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eCommerce as Computer-Mediated Social Action

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Abstract

We regard business-to-customer electronic commerce (eCommerce) a form of social action that can be analyzed with Habermas's (1985) communicative action theory. This theory presents a typology consisting of instrumental, strategic, normatively regulated, dramaturgical, and communicative action. We propose that social action theory in general and the action typology in particular are useful for analyzing eCommerce applications and as a framework for eCommerce research.

1. Introduction

Habermas's communicative action theory has been applied to research on information systems, and to communicative action-based business activity modeling (Lyytinen, 1986; Lyytinen, Klein, Hirschheim, 1991). Business-to-consumer eCommerce is a form of social action and, based on the studies listed above, we contend that eCommerce websites can be analyzed using social action theory. This article analyzes eCommerce activities using Habermas's communicative action types: instrumental, strategic, normatively regulated, dramaturgical, and communicative action.

These communicative action types constitute a theory for understanding eCommerce as a form of social action. Furthermore, communicative action theory in general and the action types in particular comprise a framework for guiding eCommerce research. Analysis of the literature leads us to conclude that research efforts so far have concentrated on instrumental, strategic, and normatively regulated action aspects of eCommerce. Communicative action theory motivates research into (1) penetration of the lifeworld by economic rationality, (2) analysis and design of website content, and (3) educating the public to become informed eCommerce participants. Communicative action theory is an alternative to economic, marketing and technological approaches to studying eCommerce.

The five communicative action types make it possible to better exploit the opportunities of website technologies. Many business-to-consumer eCommerce websites do little more than display product images, specifications, prices, and execute a purchase. Such websites present the consumer with a limited shopping experience, which in turn may lead to eCommerce underutilization (Oinas-Kukkonen, 2000). We allege that studying eCommerce using communicative action theory will help to improve eCommerce websites while making online shopping more satisfying.

The sections below provide definitions of each action type and explanations of their use in eCommerce, and give suggestions for eCommerce research. Space limitations prevent lengthy descriptions of communicative action. For a full discussion please see Habermas.

2. Action Types and eCommerce

Habermas draws on speech act (Austin, 1962; Searle, 1969) and social theories (Weber, 1946; Parsons, 1949) to argue that communicative action underlies human social and material reproduction. He further asserts that communicative action theory comprises instrumental, strategic, normatively regulated, dramaturgical, communicative, and discursive action types. We stress that it is always social actors who engage in social actions. eCommerce websites merely show, exhibit, reflect, or give evidence of the social act.

Instrumental action occurs when actors seek to reach goals in an efficient fashion employing predictions drawn from physical and behavioral models (Table 1). Furthermore, the actors relate to an objective world consisting of facts, states of affairs, and people whose behavior is governed by social, psychological, and behavioral laws or models (Habermas, pp.127-128).

When eCommerce websites present products or services and enable executing transactions, they give evidence of instrumental action. The website presents the objective world of facts and states of affairs such as product descriptions, specifications, price, etcetera, without any deliberate attempt to influence the potential customer.

The website maintained by the Neumann company (<http://www.neumann.com>) exemplifies instrumental action because it merely lists microphone type numbers and some application advice. No attempt is made to sell anything. In fact, it is impossible to order via the website.

Strategic action occurs when an actor, while assessing the expected results of his action, takes into account the action of his counterpart(s) (Habermas, p.127). A purposeful act is strategic when it is based on rational choice and when it is evaluated in terms of its *influence* on the decisions of rational opponents (Table 1). The strategic action concept informs game theory as used in economics. Actors engaged in strategic action seek to reach goals in an efficient manner employing predictions drawn from physical and behavioral models (Habermas, pp.127-128).

eCommerce websites that try to influence customers to make a purchase give evidence of strategic action. These websites are designed with specific models of consumer buying behavior in mind (e.g., price elasticity of demand). Websites may present product descriptions, specifications, price, use, preparation, and etcetera, as in the case of instrumental action. However, the consumer is being convinced that he cannot do without the product, the product is presented to make it appear unique or different from competing products, and coupons or quantity discounts are offered to *influence* individuals to purchase the product or service. The website may also feature buyer-to-seller and seller-to-buyer feedback such as e-mail to further manipulate the buyer. Thus, the website was constructed with the goal in mind to manipulate, persuade, or influence the potential buyer to make a positive purchase decision. The buyer is objectified and we are dealing with an objective world of facts and existing states of affairs.

