library, learning, and recreational experiences turned mobile: a comparative study between LIS and non-LIS students", *The Journal of Academic Librarianship*, Vol. 46 No. 2, 102103.
- Law, T.Y., Leung, F., Chiu, D.K.W., Lo, P., Lung, M.M.-W., Zhou, Q., Xu, Y., Lu, Y. and Ho, K.K.W. (2019), "Mobile learning usage of LIS students in mainland China", *International Journal of Systems and Service-Oriented Engineering*, Vol. 9 No. 2, pp. 12-34.
- Leung, T.N., Chiu, D.K.W., Ho, K.K.W. and Luk, C.K.L. (2022), "User perceptions, academic library usage and social capital: a correlation analysis under COVID-19 after library renovation", Library Hi Tech, Vol. 40 No. 2, pp. 304-322.
- Li, J., Sun, L., Feng, X., He, P. and Zhang, Y. (2021), "Social media communication of the scientific and technological literature in emergency under COVID-19", *Library Hi Tech*, Vol. 39 No. 3, pp. 796-813.

- Li, K., Li, Y. and Zhang, P. (2022), "Selective exposure to COVID-19 vaccination information: the influence of prior attitude, perceived threat level and information limit", *Library Hi Tech*, Vol. 40 No. 2, pp. 323-339.
- Loan, F.A. and Shah, U.Y. (2022), "Mapping coronavirus research: quantitative and visualization approaches", Library Hi Tech, Vol. 40 No. 2, pp. 437-453.
- Meng, Y., Dong, L., Guan, R. and Zhang, Y. (2021), "An analysis of university students' health information service needs from academic library in the post-COVID-19 age through Kano model", *Library Hi Tech*, Vol. 39 No. 3, pp. 711-721.
- Meng, Y., Chu, M.Y. and Chiu, D.K.W. (2023), "The impact of COVID-19 on museums in the digital era: practices and challenges in Hong Kong", *Library Hi Tech*, Vol. 41 No. 1, pp. 130-151, doi: 10.1108/LHT-05-2022-0273.
- Mir, A.A., Rathinam, S. and Gul, S. (2022), "Public perception of COVID-19 vaccines from the digital footprints left on Twitter: analyzing positive, neutral and negative sentiments of Twitterati", *Library Hi Tech*, Vol. 40 No. 2, pp. 340-356.
- Nabi, M.N.U., Zohora, F.T. and Misbauddin, S.M. (2023), "Social media links with social capital to trust in healthcare facilities: empirical evidence from Bangladesh", *Library Hi Tech*, Vol. 41 No. 1, pp. 210-228, doi: 10.1108/LHT-09-2022-0443.
- Nadi-Ravandi, S. and Batooli, Z. (2023), "Libraries respond to the COVID-19 pandemic: drawing a science map of published articles", *Library Hi Tech*, Vol. 41 No. 1, pp. 42-58, doi: 10.1108/LHT-04-2022-0209.
- Naveed, M.A., Malik, A. and Mahmood, K. (2021), "Impact of conspiracy beliefs on Covid-19 fear and health protective behavior: a case of university students", *Library Hi Tech*, Vol. 39 No. 3, pp. 761-775.
- Nguyen, T.H. and Le, X.C. (2021), "How social media fosters the elders' COVID-19 preventive behaviors: perspectives of information value and perceived threat", *Library Hi Tech*, Vol. 39 No. 3, pp. 776-795.
- Nguyen, T.T., Nguyen, T.C.A.H. and Tran, C.D. (2022), "Exploring individuals' adoption of COVID-19 contact-tracing apps: a mixed-methods approach", *Library Hi Tech*, Vol. 40 No. 2, pp. 376-393.
- Nguyen, T.T., Tran Hoang, M.T. and Phung, M.T. (2023), "To our health! Perceived benefits offset privacy concerns in using national contact-tracing apps", *Library Hi Tech*, Vol. 41 No. 1, pp. 174-191, doi: 10.1108/LHT-12-2021-0461.
- Noh, Y. (2021), "The analytic study of librarian-user and importance-satisfaction on the use factor of complex cultural space in library", *Library Hi Tech*, Vol. 40 No. 6, pp. 1532-1566, doi: 10.1108/ LHT-06-2020-0135.
- Pianzola, F., Toccu, M. and Viviani, M. (2022), "Readers' engagement through digital social reading on Twitter: the TwLetteratura case study", *Library Hi Tech*, Vol. 40 No. 5, pp. 1305-1321.
- Rahi, S. (2022), "Assessing individual behavior towards adoption of telemedicine application during COVID-19 Pandemic: evidence from emerging market", *Library Hi Tech*, Vol. 40 No. 2, pp. 394-420.
- Riahinia, N., Danesh, F. and GhaviDel, S. (2022), "Synergistic networks of COVID-19's top papers", Library Hi Tech, Vol. 40 No. 2, pp. 454-494.
- Rocha, G.C., Paiva, H.M., Sanches, D.G., Fiks, D., Castro, R.M. and Silva, L.F.A.E. (2021), "Information system for epidemic control: a computational solution addressing successful experiences and main challenges", *Library Hi Tech*, Vol. 39 No. 3, pp. 834-854.
- Saab, S., Al Abbas, M., Samaha, R.N., Jaafar, R., Saab, K.K. and Saab, S.S. Jr (2021), "Setting the boundaries of COVID-19 lockdown relaxation measures", *Library Hi Tech*, Vol. 39 No. 3, pp. 873-887.
- Shueb, S., Gul, S., Nisa, N.T., Shabir, T., Ur Rehman, S. and Hussain, A. (2022), "Measuring the funding landscape of COVID-19 research", *Library Hi Tech*, Vol. 40 No. 2, pp. 421-436.
