# Explainable deep learning for false information identification: An argumentation theory approach

K Lee, S Ram

Year:2024

<https://pubsonline.informs.org/doi/abs/10.1287/isre.2020.0097>

## Abstract

Abstract  
In today’s world, where online information is proliferating in an unprecedented way, a significant challenge is whether to believe the information we encounter. Ironically, this flood of information provides us with an opportunity to combat false claims by understanding their nature. That is, with the help of machine learning, it is now possible to effectively capture the characteristics of false information by analyzing massive amounts of false claims published online. These methods, however, have neglected the nature of human argumentation, delegating the process of making inferences of the truth to the black box of neural networks. This has created several challenges (namely latent text representations containing entangled syntactic and semantic information, an irrelevant part of text being considered when abstracting text as a latent vector, and counterintuitive model explanation). To resolve these issues, based on Toulmin’s model of argumentation, we propose a computational framework that helps machine learning for false information identification (FII) understand the connection between a claim (whose veracity needs to be verified) and evidence (which contains information to support or refute the claim). Specifically, we first build a word network of a claim and evidence reflecting their syntaxes and convert it into a signed word network using their semantics. The structural balance of this word network is then calculated as a proxy metric to determine the consistency between a claim and evidence. The consistency level is fed into machine learning as input, providing information for verifying claim veracity and explaining the model’s decision making. The two experiments for testing model performance and explainability reveal that our framework shows stronger performance and better explainability, outperforming cutting-edge methods and presenting positive effects on human task performance, trust in algorithms, and confidence in decision making. Our results shed new light on the growing field of automated FII.  
History: Ahmed Abbasi, Senior Editor; Xiaobai Li, Associate Editor.  
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Supplemental Material: The online appendix is available at https://doi.org/10.1287/isre.2020.0097.

# A theory of information compression: When judgments are costly

RT Watson, K Plangger, L Pitt…

Year:2023

<https://pubsonline.informs.org/doi/abs/10.1287/isre.2022.1163>

## Abstract

Abstract  
A theory of information compression (TIC) conceptualizes how anticipated judgment costs can affect decision quality. We theorize—inductively from decision making in medicine, energy pricing, auditing, and financial analytics—how judgment networks can exacerbate financial and nonfinancial judgment costs that compress information. Information compression occurs when a process intended to inform decision making generates information that has little variation. This can reduce decision quality and market efficiency. We offer potential remedies to mitigate its adverse societal consequences. We use complementary theoretical perspectives to nomologically contextualize how information compression arises. We introduce an information compression measure based on information entropy. TIC’s theoretical crux is that the expansion of a judgment network’s publicness exacerbates information compression by increasing judgment costs for some entities in a judgment network. We close with future research ideas on TIC’s core propositions and its broader theoretical implications for information systems research.  
History: Yulin Fang, Senior Editor; Robert Gregory, Associate Editor.

# A hashtag is worth a thousand words: An empirical investigation of social media strategies in trademarking hashtags

N Kumar, L Qiu, S Kumar

Year:2022

<https://pubsonline.informs.org/doi/abs/10.1287/isre.2022.1107>

## Abstract

Abstract  
Firms of all sizes are “joining the conversation” on social media platforms and increasingly trademarking hashtags related to their products and brands. This added effort to protect intellectual property and its impact on social media engagement have not been investigated in the literature. In this study, we attempt to bridge this important gap in the literature by first examining the impact of trademarking a hashtag on a firm’s social media audience engagement. By adopting multiple causal identification strategies to address the issues of self-selected trademarking, we find that trademarking hashtags plays a pivotal role in increasing social media audience engagement and information dissemination. More importantly, this positive effect is stronger for firms with fewer Twitter followers. Digging deeper into the underlying mechanisms, we find that trademarking hashtags makes composing tweets with certain linguistic styles more critical: It can amplify the positive effects of trademarking hashtags on social media audience engagement. Our findings highlight important managerial implications of trademarking hashtags. First of all, we examine whether trademarking a hashtag helps or hurts a firm in terms of its social media audience engagement. Further, we show, to maximize the effectiveness of trademarking hashtags, how firms should develop the right social media engagement strategies by taking specific communication and linguistic styles into account. Our results provide useful insights to firms in understanding the key benefits of signaling through trademarking hashtags on social media engagement.  
History: Ram Gopal, Senior Editor; Yuliang (Oliver) Yao, Associate Editor.  
Supplemental Material: The online appendices are available at https://doi.org/10.1287/isre.2022.1107.

