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## Editorial Overview

# The Interplay Between Digital and Social Networks

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Social networks constructed on digital platforms are becoming increasingly pervasive in all aspects of individual and organizational life. This special issue of *Information Systems Research* includes 10 papers that focus on the *interplay* between digital and social networks. The interplay draws attention to the fact that digital interaction among individuals and organizations is almost always embedded in, influenced by, and in turn influences a social network. The papers in this special issue collectively shed light on the technical, behavioral, and economic challenges and implications of such networks and contribute to our understanding of how the power of such networks can be harnessed.

*Key words:* digital networks, social networks, interplay, technology mediation, online communities, open source

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### The Research Domain of the Special Issue

The past decade has truly been remarkable in many respects. Two ongoing developments are causing major transformations in economic and social activity worldwide. First, the ubiquity and reach of electronic networks continues its exponential growth. Today, more than 1.4 billion individuals worldwide use the Internet, and usage growth over the eight-year period from 2000 to 2008 has been close to 300%. Although the exact number of online groups, social networks, or communities is difficult to estimate, in part because of definitional problems, the numbers are huge. The venerable Usenet had over 160,000 active newsgroups in 2006, Yahoo alone claims to host over a million groups, and most of the 90 million subscribers to Facebook maintain an explicit social network of others with whom they wish to keep in touch. Second, there is a growing realization that the networks enabled by digital platforms and technologies are not simply forums in which individuals congregate.

Rather, these networks create substantial value for the individuals who participate in them, the organizations that sponsor them, and the larger society in multiple ways, including providing social support, boosting sales and profits, enhancing knowledge, and generating innovation.

These two developments have converged, and we are now witnessing new social networks being constructed on digital platforms and digital technologies extending the reach and range of existing social networks. These “digitally enabled social networks” pervade the personal and professional lives of individuals and help create and maintain connections with friends and strangers alike. They influence the conduct of economic activity in organizations through, for example, product co-creation with customers, electronic ties with business partners, and off-shore work and other ways of exploiting location-specific advantages. They provide public goods, such as the collaboratively edited encyclopedia Wikipedia and open-source software projects. Some leading

edge enterprises (such as Cisco and IBM) are using the power of digitally enabled social networks to transform the dynamics of their internal organizations from command-and-control to connect-and-coordinate. Finally, such networks are increasingly affecting public debate and discourse around policy, from citizen discussions of global warming to extensive use of the Internet by candidates, critics, and the public at large in today's political campaigns.

Not surprisingly, this exciting domain has attracted scholarly attention from diverse disciplines. Early work in social networks was rooted in sociology, communication, and organizational behavior and was traditionally the purview of social science scholars, whereas research in digital technologies typically emanated from the disciplines of computer science and information systems. Today, the disciplinary boundaries are blurring as scholars from diverse conceptual and methodological traditions strive to understand the theoretical and practical implications of the interplay between digital and social networks. Publication of this special issue was motivated by the realization that to the extent that such networks are going to become an increasingly viable and omnipresent organizational form, there is clearly a need for research that sheds light on their technical, behavioral, and economic challenges and implications, as well as for a more nuanced understanding of how the power of such networks can be harnessed.

It is instructive to examine how the *interplay* is different from research on digital networks or social networks alone and what new research challenges and questions it poses. There are at least three dimensions along which a distinction can be made. First, and most obvious, is the scale of social networks that digital technologies enable. When the constraints of physical location and geography are removed, there are no theoretical bounds on the size of the network: its size is only limited by any restraints that may be imposed by members of the network or by the cognitive and social capacities of individuals who may elect not to participate in the network when it grows beyond a certain size. Examples of networks that have grown exponentially abound in every sphere of life—from Facebook that creates and maintains social ties among “friends” to Linked-in that promotes professional networking and referrals on a colossal scale to Cermo

that brings together a community of physicians to exchange knowledge about and ponder on the mysteries of medical knowledge to open-source communities that enjoy the voluntary and seemingly altruistic contributions of “experts” who devote their time and skills without any overt financial incentive to do so. SourceForge alone hosts over 180,000 projects and has close to 2 million registered users.

