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REDEFINING CHANNEL EXPANSION: A CRITICAL APPROACH

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Abstract¹

This paper describes the application of the critical social theory of Jürgen Habermas to channel expansion theory. Channel expansion, from a critical perspective, is determined through an increasing number of validity claims leading to a reduction in distorted communication. This paper provides the theoretical framework on which to investigate channel expansion theory from a critical perspective, a new definition of channel expansion from a Habermasian perspective, and an application of the critical approach to channel expansion theory.

Keywords: Communicative action, channel expansion theory

Introduction

With the rapid expansion of the Internet, distributed computing, and mobile services, the pace of technology diffusion has quickened. It is commonplace to see individuals talking on cellular telephones in their cars, stock quotes being monitored from a personal digital assistant, and children in daycare being checked on through live web cams. These tasks are all accomplished through use of technology, which pervades our everyday lives. Successful use of technology for a variety of tasks is still an unrealized goal in many cases. As our choice of technologies grows, so does our confusion about which technologies to use in which situations. The merging and blurring between different technologies intensifies this confusion, and questions arise as to whether existing concepts and knowledge of technology use still apply.

Channel expansion theory (CET) is one perspective on technology use that focuses on knowledge building experiences that shape the way that a communication technology, or media device, is perceived. This perspective extends ideas about the use of media, suggesting that media characteristics alone are not sufficient to explain people's perceptions about it. Instead, perceptions of media can evolve over time, based on experiences with a message topic, communication partner, organizational context, and the technology at hand (Carlson and Zmud, 1999).

As social and cognitive components move to the forefront as important determinants of successful media use, richer perspectives are needed to help examine these components. To date, a positivistic approach has dominated the examination of media use. Positivistic perspectives and methods have helped develop our understanding of this area, but they fall short in providing a complete picture of social and cognitive components. The socially-oriented perspective of critical social theory has the potential to provide this richer examination. Critical social theory (CST) offers a new lens through which to examine media use, more specifically channel expansion theory. CST examines how individuals are able to create a better environment around them through periods of critical reflection, a reflection based on historical experiences and the current contextual setting. It is through individual actions within periods of critical reflection that media can expand.

This paper presents a research agenda that will study channel expansion theory from a critical perspective. The paper provides an overview of the key concepts and presents the outline of a method of examining CET from a critical perspective. This perspective provides a new lens for examining a rich set of data that arises out of dialogue between communication partners. The paper makes a contribution by presenting an approach for analyzing this data to provide a richer, contextual understanding of CET.

¹I would like to thank Ilze Zigurs for her comments in focusing several concepts in this paper.

Channel Expansion Theory

Channel expansion theory (Carlson, 1995; Carlson and Zmud, 1999) extends the findings of media richness theory (MRT) (Daft and Lengel, 1984; 1986) beyond its original prescriptive structure. MRT suggests that media channels, such as email, have characteristics associated with them that provide varying degrees of capability to handle message equivocality. However, contrary to what MRT suggests, empirical research shows that messages high in equivocality *are* able to be carried across lean media (Lee, 1994; Markus, 1994). The ability to carry information may not only be about the prescriptive characteristics of MRT, but also include factors such as experience (Carlson and Zmud, 1999), social situations (Schmitz and Fulk, 1991; Fulk, 1993; Carlson and Zmud, 1999), or contextual setting (Ngwenyama and Lee, 1997).

Channel expansion theory proposes that a channel’s richness can vary over time, based on five factors: (1) knowledge building experience with channel, (2) knowledge building experience with message partner, (3) knowledge building experience with message topic, (4) knowledge building experience with organizational context, and (5) social factors. Moving away from media richness being viewed as an objective property of the media device, CET supports the idea that media richness is a product of complex interactions among individuals, media, and the organizational context. While investigating media richness from a socially conscious perspective, the original examination of channel expansion theory inspects data gathered through survey instruments. There is also a need for an in-depth examination of the rich data generated by discussions through a media device between communication partners. Such an examination from a socially conscious and contextually driven perspective can strengthen the earlier CET findings. The CST perspective of Jürgen Habermas provides just such an opportunity to examine CET from a socially motivated perspective, focusing closely on the dialogue generated between communication partners across a media device to determine channel expansion.

The Theory of Communicative Action

In its broadest sense, critical social theory acts more as a philosophical perspective than as a theory with constructs and relationships. Critical social theory is not concerned with such familiar concepts as useful, faster, better, or more productive, but instead is intent on understanding how varying influences guide individuals in their actions. The theory looks beyond understanding individuals in a *status quo* environment, and toward individuals in an emancipatory setting (Ngwenyama et al., 1997).