# Estimating the impact of “humanizing” customer service chatbots

S Schanke, G Burtch, G Ray

Year:2021

<https://pubsonline.informs.org/doi/abs/10.1287/isre.2021.1015>

## Abstract

Abstract  
We study the impacts of “humanizing” artificial intelligence (AI)-enabled autonomous customer service agents (chatbots). Implementing a field experiment in collaboration with a dual channel clothing retailer based in the United States, we automate a used clothing buy-back process, such that individuals engage with the retailer’s autonomous chatbot to describe the used clothes they wish to sell, obtain a cash offer, and (if they accept the offer) print a shipping label to finalize the transaction. We causally estimate the impact of chatbot anthropomorphism on transaction conversion by randomly exposing consumers to exogenously varied levels of chatbot anthropomorphism, operationalized by incorporating a random draw from a set of three anthropomorphic features: humor, communication delays, and social presence. We provide evidence that, in this retail setting, anthropomorphism is beneficial for transaction outcomes, but that it also leads to significant increases in offer sensitivity. We argue that the latter effect occurs because, as a chatbot becomes more human-like, consumers shift to a fairness evaluation or negotiating mindset. We also provide descriptive evidence suggesting that the benefits of anthropomorphism for transaction conversion may derive, at least in part, from consumers’ increased willingness to disclose personal information necessary to complete the transaction.

# Fake news, investor attention, and market reaction

J Clarke, H Chen, D Du, YJ Hu

Year:2020

<https://pubsonline.informs.org/doi/abs/10.1287/isre.2019.0910>

## Abstract

Abstract  
Does fake news in financial markets attract more investor attention and have a significant impact on stock prices? We use the U.S. Securities and Exchange Commission (SEC) crackdown of stock promotion schemes in April 2017 to examine investor attention and the stock price reaction to fake news articles. Using data from Seeking Alpha, we find that fake news stories generate significantly more attention than a control sample of legitimate articles. We find no evidence that article commenters can detect fake news, and we also find that Seeking Alpha editors have only modest ability to detect fake news. However, we show that machine learning algorithms can successfully identify fake news from linguistic features of the article. The stock market appears to price fake news correctly. While abnormal trading volume increases around the release of fake news, the increase is less than that observed for legitimate news. The stock price reaction to fake news is discounted when compared with legitimate news articles.

# Secret admirers: An empirical examination of information hiding and contribution dynamics in online crowdfunding

G Burtch, A Ghose, S Wattal

Year:2016

<https://pubsonline.informs.org/doi/abs/10.1287/isre.2016.0642>

## Abstract

Abstract  
Individuals’ actions in online social contexts are growing increasingly visible and traceable. Many online platforms account for this by providing users with granular control over when and how their identity or actions are made visible to peers. However, little work has sought to understand the effect that a user’s decision to conceal information might have on observing peers, who are likely to refer to that information when deciding on their own actions. We leverage a unique impression-level data set from one of the world’s largest online crowdfunding platforms, where contributors are given the option to conceal their username or contribution amount from public display, with each transaction. We demonstrate that when campaign contributors elect to conceal information, it has a negative influence on subsequent visitors’ likelihood of conversion, as well as on their average contributions, conditional on conversion. Moreover, we argue that social norms are an important driver of information concealment, providing evidence of peer influence in the decision to conceal. We discuss the implications of our results for the provision of online information hiding mechanisms, as well as the design of crowdfunding platforms and electronic markets more generally.