Examples of strategic action include websites that sell sports equipment (www.polarelectro.com/). Strategic action is quite apparent on Polar's sports equipment web site which openly coaxes potential buyers toward purchasing it's heart rate monitor by suggesting one cannot exercise "seriously" without it, and by cleverly associating the performance of those who exercise with it with "top athletes." The sports equipment store embarks on strategic action of this kind because it assumes a thoughtful and rational buyer who is likely to purchase the heart rate monitor precisely because he is "serious" and wants to be a "successful" athlete.

Normatively regulated action refers to members of social groups whose actions are informed by commonly accepted norms (Habermas, p.127). Normatively regulated action involves objective and social worlds consisting of facts, states of affairs, people, and societal norms. The actors are success oriented within the constraints determined by the norms of the society to which the actors belong (Table 1).

When customers agree to buy a product or service from an eCommerce vendor, the resulting actions of buyers and sellers are expected to be in accordance with generally accepted societal norms. Thus, buyers make payment while vendors deliver the products or services. Normatively regulated action involves many other issues such as product returns, repair, and after-sale service. An important point is that many aspects of eCommerce require stronger normatively regulated action aspects than more traditional commerce (Hoffman, et al., 1999).

Dramaturgical action is the presentation of self in a public forum (Goffman, 1971; Habermas, p.128). By providing his audience controlled access to ideas, thoughts, wishes, and feelings to which he has privileged access, the actor creates a certain image of himself (Goffman; Habermas, pp.128, 136) (Table 1). Goffman coined the concept before the World Wide Web's existence and described it as taking place between a real person and his public. However, Goffman's many examples suggest dramaturgical action is also possible between an organization and its audience (i.e., customers).

Dramaturgical action may follow conventional forms such as associating seller or product with positive images or by referring to recognized opinion leaders such as police officers, physicians, or any other individual in a position of authority. *Idealization* (Goffman, p.56) is the concealment of a product's unreliability by secretly repairing its many errors before its sale or by failing to disclose any of the product's undesirable side effects. *Misrepresentation* (Goffman, 1971, p.65) occurs when on account of strategic ambiguity absence of normal product features remains unmentioned. *Mystification* (Goffman, p.74) is creating an artificially large distance between a seller and product features when the former claims a specialist status whose word is to be believed without critical analysis.

Nokia's website (http://www.nokia.be./nokia_7110/eng/pcsuite.html) gives evidence of dramaturgical action. The company's website depicts it's logo which reads that the firm helps "Connecting People." The website also shows the image of two human hands reaching out to one another depicted on the device's operating screen. This image reinforces the printed statement of a device that brings people

together. The image further refers Michelangelo's fresco in the Vatican's Sistine Chapel depicting God's hand reaching out to Adam's hand, thus bringing the latter to life. Hence, Nokia's website represents an extremely subtle but very potent exemplar of idealization and mystification (who would question Michelangelo?). Furthermore, this ad fails to mention potential side effects such as a possibly increased risk of traffic accidents when individuals use the phone while driving.

Technologies such as computer animation, multimedia, and interactivity allow eCommerce to further exploit persuasive dramaturgical means. To our knowledge, the deployment of these technologies in the context of eCommerce is in its infancy. Raute Wood's website (<http://www.raute.fi>) illustrates the use of computer animation showing how logs are cut and transformed to paper sheets. Even though the aforementioned animation lacks dramaturgical aspects, it is easy to imagine a corresponding dramaturgical animation featuring happy birds singing in praise of the fresh air available after logging. The Paloheimo Company's website on Lamella parquets flooring (<http://www.lamella.fi>) includes a video clip showing how easy it is for anyone to install a new parquet floor.

