MIS Quarterly

Call for Papers
MISQ Special Issue on

Information Systems for Symbolic Action: Social Media and Beyond

Guest Editors

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Motivation and Overview

Across all walks of life, from the personal to the public to the technical–professional, during the past few decades IT has become a ubiquitous technological underpinning to communication and collaboration that has transcended its starting point as a tool for information processing and decision support. The recent onslaught of so-called social media has continued this trend, sometimes in unexpected ways. Richer and more versatile information and communication technologies are increasingly becoming embedded in our lives. The very grounding for communication appears to be shifting in ways that are not yet well understood while the possibilities are being exploited in business, law, medicine, science, and policy with a plethora of digital traces left behind. How, then, do we make sense of these shifting technological and digital grounds for communication and collaboration?

Many features in today's computerized media were anticipated in the collaboration technologies of the late 1980s and early 1990s, and even earlier. When pioneers of convivial computing introduced the idea of computer-supported collaboration in the late 1960s, this concept was truly new and different. The pioneers recognized that computer-based information systems are not just calculative machines but fundamentally systems for social (symbolic or sign mediated) interaction; they are "social systems only technically implemented" (Goldkuhl and Lyytinen 1982). The recent developments in social media further emphasize that information systems are not just passive information channels in terms of transfer efficiency and calculation, but that information systems and information are grounds for human activity and symbolic action whereby humans build identities, coordinate their relationships, and make sense of their environment. Indeed, symbols are central to all types of human relationships and activities including decision-making and information. Information cannot be understood as just a signal but must also be understood as a symbol that is consequential for managing organizational identities and legitimization of actions (Feldman and March 1981).

At the same time, symbols are manipulable and involve semiotic relationships—either fictional or real. Symbols are simultaneously a form of physical reality and a representation of reality. Therefore, manipulating symbols is different from manipulating physical reality. Hence, information systems are part of both social and physical reality and as such are constitutive of both social and material action. Symbols enter also as part of complex relations to other signs in information systems which, in turn, affects how information systems can and are being used and mobilized in social contexts (Hirschheim et al 1995). Yet, the distinction between the material and social, between signifier and signified, is increasingly being blurred as information systems are used not only to represent physical reality but also to create the digital materiality out of which organizations and society are increasingly constructed and construed. Step by step the physical world is becoming a representation of the information as action that constructs institutional facts where both the signifier and the signified may reside inside as well as outside information systems (Eriksson and Ågerfalk 2010). The digitization of goods also blurs the distinction between communicative action and material action, between communication and distribution, which calls for new conceptualizations and approaches to analysis and design.

This special issue aims to foster Information Systems research in understanding, illustrating, and explaining how IS forms an inherent aspect of human activity and a means of symbolic action. We invite submissions that advance IS theory and research on the intersection of information systems and symbolic action through theoretical review, analysis, and development, empirical

and design studies, or large-scale empirics and methodology development. Central issues to be tackled revolve around novel conceptualizations of IS, uses and design of IS, and methods for investigating IS as grounds, means, and outcomes of symbolic action.

Theoretical reviews, analysis and development. We seek to advance theorizing of the nature of information and information systems as activity and symbol. As our world fills with increasingly complex digitized semiotic systems that affect and are constitutive for our social behaviors, concepts that have proven important and useful for understanding general human communication and collaboration (such as symbolic action, activity, symbol, interaction, information, speech act, and social action) require new analytic and empirical attention. These concepts arose from important theoretical insights found in the works of James, Peirce, Dewey, Mead, Blumer, Gadamer, Wittgenstein, Austin, Searle, Goffman, Habermas, and Garfinkel, among others. Yet, these concepts arose from inquiries focusing on face-to-face contexts. New ways of conceiving semiotic and social behavior materialized in digital capabilities that build upon past insights are sorely needed. Indicative of such searches are recent debates around concepts of socio-materiality (e.g., Leonardi and Barley 2008; Orlikowski and Scott 2008) and information infrastructure (e.g., Bowker and Star 2008). These endeavors attempt to conceive how aspects of the digital world have become interwoven and constitutive for various forms of symbolic action.

Theoretical contributions could develop new theory, transform extant theory, or retrofit extant theory to the issue of understanding the relationship between communication and its technological mediation. Much theory about communication in IS, and IS theory that has a communication component, is functionalist but what are the possibilities for such theories to seriously incorporate symbolic action? What can these approaches contribute back to better understand symbolic action? While there is great current interest in the colloquial concept of social media, that concept begs the question: What makes media social?

Empirical and Design Studies. We seek new ways to understand existing and emerging forms of computer use and to design human (or socio-technical) activity as symbolic action. Such investigations need to grapple with human communication and social interaction, but also with the role of agency embedded in information technologies (Taylor et al. 2001). Submissions can seek to improve ways to frame information technology related phenomena, to reconceptualize information technologies, and to foster new, fruitful directions for empirical research of computer use in the domain of symbols in social contexts. These theoretical concerns call for empirical and design-oriented research of the conditions and effects of IT supported communication and collaboration (Aakhus and Jackson 2005; Ågerfalk 2010; Beynon-Davies 2010; Lee and Nickerson 2010). Of particular interest are the ways communication and collaboration are conceptualized and realized in the context of information systems.