Second, when technology mediates social relationships, it creates new interaction dynamics, necessitating novel mechanisms for communicating about oneself and learning about others (Ma and Agarwal 2007). Communication and coordination are generally more difficult when people are not collocated (Olson and Olson 2000). Traits such as trustworthiness can no longer be communicated with a direct look in the eye and a firm hand shake; reputations are difficult to establish; and language may not have a shared meaning. The anonymity afforded by some digitally enabled social networks creates new types of risks for individuals while simultaneously providing opportunities to craft and maintain a new online persona and reinvent one's identity.

Finally, a related, important outcome of the scale of such networks is the explosion of user-generated content. From online reviews to blogs to self-organizing encyclopedic collections of knowledge, there are few questions whose answers cannot be found on some socially constructed digital network. One can find videos of old jazz performances on YouTube.com, accurate election predictions at the Iowa Electronic Markets ([iemweb.biz.uiowa.edu](http://iemweb.biz.uiowa.edu)), and almost 2.5 million encyclopedia articles in the English version of Wikipedia (<http://en.wikipedia.org/>). The explosion of content creates both an opportunity and a challenge—while access to knowledge and information is facilitated, quality signals become more faint and diffused and cognitive overload occurs frequently.

We initiated this special issue in an effort to consolidate existing research and stimulate new work that focuses on the *interplay* between digital and social networks, incorporating one or more of the elements described above. The interplay explicitly acknowledges that digital networks are designed by and used by people, individually or collectively. Thus, digital interaction among individuals and organizations is

almost always embedded in, influenced by, and in turn influences a social network. The response to the call for papers was heartening! Given the breadth and scope of the types of research questions that the interplay between digital and social networks generates, as we hoped and anticipated, the special issue generated submissions spanning a range of topics, theoretical perspectives, and research methodologies.

### The Scope of Scholarly Activity

In an attempt to understand what scholars are working on in this domain, we classified the submissions received along several dimensions. Table 1 summarizes key characteristics of the 72 manuscripts submitted. Several aspects of the submissions are noteworthy. First, as expected, the vast majority of authors have business school affiliations, often in an information systems program; at the same time, it is heartening to see a robust representation of other disciplines as well. Collectively, the papers spanned a broad range of contexts and phenomena, ranging from electronic marketplaces for economic transactions to online communities for social transactions such as knowledge sharing and advice giving. The notion of social capital was featured in over

30% of the submissions, and authors examined its antecedents, development, and consequences in digitally enabled social networks. A wide variety of theoretical perspectives was used in the papers, including social exchange, impression management, actor network theory, theories of competitive positioning, identity theory, theories of motivation, institutional entrepreneurship, and diffusion theories.

With respect to data sources and research methodologies, we again saw a wide range reflecting the methodological diversity with which topics in this domain are being addressed. Research in digital and social networks naturally lends itself to the use of archival and secondary data as scholars use the wealth of information generated and captured in online settings, and approximately 40% of the papers submitted used some form of secondary data. Although empirical submissions tended to dominate, we also received papers that either developed theory through conceptual reasoning or used analytical methods such as game theory and graph theory. Statistical techniques spanned a wide gamut, ranging from econometric methods to social network analysis to structural equation modeling. Finally, we note that several submissions exhibited methodological plurality in that they combined multiple methods

**Table 1** Submissions to the Special Issue

Academic department of authors	Information Systems	60
	Management/business	7
	Economics	7
	Computer science/cognitive science	5
	Marketing	4
	Industry	4
	Management science	2
	Domain	Online communities/electronic networks/social networks
	Electronics marketplaces/auctions/business partnerships/supply chains	7
	Intrafirm phenomena (knowledge management, electronic and interpersonal ties, intranets, email exchanges)	7
	Virtual teams/groups	7
	Industry studies	7
	Open-source communities/projects	7
	Online reviews	5
	Blogs	2
Data source/methods	Archival secondary data	27
	Primary data: quantitative methods (survey, usage data, sociometric data)	20
	Primary data: qualitative methods (observation, interviews, action research, ethnography, case studies)	12
	Analytical modeling	8
	Conceptual manuscript	5
	Simulation	4
	Experiment	3

Notes. Totals exceed 72 because of manuscripts being co-authored across disciplines.

within a single study to more effectively triangulate on the phenomenon of interest.

