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B2B Online Reverse Auctions and the Future of Information Systems as the Discipline of Reference

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ABSTRACT

Studies of information systems¹ have largely neglected, despite their great importance, such relevant information technologies as B2B online reverse auctions (ORAs).² In an attempt to make up for this neglect, we provide an empirical application of the extent to which the IS discipline has the potential to become the reference discipline. Drawing from the IT artifact concept and the emergent perspective, we provide new lenses to investigate ORAs outcomes in a novel manner to the existing non-IS literature. We believe that systematic learning from the past accomplishments of the IS discipline, coupled with a dynamic multidisciplinary perspective, is the ideal means of charting a promising future for the discipline.

KEYWORDS

Sensemaking, IT artifact, multidisciplinary vision, the emergent perspective, the Information Systems discipline, B2B online reverse auctions.

INTRODUCTION

Digitization is shaping the day-to-day environment of businesses and society as a whole. Firms are increasingly using IT to improve performance and reinvent core procurement processes (Emiliani 2000). ORAs are becoming a standard tool in industrial sourcing since they generate huge financial savings in nearly every major industry (Jap 2007; *Purchasing* 2005³). Buying costs, after all, are a significant element of firms' overall cost structure (Emiliani 2000). For the moment, however, despite the growing recognition of its advantages, the sensemaking of ORAs has been neglected by the IS community.

This paper has two objectives: first, it seeks to highlight both the disadvantages of the existing sensemaking of IT and the neglect suffered by information technologies such as ORAs. Second, to cope with these issues, we recommend enduring sensemaking of the IT artifact, sensemaking rooted in a multidisciplinary approach and embedded in the inter-organizational community.

This paper is organized as the following. Firstly, we develop our literature review where we put the stress on the under investigation of ORAs by the IS community. Secondly, we show, through our research methodology, the extent to which a qualitative approach rooted in the emergent perspective was able to generate unexpected outcomes. Finally, we present and discuss our results while enrolling them in a multidisciplinary perspective.

¹ We will use the abbreviation of IS throughout this paper (information systems)

² In this paper we study specifically the B2B Online Reverse Auctions and we will use the abbreviation of ORAs (online reverse auctions).

³ <http://www.purchasing.com/article/CA6289388.html?q=online+reverse+auctions>

LITERATURE REVIEW

Desanctis and Poole (1994) define the spirit of technology as the manner in which information technologies must be used in line with their initiators' cognitive schemes. In other words, the spirit of the technology sets the 'official line' that is to be taken by IT users. The spirit of ORAs⁴ indicates that sellers bid rather than buyers and that the goal of the auction is to drive prices down rather than up (Jap 2007).

According to the initiators of the technology, ORAs were designed to enhance purchasing performance and enlarge buyers' sourcing horizons (Emiliani 2000). From the supplying standpoint, ORAs were designed to facilitate entry to new markets (Smeltzer and Carr 2003) and benchmarking with global competitors (Daly and Nath 2005). Promises of transparency (Wagner and Schwab 2004) and reduced transaction costs (Jap 2003) were held out to both parties. For these promises to be kept, the spirit of the ORAs requires that buyers select suppliers who are qualified, trustworthy, and able to honor their bids (Emiliani 2000). At the same time, Weick (2001) shows that information technologies make sense⁵ in different manners for two categories of actors: those at the 'head' or the initiators of the technology who conceive the spirit of technology (Desanctis and Poole 1994) and at the 'floor' or the users of the technology.⁶ Through such ongoing ventures, stakeholders such as software companies, IS managers, and decision-makers may take part in the struggle to make sense of IT (Swanson and Ramiller 1997). All these stakeholders constitute what Swanson and Ramiller (1997) call "the inter-organizational community" whose sensemaking efforts create the organizing vision of the technology. This vision is "the focal community idea for the application of information technology in organizations" (p. 460).

However, most studies deal essentially with the extent to which information technologies make sense for one or some categories of actors, end users in particular, without integrating their analysis within the inter-organizational community (Swanson and Ramiller 1997). Astonishingly, the collective sensemaking perspective in the inter-organizational community has not been examined in depth by the IS community⁷ even though it provides a precious viewpoint from which to scrutinize the institutional processes that lie beneath the spread of information technologies. More unexpectedly, we find only three papers that deal with the organizing vision.⁸

Swanson and Ramiller (1997) put considerable emphasis on the extent to which "academic researchers may add their voices to this discussion, as they seek to imbue their work with distinctiveness, timeliness, and relevance" (pp. 463-464). At the same time, in our review of the ORA literature,⁹ we fail to find any significant theoretical and/or empirical basis for dealing with ORAs¹⁰ in the IS¹¹ literature. Recently, Ramiller et al. (2008) have pointed out that the IS community neglects topics that are of practical interest to its partners in industry.

Indeed, the only researchers involved in the struggle to make sense of ORAs come from outside the field of IS.¹² Their research provides valuable results. For instance, this research points out the emergence of distrust (Emiliani 2005), the reduction of suppliers' willingness to make idiosyncratic investments in their business relationships (Smeltzer and Carr 2003), and the hardening of inter-firm relationships (Jap 2003).