# Research note—influence techniques in phishing attacks: an examination of vulnerability and resistance

RT Wright, ML Jensen, JB Thatcher…

Year:2014

<https://pubsonline.informs.org/doi/abs/10.1287/isre.2014.0522>

## Abstract

Abstract  
Phishing is a major threat to individuals and organizations. Along with billions of dollars lost annually, phishing attacks have led to significant data breaches, loss of corporate secrets, and espionage. Despite the significant threat, potential phishing targets have little theoretical or practical guidance on which phishing tactics are most dangerous and require heightened caution. The current study extends persuasion and motivation theory to postulate why certain influence techniques are especially dangerous when used in phishing attacks. We evaluated our hypotheses using a large field experiment that involved sending phishing messages to more than 2,600 participants. Results indicated a disparity in levels of danger presented by different influence techniques used in phishing attacks. Specifically, participants were less vulnerable to phishing influence techniques that relied on fictitious prior shared experience and were more vulnerable to techniques offering a high level of self-determination. By extending persuasion and motivation theory to explain the relative efficacy of phishers' influence techniques, this work clarifies significant vulnerabilities and lays the foundation for individuals and organizations to combat phishing through awareness and training efforts.

# What motivates people to purchase digital items on virtual community websites? The desire for online self-presentation

HW Kim, HC Chan…

Year:2012

<https://pubsonline.informs.org/doi/abs/10.1287/isre.1110.0411>

## Abstract

Abstract  
The sale of digital items, such as avatars and decorative objects, is becoming an important source of revenue for virtual community (VC) websites. However, some websites are unable to leverage this source of revenue, and there is a corresponding lack of understanding about what motivates people to purchase digital items in VCs. To explain the phenomenon, we develop a model based on the theory of self-presentation. The model proposes that the desire for online self-presentation is a key driver for such purchases. We also hypothesize that the social influence factors of online self-presentation norms and VC involvement as well as personal control in the form of online presentation self-efficacy are antecedents of the desire for online self-presentation. The model was validated by using survey data collected from Cyworld (N=217) and Habbo (N=197), two online social network communities that have been pioneers in the sale of digital items. This work contributes to our understanding of the purchase of digital items by extending the theory of self-presentation and adds to the broader line of research on online identity. It also lends insights into how VC providers can tap this source of revenue.

# Research commentary—Vigilant interaction in knowledge collaboration: Challenges of online user participation under ambivalence

SL Jarvenpaa, A Majchrzak

Year:2010

<https://pubsonline.informs.org/doi/abs/10.1287/isre.1100.0320>

## Abstract

Abstract  
Online participation engenders both the benefits of knowledge sharing and the risks of harm. Vigilant interaction in knowledge collaboration refers to an interactive emergent dialogue in which knowledge is shared while it is protected, requiring deep appraisals of each others' actions in order to determine how each action may influence the outcomes of the collaboration. Vigilant interactions are critical in online knowledge collaborations under ambivalent relationships where users collaborate to gain benefits but at the same time protect to avoid harm from perceived vulnerabilities. Vigilant interactions can take place on discussion boards, open source development, wiki sites, social media sites, and online knowledge management systems and thus is a rich research area for information systems researchers. Three elements of vigilant interactions are described: trust asymmetry, deception and novelty. Each of these elements challenges prevailing theory-based assumptions about how people collaborate online. The study of vigilant interaction, then, has the potential to provide insight on how these elements can be managed by participants in a manner that allows knowledge sharing to proceed without harm.

# The role of feedback in managing the Internet-based volunteer work force

JY Moon, LS Sproull

Year:2008

<https://pubsonline.informs.org/doi/abs/10.1287/isre.1080.0208>

## Abstract

Abstract  
This paper explores a new phenomenon at the intersection of digital networks and organizations—the Internet-based volunteer work force—people who use Internet applications to pursue a personal interest through volunteering contributions of time and talent that may create value for organizations and their customers or members. This work force is not centrally organized, managed, or measured. It is an emergent phenomenon resulting from discretionary small actions taken by large numbers of people, enabled by technology and human initiative. This paper proposes a general framework for understanding the phenomenon and offers an empirical investigation of one component of it—the role of feedback in producing and sustaining high-quality contributions from this work force. In a comparative study of Internet-based voluntary technical support groups for software problems, we found that in groups who implement systematic quality feedback systems (compared to those that do not), question askers return over a longer duration, answer providers contribute more often, and technical problem resolution is more effective. We also found that with systematic feedback, volunteers who produce higher quality contributions have longer participation duration, and participation duration is positively associated with community maintenance contributions.

