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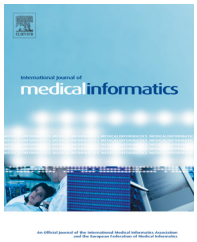

Editorial

Special issue on information infrastructures for healthcare: The global and local relation

Information infrastructure for healthcare is a particular theoretical perspective that emphasizes the fundamental socio-technical nature of technology and practices. It stipulates that we need to include socio-material relations as part of the entangled infrastructures if we are to comprehend the complexity of information systems within healthcare. It guides studies of policies [3,18], hospital information systems [10,12], work practices in healthcare [4,8]; artefacts in healthcare [7,13,16], relations between patients and various healthcare institutions [2], disease management [14], patient sorting [15], and standardization [6,11], etc. While research within the field of healthcare information infrastructure is diverse, it is based upon some universal assumptions about information infrastructure: (a) it is *embedded* within social arrangements and technologies, (b) it is *transparent* in use by invisibly supporting routine tasks and activities, (c) it is *spatial and temporal in scope* – since the infrastructure might reach beyond single local sites and across time – (d) it is the embodiment of *standards*, and finally, (e) it only becomes *visible during breakdowns* [9, p. 35]. Clearly, information infrastructures in healthcare form many different entities, and it is within this field that researchers examine the precise nature of the various infrastructures that hold healthcare practices together.

Although no journals dedicated exclusively to the field of information infrastructure for healthcare, the research community has been publishing in a range of very different venues. Based on a workshop dedicated to this topic, Bansler and Winthereik edited a special issue of the *International Journal of Integrated Care* [19]. In 2009, Bansler and Kensing organized the 2nd International Workshop on Information Infrastructures for Healthcare, which formed the basis for a special issue of the journal *Computer Supported Cooperative Work* [5] focusing on the connection between practices across institutional and professional boundaries. These workshops and special issues helped foster an emerging international research community focusing on information infrastructures in healthcare. In the same period, and addressing perspectives and issues overlapping with the above initiatives, the *International Journal of Medical Informatics* published two special issues: one on socio-technical approaches [1], and another on collaborative practices [17].

Thus, this current special issue of the *International Journal of Medical Informatics* adds to a strand of research within *IJMI* and it puts special focus on the links and relations between the local and the global in information infrastructures for healthcare. With local/global we refer to a distinction between the concrete practical circumstances of work in, for example, a small clinic (the local) and how this is related and in constant negotiation with hospital standards, medical research, and best practices at the national as well at the global level (global). Because the dialectic between the local and the global will always be present, we need to understand these interactions, relations, and practices when we strive to design work practices and technologies supporting healthcare.

We received 21 papers, and, after the peer review process, we choose to include five papers in the special issue. Each of these five papers contributes to the research area of information infrastructures in healthcare in general and to our understanding of the local/global relation, in particular. The first article, by *Ellingsen*, *Monteiro*, and *Røed*, presents an analysis of empirical data from a longitudinal study of the integration of disparate systems across organizational, geographical, and professional boundaries. In their interesting analysis, they manage to illustrate how the analytical perspectives of the local and the global help us identify and illuminate cases where complexities in large system integration become manifest. The second article, by *Grisot and Vassilakopoulou*, provides insights into the design of a patient-centred portal. The authors identify the socio-technical links between, on the one hand, the strong generative character of the system and, on the other hand, the standardized features as a negotiation process between the local and the global. The generative features within the system support the localization of the portal, whereas the standardized, generic features ensure the global integration across boundaries. The third article, by *Johannesen*, *Obstfelder*, and *Lotherington*, brings forward the vendor perspective on the local and global in information infrastructures. In their case, the empirical situation concerns a small vendor who, through participatory design and agile methods, has created a successful information system supporting the local practices within a laboratory. However, when the vendor wins the call for tender for a national laboratory system, the small, localized information system must

increase in scale. During the scale-up process, several complexities arise between the conflicting local infrastructures (in diverse laboratories) as well as between the local and the national infrastructure. In this way, this article presents the success of a small, local system which is then turned into a national (global) information system. The fourth article, by *Bossen*, *Christensen*, *Grönvall*, and *Vestergaard*, focuses in on the local practices within homecare work. The authors study the collaborative practices between homecare workers, relatives, and elderly people still living at home. The understanding of these local practices then informs the design of an information system supporting the work. Thus, the local practices become global infrastructures guiding the design of the technology. The fifth and final article, by *Meum*, presents a study of how nursing care plans are used in practice (the local) in connection with the use of the international nursing classification system (global). In this work, it becomes clear that redundant information is not simply something we should reduce. Instead, Meum suggests that redundant information might serve as the glue across domain-specific boundaries that help support the socio-technical information infrastructures required to support healthcare work.

We believe that we have managed to put together an interesting special issue that links the research area of information infrastructures for healthcare to the agenda of the *International Journal of Medical Informatics*. We are very greatful to all who submitted their work, to all the reviewers, and to the Journal for providing this opportunity. Enjoy the reading.

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