⁴ ORAs are an advanced technology hosted in the virtual environment of the electronic marketplace (EMP) on the Internet.

⁵ Sensemaking is an important shaper of the complex effects created by the advances technologies use. In effect, sensemaking is a social process through which actors interpret their environment and build meanings which enable them to understand the world and respond to events in a collective manner (Weick et al. 2005).

⁶ Weick (2001) describes advanced IT as being parallel.

⁷ Since Swanson and Ramiller's (1997) first article—eleven years ago—about the organizing vision, only two articles have appeared in leading information system journals. The sole surprise is that these articles were published by Swanson and Ramiller themselves in *Management Information Systems* (2003) and *MIS Quarterly* (2004).

⁸ As reported in the AIS e-library (AMCIS 2007, 2001 and ICIS 2001). In addition, it is worth mentioning that an additional paper was selected among the best papers for the OCIS Division of the Academy of Management Annual Meeting (2006) in Atlanta. Hence, in the leading conferences of the last decade, only four papers have dealt with the organizing vision.

⁹ Our review of the ORA literature goes from 2000 to 2008. 2000 marked the debut of ORAs in academic papers; they were first adopted by US firms in the late 1990's.

¹⁰ Many papers have studied online forward auctions in the B2C context (see Chua et al. 2007; Pavlou and Gefen 2004).

¹¹ Finally, we find only six papers reported in the AIS e-library that deal with ORAs (ICIS 07; AMCIS 06; AMCIS 2005, 2003, 2002, 2001).

¹² See research from such fields as marketing (Jap 2007), operations management (Schoenherr and Mabert 2008), supply chain management (Emiliani 2005), and operation research (Semra et al. 2007).

The IS community's neglect of these issues is described by Benbasat and Zmud (2003) as an identity crisis for the discipline, since "the IS research community is making the discipline's central identity even more ambiguous by all too frequently, under-investigating phenomena intimately associated with IT-based systems and over-investigating phenomena distantly associated with IT-based systems" (p. 184). These errors of exclusion and inclusion¹³ are a major obstacle to the development and the reinforcement of a central identity for the IS discipline (Benbasat and Zmud 2003).

But Orlikowski and Iacono (2001)¹⁴ present evidence that "the field of IS, which is premised on the centrality of information technology in everyday life, has not deeply engaged in its core subject matter – the IT artifact" (p. 121). This absence of engagement is understandable given that the IT artifact is defined as "the application of IT to enable or support some task(s) embedded within a structure(s) that itself is embedded within a context(s)" (Benbasat and Zmud 2003, p. 186).

At the same time, both Orlikowski and Iacono (2001) and Orlikowski and Barley (2001) emphasize the need to transcend received disciplinary notions and progress towards broader and deeper interdisciplinary notions of IT artifacts by investigating the multiple social, psychological, economic, historical, and computational levels of IT.

Our research methodology takes into account the points mentioned above and adopts an emergent perspective that incorporates the enactment of complex social interactions between actors and IT, leading consequently to both expected and unexpected results.

RESEARCH METHODOLOGY

The supremacy of positivist thought in IT studies has not prevented a growing interest in the interpretive paradigm (Walsham 2006). This paradigm makes it possible to grasp IT as a system of social interactions seeking to create, exchange, and interpret multiple stakeholders' sensemaking (Hirschheim, Klein, and Lyytinen 1995). It is a paradigm that makes for improved understanding of the way information technologies, as social systems, is influenced by the stakeholders who influence, and are influenced by, the technological context (Walsham 2006).

Because of their parallel nature (Weick 2001)—cognitive and behavioral dimensions—information technologies entail complex and hidden facets that can be revealed by the interpretive paradigm. The emergent perspective, after all, makes it possible to take into consideration all the stakeholders' perceptions (Miles and Huberman 1994).

This perspective stipulates that technology is socially built (Desanctis and Poole 1994) and that the results of its use are not given but depends on context (Markus and Robey 1988) and can differ from those initially foreseen (Poole and Desanctis 1990). It postulates that users enact the outcomes of IT through the various phases of their installation;¹⁵ as a result, it allows empirical fidelity and preserves forecasting and generalization potential (Markus and Robey 1988).

We take a qualitative approach (Eisenhardt and Graebner 2007)—chosen for its ability to integrate the context during the data analysis (Miles and Huberman 1994)—to our examination of dynamic, sensitive, and non-static events (Lee 1999). These qualitative approaches¹⁶ have been the subject of growing interest in the field of IS.¹⁷

¹³ In this paper, we focus only on the phenomena intimately associated with IT-based systems but under-investigated by the IS community—ORAs in particular.

¹⁴ For their purposes, the authors code the information system research articles published in the 1990's. Surprisingly, they find that information technology is not a major player on its own playing field, as IT artifacts are either absent (nominal view), black-boxed (tool view), abstracted from social life (computational view), or reduced to surrogate measures (proxy view). To deal with these issues, the authors recommend that researchers have to stop taking the IT artifact for granted and that a theoretical apparatus that makes sense in their specific context have to be developed.