# The consequences of technostress for end users in organizations: Conceptual development and empirical validation

TS Ragu-Nathan, M Tarafdar…

Year:2008

<https://pubsonline.informs.org/doi/abs/10.1287/isre.1070.0165>

## Abstract

Abstract  
The research reported in this paper studies the phenomenon of technostress, that is, stress experienced by end users of Information and Communication Technologies (ICTs), and examines its influence on their job satisfaction, commitment to the organization, and intention to stay. Drawing from the Transaction-Based Model of stress and prior research on the effects of ICTs on end users, we first conceptually build a nomological net for technostress to understand the influence of technostress on three variables relating to end users of ICTs: job satisfaction, and organizational and continuance commitment. Because there are no prior instruments to measure constructs related to technostress, we develop and empirically validate two second order constructs: technostress creators (i.e., factors that create stress from the use of ICTs) and technostress inhibitors (i.e., organizational mechanisms that reduce stress from the use of ICTs). We test our conceptual model using data from the responses of 608 end users of ICTs from multiple organizations to a survey questionnaire. Our results, based on structural equation modeling (SEM), show that technostress creators decrease job satisfaction, leading to decreased organizational and continuance commitment, while Technostress inhibitors increase job satisfaction and organizational and continuance commitment. We also find that age, gender, education, and computer confidence influence technostress. The implications of these results and future research directions are discussed.

# Examining the relationship between reviews and sales: The role of reviewer identity disclosure in electronic markets

C Forman, A Ghose…

Year:2008

<https://pubsonline.informs.org/doi/abs/10.1287/isre.1080.0193>

## Abstract

Abstract  
Consumer-generated product reviews have proliferated online, driven by the notion that consumers' decision to purchase or not purchase a product is based on the positive or negative information about that product they obtain from fellow consumers. Using research on information processing as a foundation, we suggest that in the context of an online community, reviewer disclosure of identity-descriptive information is used by consumers to supplement or replace product information when making purchase decisions and evaluating the helpfulness of online reviews. Using a unique data set based on both chronologically compiled ratings as well as reviewer characteristics for a given set of products and geographical location-based purchasing behavior from Amazon, we provide evidence that community norms are an antecedent to reviewer disclosure of identity-descriptive information. Online community members rate reviews containing identity-descriptive information more positively, and the prevalence of reviewer disclosure of identity information is associated with increases in subsequent online product sales. In addition, we show that shared geographical location increases the relationship between disclosure and product sales, thus highlighting the important role of geography in electronic commerce. Taken together, our results suggest that identity-relevant information about reviewers shapes community members' judgment of products and reviews. Implications for research on the relationship between online word-of-mouth (WOM) and sales, peer recognition and reputation systems, and conformity to online community norms are discussed.

# Through a glass darkly: Information technology design, identity verification, and knowledge contribution in online communities

M Ma, R Agarwal

Year:2007

<https://pubsonline.informs.org/doi/abs/10.1287/isre.1070.0113>

## Abstract

Abstract  
A variety of information technology (IT) artifacts, such as those supporting reputation management and digital archives of past interactions, are commonly deployed to support online communities. Despite their ubiquity, theoretical and empirical research investigating the impact of such IT-based features on online community communication and interaction is limited. Drawing on the social psychology literature, we describe an identity-based view to understand how the use of IT-based features in online communities is associated with online knowledge contribution. Specifically, the use of four categories of IT artifacts—those supporting virtual co-presence, persistent labeling, self-presentation, and deep profiling—is proposed to enhance perceived identity verification, which thereafter promotes satisfaction and knowledge contribution. To test the theoretical model, we surveyed more than 650 members of two online communities. In addition to the positive effects of community IT artifacts on perceived identity verification, we also find that perceived identity verification is strongly linked to member satisfaction and knowledge contribution. This paper offers a new perspective on the mechanisms through which IT features facilitate computer-mediated knowledge sharing, and it yields important implications for the design of the supporting IT infrastructure.