The modern critical social theorist, Jürgen Habermas, proposes that all human society exists in three forms: labor, interaction, and distortion (Giddens, 1985). Labor views human society as being governed by forces of production that shape society, and individuals engaged in labor are unable to control their own outcomes. Such a view is examined through a positivistic perspective. Second, interaction states that individuals engage in communication in order to obtain mutual understanding between themselves. This view is examined through hermeneutic practices. Third, distortion states that human society involves power struggles between individuals. Critical social theory is used to examine the reduction or maintenance of distortions between individuals (Giddens, 1985), and to determine how knowledge is produced through these distortions.

The theory of communicative action (Habermas, 1976; 1987) is based on critical social theory, and states that individuals involved in communication strive for reductions in distorted communication (Giddens, 1985). Distorted communication results when individuals do not adhere to contextual norms during communication or the communication itself is incomprehensible, incomplete, insincere, or unwarranted (Habermas, 1976; Ngwenyama and Lee, 1997).

The theory of communicative action proposes that individuals take part in four social actions: instrumental, communicative, discursive, and strategic (Habermas, 1976; 1987; McCarthy, 1978;

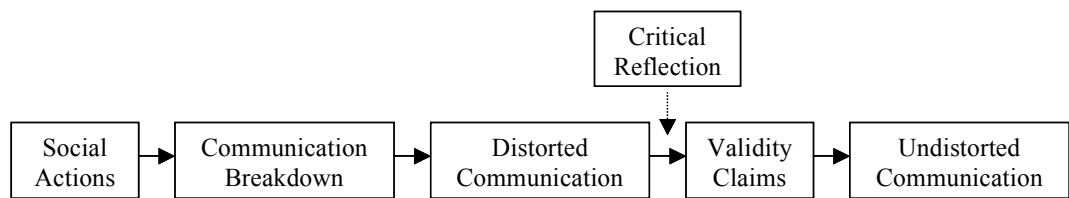


Figure 1. Reduction of Distorted Communication

Ngwenyama and Lee, 1997). Individuals engaged in social actions are able to undergo periods of critical self-reflection when a communication breakdown and distorted communication begins. These periods of self-reflection can set into motion a series of validity claims that individuals may have regarding their dialogue. It is through validity claims that distorted communication can be resolved. Figure 1 shows the temporal relationship of social actions, communication breakdowns, distorted communication, and validity claims, leading to a reduction in distorted communication.

Types of Social Action

As mentioned, four types of social actions are identified by the theory of communicative action (Habermas, 1976). *Instrumental* action occurs when a communication partner views the other partner as an information receptacle, rather than as an actor. When this type of action occurs, the receiver of the order can enact the validity claims of contextuality, efficiency, and effectiveness. *Communicative* action is intended to achieve a mutual understanding between communication partners. This type of action is different from instrumental action in that it treats both members of the communication as actors, and not simply as receptacles of information. Validity claims that relate to communicative action include clarity, completeness, contextuality, and truthfulness. *Discursive* action is used to resolve disagreement between communication partners. Validity claims that relate to discursive action are clarity, contextuality, truthfulness, and sincerity. *Strategic* action occurs when one actor attempts to influence another through communication. The validity claim associated with strategic action is contextuality.

Types of Validity Claims

When a communication breakdown occurs between two individuals, the following seven types of validity claims can be raised to restore communication (Ngwenyama and Lee, 1997):

- (1) contextuality –appropriateness of the action;
- (2) efficiency –ability of the action to achieve desired ends;
- (3) effectiveness –authority of the communication partner;
- (4) clarity –clarity of the message and associated jargon;
- (5) completeness – completeness of the message;
- (6) truthfulness –truthfulness of the message; and
- (7) sincerity –sincerity of the communication partner.

Table 1 summarizes the relationships between social actions and associated validity claims.