¹⁵ These phases are: design, deployment, use, evaluation, and even modification.

¹⁶ Qualitative approaches are attracting growing interest in many disciplines, management among them. (See Sara Rynes's introduction to the special issue celebrating the 50 years of publication of the *Academy of Management Journal*.)

¹⁷ In a review of the literature in major IS journals, Palvia et al. (2004) find that during the ten years from 1993 to 2003 the authors of one in every five articles take qualitative approaches.

We study a qualitative, in-depth, contextually rich case (Yin 2003), as such cases are popular for qualitative approaches in IS (Orlikowski and Baroudi 1991). This choice is particularly relevant as the study relates to real events¹⁸ and no research has examined the effects of ORAs from an IS perspective (Benbasat et al. 1987). The case study method is particularly well suited to answering ‘how’ and ‘why’ questions (Yin 2003). It can thus constitute a basis for the generation of theory founded on practice (Benbasat et al. 1987).

Our methodology approach suggests new lenses for revealing ORAs effects on buyer/supplier relationships. In effect, the disciplines that start studying ORAs – supply chain management, operations management, marketing - , adopt a quantitative approach that was described as likely to harm the deep understanding of phenomena (Kaplan and Maxwell, 1994). Consequently, IS research methodology – qualitative approach in our case – constitutes an appropriate mean to explore IT-based systems effects.

We would like to mention that this study was made possible by a scientific research agreement with a major French international retailer that was interested in probing the extent to which advanced technologies lead to expected and unexpected economic and social outcomes.

In order to develop our contribution to theory, we gather data from multiple actors who took part in the struggle of making sense of ORAs (Weick, 2001) constituting subsequently the inter-organizational community (Swansson and Ramiller, 1997). The combination of several sources of data was identified as being effective for case studies’ effectiveness notably if special attention is paid to the position of the interviewees (Eisenhardt and Graebner, 2007).

We start by collecting data through semi-structured interviews (Myers and Newman, 2007) from three main categories of informants: the initiators of the technology (such as the EMP Manager, the ORA Coordinator, Manager of B2B and Organization Projects (our key informant)...), buyers and suppliers. More precisely, we interviewed 18 originators of the spirit of the technology, 20 buyers and 32 suppliers. We thus made 70 semi-structured interviews. For this, we designed three types of interview guides¹⁹ adapted to the three informants concerned in order to improve our understanding of the extent and diversity of reflections triggered by ORA in the heterogeneous community of stakeholders. It is worthy to declare that our research integrates the inter-organizational community perspective when investigating the ORAs’ effects when comparing to the non-IS researches (eg. Jap, 2007).

Our interviews lasted between 1 hour and 2 hours and 15 minutes. During this period, that lasts 14 months, we constantly moved between theories and practice and vice versa. Given the sensitive aspect of the high financial stakes ORAs represent for all the interviewed stakeholders, we assured the participants that all the interviews would be recorded under cover of anonymity and that suppliers’ answers in particular wouldn’t be transmitted to their respective buyers. At the same time, we made two non-participants observations of two ORAs that took place in the retailer’s headquarters and analyze both internal and external reports.

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All the interviews were recorded and fully transcribed generating 750 pages of interviews. All this data were then coded by using Nvivo software²⁰. We carried out a qualitative and thematic analysis of the interview contents based on our codes analysis. Data was originally coded to categorize coherence between sets of themes (Miles and Huberman, 1994). This method consists of analyzing the data and locating the existence and frequency of the topics identified in the literature. We focused on disclosing topics through verbatim matching. These topics were analyzed in relation to our research questions based on an iterative process respecting Miles and Huberman’s (1994)

¹⁸ ORAs are related to real events (the November 2005 merger of WWRE and GNX, the two principal retail industry electronic marketplaces led to the creation of AGENTRICS), involve major multinational retailers, and have legal implications (interest of the French and European legislator).

¹⁹ Attaining theoretical saturation enabled us to decide on the relevance of the interviewing guide with regard to our research topic and the interviewed informants (buyers, suppliers, e-market place manager, ORA coordinator etc.).

²⁰ Software for Qualitative Research <http://www.qsrinternational.com/>

recommendations. A line-by-line examination of each text, as recommended by Eisenhardt and Graebner (2007), familiarizes us with each informant's way of interpreting events. At the end of each content analysis, we drew up a short summary of the main information contained in each transcript in order to facilitate the mix between the result's interpretations. Consistent with Yin (1994), a case study analysis entails examining, classifying and selecting or recombining facts.

At the end of our research, we asked to other researchers to double-code our data in the basis of thirteen interviews of our sample. We obtained an average of inter-codes agreement of 94, 5%, which is satisfactory according to Miles and Huberman (1994). Taking into account the exploratory nature of our research, it was not the frequency of codes that matters but rather their presence or not and the relations between them. We seek for the construction of the chains of evidence and looked for the relations between the different analyzed codes (Miles and Huberman 1994).