Although these statistics demonstrate that research on the interplay between online social networks is flourishing in business schools, business schools by no means have a lock on this intellectual market. Much excellent research is conducted by computer scientists, psychologists and others who publish in selective, peer-reviewed conferences such as the annual conferences on the World Wide Web (WWW), Computer-Human Interaction (CHI), Computer-Supported Cooperative Work (CSCW), and Knowledge Discovery in Data (KDD), among others. These publications are archived and available through the Association for Computing Machinery's digital library (<http://portal.acm.org/dl.cfm>). Research published in these venues does not follow the iterative review and revision cycles typical of research published in information systems journals. As a result, these publications tend to be "fresher," with less than a 12-month lag between article submission and publication, rather than the 2- to 3-year lags in the leading information systems journals. (As described in more detail below, the articles in this special issue were first submitted in July 2006 and went through two or three review and revision cycles). Compared to research published in information systems journals, research published in these computer science outlets tends to be less theoretical and often combines qualitative or quantitative descriptions of how digitally enabled social networks operate with explicit recommendations or applications for improving them.

The field of communication studies is another that systematically publishes research on the interplay between digital and social networks. Because of a long-standing interest in this field in interpersonal communication, mass communication, and "media effects," the communications discipline has several journals that specialize in publishing such research, including the *Journal of Computer-Mediated Communication* and *Information, Communication & Society*, along with publications in their mainstream journals such as *Journal of Communications and Human Communications Research*. Although research published in communication-oriented outlets is theory-oriented, it builds on a different intellectual base than does the typical information systems paper on a similar topic,

drawing extensively on research on diffusion of innovation, interpersonal communication and mass communication, and, less so, on economics.

## Papers in This Special Issue

The review process finally yielded 10 acceptances for the special issue, 9 of which are regular research articles and 1 of which is a research note. Seven papers are published in this issue of ISR, and three will be published in the next issue. Collectively, these articles reflect the breadth and diversity of theories and methodologies that researchers are deploying to study phenomena at the intersection of digital and social networks.

In this volume of the special issue, the paper by Forman, Ghose, and Wiesenfeld, "Examining the Relationship Between Reviews and Sales: The Role of Reviewer Identity Disclosure in Electronic Markets," is rooted in the premise that online reviews contain two types of information—the content of the review and the extent and nature of his or her personal identity that the reviewer chooses to disclose.<sup>1</sup> The authors argue that online buyers constitute a community, rather than just a random collectivity. Thus, whether or not a reviewer discloses his or her identity and the information contained in that disclosure matters. They provide evidence that community norms serve as an antecedent to reviewer disclosure of identity-descriptive information, i.e., identity disclosure by previous reviewers induces similar identity disclosure by future reviewers. They also find that Amazon members rate reviews containing identity-descriptive information more positively and that identity-disclosures have a positive impact on future online sales. In addition, the analyses of Forman et al also indicate that these impacts are generally stronger when the reviewers and customers are from the same geographic location, rather than from different geographic locations.

The paper by Kane and Alavi, "Casting the Net: A Multimodal Network Perspective on User-System

<sup>1</sup> Two of the papers in this special issue, Forman et al., published in this volume, and Li and Hitt, to be published in the second volume, build on earlier studies that showed that online reviews had a significant impact on product sales (Chevalier and Mayzlin 2003 and Godes and Mayzlin 2004) and look at other directly related phenomena.

Interactions,” extends the concept of digitally enabled social networks by treating information systems as first-class nodes in a social network comprising both employees in a large health care organization and the technology they use. Using measures from social network analysis, this paper shows that the centrality of the information systems within a health care group improves both the efficiency and the quality of the health care that the group provides to its clients. When the information systems in a health-care group are used by employees who themselves have ties to many other members of the group, the information available to the direct users can flow to all group members, helping them to treat clients more effectively and efficiently.