- Soroya, S.H. and Faiola, A. (2023), "Why did people avoid information during the COVID-19 pandemic? Understanding information sources' dynamics among Pakistani Z generation", Library Hi Tech, Vol. 41 No. 1, pp. 229-247, doi: 10.1108/LHT-02-2022-0113.

- Suh, E. and Alhaery, M. (2022), "Measuring reopening readiness: a universal COVID-19 index for US states", *Library Hi Tech*, Vol. 40 No. 2, pp. 535-547.
- Sung, Y.Y.C. and Chiu, D.K.W. (2022), "E-book or print book: parents' current view in Hong Kong", Library Hi Tech, Vol. 40 No. 5, pp. 1289-1304, doi: 10.1108/LHT-09-2020-0230.
- Thanh, P.T., Nguyen, H.T.H., Ngan, L.T.B., Nguyen, D.M.D., Phan, G.H. and Nguyen, T.M.N. (2022), "No one left behind: risk communication to the street vendors during COVID-19 social distancing", *Library Hi Tech*, Vol. 40 No. 2, pp. 357-375.
- Wang, P., Chiu, D.K.W., Ho, K.K.W. and Lo, P. (2016), "Why read it on your mobile device? Change in reading habit of electronic magazines for university students", *The Journal of Academic Librarianship*, Vol. 42 No. 6, pp. 664-669.
- Wang, J., Zareapoor, M., Chen, Y.-C., Shamsolmoali, P. and Xie, J. (2022a), "What influences news learning and sharing on mobile platforms? An analysis of multi-level informational factors", *Library Hi Tech*, Vol. ahead-of-print No. ahead-of-print, doi: 10.1108/LHT-11-2021-0408.
- Wang, W., Zhao, Y., Wu, Y.J. and Goh, M. (2022b), "Factors of dropout from MOOCs: a bibliometric review", *Library Hi Tech*, ahead-of-print, doi: 10.1108/LHT-06-2022-0306.
- Wang, C., Li, S. and Su, Y.-S. (2023), "Impact of academic stress by parent-proxy on parents' learning-support-services: a moderated-mediation model of health anxiety by parents' educational level", Library Hi Tech, Vol. 41 No. 1, pp. 192-209, doi: 10.1108/LHT-07-2022-0329.
- Wu, D. and Yu, F. (2020), "Guest editorial", Library Hi Tech, Vol. 38 No. 4, pp. 701-703.
- Wu, D., Xu, H., Yongyi, W. and Zhu, H. (2022), "Quality of government health data in COVID-19: definition and testing of an open government health data quality evaluation framework", *Library Hi Tech*, Vol. 40 No. 2, pp. 516-534.
- Yari Eili, M. and Rezaeenour, J. (2023), "An approach based on process mining to assess the quarantine strategies' effect in reducing the COVID-19 spread", *Library Hi Tech*, Vol. 41 No. 1, pp. 25-41, doi: 10.1108/LHT-01-2022-0062.
- Ye, S. and Ho, K.K.W. (2023), "College students' Twitter usage and psychological well-being from the perspective of generalised trust: comparing changes before and during the COVID-19 pandemic", *Library Hi Tech*, Vol. 41 No. 1, pp. 152-173, doi: 10.1108/LHT-06-2021-0178.
- Yi, Y. and Chiu, D.K.W. (2023), "Public information needs during the COVID-19 outbreak: a qualitative study in mainland China", Library Hi Tech, Vol. 41 No. 1, pp. 248-274, doi: 10.1108/LHT-08-2022-0398.
- Yip, K.H.T., Chiu, D.K.W., Ho, K.K.W. and Lo, P. (2021), "Adoption of mobile library apps as learning tools in higher education: a tale between Hong Kong and Japan", Online Information Review, Vol. 45 No. 2, pp. 389-405.
- Yu, H.Y., Tsoi, Y.Y., Rhim, A.H.R., Chiu, D.K.W. and Lung, M.M.-W. (2022), "Changes in habits of electronic news usage on mobile devices in university students: a comparative survey", *Library Hi Tech*, Vol. 40 No. 5, pp. 1322-1336, doi: 10.1108/LHT-03-2021-0085.
- Yu, P.Y., Lam, E.T.H. and Chiu, D.K.W. (2023), "Operation management of academic libraries in Hong Kong under COVID-19", Library Hi Tech, Vol. 41 No. 1, pp. 108-129, doi: 10.1108/LHT-10-2021-0342.
- Zhang, X., Lo, P., So, S., Chiu, D.K.W., Leung, T.N., Ho, K.K.W. and Stark, A. (2021), "Medical students' attitudes and perceptions towards the effectiveness of mobile learning: a comparative information-need perspective", *Journal of Librarianship and Information Science*, Vol. 53 No. 1, pp. 116-129.
- Zhang, Z., Li, A., Xu, Y., Liang, Y., Jin, X. and Wu, S. (2023), "Understanding citizens' satisfaction with the government response during the COVID-19 pandemic in China: comprehensive analysis of the government hotline", *Library Hi Tech*, Vol. 41 No. 1, pp. 91-107, doi: 10.1108/LHT-12-2021-0497.
- Zhou, J., Lam, E., Au, C.H., Lo, P. and Chiu, D.K.W. (2021), "Library café or elsewhere: usage of study space by different majors under contemporary technological environment", *Library Hi Tech*. doi: 10.1108/LHT-03-2021-0103.
- Zhu, H. and Lei, L. (2022), "A dependency-based machine learning approach to the identification of research topics: a case in COVID-19 studies", Library Hi Tech, Vol. 40 No. 2, pp. 495-515.