

Standard Making: A Critical Research Frontier for Information Systems

MISQ Special Issue Workshop

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<http://www.si.umich.edu/misq-stds>

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Aims and Scope

The workshop is aimed at gathering a group of scholars examining issues related to the development, adoption and diffusion, deployment and management of standards in ICT field.° Standards have played an important role throughout the evolution of the field of information and communication technology (ICT). The importance of standards in managing and developing ICT has become increasingly critical, while the field has become more heterogeneous, networked, ubiquitous and complex. Firms that create successful standards can seize significant competitive advantage, while firms that are locked out of standardization process, or remain laggards in utilizing the standards face difficulties. Standard choice and the implementation of standards have also become a critical part of managing the IS function and developing software. At the same time traditional institutional forms of standardizing (standard developing organizations SDOs) have become rife with problems, and the scope, pace and success rate of standardization processes has changed drastically rendering uncertainty and new opportunities for different stakeholders.

As important as this topic is, there have been relatively few scholarly papers on standardization informing the scholarly discussion in the IS field. Slightly more than 2% of the published journal articles in the IS field have dealt with standards over the past 10 years, and most of this work has reported on newly established ICT standards rather than examining the processes and importance of standard setting processes. Notably absent are studies that analyze different standardization concepts, standardization processes, industrial coordination and strategy, and economics of standards. In addition, during this decade IS researchers will face new challenges and opportunities in investigating standards as the form and pace of standardization will continue to undergo significant changes.

The workshop will bring together IS researchers drawing on multiple disciplinary perspectives and adopting a variety of theoretical approaches to engage in a focused critique of prior research on standardization, share perspectives about future research, and encourage collaborations.° The workshop will comprise presentations and discussions around peer-reviewed submissions as well as invited presentations by thought leaders.° The workshop will provide authors the opportunity to further shape their work for submission to a special issue of the *MIS Quarterly* on Standardization (see <http://www.si.umich.edu/misq-stds>).° The theme of the special issue will be aligned with the theme of the workshop.

Topics at the Workshop

The workshop invites design, technical, managerial, behavioral, organizational, and economic perspectives on standardization. Accordingly, research discourses relevant to standards research in the workshop include innovation and organization theory, management of the IS function, economics of IT, and social implications of IT. Typical questions addressed include:

- how do successful standards emerge in new technological regimes, and how do competitive advantages accrue from them?
- how are standards for different ICT s chosen, adapted and maintained by different groups of actors?
- what processes and institutional forms are required to create successful ICT standards?
- what historical or contingent events and factors influence the creation of ICT standards, and in particular, their success or failure?
- How do standards and standard setting affect the evolution and emergence of ICT services, infrastructures and what role standard choice and adoption play in managing these infrastructures?
- How does fast and disruptive technological change affect standardization processes and practices?

No single model or framework has emerged to answer these questions, and a better understanding is needed regarding standard setting, adoption and management. Both empirical and theoretical investigations of events and situations are needed to explain standard emergence as a dynamic process that embraces both technology exploration and exploitation. In the similar vein, we need historical and cross sectional studies of standard choice and implementation and their impact on the IT capabilities, infrastructures and services. Economic, political, social, and managerial theories need to be synthesized and reconciled in the context of standard setting, adoption and choice.

Some of the areas that are expected to be covered by representations in the workshop include:

- Role of standardization in overcoming interoperability and compatibility challenges in ICT services including metadata standards on platform interoperability, document interchange, human-computer interaction and transaction processing.
- The role of global processes and standards on ICT evolution
- Standardization and competitive strategies in ICT industries
- New and emerging areas of standards including business transaction and content issues (e.g. EbXML, EJB standardization)
- Analysis of institutional barriers and facilitating factors in the evolution of standards in ICT industry
- Stakeholder analysis and impact for standards creation and diffusion
- Theory based empirical studies of standard development and diffusion,

