Joint Special Issue on
Cognitive Infocommunications and
Cognitive Aspects of Virtual Reality

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We are pleased to introduce this joint special issue focusing on Cognitive Infocommunications (CogInfoCom) and Cognitive Aspects of Virtual Reality (cVR). Within this Issue a wide range of research results are presented, focusing on the complex relationship between human cognition and information and communication technologies (ICT), along with the revolutionary effects of virtual reality settings on cognitive functions.

The first paper presents a novel methodology for clustering texts based on word frequency analysis of English translations of ancient Greek texts. Leveraging the classification system of the ancient Library of Alexandria, this research offers insights into textual patterns and cognitive processes underlying literary masterpieces.

The second paper explores environmental factors shaping eighth-grade pupils' mathematical abilities. Utilizing machine learning methods, critical elements influencing mathematical proficiency are identified, highlighting the importance of holistic instructional efforts.

The third paper investigates human perception complexities through an analysis of memory colors in the CIELAB color space. This study underscores the dynamic interplay between cognition and sensory experiences in virtual environments.

The fourth paper addresses human-computer interaction interfaces in telerehabilitation for individuals with movement disabilities. Innovative algorithms offer promising avenues for enhancing gesture recognition accuracy and usability.

The fifth paper presents recent transformative changes in Cognitive Infocommunications, emphasizing the entangled nature of human-technology interactions and the co-evolution of cognition and ICT.

The sixth paper underscores the importance of web accessibility, proposing an approach for computing the accessibility score of academic web pages, promoting inclusivity in digital environments.

The seventh paper introduces an artificial cognitive and multilabel classification approach to expedite the tagging process of legal documents, facilitating efficient document classification.

The eighth paper presents a comprehensive overview of the 3D virtual library project, showcasing its transformative impact on language learning experiences for computer science students.

The ninth paper introduces the Internet of Digital Education (IoDE) model to facilitate seamless and inclusive learning experiences, leveraging modern technologies in advancing educational practices.

The tenth paper explores the cognitive aspects of virtual reality systems through an analysis of textual reviews of virtual reality games, providing insights to inform the refinement of immersive virtual environments.

The eleventh paper broadens the concept of avatar design to incorporate displays conveying interpersonal information, enhancing social interactions in digital platforms.

The twelfth paper addresses critical challenges in road safety through innovative driver assistance systems tailored to drivers' emotional needs.

The thirteenth paper introduces a system of fuzzy indicators to mitigate cognitive biases in logistics decision-making, promoting informed decision-making.

The fourteenth paper examines design principles for 3D Virtual Reality environments, offering actionable guidelines for optimizing task performance efficiency in immersive virtual environments.

We hope this special issue inspires further interdisciplinary research and innovation in these fields.

Guest Editors of the Joint Special Issue

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