The paper by Robert et al., “Social Capital and Knowledge Integration in Digitally Enabled Teams,” uses a laboratory experiment to study the performance of distributed teams. Intact student teams engaged in a pair of hidden-profile, decision-making tasks (Status and Titus 1985) in either a face-to-face session or one in which they communicated via a synchronous text-based chat. The extent to which team members were able to integrate information that they uniquely possessed influenced the quality of their decision making. Distinct components of social capital influenced the extent to which they were able to integrate their information. Teams with higher relational capital, i.e., with teamwork norms and members who identified with the team, were better able to integrate their knowledge. Teams that had high cognitive capital—a common view of the decision criteria—were also better able to integrate their information, and this effect was especially important when the team communicated in a lean text environment. Although structural capital—the frequency and decentralization of prior communication in the group—had no direct effect on knowledge integration, it was associated with better integration when teams communicated in the chat room. Taken together, these results indicate how social capital can be important in team decision making and help teams overcome some of the disadvantages of working remotely via text-based media.

The paper by Hahn et al., “Emergence of New Project Teams from Open Source Software Developer

Networks: Impact of Prior Collaboration Ties,” examines the influences of social network on the recruiting of new members to open source software development projects. They show that new recruits are more likely to join an open source project when they had prior ties to the project’s initiator, through prior collaborations and joint administration of previous projects. Surprisingly, ties to noninitiator members of the project and the success of prior projects do not seem to matter. However, the prior development experience of the existing developers influenced joining in both expected and unexpected ways. New recruits are more likely to join an open source project when existing members of the project had previously participated in more development projects, perhaps because the new recruits believe that this prior development experience presaged success for the current project. However, they were less likely to join when the existing members of the project had more ties among themselves from working together in the past; perhaps the new recruits found it difficult to break into existing cliques.

In their paper, “The Impact of Information Diffusion on Bidding Behavior in Secret Reserve Price Auctions,” Hinz and Spann use a multimethod approach to understand how the exchange of information via social ties influences behavior in an emerging and important electronic market context: auctions with a secret reserve price. They begin with an analytical model that captures individual-level behavior by modeling the effects of the amount and dispersion of shared information on an individual’s bid. Juxtaposing the implications of this model with those of prior research on social networks, they develop hypotheses that extend this individual-level behavior to a social network context and theorize about the effects of an individual’s position in the social network, as well as about the structure of the network on bidding behavior. The hypotheses are then tested in a laboratory experiment, followed by a field study of real purchases in a virtual environment. Overall, their findings suggest a significant impact of social position in a network on bidding behavior, supporting prior theory on the primacy of structure in social networks.

Trier’s research note, “Towards Dynamic Visualization for Understanding Evolution of Digital Communication Networks,” argues that traditional methods of social network analysis may be inadequate for

understanding communication patterns that exhibit high levels of volatility and temporal elements. He describes a methodology for event-based dynamic network visualization and analysis that has been incorporated into a software tool. Through this approach, he is able to capture the evolution of an actor's position in a constantly changing network, understand processes of general network and subgroup formation, model the effects of specific activities such as brokering, and evaluate the impact of external events on network structure. Trier illustrates the application of the approach using publicly available corporate e-mail data from Enron. The methodology proposed provides useful insights into dynamic social networks that are characterized by massive timed events.

Finally, the paper by Bampo et al., "The Effects of the Social Structure of Digital Networks on Viral Marketing Performance," argues against the "conventional wisdom" that viral marketing is both random and unmanageable and suggests that digital networks have social structures. Bampo et al. examine the mediating effects of alternative social structures (random, scale-free, and small-world) on viral marketing campaigns. They analyze an actual viral marketing campaign and use the empirical analyses to develop and validate a computer simulation model for viral marketing. Their findings confirm that the social structure of a digital network has a significant impact on the success of a viral marketing campaign. They also demonstrate that the underlying social structure can be uncovered by analyzing the results from the early phases of a viral marketing campaign and that this knowledge can be used to fine tune the later phases of the campaign.

