# The effects of communication media and culture on deception detection accuracy

JF George, M Gupta, G Giordano, AM Mills…

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<https://www.jstor.org/stable/26630245>

## Abstract

As the world “gets smaller” and more people engage in cross-cultural communications, their ability to successfully separate truth from deception can be critically important. Yet it is challenging. While deceptive communication has been studied for decades, some areas are not well understood. In particular, two areas that could benefit from further research concern the effects of cultural differences and communication media on deception and its detection. Building on developments in theories of deception and its detection, we examine the question: How do differences in culture between senders and receivers affect deception detection, especially where the deceptive communication occurs across different media? To address this question, stimulus materials from recorded interviews were created featuring participants from the United States, Spain, and India. Three stimulus sets were created, one each in American English, Spanish, and Indian English, and each consisting of 32 interview snippets. Half of the snippets were honest and half were dishonest. Each snippet represented one of four media: full audio-visual, video only, audio only, and text only. Veracity judges were also recruited from the same three countries as the interview participants, to independently observe and evaluate the communication both within their culture and across other cultures. Evidence was found that different combinations of cultural and media effects affected the accuracy of deception detection.

# The sustainability of polycentric information commons

V Mindel, L Mathiassen, A Rai

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## Abstract

Research on various distributed online information systems—including blogging, crowdsourcing, media sharing, online communities, online reviews, open source software development, social media, wikis, peer-to-peer file sharing, and two-sided electronic markets—shows that the level of user engagement and overall activity in most systems eventually decline substantially. Here, we draw on Hardin’s theory of the tragedy of the commons and Ostrom’s theory of polycentric governance to introduce a unifying theory of polycentric information commons that explains these phenomena. Further, our theory illuminates how polycentric governance principles, as manifested in system rules and infrastructure features, counterbalance various sustainability threats arising from unrestricted participation. By integrating previous research findings and offering new insights into information and governance practices, the theory, practically applied, can enhance the likelihood of sustained participation across diverse, decentralized online information systems. We conclude by discussing how researchers can use the theory in empirical investigations and how they can engage in theoretical elaborations.

# Prominence and interpretation of online conflict of interest disclosures

ML Jensen, E Yetgin

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## Abstract

Online product reviews are influential sources of information that some companies attempt to manipulate by compensating reviewers for favorable comments. The U.S. Federal Trade Commission has mandated disclosure of reviewer compensation to address this potential conflict of interest, but the effect of such disclosures on consumer attitudes is unknown. By extending prominence–interpretation theory, this work reconciles conflicting empirical results by introducing two novel elements of prominence (i.e., proximity and embedding) and demonstrating the effect disclosures have on reviewer credibility through two experiments (N = 750). The effects of social consensus and prior warnings on how consumers interpret disclosures are also studied. Using a general population sample (N = 346), Experiment 1 demonstrated that proximity to review increased disclosure prominence while embedding the disclosure in the review decreased disclosure prominence. More prominent disclosures reduced reviewer credibility, but less prominent disclosures had no effect. Using a student sample (N = 404), Experiment 2 demonstrated that disclosure interpretation is affected by prior warnings about conflicts of interest and the consensus of other reviews. When there was disagreement between reviews and prior warnings were provided, disclosures reduced reviewer credibility, but when there was a consensus of positive reviews or no consensus information was provided, disclosures had no effect. Our studies show that both prominence and interpretation are important to consider in understanding the effects of disclosure statements. However, variables associated with prominence produced the most robust results. The theoretical implications of these results and the practical implications for consumers, companies, and policymakers are discussed.

# Ambient awareness and knowledge acquisition

PM Leonardi

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## Abstract

The argument proffered in this paper is that use of enterprise social networking technologies can increase the accuracy of people’s metaknowledge (knowledge of “who knows what” and “who knows whom”) at work. The results of a quasi-natural field experiment in which only one of two matched-sample groups within a large financial services firm was given access to the enterprise social networking technology for six months revealed that by making people’s communications with specific partners visible to others in the organization, the technology enabled observers to become aware of the communications occurring amongst their coworkers and to make inferences about what and whom those coworkers knew based on the contents of the messages they sent and to whom they were sent. Consequently only individuals in the group that used the social networking technology for six months improved the accuracy of their metaknowledge (a 31% improvement in knowledge of who knows what and an 88% improvement in knowledge of who knows whom). There were no improvements in the other group over the same time period. Based on these findings, how technologically enabled “ambient awareness”—awareness of ambient communications occurring amongst others in the organization—can be an important antecedent for knowledge acquisition is discussed.

