Guest Editorial:
Special Issue on "Digital Library Education and Digital Literacy from a Post COVID-19 Perspective"

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Recent advances in computer technologies have made digital literacy a powerful tool for contemporary modern education, especially from the post-COVID-19 perspective. In response to the global pandemic scenario, educational institutions worldwide have temporarily closed with no time durations. This national wide closure of the educational institutions has adversely impacted millions of learners around the world. As a result, there is an unprecedented transition towards distance learning paradigms. In this context, digital libraries and digital literacy have an obvious role to play in traditional learning paradigms by offering teachers and learners a knowledge base in various forms of media. During the time of pandemics, digital libraries greatly support young learners and students in difficulty with actual training and academic knowledge they need from a remote location. Support (Certified academic institutions), digital equipment (laptop, desktop, mobile phones, etc.), and the digital content (a digital platform to support teaching and learning process) are the three major components that form the key source of a digital library. Thus, it promotes e-learning by providing knowledge access to individuals everywhere.

This special issue gives an outline on the challenges Faced by students during the COVID-19 pandemic and its devasting effects on learning outcomes. Likewise, this issue acts as a platform in bringing about researchers working in education sector to for effectively efficiently develop tools and techniques to compensate the learning loss occurred during COVID-19 pandemic. In this special issue Digital library is used as a tool in enabling opportunity for users to acquire knowledge through digital information. This in turn has enhanced intellectual accomplishments of the universities and restructured the global higher-education practices with enhanced knowledge and learning. This special section includes a series of around 5 articles, and all these were selected after process of careful reviewing.

The first article named as, "Application of TBL Teaching Improvement with a Digital Tool in Undergraduate Management Courses" the author discusses about the Team based Learning (TBL) teaching method for strategic management course to improve the intrinsic motivation of the learning. Also, he has designed a simulated entrepreneurship project by using digital teaching tools to create simulated application environment relating curriculum. The results show that adoption has greatly increased students' inherent learning engagement and classroom involvement attendance.

The next article titled as, "Application of Multimedia Technology in Middle School Education Management" the author has focused on efficient application of multimedia technology in middle school education. In this paper he has made a questionnaire survey to understand some students' understanding and views on the application of multimedia technology in middle school education management. He also provides an in-depth analysis of the current problems in the use of multimedia technology in teaching, and proposes a problem-based solution. The results of the survey shows that application of multimedia technology in middle school education management is very effective, and the classroom quality has been effectively improved, which has important reference significance for the development of middle school education management.

In the following article, "Research on Artificial Intelligence Technology of Virtual Reality Teaching Method in Digital Media Art Creation" the researcher discusses about the popularity of virtual reality technology that has gradually expanded from the computer field to all aspects of life. He also has analysed the characteristics of virtual reality technology and the three commonly used methods like Artificial intelligence-based image recognition technology, artificial intelligence-based speech recognition technology, artificial intelligence-based natural language processing technology and traditional teaching methods. The results shows that the effectiveness was much higher than traditional methods, regardless of which virtual reality technology was used.

The subsequent paper named as, "Recommendation Algorithm for Equilibrium of Teaching Resources in Physical Education Network Based on Trust Relationship" the investigator aims at solving the problems of poor balance of traditional physical education network teaching resources. In this paper he proposes a balanced recommendation algorithm for physical education network based on trust relationship. By inducing SVM algorithm, the teaching resources of physical education network are classified. Through Kalman filtering method, the data of sports network teaching resources with noise are reduced, and then the data with high similarity are fused to complete the reprocessing of physical education network teaching resources data. The results show that by constructing trust relationship model, the relationship attribute of physical education network teaching resources is determined showing high level of resource balance and trust recommendations.

In the next article titled as, "Application of Artificial Intelligence Software based on Semantic Web Technology in English Learning and Teaching" the combines semantic Web technology and artificial intelligence technology to construct an English teaching system that can be used for students' autonomous learning and teachers' intelligent teaching. Moreover, he comprehensively analyses the relationship between the various indicators based on the evaluation of multiple pronunciation quality indicators such as intonation, speaking speed, rhythm and intonation. In addition, he

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focuses on considering the weight of each indicator in the overall pronunciation quality evaluation, and establishes a multi-parameter English pronunciation quality evaluation model and method for college students. Finally, experimental results shows that the system constructed in this paper meets the needs of English teaching and autonomous learning.

The issue objective is to promote the digital library and digital literacy among the students using internet and communication technologies. Further, the work done by the authors in this special issue is genuine and also the response received from the scientific community is significant. It is hoped that this special issue will positively provide a direction for students by improving their ability to use information and communication technologies to inculcate their knowledge and wisdom. Also, to facilitate further research on digital library education and digital literacy, this special issue welcomes interdisciplinary researchers to present novel and innovative solutions that fall into the scope of this special issue. Further all the articles that are approved for publication have undergone a keen examination and review process to meet the standards of the journal.

We would like to thank all the authors for the exemplary hard work they have done while writing these articles and effort they have made to modify them based on reviewer's comments. Finally, we thank the Editor-in-Chief's guidance and support for offering us the privilege to edit this special issue in this reputed journal.

Guest Editors

Carlos Enrique Montenegro Marin received the Diploma of Advanced Studies degree from the Pontifical University of Salamanca, in 2008, the M.Sc. degree in Information and Communication Systems from the Universidad Distrital Francisco José de Caldas, and the Ph.D. degree in Systems and Computer Services for the Internet from the University of Oviedo, Asturias, Spain, in 2012. He was classified with the highest recognition of research by Colciencias in 2017 (Senior Researcher). He is the director of the GIIRA research group of the University District, a group that also received the highest recognition by Colciencias. He is currently a Systems Engineer. His skills and expertise are in the areas of Java Programming, Cloud Computing, Web Development, Object-Oriented Programming, Grid Computing, LMS, Virtualization, Software Engineering, and Linux Administration.

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Nallappan Gunasekaran received his Ph.D. degree in mathematics from Thiruvalluvar University, Vellore, India, in 2017. He completed his B.Sc. degree from the Mahendra Arts and Science College, Namakkal, Affiliated to Periyar University, Salem, India, in 2009, the master's degree in mathematics from the Jamal Mohamed College, Affiliated to Bharathidasan University, Trichy, India, in 2012, and the Master of Philosophy degree in mathematics (cryptography) from Bharathidasan University, in 2013. He was a Junior Research Fellow with the Department of Science and Technology-Science and Engineering Research Board (DST-SERB), Government of India, New Delhi, India. His research interests include complex-valued neural networks, complex dynamical networks, control theory, stability analysis, sampled-data control, multiagent systems, T-S fuzzy theory, cryptography, and so on. He serves as a Reviewer for various SCI journals.