# An extended privacy calculus model for e-commerce transactions

T Dinev, P Hart

Year:2006

<https://pubsonline.informs.org/doi/abs/10.1287/isre.1060.0080>

## Abstract

Abstract  
While privacy is a highly cherished value, few would argue with the notion that absolute privacy is unattainable. Individuals make choices in which they surrender a certain degree of privacy in exchange for outcomes that are perceived to be worth the risk of information disclosure. This research attempts to better understand the delicate balance between privacy risk beliefs and confidence and enticement beliefs that influence the intention to provide personal information necessary to conduct transactions on the Internet. A theoretical model that incorporated contrary factors representing elements of a privacy calculus was tested using data gathered from 369 respondents. Structural equations modeling (SEM) using LISREL validated the instrument and the proposed model. The results suggest that although Internet privacy concerns inhibit e-commerce transactions, the cumulative influence of Internet trust and personal Internet interest are important factors that can outweigh privacy risk perceptions in the decision to disclose personal information when an individual uses the Internet. These findings provide empirical support for an extended privacy calculus model.

# Psychological contract violation in online marketplaces: Antecedents, consequences, and moderating role

PA Pavlou, D Gefen

Year:2005

<https://pubsonline.informs.org/doi/abs/10.1287/isre.1050.0065>

## Abstract

Abstract  
This study examines the nature and role of Psychological Contract Violation (PCV) in online marketplaces, a critical factor that has been largely overlooked by previous research. Applied to buyer-seller relationships, PCV is defined as a buyer’s perception of having being treated wrongly regarding the terms of an exchange agreement with an individual seller. PCV with individual sellers is proposed as a formative first-order construct driven by the occurrence of fraud, product misrepresentation, contract default, delivery delay, and failure to follow product guarantees and payment policies. PCV with an individual seller is proposed to prompt a generalized perception of PCV with the entire community of sellers in a marketplace.  
PCV with the community of sellers is hypothesized to negatively affect buyer transaction behavior in a marketplace by directly impacting transaction intentions, price premiums, trust, perceived risk, and the perceived effectiveness of institutional structures. PCV is also hypothesized to act as a moderator, transforming the buyers’ initial trust-based mindset to one more centered on perceived risk. Finally, PCV is hypothesized to attenuate the positive impact of trust on transaction intentions, while reinforcing the negative impact of perceived risk on transaction intentions. It is also proposed to attenuate the impact of the perceived effectiveness of institutional structures on trust, while strengthening its negative effect on perceived risk. As a means of preventing PCV, the buyers’ positive experience and the sellers’ favorable past performance are hypothesized to make PCV with the community of sellers less likely.  
A combination of primary and secondary longitudinal data from 404 buyers in eBay’s and Amazon’s online auctions support the proposed hypotheses, validating PCV as a central element of buyer-seller relationships in online marketplaces. Interestingly, ex post facto results show that buyers with higher perceptions of PCV with the community of sellers are less likely to experience PCV with an individual seller in the future.  
Implications for buyer-seller relationships in online marketplaces and the PCV literature are discussed. Also discussed is how the increasing number of buyers who experience PCV in online marketplaces extends the literature that has been largely developed based on buyers who had not experienced PCV.