RESULTS

Our data analysis reveals previously hidden facets that in turn reveal the complexity of IT outcomes analysis. For each step of this analysis, we provide our data in the form of representative quotations. We first provide evidence for the unexpected link between ORAs and social capital. Second, we show the extent to which rumor can make sense even in one of the most sophisticated virtual environments. Third, we show the sensitive link between trust in technology and the safeguarding of inter-firm relationships. Finally, we show evidence for the flexibility of the inter-organizational community.

ORAs linked not only to economic performance but also to social capital²¹

Our research shows that ORAs are presented by the initiators of the technology as a means of obtaining better negotiated prices from suppliers and thus of enhancing buyers' economic performance. At the same time, by stressing the ability of ORAs to generate greater inter-organizational transparency, our results transcend the economic perspective. Transparency is presented as a solution to problems of organizational behavior. The main problem is misallocation of the buyer's social capital. In effect, based on our findings, we postulate that ORAs make it impossible for buyers to benefit from the impermissible advantages emanating from their social capital. In other words, ORAs prevent buyers from extracting intolerable advantages from suppliers. Thus, decisions regarding deal allocations must be made on purely objective criteria—in particular, the buying cost.

The manager of B2B projects and organization: “ORAs aim essentially to improve buyers' economic results by lowering buying costs”.

The EMP manager: “The first thing the buyers mentioned is that they will not be able to receive invitations from my suppliers...I knew many buyers who had their private costs covered by suppliers such as their kitchens in their new houses. Does the buyer's new kitchen provide benefit for the retailer? I think that buyers have to select suppliers within clean relationships through ORAs”.

General manager of B2B relationships: “What ORAs procure is a total transparency during the negotiation”.

The technology of ORAs is thus presented as a solution to an *organizational behavioral* issue. However, the expectation of transparency and the elimination of misallocation of social capital are counterbalanced by the emergence of suspicion, distrust, and rumor-mongering.

ORAs generate social distance that fosters the circulation of rumors

²¹ As Josserand (2003) points out, 'social capital' is still a technical term and is thus not part of practitioners' everyday vocabulary even at the management level. Practitioners use words such as 'relationship' or 'network'.

The enhanced transparency made possible through by ORAs enables buyers to make objective decisions. However, this shift creates distance between buyers and suppliers that can be perceived as dehumanizing by suppliers even as it leads to another *social* but unwanted outcome: rumor-mongering.

The ORA coordinator: “During the process of ORAs, there’s no interaction even if I am reachable by phone...sometimes it’s difficult to manage and accepted grudgingly by suppliers”.

Buyers argue that ORAs are likely to create social distance between them and suppliers since ORAs reduce face-to-face interaction. Incumbent suppliers in particular find it difficult to adjust to this change.

Buyer: “The main issue with ORAs is that it decreases our frequency of contact with suppliers ...in the end you call the incumbent suppliers who lost the auction and it is not easy at all to say to the loser that he lost the auction”.

Suppliers’ sensemaking emphasizes a feeling of frustration since they interpret ORAs as a tough shift from human interaction to machine-to-machine interaction.

Supplier: “There is no longer a relationship, it’s completely impersonal...you are at your screen watching prices dropping”.

This under-socialization creates a favorable environment for the circulation of rumors about the inappropriate use of ORAs by the community of retailers. Indeed, the reappearance of improprieties in Europe has led to the unexpected phenomenon of rumor-mongering, as the community of suppliers has started to suspect all retailers of unethical behavior even if they respect the spirit of the technology. Rumor generates erroneous sensemaking that leads to distrust. This situation is to be regretted, as buyers who respect the spirit of ORAs are, as it were, unfairly tarred with the same brush.

Supplier: “I recognize that the unethical behavior of some large European retailers is damaging the global perception of ORAs through rumors even if the retailer behaves in an ethical manner”.

Buyers confirm the spread of rumors and stress the extent to which suppliers are at the origin of this proliferation. However, they explain that this situation reveals suppliers’ resistance to change.

Buyer: “Many things were said about the ORAs and mainly from the supplying perspective. It’s like all technological change which has detractors...suppliers who want to avoid ORAs use rumors but these are suppliers who didn’t know how to adapt to changes”.

Technical issues and the genesis of distrust

The spread of rumors about the unethical use of ORAs across the retail industry resulted in an atmosphere of suspicion. Hence, the technical problems that affect bidding are systematically interpreted by suppliers as opportunistic behavior causing major disruptions²² to inter-organizational relationships. Paradoxically, buyers are not responsible for technical issues since the process is operationally managed by the EMP platform.²³

The coordinator of ORAs: “The main distrust problems we had were due to technical issues. Suppliers interpret that we are manipulating the bidding process in order to make them lose the deal, whereas the ORAs are here to enhance transparency”.

