

Special Issue

Applications of Human–Computer Interaction–Based Decision Support Systems

Message from the Guest Editors

This Special Issue explores the applications of HCI-based DSSs, emphasizing their role in improving user experience, reducing cognitive load, and increasing decision accuracy. Key technologies—such as natural language processing, adaptive interfaces, and multimodal interaction—are examined for their contributions to system responsiveness and personalization.

Case studies may include (but are not limited to) implementations in clinical diagnostics, disaster management, and smart city planning, demonstrating these systems' capacity to support both strategic and operational decisions while ensuring legal validity and accuracy. The Issue also seeks to highlight the importance of user-centered design approaches (e.g., value-sensitive design) and continuous feedback loops in optimizing system performance. We particularly welcome contributions that explore the concept of affordances in this context.

Future directions include the integration of artificial intelligence and machine learning to further enhance adaptability and predictive capabilities. Finally, this Special Issue welcomes papers addressing the interplay between HCI-based DSS and developments in Generative AI.

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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