CALL FOR PAPERS

Advances in Security and Privacy of Multimodal Interfaces Special Issue

Journal of Universal Computer Science

Theme

With the rapid development and increasing complexity of multimodal interfaces using multiple modalities of communication in human-computer systems such as speech, tactile, gestures, gaze, head and body movements, facial expressions, gait, electroencephalogram (EEG) and electromyogram (EMG) signals, the user requirements for trust, security, and privacy are becoming more and more demanding.

Multimodal interfaces developed for man-machine interactions bring together different computing paradigms such as Physiological Computing, Affective Computing, and Sentimental Computing. Security and privacy are important parts of these systems, and pose open and challenging problems. As the measures employed by the traditional security technologies may not be applicable in every case, we need to build improved multimodal interfaces for various applications in Ambient Assisted Living (AAL), Enhanced Living Environments (ELE), Assistive Technologies, Smart Houses, Internet of Things (IoT) and similar environments that will allow users to enjoy more multimodality of interactions while preserving trust, security, and privacy without losing performance, usability, and affordability of man-machine interactions at the same time.

The main objective of this special issue is to collect contributions by leading-edge researchers from academia and industry, and show the latest research results in the rapidly developed field of security and privacy in multimodal interfaces, therefore providing a valuable information venue to researchers as well as practitioners. Manuscripts regarding novel algorithms, architectures, implementations, and experiences are welcome.

Topics

Topics include but are not limited to:
- Access control, privacy protection, and secure communication in multimodal interfaces
- Advanced multimodal interfaces for security
- Authentication and authorization mechanisms using human behaviour data for man-machine interactions

- Biometric authentication systems and applications for assistive technologies, smart houses, etc.
- Cryptography and encryption techniques for human behaviour data
- Data privacy and security in physiologic & affective computing
- Gait-based authentication
- Human and social factors of security and privacy in man-machine interactions
- Identity management using physiological and behavioural characteristics
- Multimodal interfaces for secure sensitive applications in eHealth and mHealth
- Privacy, security, and trust in Body Area Networks (BANs)
- Privacy and security in Brain-Computer Interfaces (BCI)
- Privacy and security in emotionally intelligent dialog systems
- Security of natural user interfaces
- Security, privacy, and trustworthiness in AAL/ELE environments
- Security, reliability, and performance in biometrics systems
- User authentication in BCI
- Trust management for multimodal interfaces
- Voice biometrics for user authentication

Important dates

- **Attention:** Deadline for submissions **extended** till 15th December 2017
- 15th January 2018: Notifications of acceptance
- 15th March 2018: Deadline for revised versions of accepted papers
- 15th April 2018: Final decision notification
- To Be Announced: Scheduled publication in J.UCS.

Submission

All papers should be submitted to Easychair system. The URL is：
https://easychair.org/conferences/?conf=aspmi2018
The length of the articles should not exceed 8,000 words including references, and they must contain an abstract (150–200 words), names and affiliations of the authors. The articles must be formatted according to the J.UCS style (see http://www.jucs.org/jucs_info/submissions). The authors must also provide a signed copyright transfer statement.

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