## **Call for Papers**

# "Emerging Mobile Healthcare Research for Developing Nations: Citizen, Organisation, Governmental and Technological Perspectives"

## Background

Mobile health (M-health) applications potentially allow improved provision and access to health services that enhance the wellbeing and quality of life of underserved populations in developing nations. Despite low per capita income, a large proportion of the population in many developing nations owns smartphones. Effective studies however, are lacking for guiding sustainable initiatives to improve the quality and relevance of M-health design and service delivery for various stakeholders, at citizen, organisation and government levels (Hu & Bai, 2014; Hage et al., 2013; Mamun et al., 2016; West, 2013).

The complexity of healthcare industries and involvements of agents for various layers of service delivery and relevant siloed technology development raises fundamental questions to rethink on designing new useful individualised approaches or specific architecture that may fulfil the need of organisational, behavioural, scientific or professional and offer benefits of latest technology for better service acceptance (Rocker et al. 2010). The recent industry initiatives in Australia outlined emerging M-health solution designs by the Monash Watch program (Smart Health Solution, 2016). Such initiatives are for 1) for smart health to supply its cloud-based solution; 2) Queensland State wide cloud e-health chronic disease management, 3) Cancer multi-disciplinary team meeting management system rollout, 4) Patient portal for mobile devices - Live, and 5) Integrated home monitoring or shared EHR Live (Smart Health Solution, 2016). The Monash Watch is part of "the Hospital without Walls initiative" at Monash Health Service (MHS). MHS provides personal mobile devices enable autonomous and unobtrusive collection of clinical data and support the continuous transmission of physiological information between patients and remote healthcare providers. While relevant theory and understanding are of significant to develop guidance and design assistance, the initiatives aimed for delivering shared care would contribute to improve healthcare services in developing nations.

Going beyond, various successful studies indicated issues on problem solving using mobile technologies. For example, Sam (2017) focused on the use of mobile phones to empower young people for communicating and accessing vital livelihood information to articulate their everyday activities. Choi et al. (2017) reinforced on personalization enabled by contextualization — focusing on the effects of LBS-assisted searching for gas price information on user perceptions and actual behaviour. Trestian et al. (2017) utilised mobile network infrastructure integrated into intelligent systems that could help at detecting exceptional events such as riots, protests or even at disaster prevention with minimal costs and improve people safety and security, or even save lives. The study collects fully anonymized cellular network data, like Call Detail Records (CDRs) to analyse the telecommunication traffic and connect people, locations and events. Many other latest technological provisions are now introduced in various application design, including large-scale systems, location analytics, RFID-driven, IoT enabled and other sophisticated computational techniques (Abbas et al. 2015). Such aspects can also have potentials for effective M-health design as various purpose-specific solution designs in developing nations.

## **Objectives of the Special Section**

The aim of this special section is to bring together leading research in mobile healthcare, describing approaches relevant to the context of developing countries. The objective is to examine diverse issues of social, economic, cultural and technological context related to public healthcare, clinical healthcare, healthcare management, hospital management and other

#### Australasian Journal of Information Systems Research on Health Information Systems: Call for papers

healthcare informatics. With a developing nations focus, we seek different methods, models, constructs, solution applications or specific architectures and theories related to M-health research and practice. The topics broadly cover decision-making, strategic improvement, operational management, user access and other behavioural, organisational and governmental administration issues, as well as technological issues around mobile infrastructure, organisational information systems and app designs. Manuscripts that emphasize these from theoretical, empirical, and solution design approaches, using appropriate research methods will be welcome.