In Volume 2 (December 2008) of the special issue, as with the Forman et al. paper in this issue, the paper by Li and Hitt, "Self-Selection and Information Role of Online Product Reviews," uses book reviews and sales on Amazon.com as the empirical context. It addresses four questions: Does self-selection bias exist in online reviews? Do consumers correct for this bias when making purchase decisions? How does review bias affect market outcomes (sales and consumer surplus)? How should firms adjust their strategies to account for self-selection review bias? Designed to test the predictions from an analytical model, the

empirical analyses of Li and Hitt indicate that, for a majority of books, early reviews show a systematic positive bias and consumers appear not to discount these early reviews. Their analysis also suggests that firms could potentially benefit from designing marketing strategies that encourage consumers likely to generate positive reviews to self-select into the market early and generate positive word of mouth. Li and Hitt also conclude that self-selection bias, if not corrected, decreases consumer surplus.

The paper by Moon and Sproull, "The Role of Feedback in Managing the Internet-Based Volunteer Workforce," shows how the sociotechnical design of an online community can influence the extent to which members contribute to it. In particular, they argue that volunteers in an online community are more likely to contribute high-quality content and remain committed to it if the community provides systematic feedback evaluating the quality of contributions. By comparing members' behavior in several technical help support groups, these authors show that in communities that have implemented systematic feedback systems, answer providers contribute more often; question askers return over longer periods; and technical problem resolution is more efficient. They frame these empirical observations in observations about the way one must manage an Internet-based volunteer workforce, as compared to that in a conventional organization.

Finally, the paper by Feller et al., "From Peer Production to Productization: A Study of Socially Enabled Business Exchanges in Open Source Service Networks," argues that the community-based development characterizing open source software is often unable to produce artifacts that are viewed by consumers as true "products." Using a theory-building approach, they study an emerging business network type that is attempting to address the productization challenge and study how the firms within such a network address exchange problems by relying predominantly on social, rather than legal, mechanisms. Using a mixed methodology that includes a qualitative case study and an exploratory survey, they underscore the importance of a shared macroculture and collective sanctions for coordinating and safeguarding exchanges among the firms in the network. They

also illustrate how the social mechanisms are predicated on the underlying IT infrastructure, thereby highlighting the interplay between the digital and social network.

## Conclusions and Outlook

The papers in this special issue represent a spectrum of research that is currently being conducted among researchers exploring the interplay between digital and social networks. In general, there are five distinct streams of research in this domain that are addressed by the papers in the special issue to varying degrees and present important opportunities for further work.

First, because many of the phenomena observed in these digitally enabled networks are qualitatively different from those in conventional organizations, much additional research is needed simply to document, describe, and make sense of these novel phenomena. For example, because online social networks can potentially involve millions of individuals, researchers have attempted to describe their structure. Barabasi and Albert (1999) identified scale-free networks and power law distributions as characteristics of many digitally enabled networks, and others have followed by trying to describe the structure and processes involved in specific digitally enabled networks, such as open-source software development projects (Mockus et al 2002, Lakhani and von Hippel 2003), massively multiplayer online games (Ducheneaut and Moore 2004, Williams et al. 2006), and political campaigns (Foot and Schneider 2002). The focus in much of this research is descriptive and exploratory, laying out how a new domain is structured and how it operates. It asks questions such as how the networks are structured, who joins them, why people contribute, and how they are socialized. It examines issues at the intersection of the digitally enabled networks and the companies and institutions that deploy them.

Several of the papers in the current special issue clearly follow this exploratory model, including the paper by Moon and Sproull on systematic feedback in Internet-based volunteer communities, the work of Fitzgerald et al. on open-source service networks, and Trier's empirical study and development of visualization techniques for understanding the dynamics of a large email network. Other examples include the work of Li and Hitt on biases in early online reviews

and the paper by Bampo et al. on how the underlying social structure of a digital network affects the spread of a viral message. The latter two papers use multiple methodologies: analytical modeling coupled with a description of the empirical reality and, in the case of the Bampo et al., computer simulations as well.

A second stream of research on digitally enabled social networks attempts to draw strong parallels between them and offline phenomena (e.g., Butler et al. 2008). Rather than exploring the new ways in which these social networks operate, this research stream attempts to identify ways in which they are fundamentally similar to phenomena observed elsewhere. For example, the work of Dodds et al. (2003), a replication of the classic study by Travis and Milgram (1969) on the small-world phenomenon, extends the notion of six degrees of separation to email-enabled networks. In the process, Dodd's et al. clarify the nature of the social ties that best carry information. So, too, the study of Robert et al. shows how economic incentives motivate open-source developers (2006). Among the articles selected for this special issue, the study of Hahn et al. of the influence of social networks in recruiting newcomers to open-source development projects is clearly in this tradition. This is true also of the paper by Robert et al. on the ways in which social capital can be harnessed to overcome some of the problems faced by distributed teams.