²² A recent Aberdeen Group report (December 2007) emphasizes the extent to which online fraud continues to rise in a number of businesses. <http://www.aberdeen.com/summary/report/benchmark/4269-RA-securing-online-user.asp>

²³ Since November 2005, Agentrics has been the exclusive EMP for the worldwide retail industry, excluding Wal-Mart, which uses its own proprietary EMP.

As it happens, our two observations of the process show that it is impossible for a third party to manipulate ORA outcomes.²⁴ The retailer is able only to visualize price movements; it cannot manage the bidding. The retailer merely records the final bids. Internal communication shows clearly that the retailer demands that the employees involved in this process abide by strict ethical rules.

Simultaneously, in an attempt to guarantee the transparency of the outcome, the EMP requires that its users respect the rules of non-manipulation, non-deviation, and fairness.²⁵ However, the EMP refuses liability²⁶ for any technical problems, making any real-time management problems the responsibility of the retailer, although technical assistance is provided. Here the question is whether this assistance is sufficient to deal with suppliers' frustration of being disconnected from ORAs, especially in the event of high financial stakes.

The problems of using ORAs in both France and Europe led suppliers to form groups that to lobby the French government for the passage of the first law in the world to deal with the management of ORAs.

The lawmaker as transparency enabler

The initiators of the technology revealed that the unethical use of ORAs led suppliers to form lobbying groups in order to make public abuses that occurred in virtual settings. Thus, supplier criticism of unethical behavior on the part of retailers, whether founded on rumor or fact, alerted both the French and the European authorities.

The coordinator of ORAs: *“Suppliers are exerting significant lobbying efforts on the government as a reaction to the abuses they suffer during bidding...the European Union created a parliamentary commission that aims uncover unethical behavior”.*

In effect, suppliers showed how, by creating a climate of distrust, the inappropriate use of ORAs can be harmful to business relationships.

General Manager: *“Such technologies are likely to harm inter-firm trust and this explains why I refuse to take part in future ORAs...this technology should be forbidden, especially in the current economic context”.*

Suppliers' lobbying efforts led the French anti-trust authority²⁷ to set up a commission to investigate abuses linked to ORA use and to report on the current regulation of this technology. Surprisingly, the commission found that public ORAs have been governed by a specific law since 2001,²⁸ whereas there is a legal vacuum surrounding private ORAs, which are subject *de facto* to contract law. Thus, private ORAs are subject to the rules of good faith and fair dealing as stated by the EMP.²⁹ However, it is hard to identify the courts whose jurisdiction extends to the virtual settings of potential conflicts.³⁰

²⁴ It is impossible because, as explained by the ORA coordinator, suppliers have confidential passwords and the IT infrastructure of the EMP is reliable,

²⁵ Agentrics Usage Agreement: No Manipulation or Interference: You agree not to manipulate, by any means, the price of any goods or services offered on the Agentrics Exchange, including, without limitation, through the use of an alias or decoys or by placing false offers for the sale or purchase of goods or services. Furthermore, you agree not to unfairly influence any bidding, unfairly influence the outcome of an Auction or otherwise unfairly interfere with, interrupt or manipulate any component of the Agentrics Exchange or the Auction Service. While Agentrics has no obligation to monitor and is not involved in Auction transactions on the Agentrics Exchange, Agentrics may from time to time elect to monitor an Auction transaction taking place on the Agentrics Exchange.

²⁶ Service Interruptions: The Agentrics Exchange is scheduled to be available 24 hours a day, 5 days a week; however, Agentrics does not guarantee the availability of the Agentrics Exchange or that access will be uninterrupted or error-free... Agentrics is not responsible for any errors or delays in the posting of an Auction or any Bid. If you experience technical difficulties in using the Auction Service, you should seek assistance from the Agentrics help desk.

²⁷ This commission is known as 'La Commission de la Concurrence et de la Répression des Fraudes'.

²⁸ This law is decree n°2001-846 of 18 September 2001.

²⁹ The World Wide Retail Exchange Usage Agreement states: Each User hereby agrees to act in accordance with the principles of good faith and fair dealing when transacting on or through the Exchange. WWRE reserves the right to investigate any allegation

As a result, law n° 2005-882³¹ was adopted by the French government. It is, to our knowledge, the only law in the world to regulate the use of ORAs. The law doubles the notice period if an incumbent supplier loses the deal through an ORA, makes compulsory transparent ORA rules for all stakeholders, bans the use of ORAs for some food and agricultural products, and makes it optional for the supplier who offers the second-best price to honor the deal if the winning bidder is unable to do so. At the same time, the law provides for up to two years of imprisonment and fines of up to 30,000 (\$44,124) for parties found guilty of making false claims, introducing phantom suppliers, and using unauthorized means of hijacking the transparency promised by ORAs.

Although they highlight the role played by lobbies and insist on the specificity of the French case, both the initiators of the technology and buyers welcome this legislation, as it is meant to insure the respect of fair practices.

General manager of B2B relationships: “I think that it’s a good thing that the lawmaker set the basic principles for the ORAs...at the same time the lawmaker proves that he cedes to suppliers’ lobbying efforts”.

Buyer: “The lawmaker proves the necessity of the law to deal with human nature”.

