



Pervasive Health 2011 Conference



The 23rd to the 26th of May 2011, Dublin, Ireland

Call for Papers

It is with great pleasure that we announce the 5th International Conference on Pervasive Computing Technologies for Healthcare.

The overall goal of the conference remains tightly coupled with the original aims of the field, to *address a set of related technologies and concepts that help integrate healthcare more seamlessly into everyday life, regardless of space and time*. To achieve this, it is necessary to take a multidisciplinary approach to Pervasive Healthcare Technology research and development. The Pervasive Healthcare Community has a broad scope of research topics and concerns:

- identifying and understanding problems from a **technological, social, and medical** perspective (with a particular emphasis on understanding and supporting patient needs);
- **design, implementation, and evaluation** of supporting hardware and software infrastructures, algorithms, and applications; and
- organisational strategies that facilitate **integration** of Pervasive Healthcare Technology into the healthcare enterprise.

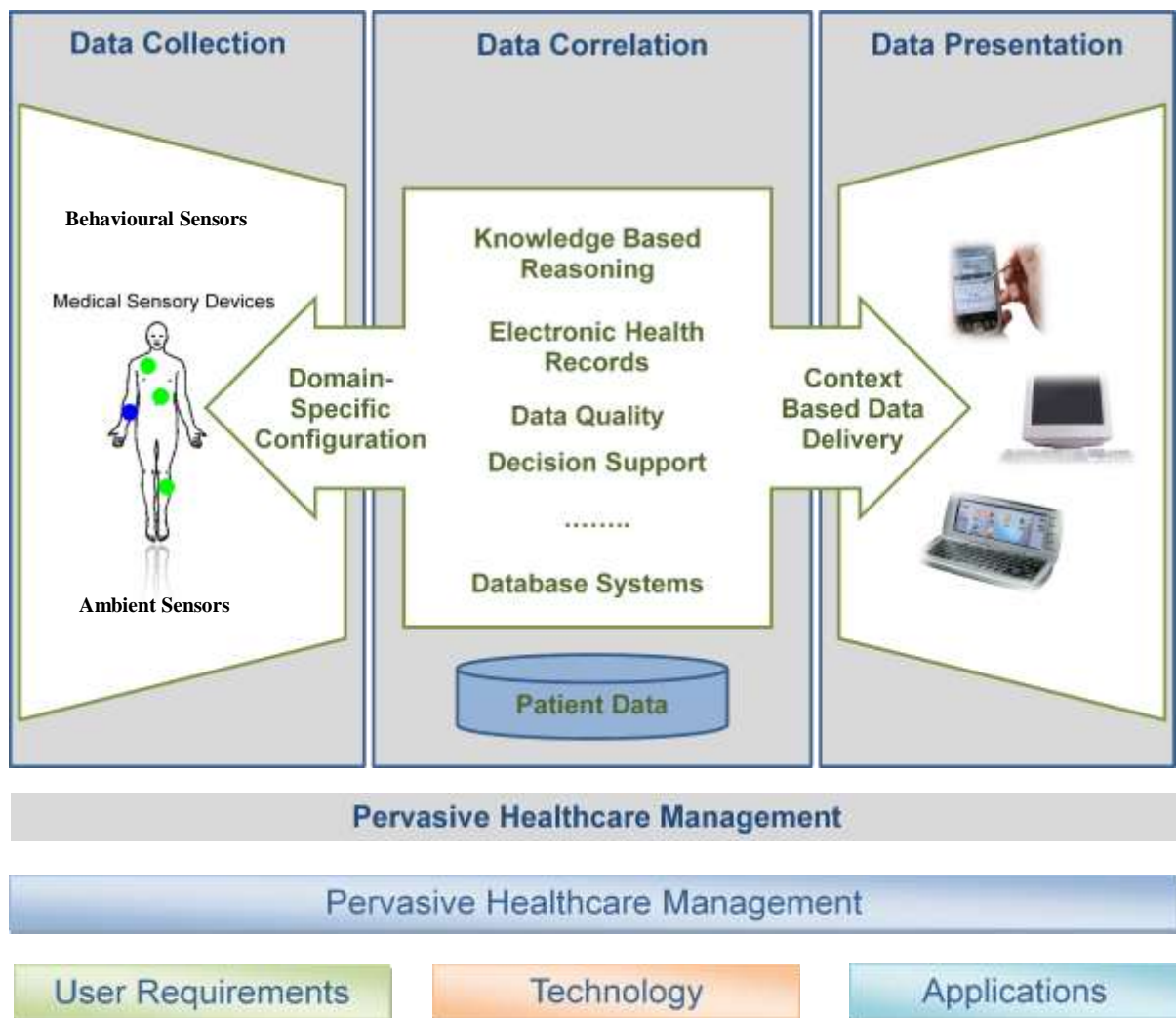
The 2011 Pervasive Healthcare conference aims to gather technology experts, practitioners, industry and international authorities contributing towards the assessment, development and deployment of pervasive medical based technologies, standards and procedures.

The theme of this year's conference is: Coping with the **Challenges and Opportunities** within **Pervasive E-Healthcare (COPE)**, with a special focus on **pervasive healthcare management** and its ability to deliver timely, quality based information to medical practitioners in providing high levels of patient care. The challenges and opportunities within e-Healthcare are immense. A multidisciplinary and coordinated approach is needed from 1) user

requirements, 2) technology development and 3) application integration, to help deliver a successful pervasive healthcare management system.

