

Call for Papers: Privacy and Security in Pervasive e-Health and Assistive Environments (Security and Communication Networks)

Aims and Scope

Pervasive e-health and assistive environments involve new types of interaction among health/assistance providers and patients and introduce new ethical issues and threats for privacy. Such environments unobtrusively and transparently support their users while their implementations rely on an increased amount and accuracy of data generated and collected as well as on increased capabilities to process and analyze these data. The users frequently ignore the amount of their personal data being collected and processed or shared wirelessly and how much their privacy may be invaded.

Ensuring the security and privacy of sensitive information is a critical prerequisite to creating public trust for pervasive e-health and assistive environments which aim to improve patient's care in a reliable and cost effective way. It is therefore necessary for pervasive e-health and assistive environments to be implemented and used in compliance with data subjects' fundamental rights; moreover, the adoption of specific safeguards is required. In addition, since misuse of collected data is easily enabled, preventive measures are needed.

Privacy Enhancing Technology (PET) concepts have been developed and applied while guidelines are found in the literature on how to deal with data so that the application of pervasive technology to become privacy-preserving. However, using privacy enabling and enhancing tools is not always easy. Pervasive computing environments are based on the use of wireless devices that have limited processing power, bandwidth, throughput, memory etc. These factors put a resource limitation on implementing resource demanding tools and protocols for privacy protection. Additionally, legal support for widespread use of PETs is missing and the introduction of additional legislation should be examined.

Scope of Contributions

This Special Issue aims at providing researchers and professionals with an insight on Privacy and Security on Pervasive e-Health and Assistive Environments. Motivated by the above observations, this special issue is organized to accommodate the most state-of-the-art implementations and research studies on achieving secure and privacy-preserving pervasive e-health and assistive environments.

We seek for new and unpublished research contributions from research, industry, government, business, and the academia, that:

- Investigate underpinning security and privacy models bringing together expertise from interdisciplinary fields such as technology, law, and management sciences.
- Facilitate the applicability of security and privacy models for pervasive e-health and assistive environments.
- Develop new management paradigms for emerging technologies and architectures.

In particular, papers which cover the following areas (but not limited to) are highly solicited:

- Policies and practices for access, authentication, authorization, and auditing for health information systems in order to protect the privacy and security of electronic health information.
- Policies for sharing/exchange of patient's sensitive information among health/assistance providers for example, during an emergency.
- Legislation issues related to handling of protected health information in pervasive e-health environments.
- Secure data access in e-health and assistive infrastructures.

- Trust and privacy issues in e-health and assistive environments.
- Sensor network security for e-health environments.
- RFID, sensor networks and biometrics to enable security in e-health and assistive environments.
- Encryption, cryptographic techniques to ensure privacy and security in e-health.
- Case studies in respect to privacy and security in e-health environments.

Important Dates

- Manuscript Due: November 15, 2009
- First Notification: January 31, 2010
- Revised Manuscript Due: March 15, 2010
- Notification of Final Decision: April 15, 2010
- Final Manuscripts Due: May 15, 2010
- Tentative Publication: December 2010

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Sources of Papers

Invitation of the best papers from the 1st Workshop on “Privacy and Security on Pervasive e-Health and Assistive Environments” (<http://www.petrae.org/>) sufficiently extended (at least 30%), and the publicly announced CFP will be the sources for papers to this special issue.

Submission Information

Only original and unpublished research papers will be considered in this special issue. All submissions will be reviewed based on technical merit and relevance. Guidelines for prospective authors can be found online at <http://www.interscience.wiley.com/journal/security>. Prospective authors should submit their paper online at <http://mc.manuscriptcentral.com/scn>. When submitting the papers, the authors should make sure to choose the “Manuscript Type” as “Special Issue,” enter the “Running Head” as “SCN-SI-017,” and the “Special Issue Title” as “Privacy and Security on Pervasive e-Health and Assistive Environments,” respectively.