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## 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 Staffordshire University. Her research interests include technology learning, HCI, activity theory, big data, knowledge management, web engineering, multimedia, 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 an Associate Professor in the area of Data Management. He holds a PhD from the Athens University of Economics and Business, Greece, and an MSc in Information Systems Engineering from the 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 is collaborating with several start-ups, companies, and government bodies as a technology mentor. He is a scientific coordinator in several H2020 projects.

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Welcome to Vol. 18, No. 2 issue of *IJWET*. In this issue, we are happy to present four exceptional papers that cover a wide range of cutting-edge topics, including SPARQL query enhancement, keyword selection for low-performing websites, sustainable public management, and the relationship between interface usability and technophobia. These papers represent the forefront of research in their respective fields and provide valuable insights and advancements.

The first article by Anastasia Analyti proposes a new extension to SPARQL 1.1, aimed at enhancing the expressiveness and readability of complex quantified formulas. The extension introduces quantified SPARQL filter expressions (q-SPARQL filter expressions) which utilise a specific grammar, incorporating keywords such as EXISTS, NOT EXISTS, and FORALL-IMPLIES, to enhance SPARQL syntactics and improve the

query comprehension. The paper demonstrates the user-friendliness of q-SPARQL through various examples and offers a formal definition of q-SPARQL queries and filter expressions. It delves into the analysis of variable quantification, identifying universally and existentially quantified variables and specifying their allowed positions. The study also presents translation techniques between q-SPARQL and standard SPARQL 1.1, facilitating seamless integration. Additionally, the paper introduces partial verbalisation of q-SPARQL filter expressions, further enhancing their understandability. By addressing translation, variable characterisation, and user comprehension, q-SPARQL filter expressions extend the expressive power of SPARQL 1.1 and improve the readability of intricate queries.

The second article by Prakrit Saikia and Himadri Barman proposes a stepwise audit framework for keyword selection and the estimation of visibility for low-performing websites, with a specific focus on the case study of cmsdu.org. Acknowledging the complex backend mechanisms involved in search engine result generation, the study highlights the significance of factors such as the selection of keywords and historical website performance. To address the challenges faced by low-performing websites in selecting the proper keywords for improving their search engine ranking, the research introduces the relative competitive indexing framework for keyword selection. The proposed framework utilises systematic website auditing and statistical tests, including structural equation modelling, to determine a website's competitiveness and its ability to absorb competition. The study emphasises the importance of variables such as keyword frequency and SEO difficulty per keyword in influencing search visibility. By bridging the gap between website performance, keyword competition, and metadata optimisation, the framework contributes to the field by aiding low-performing websites in improving their visibility and search engine rankings through effective keyword selection strategies.

The third paper by Yundong Liu proposes a novel approach to constructing a sustainable public management system using the environmental kuznets curve (EKC) theory. The study introduces the GA-MOPSO algorithm, which combines genetic algorithms and multi-objective particle swarm optimisation to mine and predict critical values in the EKC, such as the critical point and its corresponding ecological degradation rate, and the ecological irreversibility threshold. The research contributes some very interesting results, demonstrating an average F1 score of 87.02, an average recall of 65.57%, and a cumulative iteration time of 29.04ms over 60 iterations. This innovative approach holds great potential for informing decision-making processes and policy formulation in sustainable public management. By analysing the critical point and ecological degradation rate, along with the ecological irreversibility threshold, the algorithm provides valuable insights for constructing a sustainable public management system. The combination of the EKC theory and the GA-MOPSO algorithm offers a powerful tool for addressing environmental challenges and promoting sustainable development in the public sector.

The fourth article by Mohanad Halaweh, Lorna Uden, Ahmed Mostafa Kamel and Moataz Elbahi explores the relationship between interface usability and technophobia. It proposes three hypotheses based on heuristic categories: system support, navigation, and user interface design, and employs a questionnaire to test these hypotheses. The empirical findings reveal that navigation significantly influences users' technophobia, and suggests that implementing usability heuristics and design guidelines, particularly focusing on navigation forms and styles, can help reduce technophobia symptoms and enhance system acceptance. Overall, it emphasises the increasing reliance on technology while

acknowledging that not everyone feels comfortable using it. A study of prior research has explored the psychological impacts and factors contributing to technophobia and detected an emphasis on the impact of interface usability. The study bridges the gap by empirically investigating how the usability of the interface affects technophobia and identifying the most influential usability aspects.