



In the dynamic landscape of human-computer interaction, the quest for heightened user experiences within the realm of consumer electronics is intricately entwined with the profound progress made in the realms of cognitive and semantic computing. This convergence of cognitive science, natural language processing, machine learning, and semantic technologies has ignited a monumental shift in the landscape of intelligent system design and deployment. It signifies a profound transformation in how individuals engage with technology, heralding a paradigmatic departure from traditional interfaces. This special issue is an expedition into the intricate interplay between cognitive and semantic computing. It serves as a platform to unveil the symbiotic relationship between these complex domains and how, together, they propel user experiences to new frontiers. The objective is to provide a comprehensive exploration of how cognitive and semantic computing synergize to elevate user interactions, touching upon a myriad of diverse domains within the expansive field of consumer electronics.

TOPICS OF INTEREST

This pioneering Special Issue in Consumer Electronics Magazine beckons the submission of groundbreaking research, theoretical expositions, and pragmatic applications that probe the intricate terrain of cognitive and semantic computing in consumer electronics. We invite contributions spanning a broad spectrum of topics, including, but not limited to:

- Adaptive content personalization and recommendation systems
- Cognitive and semantic approaches for smart homes and IoT
- Cognitive augmentation for entertainment and gaming experiences
- Cognitive computing and enhanced user interfaces
- Cognitive robotics and automation for enhanced home experiences
- Distributed cognitive computing from devices to the edge and the cloud
- Ethical considerations in cognitive and semantic computing
- Evaluating user satisfaction and engagement in cognitive interfaces
- Human-machine interaction in consumer electronics
- Immersive technologies and user experience enhancement
- Natural language processing for consumer electronics applications
- Personalized health and wellness devices and applications
- Security and privacy considerations in semantic consumer electronics
- Semantic search and knowledge graphs in consumer electronics
- Semantic technologies for advanced user experiences
- The role of generative AI in cognitive computing
- Use cases and diverse applications for cognitive computing
- User behavior analysis and insights through semantic data

AUTHOR GUIDELINES

IEEE Consumer Electronics Magazine (CEM) publishes peer-reviewed articles that present emerging trends, key insights, tutorials, practical experiences, design, and industry-related research & developments of mainstream consumer electronic products, technologies, and related fields of interest to the membership of the IEEE Consumer Technology Society (CTSoc) and broad engineering audience. CEM aims to educate and entertain on general topics related to consumer technologies and electronic products.

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The manuscripts must be submitted online to the 'Special Issue on Cognitive and Semantic' track using the IEEE CEM's IEEE Author Portal³. The IEEE Author Portal will automate the generation of a single submission document if the authors have the correct files prepared in advance.

OVERLENGTH PAGE CHARGES

Articles exceeding 6 pages during author proof will be charged at US\$ 250 per page for extra pages beyond first allowed 6 pages.

IMPORTANT DATES

- **ARTICLE SUBMISSION DUE:** **April 30, 2024 @23:59 CET** (*deadline for closing*)
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- **FINAL ACCEPTANCE NOTIFICATION:** **October 1, 2024**
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