Third, although digitally enabled social networks, groups, and communities exhibit new and interesting dynamics, worthy of study in their own right, the large number of these groups, the variety in their organizational features and levels of success, and the rich longitudinal data that are often available about members' interactions make them a valuable resource for studying basic social processes. As such, they provide important, and in some cases unique, opportunities for researchers to answer classic questions in human behavior and to understand group and organizational processes. These data enable researchers to study communication between large numbers of group members in ways that are difficult, if not impossible, in most other social settings. For example, while classic research on the structure and influence of social networks might examine networks of tens or possibly hundreds of members (e.g., Coleman et al.



1957), today's researchers are able to examine networks with millions of participants (e.g., Backstrom et al. 2006). Most transactions and conversations in these online groups leave a digital trace, often including the content of interpersonal communication. This research data makes visible social processes that are much more difficult to study in conventional organizational settings.

An example of this stream of research may be found in studies in which the matching of archival record of conversations in Wikipedia or in open-source software projects with data on the quality of the projects allows researchers to examine how the details of social interaction lead to the success of a production group (e.g., Kittur et al. 2008). Such studies also allow researchers to study short-term and long-term temporal changes in group and organizational formation, composition, structure, and so forth. In the current special issue, the paper by Forman et al. on the role of reviewer identity in electronic markets takes advantage of the detailed archives available from Amazon.com to test long-standing theories on source credibility and identification from the attitude change literature (e.g., Kelman 1958), while Trier's paper offers a visualization approach for understanding the temporal dynamics of network formation.

A fourth stream of research on digitally enabled social networks is more synthetic and action-oriented than the types just described. The goal in this type of research is to identify sociotechnical designs that help digitally enabled social networks better achieve their purpose of supporting members, sponsoring organizations, and society as a whole. All online communities are confronted with some common challenges. At start-up, they must overcome the problems of network externalities, when they have limited content to attract members and few members to attract content. All must recruit, select, and socialize newcomers, training them to become good community citizens while simultaneously protecting the community from the ignorance or ill will of those who have not yet been socialized. Many want to develop commitment among members, to increase the time they spend in the community and the contributions they make. Many communities have to coordinate the efforts of large numbers of individual contributors, for instance, ensuring that knowledgeable

members respond to those with questions. Coordination is especially important in communities such as Wikipedia or open-source development projects that produce a complex artifact.

The ability of online communities to solve these and similar problems is influenced by a series of technical and managerial design decisions and the trade-offs among them. Much research in information systems studies the consequences of these design decisions in a post hoc way. For example, in the current special issue (December 2008 Special Section), Moon and Sproull examine how structuring communities to provide feedback systematically to contributors changes their motivation and the quality of the help they provide to others and, in turn, the commitment of those seeking help. In prior work, Ma and Agarwal (2007) examined how the design aspects of an online community enabled an individual to communicate his or her identity with greater fidelity. The paper by Hinz and Spann in this special issue indirectly identifies community design features that can influence the behavior of bidders.

However, far fewer information systems researchers explore the decisions prospectively and in sufficient detail to be able to guide the designs and understand the trade-offs needed. More generally, the *ceteris paribus* research paradigm used by most social scientists, which attempts to hold many factors constant while determining the causal effect of a small number of variables, is inconsistent with the highly multivariable design spaces needed to understand design trade-offs. For example, in trying to decide whether to pay professionals or initial members to create content for a new online community, a manager of such a community also needs to understand the potential impact of this decision on the commitment and contributions of nonpaid volunteers, the quality of their contributions, and how to guard against gaming the system. In another example, although social scientists have identified a host of factors that could influence members' commitment to a group or organization, these factors can have unexpected effects on other desired outcomes in the community. For example, people tend to be more committed to smaller groups and organizations, to work harder in them, and to be more likely to offer help when they are part of small groups (e.g., Karau and Williams 1993). On the other hand,

restricting the size of an online community may not have the desired effects on members' commitment because smaller numbers make it more difficult for people to find a compatible partner with whom they can form a strong interpersonal tie, which is another route for developing commitment (Ren et al. 2007). Moreover, decisions about limiting group size may have consequences for the volume of new contributions that the community will have available to attract new members.

