

CALL FOR PAPERS – special issue of *Journal of Decision Systems* on The Role of Decision Support Systems within Healthcare

Guest Editors:

Dr. John O'Donoghue, University College Cork, Ireland

Dr. Tom O'Kane, University College Cork, Ireland

With the growing adoption of IT infrastructures within healthcare environments, large volumes of data are generated, processed and disseminated. They are designed to assist medical staff make well informed decisions when deciding upon the appropriate patient care delivery action. Unfortunately, conventional Decision Support Systems (DSS) or Clinical-DSS (CDSS) tend to struggle with different intra hospital disciplines e.g. knowledge transfer between a stroke unit and a general ward. This may result in a less than optimal decision making capacity regarding overall patient welfare.

One of the root causes of such disjointed DSS processes was highlighted by (Braa, J., et. al, 2007)¹ in that the requirements for decision support systems do evolve over time as the driving force i.e. medical staff experience and expectations grow. More specifically in (Hunt, D.L., et. al, 1998)² it was shown that to improve the positive influence of DSS systems within a hospital environment, information filtering was an effective means of improving adherence to recommendations made by the CDSS, as medical staff are provided with relevant information in a timely manner. Both of these articles underline that the synergies between a DSS system and the end user need to be dynamic in nature and inherently aware of the end users needs.

Building on this, the theme of this special issue is to 1) examine the *role* of DSS within healthcare environments and to assess how medical staff/managers/organisations utilise DSS systems to make *well informed* decisions in delivering patient care and 2) investigate the *utilisation* of IT tools/applications/techniques to support point-of-care staff at the various levels of medical expertise.

Topics within Healthcare include but are not limited to:

- Case studies of DSS, design, development and/or integration
- Root-Cause Analysis of DSS failures
- Critical Success Factors (CSFs) for successful DSS operationalisation
- Database design/structures to support real-time central/distributed DSS making
- Data mining / data management of patient vital signs
- Data quality / Information Quality (DQ/IQ) dimensions within DSS
- The role of DSS support between point-of-care staff with higher levels of medical expertise
- DSS support for home care staff and interaction with central/distributed expertise
- Utilisation of wireless ambient and vital sign patient monitoring devices

Important Submission Dates:

- **Intention to Submit Paper and Outline of Paper:** before the 4th of February 2011 (optional)
- **Completed Paper Submission:** before 11th of March 2011 (firm)
- **Review Decision to Author:** before 20th of May 2011 (firm)
- **Submission of Final Accepted Paper:** before 22nd of July 2011 (firm)
- **Special Issue to be Published before Year End 2011**

Submission:

Authors should send all communication to: john.odonoghue@ucc.ie & t.okane@ucc.ie

Paper Outline and *Completed Papers* (form of an MS Word file) must be submitted through:

<https://cmt2.research.microsoft.com/RDSSH2011>

¹ Braa, J. and Hanseth, O. and Heywood, A. and Mohammed, W. and Shaw, V., (2007) "Developing health information systems in developing countries: the flexible standards strategy", MIS Quarterly, volume 31, number 2, pages 381-402.

² Hunt, D.L. and Haynes, R.B. and Hanna, S.E. and Smith, K., (1998) "Effects of computer-based clinical decision support systems on physician performance and patient outcomes: a systematic review", In the journal of the American Medical Association, volume 280, number 15, pages 1339.