# Toward contextualized theories of trust: The role of trust in global virtual teams

SL Jarvenpaa, TR Shaw…

Year:2004

<https://pubsonline.informs.org/doi/abs/10.1287/isre.1040.0028>

## Abstract

Abstract  
Although trust has received much attention in many streams of information systems research, there has been little theorizing to explain how trust evokes sentiments and affects task performance in IT-enabled relationships. Many studies unquestionably assume that trust is intrinsically beneficial, and dismiss the possibility that the effects of trust may be dependent on the situation (or conditions) at present. This paper theoretically and empirically examines outcomes of an individual's trust in global virtual teams under differing situations (or conditions). In Study 1, we find that early in a team's existence, a member's trusting beliefs have a direct positive effect on his or her trust in the team and perceptions of team cohesiveness. Later on, however, a member's trust in his team operates as a moderator, indirectly affecting the relationships between team communication and perceptual outcomes. Study 2 similarly suggests that trust effects are sensitive to the particular situation or condition. Combined, the studies find that trust affects virtual teams differently in different situations. Future studies on trust will need to consider situational contingencies. This paper contributes to the literature on IT-enabled relationships by theorizing and empirically testing how trust affects attitudes and behaviors.

# Building effective online marketplaces with institution-based trust

PA Pavlou, D Gefen

Year:2004

<https://pubsonline.informs.org/doi/abs/10.1287/isre.1040.0015>

## Abstract

Abstract  
Institution-based trust is a buyer’s perception that effective third-party institutional mechanisms are in place to facilitate transaction success. This paper integrates sociological and economic theories about institution-based trust to propose that the perceived effectiveness of three IT-enabled institutional mechanisms–specifically feedback mechanisms, third-party escrow services, and credit card guarantees–engender buyer trust in the community of online auction sellers. Trust in the marketplace intermediary that provides the overarching institutional context also builds buyer’s trust in the community of sellers. In addition, buyers’ trust in the community of sellers (as a group) facilitates online transactions by reducing perceived risk.  
Data collected from 274 buyers in Amazon’s online auction marketplace provide support for the proposed structural model. Longitudinal data collected a year later show that transaction intentions are correlated with actual and self-reported buyer behavior. The study shows that the perceived effectiveness of institutional mechanisms encompasses both “weak” (market-driven) and “strong” (legally binding) mechanisms. These mechanisms engender trust, not only in a few reputable sellers, but also in the entire community of sellers, which contributes to an effective online marketplace. The results thus help explain why, despite the inherent uncertainty that arises when buyers and sellers are separated in time and in space, online marketplaces are proliferating. Implications for theory are discussed, and suggestions for future research on improving IT-enabled trust-building mechanisms are suggested.

# Internet users' information privacy concerns (IUIPC): The construct, the scale, and a causal model

NK Malhotra, SS Kim, J Agarwal

Year:2004

<https://pubsonline.informs.org/doi/abs/10.1287/isre.1040.0032>

## Abstract

Abstract  
The lack of consumer confidence in information privacy has been identified as a major problem hampering the growth of e-commerce. Despite the importance of understanding the nature of online consumers' concerns for information privacy, this topic has received little attention in the information systems community. To fill the gap in the literature, this article focuses on three distinct, yet closely related, issues. First, drawing on social contract theory, we offer a theoretical framework on the dimensionality of Internet users' information privacy concerns (IUIPC). Second, we attempt to operationalize the multidimensional notion of IUIPC using a second-order construct, and we develop a scale for it. Third, we propose and test a causal model on the relationship between IUIPC and behavioral intention toward releasing personal information at the request of a marketer. We conducted two separate field surveys and collected data from 742 household respondents in one-on-one, face-to-face interviews. The results of this study indicate that the second-order IUIPC factor, which consists of three first-order dimensions—namely, collection, control, and awareness—exhibited desirable psychometric properties in the context of online privacy. In addition, we found that the causal model centering on IUIPC fits the data satisfactorily and explains a large amount of variance in behavioral intention, suggesting that the proposed model will serve as a useful tool for analyzing online consumers' reactions to various privacy threats on the Internet.

