



THEWS

TRUSTED eHEALTH AND eWELFARE SPACE

Principal Investigators: Pekka Ruotsalainen, Pirkko Nykänen

The starting point of the THEWS project is to understand how new features of the future ubiquitous computing impacts to the development of health care, and to ways our personal health and wellness related information will be used. Because there seems to be no technological limits of how much and how detailed personal information can be collected and stored, it is necessary to recognise security and privacy threats that are produced by ubiquitous computing. The THEWS project is focusing on health and wellness related personal information (e.g. information on our health and wellness, our life-style, nutrition, our social relations and on genetic and biological data) that is used and accessed in ubiquitous computing environment. Future health care models as pervasive health, proactive prevention, disease prediction, personalised care, continuous monitoring be analysed in the THEWS project. In a ubiquitous computing environment our personal health and wellness information can be used not only for health purposes but also for different kinds of secondary purposes. Therefore the THEWS project is analysing all kinds of contexts and purposes where personal health and welfare related information can be used.

The use of current legal health records (e.g. EHRs) is regulated in such a way that the patients or persons have limited rights and possibilities to control and know who is using, when and for what purposes their EHRs. The THEWS project develops security and privacy protection principles for pervasive health; the rights for persons and patients as well as the requirements and rules (e.g. policies) for computer systems to make pervasive health trusted. The project also analyses needs to develop existing regulation to enable persons and patients to control dynamically the ways their personal information is used, stored and disclosed.

Today most countries have digital EHRs, and many countries are implementing both nationwide and cross-border networks where citizens' EHRs can be shared. We are analysing those systems to find how they can be developed to meet the requirements. Because present EHR models are not planned to be used in pervasive health environment, the THEWS project develops new future proof models for the lifelong personal health and welfare information.

The main research outputs of the THEWS project are personal health and wellness information ontologies, security and privacy protection principles to make the pervasive health trusted, unified dynamic model for both the lifelong personal wellness record (LPWR) and the respective communication infrastructure.

THEWS consortium is both multi-professional and international. Its research sites are National Institute for Health and Welfare (Helsinki), Department of Computer Sciences in University of Tampere and eHealth Competence Center (eHCC) in University of Regensburg, Germany.



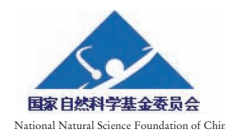
KEY PUBLICATIONS TO DATE:

- Nykänen P, Ruotsalainen P, Blobel B and Seppälä A, Research on trusted personal health and wellness information in ubiquitous health information space. In: Dössel D and Schlegel WC(eds.), World Congress on Medical Physics and Biomedical Engineering. IFMBE Proceedings 25/XII, Springer, Berlin, 2009, pp.432-435

CONTACT:

Pekka Ruotsalainen, pekka.ruotsalainen@thl.fi, tel. +358 50 500 40 46
Pirkko Nykänen, pirkko.nykanen@uta.fi, tel. +358 40 1901 720

Programme web pages: www.aka.fi/motive



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