



Call For papers

MISQ Special Issue on

Standard Making: A Critical Research Frontier for Information Systems

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

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Standardization is the process of creating technical standards for diffusion into the market place, consisting of a set of technical specifications adhered to by a producer, either tacitly or as a result of a formal agreement (David 1990). Standards both constrain and enable the behavior of producers. Creating a standard involves the creation of artifacts which can meet requirements formulated by the involved actors, deviation from the current technological trajectory in the form of innovation, and the mobilization of actors to follow and embrace such deviations on technological platforms and actors' behaviors.

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 through 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 three top journals in the IS field (MISQ, ISR, CACM) have dealt with standards over the past 10 years. Moreover, most of this work has reported on newly established ICT standards rather than examining the events, factors

and impacts related to standard setting processes. Notably absent are studies that analyze alternative standardization concepts, variances in standardization processes, relationships between standards, industrial coordination and strategy, and economics of standards. During the forthcoming decade IS researchers will face new challenges and opportunities in researching standards as the form and pace of standardization will continue to undergo significant changes. Accordingly, research discourses relevant to standards research in IS will be necessarily expanded and will include innovation and organization theory, management of the IS function, economics of IT, and social implications of IT. Typical questions we need to address include:

- How do successful ICT standards emerge in and for new technological regimes, and how do competitive advantages accrue from them?
- How are standards for different types of ICT's chosen, adapted and maintained by different groups of actors?
- What processes and institutional forms are required to create successful ICT standards in different fields?
- 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 we need to understand better standard setting processes, adoption standards and their management and regulation. Both empirical and theoretical investigations of standardization 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 of interest for the special issue in *MISQ* are:

- 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,
- Governance issues and analysis organizational and institutional aspects in standardization including open source, institutional, consortia and business lead standardization modes
- Adoption, acceptance and diffusion of standards by different technological and industrial communities
- Technical and managerial issues related to standardization and standard conformance
- The impact of standards on IS management, IT strategy, IT infrastructure investments and system development
- Intellectual property, anti-trust, externality issues related to standardization in the ICT domain
- Economic standard conformance measures and metrics

Though the above list is not intended to be restrictive and researchers are encouraged to submit original manuscripts for the special issue that relate to one or more of the above issues. In addition to empirical papers review articles that evaluate existing insights and point to fruitful avenues for future research on standardization are also encouraged. We invite papers, which conform to any type of disciplinary approach, methodological approach or research methodology. The main criteria for acceptance are novelty, theoretical content and the rigor of the research methodology followed.

Manuscripts must be electronically submitted to guest editors of the special issue no later than March 31, 2004. Prospective authors are suggested to contact guest editors concerning the appropriateness of their submission for the special issue. Potential submitters might also note that we are organizing a workshop on the same theme that will be held in conjunction of 24th ICIS in Seattle between 12-13 December 2003 (see <http://www.si.umich.edu/misq-stds>). Initial version of the paper can be submitted to this workshop for feedback and refinement.

Submitted papers will receive an initial screening from the Guest Editors before they are entered into the review process. Important screening criteria include fit with the theme of the special issue, significance of the research and likelihood of moving forward acceptance in two rounds of review. Papers that do not pass the initial screening will not be considered further for special issue.

All manuscripts will be subject to high standards of peer review at MIS Quarterly. A maximum of three reviews will be undertaken on submitted papers. The first round of reviews will be provided within three months of the initial submission deadline. The first revision will be due within three months of the receipt of the first revision of the paper. The second round of reviews will be provided within two months of the receipt of the first revision of the paper. The second revision of the paper will be due within two months of the receipt of the second round of reviews. Papers not found satisfactory in two round of review will be rejected. A final decision on the paper will be made within two months of receipt of the second revision of the paper.

Authors are expected to adhere to the schedule of submission and revision. Unless special circumstances arise accepted paper will appear on a single issue of the Quarterly.

Manuscripts must follow the MISQ guidelines for submission. Further details regarding the format of the submission can be found on the MISQ web page <http://www.misq.org>.

Submissions are to be sent to **misq-stds@umich.edu**.

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