# Informational influence in organizations: An integrated approach to knowledge adoption

SW Sussman, WS Siegal

Year:2003

<https://pubsonline.informs.org/doi/abs/10.1287/isre.14.1.47.14767>

## Abstract

Abstract  
This research investigates how knowledge workers are influenced to adopt the advice that they receive in mediated contexts. The research integrates the Technology Acceptance Model (Davis 1989) with dual-process models of informational influence (e.g., Petty and Cacioppo 1986, Chaiken and Eagly 1976) to build a theoretical model of information adoption. This model highlights the assessment of information usefulness as a mediator of the information adoption process. Importantly, the model draws on the dual-process models to make predictions about the antecedents of informational usefulness under different processing conditions.  
The model is investigated qualitatively first, using interviews of a sample of 40 consultants, and then quantitatively on another sample of 63 consultants from the same international consulting organization. Data reflect participants' perceptions of actual e-mails they received from colleagues consisting of advice or recommendations. Results support the model, suggesting that the process models used to understand information adoption can be generalized to the field of knowledge management, and that usefulness serves a mediating role between influence processes and information adoption. Organizational knowledge work is becoming increasingly global. This research offers a model for understanding knowledge transfer using computer-mediated communication.

# Applying the technology acceptance model and flow theory to online consumer behavior

M Koufaris

Year:2002

<https://pubsonline.informs.org/doi/abs/10.1287/isre.13.2.205.83>

## Abstract

Abstract  
In this study, we consider the online consumer as both a shopper and a computer user. We test constructs from information systems (Technology Acceptance Model), marketing (Consumer Behavior), and psychology (Flow and Environmental Psychology) in an integrated theoretical framework of online consumer behavior. Specifically, we examine how emotional and cognitive responses to visiting a Web-based store for the first time can influence online consumers' intention to return and their likelihood to make unplanned purchases. The instrumentation shows reasonably good measurement properties and the constructs are validated as a nomological network.  
A questionnaire-based empirical study is used to test this nomological network. Results confirm the double identity of the online consumer as a shopper and a computer user because both shopping enjoyment and perceived usefulness of the site strongly predict intention to return. Our results on unplanned purchases are not conclusive. We also test some individual and Web site factors that can affect the consumer's emotional and cognitive responses. Product involvement, Web skills, challenges, and use of value-added search mechanisms all have a significant impact on the Web consumer. The study provides a more rounded, albeit partial, view of the online consumer and is a significant steptowards a better understanding of consumer behavior on the Web. The validated metrics should be of use to researchers and practitioners alike.

# The measurement of web-customer satisfaction: An expectation and disconfirmation approach

V McKinney, K Yoon, FM Zahedi

Year:2002

<https://pubsonline.informs.org/doi/abs/10.1287/isre.13.3.296.76>

## Abstract

Abstract  
Online shopping provides convenience to Web shoppers, yet its electronic format changes information-gathering methods traditionally used by customers. This change raises questions concerning customer satisfaction with the online purchasing process. Web shopping involves a number of phases, including the information phase, in which customers search for information regarding their intended purchases. The purpose of this paper is to develop theoretically justifiable constructs for measuring Web-customer satisfaction during the information phase.  
By synthesizing the expectation-disconfirmation paradigm with empirical theories in user satisfaction, we separate Web site quality into information quality (IQ) and system quality (SQ), and propose nine key constructs for Web-customer satisfaction. The measurements for these constructs are developed and tested in a two-phase study. In the first phase, the IQ and SQ dimensions are identified, and instruments for measuring them are developed and tested. In the second phase, using the salient dimensions of Web-IQ and Web-SQ as the basis for formulating first-order factors, we develop and empirically test instruments for measuring IQ and SQ-satisfaction. Moreover, this phase involves the design and test of second-order factors for measuring Web-customer expectations, disconfirmation, and perceived performance regarding IQ and SQ. The analysis of the measurement model indicates that the proposed metrics have a relatively high degree of validity and reliability. The results of the study provide reliable instruments for operationalizing the key constructs in the analysis of Web-customer satisfaction within the expectation-disconfirmation paradigm.