Very few prospective design-oriented papers were submitted for this special issue. In the present set of papers, only the paper by Bampo et al. on electronic viral marketing takes this prospective design orientation by combining analytic studies, empirical evidence, and computer simulation to promote understanding of the conditions under which different types of viral marketing campaigns lead to optimal performance. We believe that the dominance in the information systems field of retrospective accounts of how digitally enabled social networks currently work at the expense of prospective accounts of how they should work may unduly limit the influence of the information systems discipline in this domain. By focusing on empirical studies of existing systems, information systems researchers are often playing catch-up, describing a world receding in the rearview mirror. By limiting themselves to the *ceteris paribus* paradigm, information systems researchers are also limiting the relevance of their results. Thus, several fruitful opportunities for future work remain. For example, researchers could use experimental techniques in realistic settings to explore the efficacy of different incentive structures on the provision of high-quality content or quality ratings. Alternately, they could study the outcomes associated with different ways of structuring and presenting an online reputation. Such types of studies could yield important actionable guidelines for the designers of digitally enabled social networks.

Finally, researchers in organization theory, as well as information systems, have paid relatively limited attention to how the spread of digital networks could change the social dynamics *within* the large organization and thus impact the organizational design of the enterprise. Cisco Systems appears to be one of

the companies that is leading the charge in thinking about how the spread of digital networks may change the design of the multinational enterprise. As Wim Elfrink, Cisco's chief globalization officer, noted in a recent internal article, "Virtualizing the Corporation." "The trade-off between the intimate but inefficient old-world organization and the hyper-efficient but impersonal modern organization is on the verge of extinction. Today, the increasing pervasiveness of broadband networks have facilitated the slicing and dispatching of corporate functions around the globe. In the place of a corporate headquarters will emerge thousands of detached office-nodes, connected seamlessly around the world in a peer-to-peer network. Nodes will be independent, empowered, and highly specialized. Top management will be dispersed globally instead of congregating around the CEO" (Elfrink 2008, p. 2). These are bold pronouncements and predict a radical change in the design of organizations. They also present a major opportunity to organization theory and information systems researchers to look at how these changes will be influenced by and, in turn, influence the interplay between digital and social networks.

## The Review Process

A total of 72 submissions were received. The three senior editors took primary responsibility for handling subsets of the submissions separately and conferred with each other as needed. First, each of the senior editors evaluated the submissions for fit with the special issue's focus, theoretical and methodological strengths and weaknesses, and potential to make interesting and novel contributions to our understanding of the interplay between digital and social networks, using a very liberal definition. Based on this assessment, 63 papers were selected for further peer review. At the conclusion of the first round of reviews, a total of 17 manuscripts were then selected for further development. Authors of these papers were invited to revise their manuscripts and were also invited to present preliminary revisions at a developmental workshop held in April 2007 at the R.H. Smith School of Business at the University of Maryland. The objective of this workshop was to facilitate the development of the manuscripts through discussion among the authors, the editors, and a subset of the reviewers

for the special issue. In addition to the authors, the attendees of the workshop included the three special issue senior editors, the Editor-in-Chief of Information Systems Research (Vallabh Sambamurthy), two other senior editors of ISR (Sanjeev Dewan and Robert W. Zmud), and several reviewers from the editorial board for the special issue.

Consistent with the policy of ISR, the identity of reviewers was not shared with the authors during the workshop or at any stage in the process. Shortly after the workshop, the three editors consolidated the feedback for each manuscript from the workshop into a report, which was then shared with the authors. The authors were requested to revise their manuscripts based on this feedback, although several authors withdrew their papers at this point. The revised manuscript, along with the documented feedback from the workshop, was then sent to the reviewers for further assessment. Some papers received a third round of reviews from the external reviewers, while only the three editors handled subsequent rounds of revisions for others. Eventually, 10 papers were accepted for the special issue.

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