Communicative action occurs when actors use language as a medium for coming to a common understanding (Habermas, p.142) (Table 1). The speaker and listener refer to something in the objective, social, and subjective worlds. The claims participants make concerning the three worlds can be criticized as to their validity: that a statement be true, that the statement be right given the normative context, and that the speaker's manifest intentions be in agreement with what he says (Habermas, p.149). Making these validity claims the topic of discourse (i.e., *discursive action*) enables a negotiated consensus about the situation at hand. Consensus is negotiated under conditions free of threats, with all participants able to question validity claims so that the "better" argument prevails. The actors subsequently coordinate their individual action plans based on the aforementioned consensus (Habermas, pp.128, 151). A major difference between action types is that instrumental and strategic actions are coordinated by the profit motive whereas communicative action is coordinated by consensus about the situation at hand (Koningsveld and Mertens, 1992, p.77).

Communicative action occurs when it is essential for seller and buyer to reach consensus about product or services specifications. For example, consider the potential customer who wishes to obtain a first-class microphone that should operate under very trying recording conditions with respect to acoustics, mix of instruments, and music coloration. First class microphones are complex acoustical and electronic

instruments that are produced in short runs. There are few microphone companies of this sort and they have been in the business for generations (mostly German companies). They are interested in selling microphones but equally interested in maintaining their well-established good name (<http://www.neumann.com>).

To come to a decision the customer and seller need consensus about the recording situation. The seller may have to advise and educate the buyer about the microphone and the recording process. To demonstrate the occurrence of communicative action we assume a call center that enables the customer to converse with an audio specialist using web-based video and audio communication capabilities. The latter is a specialist with allegiance to his profession and the reputation of the microphone company. This specialist's goal is advising the potential customer, and selling microphones may be of secondary importance. A conversation ensues between the specialist and the customer during which both attempt to obtain consensus about the situation at hand. This understanding involves facts of the objective world, the subjective musical sensibilities of the customer, the specialist's subjective concern for the customer's recording needs, his own profession, and the company's good name. After reaching consensus, each carries out his unique plan of action.

A hypothetical example of communicative action involves a customer who needs the services of a consulting bureau to bring about privatization of a state-owned firm. The consulting bureau has a website that enables the customer to describe his objective world, lifeworld, and subjective world. A firm's consultant studies this information and initiates contact with the customer via a call center featuring internet-based audio and video communication (call centers are presently under development). A common definition of the situation is negotiated and individual plans of action initiated. Such a consensus requires conditions free of threats where all participants are able to question validity claims and where all listen to reason, so that the "better" argument prevails (Habermas, p.51). Because customer and consulting bureau are independent entities the relationship between the two is relatively symmetric with each having roughly equal power.

3. Final Comments

We have demonstrated that eCommerce phenomena can be analyzed using Habermas's social action typology. We suggested in Introduction that communicative action theory in general and the five action types in particular comprise a framework for guiding eCommerce research, and that the five communicative action types make it possible to better exploit the opportunities of modern website technologies. Because space limitations don't

allow a broad discussion we shall discuss communicative action implications for eCommerce selectively.