Topics of interest include, but are not limited to, the following:

- M-health approaches for connecting patient, doctor and support service authorities
- Location Based M-health Solutions for citizen, professionals and organisations
- M-health approaches for decision making
- Big-data capturing, processing and specific architectures for M-health
- Context-Sensitive approaches for targeted populations
- Constructs, issues, barriers and gaps in designing M-health applications
- Longitudinal projects involving large-scale implementation and evaluation activities
- Evaluation of impact of IT innovations on modernised healthcare
- Theoretical constructs, models, architectures and conceptualisations for M-health
- Applications from developed countries adapted for developing countries
- Mobile infrastructure technologies
- User studies

## **Guest Editors**

Dr Shah Miah, Victoria University, Melbourne, Australia

A/Prof Don Kerr, University of the Sunshine Coast, Queensland, Australia

Prof John Gammack, Zayed University, Abu Dhabi, U.A.E

## **Important Dates**

- Submission: from November 30, 2017 to March 30, 2018
- First Round Review Decisions: June 15, 2018
- Major Revisions if required due: August 30, 2018
- Second Round Decisions: September 30, 2018
- Minor Revisions if necessary: October 30, 2018
- Final Decision: November 30, 2018
- Publication Date: By the mid-year 2019 (Tentative)

#### **Paper Submission**

Original, interesting, and high quality unpublished contributions not currently under review by any other conferences or journals are sought. Articles from a wide range of disciplines and research based in traditions such as design science research, quantitative, qualitative or mixed approaches. Research that extends existing theories to amplify implications for contemporary theory and practice is particularly welcome.

Accepted manuscripts will go through a rigorous two cycles review process. The initial screening will assess the correctness, originality, significance, quality of presentation, and

Australasian Journal of Information Systems Research on Health Information Systems: Call for papers

relevance of the submitted manuscripts. Manuscripts requiring major revisions will be reassessed strictly according to the publication deadlines. Authors are kindly instructed to follow the Guide for Authors and submission guidelines for the journal at the journal's website, <u>http://journal.acs.org.au/index.php/ajis</u>, and to choose "Research on Health Information Systems" as the paper type in the online submission system.

Further enquiries about the special section can be directed to Dr Shah Miah (Leading Guest Editor) email: shah.miah@vu.edu.au; and Phone: +6103 99199835.

#### References

- Abbas, A., Ali, M. and Khan, M.U.S. (2015). Personalized healthcare cloud services for disease risk assessment and wellness management using social media, *Pervasive and Mobile Computing*, http://www.sciencedirect.com/science/article/pii/S1574119215001984
- Choi, B., Kwon, O., and Shin, B. (2017). Location-based system: Comparative effects of personalization vs ease of use, *Telematics and Informatics*, 34, 91-102
- Hage, E., Roo, J.P., van Offenbeek, M., Boonstra, A., (2013). Implementation factors and their effect on e-health service adoption in rural communities: a systematic literature review. *BMC Health Sew. Res.* 13 (19), 1-16.
- Hu, Y., Bai, G., (2014). A systematic literature review of cloud computing in e-health, *Health Inf. Int. J.* 3 (4), 11-20.
- Mamun, K.A.A., Alhussein, M., Sailunaz, K., Islam, M.S., (2016). Cloud based framework for Parkinson's disease diagnosis and monitoring system for remote healthcare applications. *Future Gener. Comput. Syst.*, in press
- Rocker, C., Ziefle, M., Holzinger, A., McGee, K., Hansen, S., and Meyer, J. (2013). Smart HEALTH: 5th International Workshop on Smart Healthcare and Wellness Applications OzCHI 2013 Workshops Programme, Nov 25 & 26, Melbourne, Australia.
- Sam, S. (2017). Towards an empowerment framework for evaluating mobile phone use and impact in developing countries, *Telematics and Informatics*, 34, 359-369
- Smart Health Solution (2016), *Monash Watch program*, Retrieved on 20 Nov, 2016, from: http://www.smarthealth.com.au/queensland-state-wide-cloud-ehealth-chronicdisease-managment/
- Trestian, R., Shah, P., Nguyen, H., Vien, Q.T., Gemikonakli, O., and Barn, B. (2017). Towards connecting people, locations and real-world events in a cellular network, *Telematics and Informatics*, 34, 244-271
- West, D.M., (2013). Improving health care through mobile medical devices and sensors, Brookings Inst. Policy Rep., 1-13