

Guest Editorial Preface

Editorial

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Biographical notes: Srikanta Patnaik is a Professor in the Department of Computer Science and Engineering, SOA University, Bhubaneswar, India. He has received his Ph. D. (Engineering) on Computational Intelligence from Jadavpur University, India in 1999 and supervised 22 Ph. D. theses and more than 50 M. Tech theses in the area of Machine Intelligence, Soft Computing Applications and Re-Engineering. Dr. Patnaik has published more than 60 research papers in international journals and conference proceedings. He is author of 2 text books and edited 55 books and few invited book chapters, published by leading international publisher like Springer-Verlag, Kluwer Academic, etc.. He is the Editors-in-Chief of International Journal of Information and Communication Technology and International Journal of Computational Vision and Robotics published from Inderscience Publishing House, England and also Editors-in-chief of Book Series on “Modeling and Optimization in Science and Technology” published from Springer, Germany.

Prof. Xilong Qu is the Dean of School of Information Technology and Management, Hunan University of Finance and Economics, he is also the master degree student advisor for both Xiangtan University and Hunan Institute of Engineering. He received his Ph.D on Southwest Jiaotong University, he finished his post-doctor study in Post-doctoral Research Center of Computer Science and Technology, South China University of Technology. He has undertaken 4 projects from various funding agencies such as National High Technology Research and Development Program of China (863 Program), National Natural Science Foundation of China, National Natural Science Foundation of Hunan, and Research Foundation of Education Bureau of Hunan Province, China and the National Science Foundation for Post-doctoral Scientists of China. Prof. Qu published 4 books 35 articles.

Dr. Lam began her career in Hong Kong with marketing and public relations roles from the Far East Group of Companies and the Palm Island Resort (China) before setting up her own public relations firm handling integrated marketing for clients. In 2003, she was approached by the Cogitoimage Group to become a partner, managing the firm’s Hong Kong and China “Space Branding” business. After graduated from her doctoral degree in 2013, she puts her research into practice and set up Hong Kong Sustainable Society - a non-profit organization dedicated to engage positive thinking to promote sustainable development in Hong Kong. Dr. Lam currently appoints as Professor of Practice at the Hong Kong Polytechnic University.

Dr. Noman M. Sohail has completed a Doctoral (Ph.D.) Research in June 2020; specialize in Information science and Technology at Yanshan University, China; with the research focus in data mining, healthcare, bioinformatics, technology management, optimization, and knowledge discovery process (KDD) in supervision of Prof. Ren Jiadong. He received his B.Sc. with Hons (2012) and M.Sc. (2014) from the University of East London, UK, in collaboration with the Malaysia campus, both in Computer Sciences and Technology Management. In addition, Noman Sohail’s experience appears to be focused on Information Technology, with exposure to Data mining, Healthcare, and Market

Research. His work experience includes with several years of tenure in management and academics including a high-level position. Further, his research work carefully examines good research practices for the prediction, development, implementation, analysis, and evaluation of preference methods by utilizing machine learning and statistical approaches to ensure achieving high-quality standard results. He has published several research articles in international conferences and peer-reviewed Journals, with a high impact factor rate. His publication and results in these topics have been widely cited and applied by researchers and industries. In addition, some of his findings have been selected as the best in international conferences. His work has been cited various times at Google scholar and achieved the good H-index. Moreover, by utilizing both his research expertise and experience as a peer reviewer at highly peer-reviewed journals, he is well prepared to serve the Associate Editor positions with leading scientific journals and organizations.

Online learning is the emerging technique in education and learning during the COVID-19 pandemic period. The COVID-19 pandemic has led to radical changes in education systems worldwide, and the current pandemic has probably revealed the biggest education crisis in human history. This situation challenged the education system across the world and forced educators to shift to an online mode of teaching overnight. Many academic institutions that were earlier reluctant to change their traditional pedagogical approach had no option but to shift entirely to online teaching-learning. But the COVID-19 pandemic also offered significant opportunities to redesign education and to develop and implement effective teaching-learning strategies. In this case, Online learning as a substitute of in-person instruction become an irresistible trend in the post-epidemic situation.

Taking up the virtual learning through an electronic medium is termed as online learning. With online learning, learning process can happen anywhere and anytime flexibly. The use of advanced technology also provides a means to analyse the behavioural learning pattern. Advanced online learning system using artificial intelligence is an emerging concept in the coming years. In this new concept, the classes are not taken face-to-face in a classroom but through an electronic medium as a substitute. These virtual learning approach are gaining importance every day and very soon they are going to be an integral part of our world.

Besides, Learning is shifting from teacher centered to learner centered and is undertaken anywhere from classrooms to home, offices and work place . Due to modernization, digitalization, globalization, we are introducing new-new technologies where we share and transfer our knowledge to each other. Information Technology (I.T) revolution, traditional classrooms education or training does not fulfill all the needs of the digital world of lifelong learning. Online learning is urgently needed to keep up with the development of the world of education which is supported by information technology that leads to the digital era both process and content in the era of the industrial revolution 4.0.

The purpose of this special issue aims at providing venue for researchers from various disciplines to bring insights together on the development of remote teaching and learning through smart technology, especially in the context of the COVID-19 global pandemic, and the accelerated transition to online learning. It is important to research and apply successful online teaching techniques from other fields, particularly those that heavily require a practical component.