Table 1, fourth column, shows several eCommerce communicative action theory based research topics. In the case of instrumental action the research questions focus on efficiency and value of eCommerce as a medium for commerce. Among the topics that have received considerable attention are eCommerce business models. Timmers (1998) defines a business model as the architecture for product, service and information flows, and business actors and their roles, plus a description of the benefits for each actor. Strategic action focuses on the possibility of different eCommerce actors trying to influence each other by applying economic theories and models. Aldridge (1998) argues that eCommerce equalizes the power relationship among sellers and buyers because the latter can more easily choose between many suppliers. Scharl and Brandtweiner (1998) discuss maxims such as “protect your ideas,” and “maintain strong bargaining power” to combat competitive challenges. These maxims clearly belong to the strategic action type because they refer to opponents who will respond to these measures. Associated with normatively regulated action is research centering on societal norms required for efficient and reliable eCommerce and the protection of privacy of customers. Hine and Eve (1998), for example, describe how eCommerce leads to the accumulation of large amounts of personal data and a concomitant need for balancing the interests of companies against the privacy desires of individuals. These concerns lead to calls for legislation and, therefore, belong to the normatively regulated action type.

Our impression is that existing research on eCommerce has primarily focused on the instrumental, strategic and normatively regulated aspects of eCommerce. Our claim is that there is a definite need to also understand eCommerce also as dramaturgical and communicative action. We expect eCommerce to adopt persuasive technologies at an increasing rate (e.g. Fogg, 1999; Khaslavsky and Shedroff, 1999; King and Tester, 1999). This will create new and powerful means for dramaturgical action especially in marketing. These developments necessitate concomitant attention to ethical issues (Berdichevsky and Neunschwander, 1999). We also see a need for educating the public to become informed eCommerce and communicatively competent participants so that they will be able to read, interpret and judge the overt and covert messages mediated by these technologies. It is our expectation that with the advent of new technologies and an educated public one of the conditions for communicative action, namely consensus building in an environment free from domination, can at least in principle be realized.

Most eCommerce websites have been developed to sell standardized products or services that do not require extensive communication with the customer and which can therefore be constructed using two to three of Habermas's social action types; especially instrumental, strategic, and normatively regulated action. When products and services sold via eCommerce become more customized requiring that the customer becomes an essential participant in product design, one may also expect a need for communicative action. In fact, Timmers (1998) discusses collaboration between companies on product and service design. We see this need not only in the context business-business eCommerce but also in business to consumer eCommerce.

References

- Aldridge, D., (1998) “Purchasing on the Net: The New Opportunities for Electronic Commerce,” *Electronic Markets*, Vol.8, No.1, 34-37.
- Austin, J. (1962) *How to Do Things with Words*, Cambridge, MA: Harvard University Press.
- Berdichevsky, D., and Neunschwander, E. (May 1999) “Toward an Ethics of Persuasive Technology,” *Communications of the ACM*, Vol.42, No.5, 51-58.
- Fogg, B. J. (1999) “Persuasive Technologies,” *Communications of the ACM*, Vol.42, No.5, 27-29.
- Goffman, I. (1971) *The Presentation of Self in Everyday Life*, UK: Penguin Books.
- Habermas, J. (1985) *Theorie des kommunikativen Handelns*, Band I, Frankfurt am Main, Deutschland: Suhrkamp Verlag.
- Hine, C., and Eve, J. (1998) “Privacy in the Marketplace,” *The Information Society*, Vol.14, No.4, 253-262.
- Hoffman, D. L., Novak, T. P., and Peralt, M. (April 1999) “Building Consumer Trust Online,” *Communications of the ACM*, Vol.42, No.4, 80-85.
- Khalavsky, J., and Shedroff, N. (1999) “Understanding the Persuasive Experience,” *Communications of the ACM*, Vol.42, No.5, 45-49.
- King, P., and Tester, J. (1999) “The Landscape of Persuasive Technologies,” *Communications of the ACM*, Vol.12, No.5, 31-38.
- Koningsveld, H., and Mertens, J. (1992) *Communicatief en Strategisch Handelen*, Muiderberg, Nederland: Coutinho.
- Lyytinen, K. (1986) *Information Systems Development as Social Action: Framework and Critical Implications*, Jyväskylä, Finland: Jyväskylän Yliopisto.
- Lyytinen, K., Klein, H. K., and Hirschheim, R. (January, 1991) “The Effectiveness of Office Information Systems: A Social Action Perspective,” *Information Systems Journal*, Vol.1, No.1, 41-60.
- Oinas-Kukkonen, H. (2000) “Balancing the Vendor and Consumer Requirements for Electronic Shopping Systems,” *Information Technology and Management*, Vol.1, 73-84.