Empirical and design contributions can be organized around any variety of methods (design science, modeling, ethnographic field work, discourse analysis, participant observation, user-centered design, focus groups, interviews, experiments, surveys, social network analysis, corpus socio-linguistics, simulation, and so on). The methodological design of the project must, however, be tailored specifically to investigate IS as a form of symbolic action. This might include but is not limited to how practices and expectations related to symbolic action or human activity influence media choices, are incorporated into modeling assumptions, shape organizational IT policy, underlie design failure/success, unexpectedly shape knowledge production and open innovation, influence use of representations in meetings and design workshops, structure conflict around implementation, foster or inhibit decision support, are part of human infrastructure, afford or constrain large scale collaboration, underlie differences in design processes, inform crowd-sourcing and stakeholder/relationship management practices, and relate to organizational and system design choices in interorganizational relationships.

Large-Scale Empirics and Methodology Development. We seek insights into the conduct of IS research and design in the evolving digitally interactive society that attends to new and revised forms of symbolic action. As globalized information infrastructures and intense collaborations take place, the traces of human symbolic action become digitized and the opportunity for large-scale empirics arises. The old ways of doing research must meet the challenges of these new opportunities by devising strategies and empirical reasoning suited to the uses of these data. There is an imminent need for new research approaches that are open to powerful computational and massive data-oriented research methodologies. At the same time, the digital environments open up the possibility for new forms of unobtrusive measures driven by the design of social media systems.

Large-scale empirics and methodology development contributions should address key issues of doing a more computational social science in IS around symbolic action: (1) adapting qualitative research approaches, such as ethnographic, discourse, and participant observation, to the new conditions of the digitized environment for investigating IS and symbolic action, (2) combining the strengths of computational and new quantitative methods (e.g., data mining, event sequencing, network analyses) while putting information systems as a form of symbolic action at the center of inquiry, (3) use of agent-based simulation in understanding IS use as symbolic action, and (4) exploring combinations of qualitative and quantitative methods in IT rich contexts.

Potential Themes and Topics to Address

The special issue aims at bold explorations that engage new front lines of theory and empirics around matters of communication and collaboration that might not otherwise come into productive contact. The view that information systems have become an inherent part of human activity and a means for symbolic action raises new pivotal issues for conceptualizing, designing/using,

and investigating IS. The recent emergence of social media and ubiquitous applications provide a fruitful point of departure for reflecting upon and deepening such investigations. In particular, the special issue will solicit submissions that tackle these issues in the context of three key themes that are currently opening the horizons of the IS field.

The Relationship Between Information Systems and Organizational Action

Simon's original view emphasizing organizations as designs for decision management, with its hierarchical assumptions, introduced the golden era for information impact and organizational computing (March and Simon 1958; Simon 1969). That view slowly gave way to ever more constitutive views of organizations as activities grounded in language and communication (March and Olsen 1976; Weick 1979). At the same time alternative views of computing and telecommunication emerged, emphasizing that information systems are fundamentally social systems (Goldkuhl and Lyytinen 1982; Suchman 1987; Winograd and Flores 1986). Information systems appear to be architectures for defining social relationships and organizational action (Bowker and Star 1999; Latour 2005; Star and Ruhleder 1996).

The continued evolution of information systems invites further reflections upon and the development of the basic concepts and assumptions that ground our theoretical understanding of the relation between information systems and organizational action (Leonardi 2010). Topics of investigation that emerge from this evolution include

- Constitutive relationships between information systems, symbols, and activity
- Information as action, symbol, and communication
- Digital materiality and social action through and by means of IS
- Time and space in computer-mediated social action
- Power, control, and influence in relation to information, interaction, and media
- Business models and accounting practices for managing digital goods

Organizing and Governance for Large-Scale Collaborative Action

The founders of social media (Bush 1945; Engelbardt 1984; Licklider 1960) are often, and appropriately, linked to the technologies they imagined. It is worth noting, however, that the true animating matter of their work was not technology, but imagining new possibilities for human connection and collaboration. Humans have been ingenious at finding ways to engage in joint actions that make extensive use of the technologies at hand. The prospect of the new media has made possible collaborations with scale and flexibility that are unsurpassed in human history. This was a well-documented starting point of early explorations of new media (e.g., Hiltz and Turoff 1978; Short et al. 1976; Sproull and Kiesler 1992). To what extent are the current circumstances different, and can our institutions and theories, both normative and descriptive, effectively engage our current circumstances?