Table 1. Socials Action and Applicable Validity Claims (Ngwenyama and Lee, 1997, Table 1)

Social Actions	Validity Claims						
	Completeness	Truthfulness	Sincerity	Clarity	Contextuality	Efficiency	Effectiveness
Communicative Action	X	X		X	X		
Discursive Action		X	X	X	X		
Instrumental Action					X	X	X
Strategic Action			X		X	X	X

A Critical Approach to Channel Expansion

Ngwenyama and Lee (1997) provide a framework for using a critical perspective to extend research in information systems, applying the critical social theory of Jürgen Habermas (1987) to the MRT work of Markus (1994). Ngwenyama and Lee propose that a critical perspective goes beyond the perspectives of positivism and interpretivism, and examines how individuals critique and reduce distorted communications within which they are engaged. In particular, Ngwenyama and Lee offer a theoretical perspective through which a new theory of communication richness can be developed. They propose the Habermas theory of communicative action as a new definition of communication richness. Using this new perspective, communication richness can be examined, not in a hypothetico-deductive manner, but from an inductive, critical approach. This approach examines communication between actors to determine whether richness is occurring, based on actors' ability to reduce distorted communication through the effective use of validity claims. Ngwenyama and Lee examined discourse between communication participants from the critical perspective of being engaged in communicative action and found that media richness did exist, based on the effective use of validity claims associated with communicative action. Their analysis takes the perspective that media richness either exists or does not exist. If validity claims can be effectively raised through the media device, the medium is considered rich. Likewise, if validity claims can not be effectively raised, the medium is not considered rich.

This paper proposes that dichotomous thinking is too limited in scope. While the presence of media richness can be determined through the effective use of validity claims, richness can also *vary* in accordance with an increase or decrease in the number of effectively used validity claims. This notion can be directly examined by applying aspects of the Habermasian critical perspective

to channel expansion theory. Carlson (1995) originally examined CET through the use of survey instruments and found that indeed, a communication channel can expand in perceived richness. The critical perspective provides a different lens through which to examine the theory of channel expansion by analyzing the dialogue between individuals and their effective use of validity claims to reduce distorted communication. As an increasing number of effective, appropriate validity claims for a social action surface during discourse, channel expansion occurs. Likewise, as a decreasing number of effective, appropriate validity claims appear during discourse, channel expansion slows or reverses.

Channel expansion, from a CST perspective, can be determined based on the ability of the technology to (1) support multiple social actions leading to (2) a greater propensity for communication breakdowns leading to (3) support of appropriate validity claims from the group members leading to (4) a reduction in distorted communication (Figure 2).

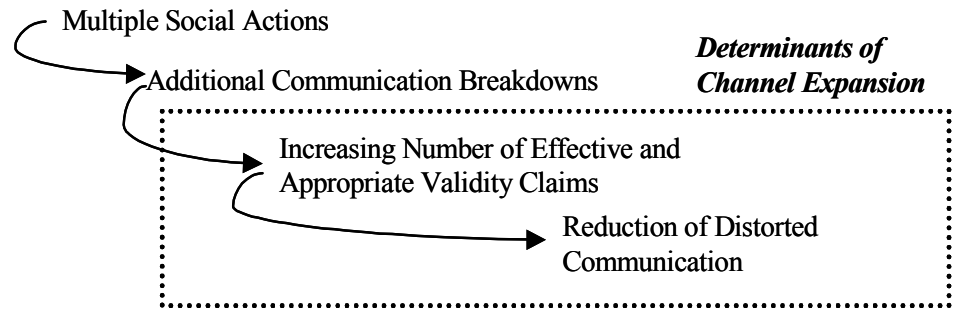


Figure 2. Determinants of Channel Expansion from a Critical Perspective

Determining Channel Expansion

Social actions, communication breakdowns, and the presence of validity claims can be determined through coding to identify these components in the dialogue. Coding provides a temporal map that shows the relationships between social actions, breakdowns, and validity claims. The dialogue can then be examined in more detail to determine effective use of validity claims resulting in a reduction in distorted communication, thus determining channel expansion. It is important to note that determining a reduction in distorted communication through the effective use of validity claims at a single time period identifies media richness, not channel expansion. A determination of channel expansion from the critical perspective requires the examination of multiple time periods, and identifying an increase or decrease in the number of validity claims that lead to a reduction in distorted communication.

To illustrate channel expansion as determined through the critical social theory lens, dialogue between dyad members can be examined across three time periods. This illustration will closely examine the dialogue produced in time period one, how this dialogue is examined to identify communication breakdowns and validity claims, and how a temporal map is produced from this examination. Dialogue from time periods two and three will be represented in summary form to identify varying levels of richness as determined from the critical perspective.

In this example, dyad members used an integrated communication tool that supported both synchronous and asynchronous communications to perform a three part task. The task was built around the framework used by Carlson (1995), requiring dyad members to discuss the merits of Internet cookies and produce three interrelated position papers across three successive time periods. For brevity, not all the messages in time period one will be examined. Instead, messages that produce communication breakdowns, validity claims, and resolution of distorted communication will be examined (Table 2).