# Knowledge exchange and symbolic action in social media-enabled electronic networks of practice

R Beck, I Pahlke, C Seebach

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## Abstract

Organizational knowledge is one of the most important assets of an enterprise. Therefore, many organizations invest in enterprise social media (ESM) to establish electronic networks of practice and to foster knowledge exchange among employees. ESM improves interaction transparency and can be regarded as a sociotechnical system that provides a language for communication and symbolic action as well as a better sense of others’ social identity. Accordingly, the individual characteristics of knowledge seekers and contributors determine why and how interactions occur. However, existing studies tend to focus only on knowledge contributors’ characteristics and to treat knowledge as an object that needs to be transferred. To address this gap, this study conceptualizes and empirically tests a multilevel model of knowledge exchange in electronic networks of practice (ENoP) that includes the characteristics of knowledge seekers and knowledge contributors as well as their dyadic relationship from an activity-centered language/action point of view. A dataset of 15,505 enterprise microblogging messages reveals that knowledge seekers’ characteristics and relational factors drive knowledge exchanges in social media-enabled ENoP. Focusing on organizations with knowledge exchanges supported by information technology, our research extends prior findings by providing the first evidence that the communicative act expressed by question–answer pairs impacts the quality of knowledge exchanged.

# Media selection as a strategic component of communication

JF George, JR Carlson, JS Valacich

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<https://www.jstor.org/stable/43825789>

## Abstract

Why do people select the media they choose for a particular type of communication? The media choice literature has considered myriad contextual factors that influence media choice, from proximity of the communication partners, to the urgency of the situation, to time pressure, and so on. From this body of work, a contingency-based theory of media choice has emerged. An alternative approach is to investigate how communication strategies and media characteristics affect choice. We identified two approaches for investigating these issues: Te'eni's (2001) model of organizational communication and Dennis et al.'s (2008) media synchronicity theory. Using a scenario-based methodology, we asked respondents which medium they would use for a deceptive communication task and why they made that choice. We analyzed the data from the perspective of both the Te'eni and MST frameworks, enabling us to compare the extent to which each was able to explain our respondents' media choices. Both frameworks, at differing levels of communication granularity, suggest that the intent of the communication drives a strategy that ultimately informs media choice. The results suggest that the prior contingency-based explanations of media choice could be improved by not only understanding the intent of the communication, but also the strategy used by an individual to execute this communication. Additionally, we found that the more finely grained view of communication contained in MST explained more of the outcomes and was more parsimonious as well.

# Product-related deception in e-commerce: A theoretical perspective

B Xiao, I Benbasat

Year:2011

<https://www.jstor.org/stable/23043494>

## Abstract

With the advent of e-commerce, the potential of new Internet technologies to mislead or deceive consumers has increased considerably. This paper extends prior classifications of deception and presents a typology of product-related deceptive information practices that illustrates the various ways in which online merchants can deceive consumers via e-commerce product websites. The typology can be readily used as educational material to promote consumer awareness of deception in e-commerce and as input to establish benchmarks for good business practices for online companies. In addition, the paper develops an integrative model and a set of theory-based propositions addressing why consumers are deceived by the various types of deceptive information practices and what factors contribute to consumer success (or failure) in detecting such deceptions. The model not only enhances our conceptual understanding of the phenomenon of product-based deception and its outcomes in e-commerce but also serves as a foundation for further theoretical and empirical investigations. Moreover, a better understanding of the factors contributing to or inhibiting deception detection can also help government agencies and consumer organizations design more effective solutions to fight online deception.

# What if your avatar looks like you? Dual-congruity perspectives for avatar use

KS Suh, H Kim, EK Suh

Year:2011

<https://www.jstor.org/stable/23042805>

## Abstract

As broadband Internet access and virtual reality technology rapidly expand, virtual worlds and three-dimensional avatars will become more pervasive and widely adopted. In virtual worlds, people assume an identity as an avatar and interact with each other. The objective of this study is to theorize how users form attitudes and intentions regarding avatars in realistic, task-focused virtual world settings. To investigate these effects, this study proposes a conceptual framework based on dual-congruity perspectives (self-congruity and functional congruity). The results show that the more closely an avatar resembles its user, the more the user is likely to have positive attitudes (e.g., affection, connection, and passion) toward the avatar, and the better able to evaluate the quality and performance of apparel products. In the end, these positive attitudes toward an avatar and its usefulness positively affect users' intentions to use the avatar. Based on this study, we propose that avatars representing users' actual appearance may be helpful in experiencing and evaluating some business areas related to users' lives in the real world (e.g., virtual apparel shopping, matchmaking, plastic surgery, fitness clubs, etc.); utilization of such avatars may be a new business opportunity likely to thrive in virtual worlds.

# Detecting fake websites: The contribution of statistical learning theory

A Abbasi, Z Zhang, D Zimbra, H Chen…

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<https://www.jstor.org/stable/25750686>

## Abstract

Fake websites have become increasingly pervasive, generating billions of dollars in fraudulent revenue at the expense of unsuspecting Internet users. The design and appearance of these websites makes it difficult for users to manually identify them as fake. Automated detection systems have emerged as a mechanism for combating fake websites, however most are fairly simplistic in terms of their fraud cues and detection methods employed. Consequently, existing systems are susceptible to the myriad of obfuscation tactics used by fraudsters, resulting in highly ineffective fake website detection performance. In light of these deficiencies, we propose the development of a new class of fake website detection systems that are based on statistical learning theory (SLT). Using a design science approach, a prototype system was developed to demonstrate the potential utility of this class of systems. We conducted a series of experiments, comparing the proposed system against several existing fake website detection systems on a test bed encompassing 900 websites. The results indicate that systems grounded in SLT can more accurately detect various categories of fake websites by utilizing richer sets of fraud cues in combination with problem-specific knowledge. Given the hefty cost exacted by fake websites, the results have important implications for e-commerce and online security.