Agentrics key account manager for French corporate clients: “France is a unique case in the world; the law makes the use of ORAs impossible for some product categories...At each meeting of Agentrics, we spent about 10 minutes discussing the latest particularities of the French market”.

From the suppliers’ side, we find evidence that the power to sanction makes the law a remedy for unfair practices in virtual environments and is a deterrent to unethical behavior.

Sales manager: “I think that the lawmaker played a significant role in the case of ORAs in order to bring guarantees of fair negotiations with industrial buyers”.

We show them in figure 1 and argue that ORA technology makes sense for the members of the inter-organizational community as:

- A tool for improving **economic** performance through enhanced organizational buying power
- A significant treatment for an **organizational** behavior issue that emanated from the dark side of buyers’ social capital
- A technology that may suffer from **social** phenomena such as rumors.
- A negotiation tool vulnerable to **computer science** problems that create distrust even if actors respect the official line of the technology
- A medium of business interaction whose drawbacks are managed by **legal** endeavors from lawmakers

or evidence of any User's failure to abide by the principles of good faith and fair dealing in connection with its use of the Exchange, and to fashion and enforce remedies, in its sole but reasonable discretion, in order to address any violation of such principles.

³⁰ Assigning jurisdiction is all the more complicated in that the web-based architecture of ORAs facilitates international transactions.

³¹ 2 August 2005 (Journal officiel, n° 179, p 12639, NOR : PMEX0500079L)

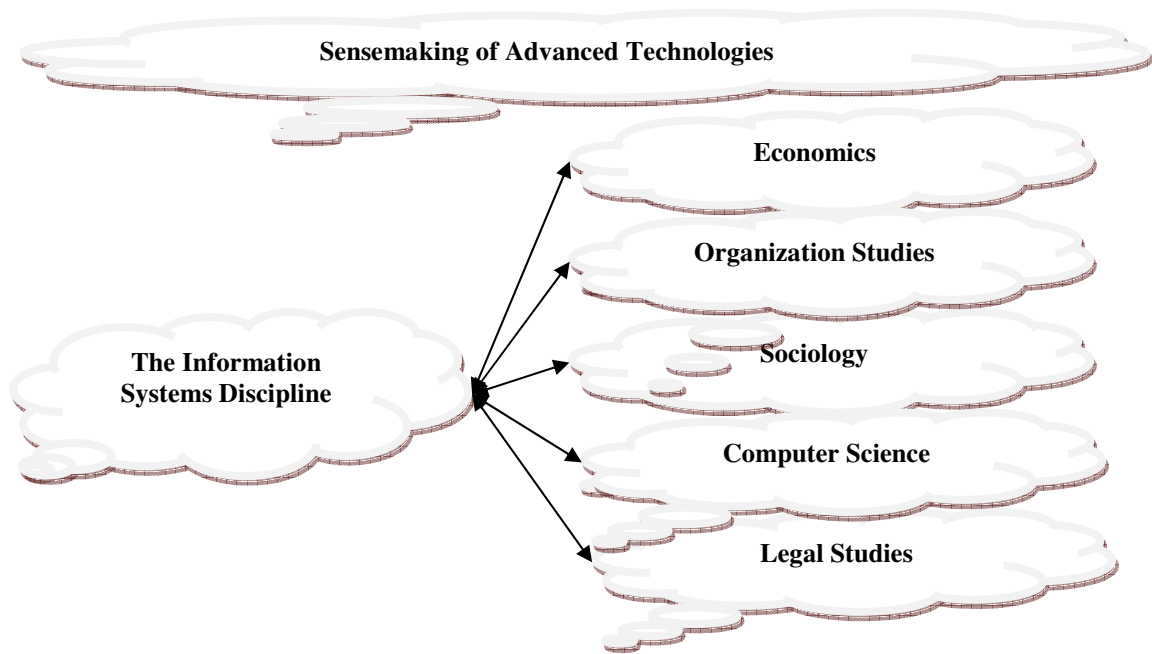


Figure 1 Empirical Interdisciplinary Viewpoint of the Sensemaking Process with the IS Discipline as a Discipline of Reference (adapted from Baskerville and Myers 2002, p. 8)

DISCUSSION

Our findings corroborate the complexity of IT sensemaking (Swanson and Ramiller 1997), especially as different and flexible³² storytellers take part in the struggle of sensemaking (Weick et al. 2005), thus showing the importance of a contextual and ongoing view of the IT artifact (Orlikowski and Iacono 2001).

First, we reveal that the use of ORAs goes beyond the economic perspective since they are used to avoid the risk of negative externalities associated with buyers'³³social capital. French sociologist Bourdieu (1986) defines social capital as "The aggregation of the current and potential resources related to the possession of a durable network" (p. 248). Social capital has been viewed as able to generate advantages such as corporate advantage, intellectual capital development, and product innovation (Josserand 2003). In effect, ORAs are seen as the answer to the questions—about dealing with the perversities in the development of buyers' social-capital – the organizational literature has been asking in recent years (Adler and Kwon 2002; Josserand 2003).