Richness in time period one is determined by the dyad members’ ability to raise appropriate validity claims and enact meaning on messages that have been sent and received (Ngwenyama and Lee, 1997). Concerned with gaining and maintaining a mutual understanding, dyad members are engaged in two separate instances of communicative action. During the first communicative action, M102 appears to be a straightforward question sent from Tom to Sue. In Sue’s responses to Tom, M103 and M104 indicate that she believes M102 to be a simple question asking the virtues of Internet cookies. More specifically, M103 directly addresses how cookies are “good” and message 104 directly addresses how cookies are “bad.”

Messages 106 and 110, extend the meaning of M102 beyond the original “good” or “bad” dichotomous question and toward a deeper question that elaborates on the impacts of good and bad uses of Internet cookies. While M102 is still the same set of words that were originally sent at time 2:05:12, the meaning of M102 is extended with the inclusion of M106 and M110. In this example, both M106 and M110, while precipitating unique validity claims, are part of the same communicative act, a communicative act that seeks to gain mutual understanding of the meaning of M102.

Table 2. Time Period One Dialogue

Message No.	Date	Time	From	Message
101	3/7/01	2:04:47	Tom	Tell me about cookies.
102	3/7/01	2:05:12	Tom	Do you think they are good or bad?
103	3/7/01	2:05:48	Sue	I think that they are good for certain businesses ex: [online book stores].
104	3/7/01	2:06:22	Sue	but I do not think that people should be prohibited from a site [because] they don't have the [cookie].
105	3/7/01	2:06:33	Tom	I agree.
106	3/7/01	2:06:39	Tom	What about sharing information?
107	3/7/01	2:07:09	Sue	Sharing is okay if the user is informed about it and agrees to it, not behind their back.
108	3/7/01	2:07:17	Tom	Sharing information with other companies, that's what I meant.
109	3/7/01	2:07:56	Sue	That is what I meant too...they can share if the user agrees.
112	3/7/01	2:10:32	Sue	I think that if there is an agreement [between] a user and a company there is no problem.
113	3/7/01	2:10:59	Sue	I don't like the idea of my info being passed around, but I just deal with it.

In the case of M102, Sue originally had no reason to extend the meaning of the question to include the issues presented in M106 and M110. Messages 106 and 110 result in a breakdown of the original understanding of M102, prompting Sue to raise the validity claim of *completeness* upon receiving M106 and M110. Addressing the completeness of her answer, Sue indicates that she understands the extended meaning of M102 by replying to both M106 and M110 with additional responses to Tom in the form of messages 107, 108, 111, and 112. By addressing the communication breakdowns caused by M106 and M110, Sue has resolved the distorted communication occurring on M102.

In addition to M106 and M110 causing a communication breakdown on M102, M107 is a message upon which a new communication breakdown occurs within a second communicative action. Tom uses M106 to ask Sue what she thought about companies sharing cookie information with other companies. Tom experiences a communication breakdown on M106, as indicated at M108, when he believes that Sue has misunderstood his original question at M106. Attempting to resolve the distortion, Tom raises the validity claim of *clarity* at M108. As seen, the validity claim was successful in improving the clarity of the communication as indicated in M109 when Sue replies to Tom that she is in agreement with his concern. This analysis of both communicative actions can be represented in a temporal map (Figure 3) showing the social actions, communication breakdowns, and validity claims effective in reducing distorted communication.

A total of 52 messages were generated during time period one with respect to the Internet cookies project. Within those 52 messages, three communication breakdowns occurred at M106, M108 and M110. The validity claims of completeness and clarity were effectively raised, resolving all distorted communication that occurred as a result of the communication breakdowns.