# Are there neural gender differences in online trust? An fMRI study on the perceived trustworthiness of eBay offers

R Riedl, M Hubert, P Kenning

Year:2010

<https://www.jstor.org/stable/20721434>

## Abstract

Research provides increasing evidence that women and men differ in their decisions to trust. However, information systems research does not satisfactorily explain why these gender differences exist. One possible reason is that, surprisingly, theoretical concepts often do not address the most obvious factor that influences human behavior: biology. Given the essential role of biological factors—and specifically those of the brain—in decisions to trust, the biological influences should naturally include those related to gender. As trust considerations in economic decision making have become increasingly complex with the expansion of Internet use, understanding the related biological/brain functions and the involvement of gender provides a range of valuable insights. To show empirically that online trust is associated with activity changes in certain brain areas, we used functional magnetic resonance imaging (fMRI). In a laboratory experiment, we captured the brain activity of 10 female and 10 male participants simultaneous to decisions on trustworthiness of eBay offers. We found that most of the brain areas that encode trustworthiness differ between women and men. Moreover, we found that women activated more brain areas than did men. These results confirm the empathizing— systemizing theory, which predicts gender differences in neural information processing modes. In demonstrating that perceived trustworthiness of Internet offers is affected by neurobiology, our study has major implications for both IS research and management. We confirm the value of a category of research heretofore neglected in IS research and practice, and argue that future IS research investigating human behavior should consider the role of biological factors. In practice, biological factors are a significant consideration for management, marketing, and engineering attempts to influence behavior.

# Power and concession in computer-mediated negotiations: An examination of first offers

NA Johnson, RB Cooper

Year:2009

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## Abstract

Negotiation is increasingly being conducted over computer media, such as e-mail and instant messaging, because of the potential for time savings and monetary benefits. However, these media can affect negotiators' behaviors as they engage in what is called concession making, which is a process by which they make offers that yield benefits to their opponents. In this paper, we focus on how and why conducting negotiations via computer media can affect this process, especially when negotiators have unequal power. Our research model is based on theories from the information systems, negotiation, and social psychology literatures. Via a laboratory experiment, we find that concessions made by the first individual to make an offer (the first mover) were not typically reciprocated by his/her negotiating opponent (the second mover). Thus, in the context of computer-mediated negotiation, it appears that second movers are, among other things, more likely to violate the well-established norm of reciprocity. This can result in significant disadvantages for the first mover, independent of power differences between negotiators. In addition, we find that, contrary to face-to-face negotiations, increased power of one negotiator resulted in his/her having less influence in terms of getting larger concessions from the other negotiator. In general, these findings support the notion that computer-mediated negotiation can be significantly different than face-to-face negotiation.

# CyberGate: a design framework and system for text analysis of computer-mediated communication

A Abbasi, H Chen

Year:2008

<https://www.jstor.org/stable/25148873>

## Abstract

Content analysis of computer-mediated communication (CMC) is important for evaluating the effectiveness of electronic communication in various organizational settings. CMC text analysis relies on systems capable of providing suitable navigation and knowledge discovery functionalities. However, existing CMC systems focus on structural features, with little support for features derived from message text. This deficiency is attributable to the informational richness and representational complexities associated with CMC text. In order to address this shortcoming, we propose a design framework for CMC text analysis systems. Grounded in systemic functional linguistic theory, the proposed framework advocates the development of systems capable of representing the rich array of information types inherent in CMC text. It also provides guidelines regarding the choice of features, feature selection, and visualization techniques that CMC text analysis systems should employ. The CyberGate system was developed as an instantiation of the design framework. CyberGate incorporates a rich feature set and complementary feature selection and visualization methods, including the writeprints and ink blots techniques. An application example was used to illustrate the system's ability to discern important patterns in CMC text. Furthermore, results from numerous experiments conducted in comparison with benchmark methods confirmed the viability of CyberGate's features and techniques. The results revealed that the CyberGate system and its underlying design framework can dramatically improve CMC text analysis capabilities over those provided by existing systems.

# Why should I share? Examining social capital and knowledge contribution in electronic networks of practice

MML Wasko, S Faraj

Year:2005

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## Abstract

Electronic networks of practice are computer-mediated discussion forums focused on problems of practice that enable individuals to exchange advice and ideas with others based on common interests. However, why individuals help strangers in these electronic networks is not well understood: there is no immediate benefit to the contributor, and free-riders are able to acquire the same knowledge as everyone else. To understand this paradox, we apply theories of collective action to examine how individual motivations and social capital influence knowledge contribution in electronic networks. This study reports on the activities of one electronic network supporting a professional legal association. Using archival, network, survey, and content analysis data, we empirically test a model of knowledge contribution. We find that people contribute their knowledge when they perceive that it enhances their professional reputations, when they have the experience to share, and when they are structurally embedded in the network. Surprisingly, contributions occur without regard to expectations of reciprocity from others or high levels of commitment to the network.