We then insist on the great extent to which ORAs diminish the social dimension of business relationships as a result of a drop in business interactions. This reduction implies an under-socialization of business exchanges; economic actors are atomized. The social distance created by this under-socialization causes inter-firm distrust, as socialization is considered essential to trust (Granovetter 1985). Granovetter (1973) define the social distance between two individuals in a network as the number of lines in the shortest path from one to another (p. 1366).

As a consequence of this social distance, virtual settings are home to the unexpected problem of rumor-mongering, which is identified as a source of distrust above all in uncertain settings (Deutsch 1958). The situation is problematic since rumors spread blindly throughout the supply network and do not differentiate between one retailer and another.

³² Storytellers change as time goes by.

³³ Buyers are considered the main boundary-spanning agent.

Described as inevitable in the life of an organization (Davis 1969), rumor has largely been ignored by IS literature, although it has been studied by sociologists (Michelson and Mouly 2004).

Rumor was identified as an obstacle to the sensemaking of technical problems during bidding. Indeed, technical problems are often interpreted by suppliers as opportunistic behavior on the part of the buying firm. The interpretation of technical problems as opportunistic behavior corroborates Ratnasingam's (2005) study, which shows that inter-organizational trust depends in part on trust in technology.

Taking into consideration the abuses in the use of ORAs, French lawmakers passed the law of 2 August 2005 to improve business practices. The passage of this law testifies to the ability of the law to provide solutions to problems of distrust (Sitkin and Roth 1993) and confirms the need for an institutional perspective of trust (Zucker 1986). As a consequence, we add another major stakeholder to the inter-organizational community, which proves its ability to adapt to change.

Our findings thus provide evidence for the advisability of incorporating an ongoing sensemaking perspective in IS research not only on end-users but also on the members of the inter-organizational community. The IT artifact should encapsulate a dynamic view that is embedded in the specific context of the technology, while taking into account the computational, social, historical, institutional, organizational, economic, political, and legal perspectives (Orlikowski and Iacono 2001).

To reach these goals, we recommend that researchers dealing with IT adopt the IS discipline as a reference (Baskerville and Myers 2002) and take a multidisciplinary perspective (Orlikowski and Barley 2001). At the same time, we are conscious that the B2B ORAs case, alone, cannot provide the entire legitimacy for adopting the IS discipline as a reference. Nevertheless, we launch a call for the IS community to take such approach into consideration. In effect, IS researchers are the most appropriate storytellers of phenomena closely bound to IT, as they meet the conditions of distinctiveness, timeliness, and, relevance set out by Swanson and Ramiller (1997). The emergent perspective (Markus and Robey 1988) is likewise an appropriate means of revealing complex sensemaking enabled by IT. Moreover, due to its sensitive side, this study suggest to use qualitative approach for investigating ORAs outcomes even in disciplines classically accustomed to quantitative approaches such as operations management and supply chain management. Thus, we show the extent to which IS research methods can benefit to other disciplines.

At this point, it is worth emphasizing that our aim is neither to argue that IS-based systems should not be dealt with by non-IS researchers nor that non-IS researchers lack the background to deal with IT. As it happens, as IS researchers, we simply believe that IS is a discipline that studies of information technology phenomena can turn to since IS has much to offer researchers in many other disciplines (Baskerville and Myers 2002).

CONCLUSION

We argue that the time has come for Information Systems to grow as a discipline—to progress from an applied discipline to a discipline of reference that understands and enables organizational behavior while also taking an interdisciplinary perspective. This growth is expected, as ubiquitous and highly promising technologies are enabling and affecting the day-to-day operations and processes of entire businesses.³⁴

Our work is not a call for the information system community to dictate the research perspectives of other disciplines. Rather, we hope that, rooted in a multi-disciplinary perspective, the discipline will map out a promising future built on the foundations of the systematic experiential learning lessons of what we might call the IS decades.³⁵

REFERENCES

1. Adler, P. S., and Kwon, S. W. (2002), Social capital: prospects for a new concept, *Academy of Management Review*, 27, 1, 17-40.

³⁴ Among these technologies are global positioning systems, u commerce, and environmental communication.

³⁵ The outset of these decades could be the date of the first issue of *MIS Quarterly* (March, 1977).