The contemporary era of "perpetual contact" (Katz and Aakhus 2002) creates incredible possibilities for collaboration, information sharing, and intellectual cross-fertilization. At the same time, information overload, privacy concerns, and cross-cultural tensions threaten to hamper the positive effects of increasingly globalized communications. Technology emerges around the demands of human communication, but to what extent is the emerging *homo connectus* capable of coping with the vast capabilities brought about by new communication technologies and, at the same time, shaping them? Undoubtedly, digitization, large-scale science, global supply networks (legal and illicit), evolving stakeholder media, and the changing mediascape are transforming the texture of the private and the public sphere and shifting the environments in which our 20th century organizations, governments, and other civil associations must act in the 21st. Just consider the implications and impact of Wikileaks and emergent mass social and political organization. This development gives rise to a number of topics requiring research attention, including

- Governance, organizing, and stakeholders in new media environments
- The influence of social media on the nature of collaboration support
- Large-scale social arrangements and behaviors where IT has a substantial formative role
- Open source systems, collaboration, and development as new forms of design discourse
- Organizations pursuing social agendas (whatever the strategic aim) and its reshaping of their interfaces with various stakeholders
- The disruptions and intersections of institutions for public and private organizing in regional, national, and transnational settings
- Infrastructuring and large-scale system integration in public and private organizations

Information Systems as Practice and Theory

As we digitize communications in the pursuit of connection and collaboration, do we actually realize anything new about human communication, or do we consistently return to the same conclusions about what the technology can and needs to do? What ideas

and presumptions about human interaction are institutionalized through the continuous invention and reinvention of technologies for informing and communicating? The innovations for business communication during the 19th century, where the railroad transportation revolution led to a new infrastructure for communication and collaboration evident in artifacts such as filing cabinets, typewriters, and carbon copies (Yates 1989) clearly signaled the rise of information as symbol and activity in forms of organizing. To what extent, though, is our current technologized communication now different? The Internet revolution could be seen as an echo of the ideas that brought us filing cabinets and office systems. The QWERTY keyboard persists—what else? Yet, the technologies constructed around office metaphors have been used with great zeal for a variety of social uses. Indeed, the great hope for telephones to create efficiencies for business also yielded whole new arenas for socializing (Fischer 1992). This pattern reappears in collaborative technology. For instance, groupware and its features were business oriented but now many of the same features are used principally for socially oriented groups and communities and are circulating back to influence organizational practice.

Information systems are in a sense hypotheses about how communication and collaboration are expected to work since any information system designed to support human interaction makes assumptions about a range of matters including but not limited to the communicative acts to be performed, the taking of turns, identities to be managed and displayed, commitments invoked, and the means to repair coherence and coordination (Aakhus and Jackson 2005; Aakhus 2007). Information system design and the process of design is theory laden, but not necessarily reflective. Its potential as a disciplined design enterprise is contingent on how attention is paid to the assumptions about symbolic action built into technologies, and the true "actability" of the technology. Despite this, current information systems design approaches typically rest on referential theories and materialist ontology that is unable to capture the inherently social and symbolic character of information systems (Ågerfalk 2010; Allen and March 2006; Eriksson and Ågerfalk 2010; Hirschheim et al. 1995; Wyssusek 2006).

A number of practice and theory related issues thus need attention. These include

- Institutional framing of social action embedded in information systems
- Negotiation of meanings and action within and around information systems
- Ontological foundations of information systems and conceptual modeling
- Pragmatic foundations for information systems
- Theories of communicative action and information systems
- Discourse analysis and theories and information systems

Deadlines and Submission Instructions

Papers will receive an initial screening. Only papers deemed to have a good chance of acceptance after two rounds of accelerated review will be allowed to enter the review process. Authors must adhere to a strict schedule for submission and revision of papers. Papers that miss the deadlines will be removed from the review process and will not be considered for publication. All submissions must adhere to the formatting guidelines for *MIS Quarterly*. Submissions must be made electronically to **http://mc.manuscriptcentral.com/misq**.

- Submissions due: February 1, 2012
- First round decisions: May 1, 2012
- Second round revisions due: August 1, 2012
- Second round decisions: October 31, 2012
- Final round revisions due: January 1, 2013
- Final decisions: February 1, 2013

Potential authors that would appreciate early feedback regarding the suitability of their material to the special issue are encouraged to submit a research-in-progress version of their manuscript to a developmental workshop that will be organized in conjunction with ICIS 2011. (Potential authors may also send inquiries to the editors that include extended abstracts for advice about relevance to the special issue.) The plan is to invite authors of papers that pass the first round of review to a second developmental workshop in conjunction with ECIS 2012. These workshops are not mandatory but are strongly encouraged as they aim to support authors in preparing and developing their manuscripts. Both workshops will be hosted by the AIS Special Interest Group on Pragmatist IS Research (SIGPrag). More information about these events will be announced at **http://www.sigprag.org/**.

Submission deadline for the ICIS 2011 workshop is August 1, 2011.

A maximum of three rounds of reviews will be undertaken. Papers not accepted by the end of the third round of reviews will be rejected. Moreover, papers will enter a third round of reviews only if the revision to be undertaken after the second round of reviews is relatively straightforward.

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