# Research commentary: Desperately seeking the “IT” in IT research—A call to theorizing the IT artifact

WJ Orlikowski, CS Iacono

Year:2001

<https://pubsonline.informs.org/doi/abs/10.1287/isre.12.2.121.9700>

## Abstract

Abstract  
The field of information systems is premised on the centrality of information technology in everyday socio-economic life. Yet, drawing on a review of the full set of articles published in Information Systems Research (ISR) over the past ten years, we argue that the field has not deeply engaged its core subject matter—the information technology (IT) artifact. Instead, we find that IS researchers tend to give central theoretical significance to the context (within which some usually unspecified technology is seen to operate), the discrete processing capabilities of the artifact (as separable from its context or use), or the dependent variable (that which is posited to be affected or changed as technology is developed, implemented, and used). The IT artifact itself tends to disappear from view, be taken for granted, or is presumed to be unproblematic once it is built and installed. After discussing the implications of our findings, we propose a research direction for the IS field that begins to take technology as seriously as its effects, context, and capabilities. In particular, we propose that IS researchers begin to theorize specifically about IT artifacts, and then incorporate these theories explicitly into their studies. We believe that such a research direction is critical if IS research is to make a significant contribution to the understanding of a world increasingly suffused with ubiquitous, interdependent, and emergent information technologies.

# Testing media richness theory in the new media: The effects of cues, feedback, and task equivocality

AR Dennis, ST Kinney

Year:1998

<https://pubsonline.informs.org/doi/abs/10.1287/isre.9.3.256>

## Abstract

Abstract  
Media richness theory argues that performance improves when team members use “richer” media for equivocal tasks. This experiment studied the effects of media richness on decision making in two-person teams using “new media” (i.e., computer-mediated and video communication). Media richness was varied based on multiplicity of cues and immediacy of feedback. Subjects perceived differences in richness due to both cues and feedback, but matching richness to task equivocality did not improve decision quality, decision time, consensus change, or communication satisfaction. Use of media providing fewer cues (i.e., computer mediated communication) led to slower decisions and more so for the less equivocal task. In short, the results found no support for the central proposition of media richness theory; matching media richness to task equivocality did not improve performance.

# The multilevel and multifaceted character of computer self-efficacy: Toward clarification of the construct and an integrative framework for research

GM Marakas, MY Yi…

Year:1998

<https://pubsonline.informs.org/doi/abs/10.1287/isre.9.2.126>

## Abstract

Abstract  
Despite the recent empirical interest and advances in research with regard to the construct of computer self-efficacy (CSE), the results obtained to date have, in some cases, been either equivocal or contradictory. We suggest that such results may be attributable to a general lack of attention to the dynamic, multileveled, and multifaceted nature of the computer self-efficacy construct. We offer examples from the extant CSE literature suggesting weaknesses in existing measures of the construct as well as issues associated with manipulations and the need for control of antecedent and consequent factors directly associated with CSE. The objectives of this paper are: (1) to provide a thorough review of the extant literature related to CSE; (2) to present an integrated model of empirical findings, constructed from a wide variety of disciplines, that comprehensively defines the multifaceted nature of task-specific CSE in terms of its antecedent, consequent, and moderating factors; (3) to present a conceptual model of CSE at the general versus task-specific level; and (4) to use the two models of CSE to proffer guidelines for both measurement and manipulation of the construct. Through our review of the CSE literature, we offer several thoughts regarding the nature of the empirical results obtained to date. The combined objectives serve as a basis for establishing a foundation upon which future research investigating the CSE construct can be based.

# A study of collaborative group work with and without computer-based support

JF George, GK Easton…

Year:1990

<https://pubsonline.informs.org/doi/abs/10.1287/isre.1.4.394>

## Abstract

Abstract  
As organizational environments become more turbulent and as managers spend more time in meetings in an effort to deal with that turbulence, using information technology to support meetings has become more important. This paper reports on an experiment that compared meetings supported by information technology to meetings with conventional manual support only. The experiment differs from most previous group decision support system (GDSS) experiments in that solutions to the task it used could be objectively scored, it introduced assigned leadership as an independent variable, and it is the first GDSS experiment to compare use of a subset of the University of Arizona GroupSystems GDSS tools to manual group methods. In addition to a communication condition (GDSS or manual) and assigned leadership, the experiment also investigated the effects of anonymity on group process and outcomes. The experiment found that GDSS groups were less likely to reach consensus, took more time to reach a decision, and had more equal levels of member participation than manual groups. No main effects were found for assigned leadership or anonymity.