- Parsons, T. (1949) *The Structure of Social Action*, Glencoe, IL: Glencoe Publishing.
- Scharl, A., and Brandtweiner, R. (1998) "A Conceptual Research Framework for Analyzing the Evolution of Electronic Markets," *Electronic Markets*, Vol.8, No.2, 39-42.
- Searle, J. R. (1969) *Speech Acts: An Essay in the Philosophy of Language*, Cambridge, MA: Cambridge University Press.
- Timmers, P. (1998) "Business Models for Electronic Markets," *Electronic Markets*, Vol.8, No.2, 3-8.
- Weber, M. (1946) *From Max Weber: Essays in Sociology*, H. Gerth and C. W. Mills (eds.), New York, NY: Oxford University Press.

Table 1. Five Social Action Types and Their Use in eCommerce

<i>Action Type</i>	<i>Action Orientation</i>	<i>eCommerce Application</i>	<i>eCommerce Research Topics</i>
<i>Instrumental:</i> Actor relates to an <i>objective</i> world consisting of physical facts, states of affairs, and people.	Actor seeks to realize goals in the most efficient manner using predictions based on physical and behavioral models.	Websites provide an efficient medium for presenting products and services and for executing purchasing transactions.	<ul style="list-style-type: none"> * What are eCommerce's economic and social values? * How will Commerce benefits accrue to different parties? * How does eCommerce make commerce (trade) more efficient? * Which business models best fit eCommerce so that its benefits can be achieved? * How to make eCommerce more efficient?
<i>Strategic:</i> Actor relates to an <i>objective</i> world consisting of physical facts, states of affairs, and people. Actor knows that his counterpart adjusts her actions in response to his own actions.		Websites influence the customer to buy a product or service by convincing him he cannot do without it, and by offering volume discounts, coupons, or other enticements.	<ul style="list-style-type: none"> * How does eCommerce affect competition, the competitive position of suppliers, alternatives available to customers, and intermediaries? * How does eCommerce affect product and service pricing, marketing, and customer relationships? * Which business strategies ensure profits in an eCommerce environment? * Which are the eCommerce critical success factors?
<i>Normatively Regulated:</i> Actors relate to <i>objective</i> and <i>social</i> worlds consisting of facts, states of affairs, people, and societal norms.	Actors behave in accordance with <i>norms</i> valid in the society to which they belong.	Customer and seller complete transactions in accordance with social norms.	<ul style="list-style-type: none"> * Which domestic and international laws, norms, policies and ethical principles are required to ensure customer privacy and efficient and reliable eCommerce?
<i>Dramaturgical:</i> The actors relate to <i>social</i> and <i>subjective</i> worlds consisting of social facts, interpersonal relationships, norms, and subjective feelings.	Actors form a public for each other and disclose a limited part of their subjective feelings.	Websites overplay a product's positive features and downplay its potential drawbacks.	<ul style="list-style-type: none"> * How does eCommerce change the dramaturgical nature of marketing? * How can and will persuasive technologies be used in eCommerce?
<i>Communicative:</i> The actors relate to <i>objective</i> , <i>social</i> , and <i>subjective</i> worlds consisting of facts, states of affairs, norms, and subjective feelings.	Actors seek <i>consensus</i> about the situation at hand. They execute their individual action plans based on the aforementioned consensus.	Websites enable in-depth two-way communication between customer and seller.	<ul style="list-style-type: none"> * How will eCommerce affect mutual understanding and consensus amongst seller and customer about business transactions? * How can eCommerce support communication, negotiation and collaboration among customers and sellers? * How can consumers become informed eCommerce participants?