Traditional healthcare environments are extremely complex and challenging to manage, as they are required to cope with an assortment of patient conditions under various circumstances with a number of resource constraints. Pervasive healthcare technologies seek to respond to a variety of these pressures by successfully integrating them within existing health care environments.

Technologies, standards and procedures on their own provide little or no meaningful service. It is essential that pervasive healthcare environments, through a combined approach of data collection, data correlation and data presentation, assist health care professionals in delivering high levels of patient care, and empower individuals and their families for self-care and health management.



CONTRIBUTIONS

We welcome contributions from the following fields:

- Medicine, Nursing, and Allied Health Professions
- Human-Computer Interaction (HCI) and Computer Supported Cooperative Work (CSCW)
- Sensing Technologies and Distributed Computing
- Hardware and Software Infrastructures

We seek novel, innovative, and exciting work in areas including but not limited to:

Pervasive Healthcare Management

- Challenges surrounding data quality
- Standards and interoperability in pervasive healthcare
- Business cases and cost issues
- Security and privacy issues
- Training of healthcare professional for pervasive healthcare
- Legal and regulatory issues
- Insurance payments and cost aspects
- Staffing and resource management

Understanding Users

- User requirements
- Identifying and addressing stakeholder conflicts: patient needs, caregiver needs, health professional needs, organisational needs
- Usability and acceptability
- Barriers to adoption, and enablers
- Social implications of pervasive health technology, and social inclusion
- Coverage and delivery of pervasive healthcare services
- Patient empowerment
- Diversity: population and condition-specific requirements
- Inclusive research and design: engaging underrepresented populations

Knowledge Representation and Reasoning

- Physiological models for interpreting medical sensor data
- Activity recognition
- Fall detection
- User modelling and personalization
- Modelling of Pervasive Healthcare environments

Technology

- Sensor-based decision support systems
- Design and evaluation of patient and ambient-related sensors
- Wearable and implantable sensor integration
- Data fusion in pervasive healthcare environments
- Data mining medical patient records
- Software architectures e.g. Agent, SOA, distributed middlewares
- Electronic Health Records (EHR)

Applications

- Autonomous systems to support independent living
- Clinical applications, validation and evaluation studies
- Telemedicine
- Chronic disease and health risk management applications
- Health promotion and disease prevention
- Home based health and wellness measurement and monitoring
- Continuous vs event-driven monitoring of patients
- Smart homes and hospitals
- Using mobile devices in the storage, update, and transmission of patient data
- Wellbeing and lifestyle support
- Systems to support individuals with auditory, cognitive, or vision impairments
- Systems to support caregivers

TYPE OF SUBMISSIONS

Pervasive Health will accept submissions in the following categories:

1 Full papers (up to 8 pages submissions) - Full papers are submissions describing results and original research work not submitted or published elsewhere in one of the four main categories listed below. Full papers should properly place the work within the field, cite related work, and clearly indicate the innovative aspects of the work and its contribution to the field.

2 Posters (up to 4 pages submissions) - Authors are invited to submit work in progress whose preliminary results are already interesting to Pervasive Health audience. The poster track will give Pervasive Health attendees a way to learn about ongoing research initiatives and will provide presenters with an excellent opportunity to receive invaluable direct feedback from experts.

3 Demos (2 pages submissions) - The demos track will showcase the latest developments and prototypes related to the topics of interest of the conference. The expected demo submissions should describe the technical details of the demo alongside its contribution to the healthcare domain..

4 Position Papers (2 pages submissions) - Position papers are envisioned to provide insight into the lessons learnt from current (industrial, practitioners, government, etc.) pervasive healthcare practice. The position papers track is envisioned to provide the view of practitioners to the pervasive health community in order to have a more clear understanding about the real needs of healthcare operators and in this way shorten the gap between technologists and the every-day needs of practitioners.

5 Workshops (2 pages submissions) Several workshops will be run in conjunction with the conference. The purpose of these workshops is to discuss work in progress and explore opportunities for new research related to pervasive healthcare. Proposals for workshops should be submitted directly to the workshops co-chairs at "**workshops**" [at] "**prevasivehealth**" [dot] "**org**", and proposals should indicate the preferred duration for the workshop (half/full-day).

6 Doctoral Consortium (4 pages) – We are please to announce the first Pervasive Healthcare Doctoral Consortium. This one day event will enable doctoral students to present and reflect on their work alongside other doctoral students and a panel of experts. Submissions should include a description of work done, intended future work, alongside a specific research question or challenge that you would like to be discussed at the consortium.

All accepted submissions will be published in IEEE Xplore Digital Library (to be confirmed).

IMPORTANT DATES

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| All Papers Categories Submissions: | January 28 th , 2011 (firm) |
| Notification of Acceptance: | March 25 th , 2011 |
| Camera-ready Manuscripts due: | April 8 th , 2011 |
| Conference Dates: | May 23 - 26, 2011 |

WORKSHOPS AND DOCTORAL CONSORTIUM

Please visit the Workshops and Doctoral Consortium pages for detailed submission requirements and procedures (upcoming).

SUBMISSION INSTRUCTIONS

Please visit the **Submission page** for detailed submission requirements and procedures.

<http://www.pervasivehealth.org>

Best Paper Award

IOS Press will provide a prize, in the form of a free 12 months subscription to the *Journal of Ambient Intelligence and Smart Environments*, for the authors of the best Pervasive Health 2011 Conference Paper.

Link to journal:

<http://www.iospress.nl/loadtop/load.php?isbn=18761364>

Provisional Programme Committee Members:

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Benjamin Knapp (Queen's University Belfast, and Dundalk Inst. of Technology, Ireland)

Young Seok Lee (Motorola Research)

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