This special issue covers nine (9) articles encompassing a wide range of works done in different domain pertaining to the applications of online learning in Post-Pandemic situation. The topics cover the Construction of Multi-dimensional Evaluation System of English Online Learning Teaching Quality Based on Blended Learning, Analysis and Satisfaction Evaluation of Online Learning Based on Artificial Intelligence, Analysis of the Importance and Influence of Students' Mental Health Based on Neural Network, Construction and Analysis of Evaluation Index System of College Students' Online Learning Based on Analytic Hierarchy Process, Teaching effect analysis and behavior detection of online dance learning platform in the context of COVID-19, Research on the Relationship between College Students' Mental Health and Employment Based on Data Mining, Application of Artificial Intelligence in Academic Mental Health and Employment Evaluation, Mobile Learning Strategy

based on Principal Component Analysis, Cross-cultural Educational Disparities between China and North America based on Science and Technology Revolutions.

The first article, “Construction of Multi-dimensional Evaluation System of English Online Learning Teaching Quality Based on Blended Learning” by Lina Wang and Lei Shi, studies Blended online English learning. In the future, the blended learning approach allows students to learn English knowledge without the constraints of time, place and teacher subjects in traditional classroom teaching. This article prove that students learn in this mode and also very high progress in English through comparing online exams, classroom assignments, and online answering tasks. The result shows that the performance of the online learning teaching model is still the highest among the three models.

The second article in this issue, “Analysis and Satisfaction Evaluation of Online Learning Based on Artificial Intelligence”, by Huang Li, studies the quality and satisfaction of online learning. Based on the algorithm comparison, this paper selects the rough set algorithm with the highest accuracy rate, the highest recall rate and the lowest error rate, constructs an online learning quality index system, and conducts quality evaluation and satisfaction analysis for online learning based on artificial intelligence. In this paper, rough set algorithm is used to build an online learning quality evaluation index system, and online learning quality and satisfaction are evaluated and analyzed based on artificial intelligence. The results show that the accuracy of rough set algorithm is the highest, and the recall rate of rough set algorithm is the highest in different data sets, showing an overall upward trend, the highest recall rate is 93.58%.

Then the next article, “Analysis of the Importance and Influence of Students’ Mental Health Based on Neural Network”, by Pinni Liu., this paper use neural network convolution layer structure into the importance of students’ mental health and influencing factors. This paper analyzes the influence of different students’ mental health by using neural network technology, analyzes the relatively serious mental health problems of students, and analyzes the only factors of these problems. And the result shows that under the support of data, neural network back-and-forth propagation algorithm is beneficial to the healthy development of contemporary students, so college students should pay attention to mental health, learn self-regulation and strengthen interpersonal relationship.

The fourth article in this issue, “Construction and Analysis of Evaluation Index System of College Students’ Online Learning Based on Analytic Hierarchy Process”, by Lingang Cheng., analyzes the situation and methods of online learning. Analytic hierarchy process (AHP) is used to analyze the online learning model, and the education system is constructed by using relevant evaluation indexes, so as to improve the efficiency of students’ online learning. AHP is incorporated into the analysis of teaching evaluation indicators of knowledge status, ability, style and other characteristics, which is applied to efficient educational guidance and reflects the personalized development of online learning in the future.

The fifth article, “Teaching effect analysis and behavior detection of online dance learning platform in the context of COVID-19” by Guangle Yin and Lu Wang, analyzes the advantages, existing problems and solutions of online dance teaching, and designs an online dance learning platform quality assessment. The experimental results also show that in the context of the new crown epidemic, the use of online learning platforms can not only stimulate students’ interest in learning, but also improve the quality of teaching.

The sixth article in this issue, “Research on the Relationship between College Students’ Mental Health and Employment Based on Data Mining”, by Bin Liu, uses the association rule Apriori algorithm to construct a correlation analysis model of university students’ psychology health and employment based on data mining, in order to better grasp the employment psychology of university students, conduct specific analysis, and make reasonable efforts for the employment psychological problems they show.

The seventh article, “Application of Artificial Intelligence in Academic Mental Health and Employment Evaluation” by Xi Zhang, uses artificial intelligence to design a system based on B/S structure, which is used to test and consult students’ mental health online. In the course of the study, we found that employment is related to many factors, and the academic level discussed in the paper is one of the more important factors in the employment situation.

The eighth article in this issue, “Mobile Learning Strategy based on Principal Component Analysis”, by Qiongjie Kou, Quanyou Zhang et al., using mobile learning strategy in the teaching process to promote students’ independent learning, establish learning interest, and improve independent thinking ability and innovation ability. The article propose the teaching mode of “ONE HEART, TWO SIDES AND SIX LINKS (OHTSSL)” based on mobile learning strategy. Compare and discuss the original teaching strategies, our proposed OHTSSL teaching mode is effective and the teaching feedback is quickly. Thus, OHTSSL teaching mode based on mobile learning strategy promote the cultivation of students’ innovative ability.

The ninth article, “Cross-cultural Educational Disparities between China and North America based on Science and Technology Revolutions” by Bin Hu, Ifrah Malik and Muhammad Irshad et al., use push-pull hypothesis to examine the relationship between perceptions and actions related to higher education and migration. The flow of Chinese and Canadian students to and from the world’s most developed countries is influenced by a variety of factors. Using data analysis, the factors that have led to an increase in students studying abroad are examined.

I am sure the reader shall gain immense knowledge from these papers.

Guest Editors

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APPENDIX

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