
Editorial

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Biographical notes: Lorna Uden is a Professor Emeritus of IT Systems in the Faculty of Computing, Engineering and Technology at the Staffordshire University. Her research interests include technology learning, HCI, activity theory, big data, knowledge management, web engineering, multimedia, artificial intelligence, e-business, service science and innovation, mobile computing, cloud computing, neuroscience, social media, intelligent transport systems, internet of things and problem-based learning.

Iraklis Varlamis is a Professor of Data Management in the Department of Informatics and Telematics at Harokopio University of Athens, Greece. He holds a PhD from Athens University of Economics and Business, Greece, and an MSc in Information Systems Engineering from UMIST UK. His research interests vary from data mining and the use of semantics in web mining to social network analytics and knowledge extraction from social media and the news. He collaborates with several start-ups, companies, and government bodies as a technology mentor. He is the scientific coordinator in several H2020 and Erasmus+ projects.

Welcome to V19N4 issue of *IJWET*. This issue consists of five papers.

The first article, authored by Yu Tang and Xiaoli Zeng, titled ‘Research on vocal music online educational platform based on internet platform’, explores innovative methods for enhancing online vocal music education by leveraging advanced algorithms. Their study integrates the conditional response priority (CRP) algorithm and adaptive fuzzy control to construct an efficient and stable online educational platform. By utilising CRP for network resource scheduling and adaptive fuzzy control to improve computational stability, the platform demonstrates significant performance advantages. Experimental results highlight its ability to accommodate multiple concurrent users with high operational performance, outperforming other algorithms. Additionally, students using this platform achieve excellent scores in vocal music assessments, showcasing its

efficacy in promoting online art education and teaching reform. This research not only addresses resource scheduling challenges in online vocal music education but also provides a robust framework for advancing digital art education methodologies.

The second article, 'Practice of college music intangible cultural heritage based on clustering improved distance beat tracking algorithm', by Xiaolei Liu, addresses the critical challenges faced in preserving and promoting intangible cultural heritage in music, particularly within educational settings. As globalisation threatens local art forms, the study emphasises the need to innovate music teaching methods by incorporating traditional music heritage into university curricula. Utilising advanced signal processing techniques, the research develops a novel beat tracking model that employs pulse coding modulation and maximum and minimum distance clustering to effectively analyse musical beats and features in both time and frequency domains. Experimental results demonstrate the model's high accuracy, which highlights its potential to protect and promote intangible music cultural heritage music classes, offering new methodologies for the preservation of cultural heritage while enhancing teaching practices. By facilitating the extraction and organisation of intangible cultural heritage music, this research contributes significantly to the innovation of music education and the safeguarding of cultural identity through musical traditions.

The third article, titled 'A cluster-based approach for distributed anonymisation of vertically partitioned data', authored by Antonios Xenakis, Zhiyuan Chen and George Karabatis, tackles the challenges of data privacy in modern organisations where sensitive information is often distributed across multiple sites. In contrast to the traditional solutions, which transfer data to a centralised server and pose significant risks to privacy and security, the current work introduces two innovative techniques for distributed anonymisation: coordinated distributed anonymisation (CDA) and top-down distributed anonymisation (TDA). Both methods ensure data anonymisation occurs at each site in a coordinated manner, reducing computational overhead by performing anonymisation only once before sending the data to a centralised server for analysis. CDA focuses on preserving original data patterns, while TDA optimises communication efficiency with provable differential privacy protection. The experimental results demonstrate that these techniques effectively safeguard privacy with minimal utility loss and low computational costs, providing practical solutions for organisations managing sensitive data across various locations, such as healthcare and e-commerce sectors. The findings underscore the importance of adopting robust anonymisation strategies in distributed environments, facilitating better data management and decision-making while adhering to privacy regulations.

The fourth article, authored by Zhihao Gao, Ming Zhu, Jing Li and Rui Lu, titled 'Using the SCRM method to repair a damaged planning graph for service composition', explores the necessity for dynamic adaptation in service composition amid changing network environments. The authors introduce the service composition repair method (SCRM), which innovatively repairs a planning graph by starting from the last layer and identifying missing services while separating certain non-influential parameters to enhance the graph's integrity. Experimental results demonstrate that SCRM achieves an average 5.05% higher success rate in finding solutions compared to existing repair methods, highlighting its practical implications for software development and service integration. This work represents a significant advancement in addressing the challenges of service composition, offering a robust solution relevant to contemporary software engineering practices.

The last article, authored by Bash Savage-Mansaray and titled ‘Cyber resilient structures in SMEs: a systematic literature review of economic models and frameworks’, explores the evolving landscape of cybersecurity resilience among small and medium-sized enterprises (SMEs). The paper presents a systematic literature review of existing economic models and frameworks aimed at enhancing the cyber resilience of SMEs. Through an analysis of research and empirical findings, the study investigates the effectiveness of current cybersecurity policies, economic incentives, and strategic frameworks designed to support SMEs in building resilience against cyber threats. Findings suggest that, while theoretical models provide a foundation, there is often a gap between these concepts and practical application within SMEs. The study emphasises the importance of considering the unique economic and security challenges faced by SMEs and calls for a nuanced understanding of how these organisations perceive and manage cybersecurity risks. By providing an in-depth review of existing frameworks and introducing a prototype economic model (the SeM model), the paper makes a significant contribution to the body of knowledge on SME cyber resilience, highlighting opportunities for further research and development.