Guest Editorial Preface

Special Issue on Impact of COVID-19:
The Disrupted Teaching Learning Process and Its Web-Based Solutions

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INSIDE THE ISSUE

Article 1: Online Learning System in Higher Education Institutions in Pakistan – Investigating Problems Faced by Students During COVID-19 Pandemic

The research paper explores deeply the problems faced by students in the current online education system introduced by various universities. A survey research method was employed and the data were collected through convenience sampling. The link of the semi-structured questionnaire was shared with 550 students enrolled in public and private universities in Lahore, Pakistan. The study brought to light the diversified problems such as lack of internet facility, load shedding, financial issues, ear pain due to prolong use of hand free/Bluetooth and unreliable results in assessments.

Article 2: Enhanced SCADA IDS Security by Using MSOM Hybrid Unsupervised Algorithm

Self-Organizing Maps (SOM) are unsupervised neural networks that cluster high dimensional data and transform complex inputs into easily understandable inputs. To find the closest distance and weight factor, it maps high dimensional input space to low dimensional input space. The Closest node to data point is denoted as a neuron. It classifies the input data based on these neurons. The proposed Mutated Self Organizing Maps (MSOM) approach has two intentions. One is to eliminate the learning rate and to decrease the neighborhood size and the next one is to find out the outliers in the network. The first one is by calculating the median distance (MD) between each node with its neighbor nodes. Then those median values are compared with one another. In case, if any of the MD values significantly varies from the rest then it is declared as anomaly nodes. In the second phase, we find out the quantization error (QE) in each instance from the cluster center.

Article 3: An Evaluation of E-Learning and User Satisfaction

E-learning controlling quality is ready to demonstrate the achievement of the conveyance and plan of the framework by understanding the user satisfaction. Besides, the qualification between learning substance and site content should be parallel whereby both will impact one another and influence user satisfaction 't' and fulfillment. After the examination has closed, concern emerges on how the elements of e-learning in service, system and information quality influence the nature of e-learning framework in keeping fit. Besides, realizing that client is a mainstay of e-learning framework, this

exploration expected to see if the user fulfillment has any impact on e-learning framework quality. Framework plan, framework conveyance and framework result been utilized as a stage for estimating the accomplishment of e-learning framework.

Article 4: Adoption of E-Learning During the COVID-19 Pandemic – The Moderating Role of Age and Gender

The outbreak of the novel coronavirus disease (COVID-19) has resulted in the complete disruption of the learning ecosystem across the world. Thus, with the significant surge in the usage of e-learning mechanism, the researchers even tend to predict the continued usage of the digital learning platforms post pandemic due to its accelerated usage and adoption by the learners and teachers as well across the age and gender. Therefore, the present research seeks to study the factors influencing e-learning adoption by the students in the context of the pandemic. Further, it would examine the moderating influence of age and gender for the adoption of e-learning using the UTAUT model with extended constructs like computer anxiety, attitude, and technology anxiety.

Article 5: A Teaching Suggestion in the COVID-19 Disease Pandemic Period – The Educational Website Enriched by Web 2.0 Tools

The effect of the COVID-19 pandemic shows that schools must adapt new approaches in order to continue to provide teaching and learning at schools. To achieve this, students must be equipped to learn in a multifaceted, multitasking, and technology-driven world, and the utilization of web 2.0 tools has been revealed as important in this endeavor. The aim of this study is to introduce an educational website enriched with web 2.0 tools designed for science teaching and in addition, to show the effect on achievement and motivation. Therefore, the effect of an educational website supported by Web 2.0 tools on achievement and motivation was investigated in a quasi-experimental design with a pretest-posttest control group. The unit of "Force and Energy" was presented through an educational website enriched by Web 2.0 tools. The positive effects of using the website on the achievement and motivation of the students in the results brought to mind the use of an educational website supported by web 2.0 tools as an alternative or support to online training during the COVID 19 pandemic.

CONCLUSION

The issue delivers promising solutions to the web-based teaching learning process in this continuing pandemic. The authors form different geographical regions were contributed their research ideas for this issue.

As a Guest Editors, we would like to convey our thanks to all the authors submitted the quality papers for this special issue. We would like to convey our special thanks to the IGI Global Publishers for their kind support and great efforts in bringing the special issue to execution. In addition, we would like to thank all the reviewers for spending their valuable time in reviewing and suggesting good points for improving the quality of the paper in various aspects.

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