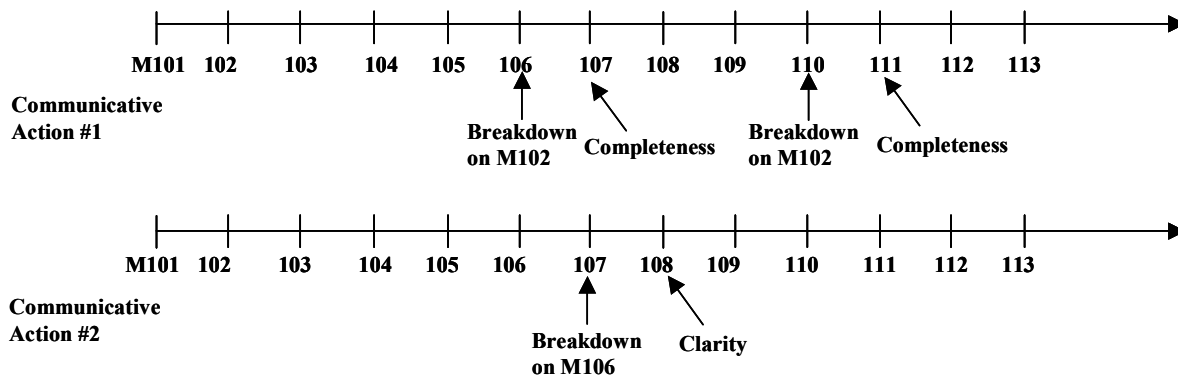


Figure 3. Temporal Maps of Dialogue Analysis

The final two time periods will be presented in summary form to highlight social actions, communication breakdowns, validity claims, and the resolution of distorted communication. Discussions during time period two continued to explore the issue of Internet cookies. A total of 97 messages were generated between the dyad members. Within those 97 messages, the social action of communicative action occurred four times, six communication breakdowns occurred, and five of the six communication breakdowns were resolved through the effective use of eight validity claims.

Time period three discussions completed the exploration of the Internet cookies. A total of 33 messages were generated between the dyad members. Two communication breakdowns occurred between the dyad members, leading to two effective validity claims resolving distorted communications.

Recalling that the dynamic view of media richness is represented in the number of validity claims that reduce distorted communication, the three time periods examined in this example illustrate an expansion in channel richness between time periods one and two and a reduction in richness between time periods two and three. This channel expansion and reduction is represented in Figure 4.

Conclusion

The proposed research contributes to information systems and CST communities in several ways. First, as we move toward socially motivated theories of media use, socially conscious perspectives need to be applied. The Habermas theory of communicative action provides a new, socially oriented lens for examining the phenomenon of channel expansion. The critical perspective has had little application in information systems, but is essential for strengthening our understanding of research issues ranging from technology use to classroom teaching. Applying the critical perspective to CET provides a unique examination of how factors may enhance channel expansion.

This research also provides guidance for practitioners by furthering the understanding of (1) which technologies are best suited to reduce power differences between employees, departments, or organizations (2) which technologies are best suited to maintain power differences between employees, departments, or organizations and (3) how different technologies support various social actions for a variety of organizational communication needs.

Because of the commitment to a process view of communication, the approach incorporates a dynamic view of the technology (Carlson, 1995), while emphasizing the role context plays for individuals using the technology (Habermas, 1976). The approach is sensitive to the role that technology, the organizational context, and an individual can play in determining technology use.

This paper provides a base on which a series of investigations can be built. First, it develops the use of the critical perspective within the field of information systems. Critical social theory provides a philosophical perspective on which to build and expand new theories. Second, this paper develops an approach to examine channel expansion theory from a unique perspective. This perspective should strengthen earlier findings of Carlson (1995), supporting the notion that the use of technology is not only driven by the technology but also the individuals using it, the context within which they are functioning, and the partner with whom they are communicating.

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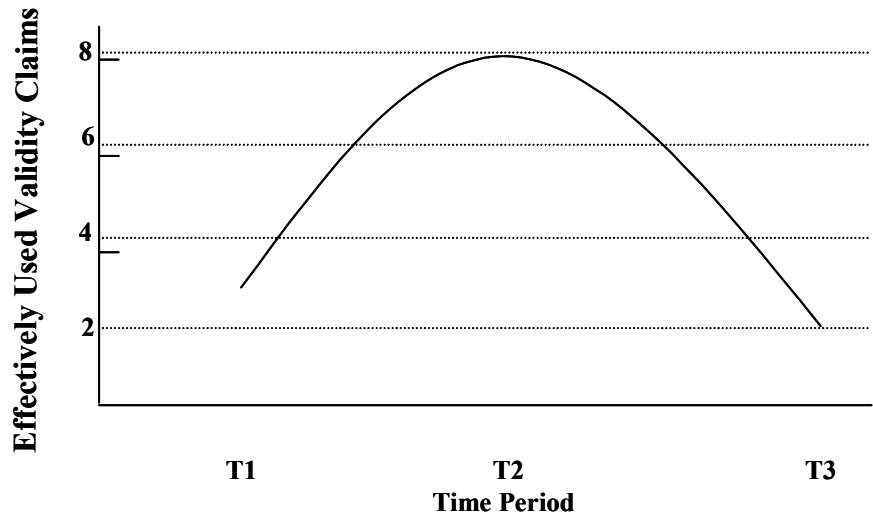


Figure 4. Change in Effectively Used Validity Claims

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