2. Baskerville, R. L., and Myers, M. D. (2002), Information systems as a reference discipline, *MIS Quarterly*, 26, 1-14.
3. Benbasat, I., and Zmud, R. (2003), The IS identity crisis, *MIS Quarterly*, 27, 2, 183- 194.
4. Benbasat, I., Goldstein, D. K., and Mead, M. (1987), The case research strategy in studies of information systems, *MIS Quarterly*, 11, 3, 368-383.
5. Bourdieu, P. (1986), The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research of the sociology of education*, New York: Greenwood, 241-258.
6. Daly, S. P., and Nath, P. (2005), Reverse auctions for relationship marketers, *Industrial Marketing Management*, 34, 2, 157-166.
7. Davis, K. (1969), Grapevine communication among lower and middle managers, *Personnel Journal*, 48, 4, 269-272.
8. DeSanctis G., and Poole, M. S. (1994), Capturing the complexity in advanced technology use: adaptive structuration theory, *Organization Science*, 5, 2, 121-147.
9. Deutsch, M. (1958), Trust and suspicion, *Conflict Resolution*, 2, 4, 265-279.
10. Eisenhardt, K. M., and Graebner, M. E. (2007), Theory building from case studies: Opportunities and challenges, *Academy of Management Journal*, 50, 1, 25-32.
11. Emiliani, M. L., (2000), Business-to-business online auctions: key issues for purchasing process improvement, *Supply Chain Management*, 5, 4, 176-186.
12. Granovetter, M.S, (1973), The Strength of Weak Ties, *The American Journal of Sociology*, 78. 6. 1360-1380
13. —. (1985), Economic and social structure: the problem of embeddedness, *The American Journal of Sociology*, 9, 3, 481-510.
14. Hirschheim, R., Klein, H. K., and Lyytinen, K. (1995). *Information systems development and data modeling: conceptual and philosophical foundations*. Cambridge University Press, Cambridge.
15. Jap, S. D. (2003), An exploratory study of the introduction of online reverse auctions, *Journal of Marketing*, 67, 3, 96-108.
16. —. (2007), The impact of online reverse auction design on buyer-supplier relationships, *Journal of Marketing*, 71, 1, 146-59.
17. Jossierand, E. (2003), Viral strategies: How organizations build and maintain social capital at the business level, *The 19th European Group for Organizational Studies Proceedings*, Copenhagen, July 3-5.
18. Kaplan, B. and Maxwell, J.A. (1994), Qualitative Research Methods for Evaluating Computer Information Systems, in *Evaluating Health Care Information Systems: Methods and Applications*, J.G. Anderson, C.E. Aydin and S.J. Jay (eds.), Sage, Thousand Oaks, CA, 45-68.
19. Lee, T. W. (1999), *Using qualitative methods in organizational research*, Thousand Oaks, CA: Sage Publications.
20. Markus, L., and Robey, D. (1988), Information technology and organizational change: causal structure in theory and research, *Management Science*, 34, 5, 583-598.
21. Michelson, G., and Mouly, S. (2004). Do loose lips sink ships? The meaning, antecedents and consequences of rumour and gossip in organisations, *Corporate Communications: An International Journal*, 9, 3, 189-201.
22. Miles, M. B., and Huberman, A. M. (1994), *Qualitative data analyses*, Sage Publications.
23. Orlikowski, W., and Barley, S. R. (2001), Technology and institutions: what can research on information technology and research on organizations learn from each other? *MIS Quarterly*, 25, 2, 245-265.
24. Orlikowski, W. J., and Baroudi, J. J. (1991), Studying information technology in organizations: research approaches and assumptions, *Information Systems Research*, 2, 1, 1-28.
25. Orlikowski, W., and Iacono, S. C. (2001), Research commentary: desperately seeking the "IT" in IT research: a call to theorizing the IT artifact, *Information Systems Research*, 12, 2, 121-134.
26. Palvia, P., Leary, D., and Mao, E. (2004), Research methodologies in MIS: an update, *Communications of the ACM*, 14, 24, 526-542.

27. Ramiller, N. C., Swanson, E. B., and Wang, P. (2008), Research directions in information systems: toward an institutional ecology, *Journal of the Association for Information Systems*, 9, 1, 1-22.
28. Ratnasingam, P., (2005), Trust in inter-organizational exchanges: a case study in business to business electronic commerce, *Decision Support Systems Journal*, 39, 3, 525-544.
29. Schoenherr, T., and Mabert, V. A. (2008), The use of bundling in B2B online reverse auctions, *Journal of Operations Management*, 26, 1, 81-95.
30. Sitkin, S. B., and Roth, N. L. (1993), Explaining the limited effectiveness of legalistic remedies for trust/distrust. *Organization Science*, 4, 3, 367-393.
31. Smeltzer, L. R., and Carr, A. S. (2003), Electronic reverse auctions: promises, risks and conditions for success, *Industrial Marketing Management*, 32, 6, 481-488.
32. Swanson, E. B., and Ramiller, N. C. (1997), The organizing vision in information systems innovation, *Organization Science*, 8, 5, 458-474.
33. Wagner S. M., and Schwab, A. P. (2004), Setting the stage for successful electronic reverse auctions, *Journal of Purchasing and Supply Management*, 10, 1, 11-26.
34. Walsham, G. (2006), Doing interpretive research, *European Journal of Information Systems*, 15, 3, 320-330.
35. Weick, K. E. (2001), *Making sense of the organization*, Oxford: Blackwell.
36. Weick, K. E., Sutcliffe, K. M., and Obstfeld, D. (2005). Organizing and the process of sensemaking, *Organization Science*, 16, 4, 409-421.
37. Yin, R. K. (2003), *Case study research: design and methods*. Third ed. Thousand Oaks, CA: Sage.