Systèmes d'Information et Management

Health information technologies: An innovative and pragmatic perspective

Call for papers - Special issue – *Systèmes d'Information et Management (SIM)*

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Information technologies play an increasingly important and prominent role in the health care sector. Health facilities, caregivers, patients and consumers have a vast array of IT solutions at their disposal. This includes the clinical information systems used in hospitals, which have functions for managing electronic patient records, laboratory results and medical imaging. We also see greater use of various forms of telemedicine, including teleconsultation, home telemonitoring and tele-expertise, intended to improve access to health care for patients who are geographically isolated or losing their autonomy. Lastly, the mobile applications available on various platforms are able to transform or even re-invent how care is provided to patients, who are shouldering greater responsibility for the management of their care.

Over the last few years many international and North American conferences, including ICIS, HICSS and AMCIS, have special tracks devoted to health IT. Some of the leading journals in the field of information systems, such as EJIS, ISR and JAIS, have published special issues on the subject in recent years. Yet despite this growing interest, at this juncture European research in this area is still highly fragmented. The main objective of this special issue is to fill this gap by publishing a series of original, stimulating, rigorous and highly erudite articles.

With the current proliferation of projects to implement information technology in health facilities across Europe and around the world, we are in an ideal environment for studying a wide range of research issues in information systems, such as organizational and individual adoption, resistance to change, project escalation, strategic alignment, governance of information systems, etc. Such problems are particularly significant in teaching hospitals, which constitute one of the most complex organizational models.

The systems currently in place can be used to redefine information flows in a hospital department, a health facility or a network of facilities, so investigators in information systems are well placed to propose enlightened responses in areas such as information system interoperability, the application of communications standards, and patient data security and confidentiality. Beyond the inherent interest in studying such a complex and fascinating sector, the challenge lies in developing actionable knowledge to support high-quality data that can be used for evidence-based management.

However, beyond the recurring problems in information systems, the study of health IT also creates opportunities to investigate new research questions. This is the case with the creation of economic models associated with different forms of telemedicine, or even how IT use is transforming the very nature of the work performed by health care professionals.

For example, investigations could examine how big data is transforming clinical decision making, the place of information systems in the creation and sharing of good clinical practices, and the role played by IT in changing individual behaviours and power structures within hospitals. Lastly, there are other research subjects or themes that deal more specifically with patients. This includes the accelerated deployment of social networks and mobile applications, which provides new opportunities to study the role and place of patients in the emerging care model.

Since the study of health IT is by its very nature pragmatic and applied, it also encourages evaluative research. More prevalent in medical informatics, this type of work is primarily aimed at rigorously and exhaustively documenting the expected as well as unexpected impacts associated with the use of new IT solutions. Various methodological approaches, including questionnaire surveys, in-depth case studies, comparative randomized trials, simulations, action research and systematic literature reviews shed light on the nature and scope of the impacts of IT use in the health care sector.

In sum, we hope that this special issue will help advance the state of knowledge on IT applications in health and lay the groundwork for original avenues for future research. We are therefore encouraging the information systems community to submit empirical, conceptual and theoretical articles on any of the problems discussed above or on one of the following subjects (non-exhaustive list):

- The barriers to organizational adoption of IT in health care organizations;
- Change management problems related to IT implementations in health facilities;
- IT project management issues in the health care sector;
- Strategic alignment of IT in health facilities;
- The use of big data initiatives and their impacts on clinical decision making;
- The role of information systems in the development and sharing of good clinical practices;
- e-health related to the place of patients in emerging care models, in particular as this can be supported through the use of social networks and mobile applications;
- The challenges and changes associated with the interoperability and interconnection of clinical information systems between facilities;
- Governance models implemented in the industrialized countries to manage IT investments in health;
- The role and contribution of the IT department in health facilities;
- Issues associated with the implementation and deployment of national electronic health record projects;
- The adoption, emerging uses and impacts of connected objects in the health sector;
- The medical and economic impacts of various forms of telehealth and telemedicine.

Key dates:
- February 15, 2016: Deadline for submitting manuscripts
- May 15, 2016: Responses sent to authors
- June 30, 2016: Deadline for submitting final versions of accepted papers

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