

## **PAHI 2015 Preface: Transforming Patient Experience using Digital Technologies**

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### **1 Introduction**

The third European workshop on Practical Aspects of Health Informatics (PAHI 2015) took place at the [Alexander Graham Bell Centre](#), Moray College, UHI in Elgin, Scotland between Oct 27<sup>th</sup> and 28<sup>th</sup>, 2015, with participants from Scotland, Norway, Germany, Portugal and England.

The Norwegian University of Science and Technology (NTNU) organised this year's workshop in collaboration with the Institute of Design Innovation (InDI), the Norwegian Research Network for Women in Health Informatics, the University of Highlands and Islands, the University of Aberdeen and NHS Grampian. (The InDI leads the Experience Labs, which are a core element of the Digital Health Institute, a Scottish Funding Council Innovation Centre.) The workshop reception was supported by Highlands and Islands Enterprise (HIE).

This year's workshop focused on transforming patient experience using digital technologies. The Western paradigm of health care has favoured medical solutions rather than public health and cultural solutions. While this paradigm has been effective in delivering health care in the past, it is not positioned to handle complex new societal challenges. New approaches are needed to solve the problems facing health care delivery caused by ageing populations, globalisation and long-term chronic conditions. Ensuring future effectiveness of medicine increasingly requires innovation through preventative, participatory, personalized, and predictive modes. Changes must involve movement from a reactive model to a preventative patient-centric model. Information and communication technologies will play an increasing role in this process at all stages of life leading to an approach which can simultaneously maximize health and minimize or prevent illness (creating preferable

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health outcomes). However, the patient must buy into using these technologies for these goals to be realised.

### **1.1 The objective and aims of PAHI 2015**

The objective of PAHI 2015 was to explore how patient experience can be transformed through digital technologies. The specific aims were fivefold: 1) a platform for academics to present research within this field, 2) the opportunity for clinicians and civic organisations to discuss key challenges requiring digital solutions in health and social care, 3) the opportunity for businesses to understand this emerging landscape, 4) the opportunity for government to present the overview of health and social care innovation in Scotland and Norway, 5) to provide a platform enabling the exchange of ideas between Scotland and Norway resulting in new collaborations and partnerships for future European funding.

### **1.2 The review process**

The call for papers to the workshop included, but was not limited to, the following topics:

- eHealth communication,
- eHealth literacy,
- Professional and lay communication in citizen-centred records,
- Quality and risk management in eHealth,
- eHealth ethics,
- The increasing mobility and communication in citizen-centred records,
- Lessons learned in relation to failure projects,
- Patient-centred ICT,
- The impact of ICT for professional healthcare practice,
- Translating HI research into clinical practice,
- Methodological development of healthcare ICT relevant for practice,
- Usability of health informatics,
- Policies and strategies for ICT in healthcare,
- Bridging the gap between health informatics research and clinical practice,
- Health informatics on new computing platforms,
- Health informatics for home use,
- Coordination aspects in use of health informatics,
- Design aspects of health informatics and Health Web Science.

Papers and abstracts from researchers from many fields of health informatics were received. Each of the submissions underwent a minimum three reviews (some had five reviews) from anonymous reviewers, and was rated according to predefined criteria. The accepted submissions were categorised thematically under *service design, tele-mediated health communication, health information and ehealth literacy*.

In addition to the peer-reviewed submissions, the program included *abstract presentations* and *poster pitches* (the posters are described in the following booklet: [http://sislab.no/pahi/2015/PAHI\\_posters\\_booklet.pdf](http://sislab.no/pahi/2015/PAHI_posters_booklet.pdf)). Full papers are eligible for Cistin points in the Norwegian system. The accepted submissions and abstracts can be found in the proceedings.

## 2 The Workshop

Prof Grant Cumming welcomed the delegates and opened the workshop. He gave a brief overview of why the venue was named after Alexander Graham Bell and an overview of the programme within the context of transforming patient experience using digital technologies (see [http://sislab.no/pahi/2015/DHI\\_programme\\_03.pdf](http://sislab.no/pahi/2015/DHI_programme_03.pdf)). The workshop also hosted a real time demonstration of QUBE. QUBE is a fully immersive virtual platform (<http://www.qube.cc>) which provides a collaborative virtual office/workshop environment and has been driving innovation in Scotland. QUBE has over 400 tools to support agile Projects, innovation and leadership and helps change behaviours and ways of working in a positive way to better enable sustained change across geographies and organisations.

QUBE has shown a reduction in project lifecycle of around 50%, reduced costs by around 50% (staff time saved, travel time and costs, cost of external workshops). 100% of users surveyed said QUBE significantly increase effectiveness in collaborating with stakeholders and that the embedded tools significantly improve better project outcomes. Over 80% of users surveyed felt that QUBE offered a safe and open space for collaborative working that is difficult to achieve in the real world.

[NO Delays](#) was used as an example of using the QUBE platform for collaboration with participation from colleagues in Norway, Scotland, Ireland and Brazil.

### 2.1 Invited keynotes

Eddie Turnbull is currently the Head of eHealth for The Scottish Government. Eddie has worked for Scottish central government for 36 years, always with ICT leadership as a career anchor. Over the years he has directed a number of large national programmes with ICT as the major enabler. His current role is to ensure that eHealth activity across NHS Scotland is coordinated and supports the aims of the NHS Scotland Quality Strategy, delivers joined-up provision of healthcare in pursuit of [Scotland's 2020 Vision of health and care](#), and ties in with the change and improvement agendas set out by The Scottish Government. He is actively involved in shaping and delivering a number of Scotland's wider strategic digital initiatives. He gave an overview of ehealth strategies in Scotland.

Justene Ewing is the CEO of the Digital Health & Care Institute (DHI) and is charged with establishing and delivering the [DHI objectives](#). The DHI is one of a family of innovation centres in Scotland funded by the Scottish Founding Council and aims to utilise Scottish universities infrastructures, human resources and research excellence capability to create an exciting platform for collaborations across Scotland.

As part of her keynote, Justene outlined the structure and work of the DHI, highlighting that “person-centred innovation” is at the core of its activities

Gabriel Kiss, PhD is senior engineer/researcher at the Operating room of the future (FOR), and a researcher at MI-Lab, ISB, NTNU. At FOR his main responsibility is to maintain the technology platform provided by the Norwegian Centre for Minimally Invasive Image Guided Therapy and Medical Technologies, NorMIT as well as research in the field of medical imaging. He presented the evolution of the FOR at NTNU from conception to present and then proposed a direction of travel for the foreseeable future.

## 2.2 Chairs

General Chair: Grant Cumming (UHI, UoA, NHS Grampian)

Program Chairs: Tara French (Glasgow School of Arts), Heidi Gilstad (NTNU)

Publication Chairs: Ellen Jaatun (NTNU), Martin Gilje Jaatun (SINTEF ICT)

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