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Towards a theoretical basis for operationalizing knowledge communication

Abstract

Knowledge communication is an emerging means of understanding the individual processes involved in constructing and passing knowledge from person to person. Knowledge communication works together with technical communication in the knowledge society. The concept of knowledge communication complements technical communication by allowing for the interpersonal aspects of knowledge creation and diffusion. Combining technical and knowledge communication, then, covers the three major components of the knowledge economy – creation, diffusion, and use of knowledge. In this paper I propose that we consider three approaches to understanding the interaction between technical communication and knowledge communication – Culture as a system, Communities of Practice, and the intersection of Kenneth Burke's notions of terministic screens and entitlement.

0. Introduction

Knowledge communication can be understood as the process through which individuals construct and share knowledge, with technical communication as a global process throughout which knowledge communication is constantly recurring. As knowledge becomes a central driver in national economies (Information Society Commission to the Irish Government, 2002) economies are increasingly relying on creation, diffusion, and use of knowledge. Technical communication focuses on the latter, communicating knowledge for use in society. In combining technical communication with knowledge communication, the processes of communicating how to use technology and understanding audiences embedded in cultural contexts are complimented by communication

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processes occurring between individuals as they create knowledge and transfer knowledge to each other.

Technical communication brings together linguistics and rhetoric through genre, audience analysis, discourse analysis, etc. The field of rhetoric, based in Aristotle, as well as more recent work, provides part of the foundation for technical communication, bringing in key notions of situatedness for understanding one's audience through the concepts of ethos, pathos, and logos. These concepts offer technical communicators tools for understanding the rhetorical situation. As we reconceptualize our understanding of technical communication to interface with the interpersonal process of knowledge communication, we need to uncover the juncture between the larger, societal based communication processes and interpersonal communication. This larger society picture can be understood as the system in which the three aforementioned processes on which knowledge economies depend – creation, diffusion and use in society – interact with each other.

To uncover the interaction between technical communication and knowledge communication, we need to reconfigure our use of theoretical constructs for understanding the relationship between interpersonal and group communication processes, as well as the creative and reductive processes involved in communicating in a work context. The combination of interpersonal and group communication and the creative and reductive processes of communicating through genres and norms offer possibilities for unpacking and operationalizing the notion of context for knowledge communication. I propose that we consider three approaches to understanding the interaction between technical communication and knowledge communication – Culture as a system, Communities of Practice, and the intersection of Kenneth Burke's notions of *terministic screens* and *entitlement*.

1. Culture as a System

Culture as a system offers us a manner of situating the rhetorical situation in a larger context – that of a cultural system. In approaching audience through the notion of culture as a system, a manner of operationalizing the interaction between ecological factors, norm, and consequences can be seen. The elements of the systematic approach to culture can be applied from a societal perspective to operationalize the context in

technical communication, and from an individual perspective to operationalize the context in knowledge communication. The framework used comes from Geert Hofstede's frame for his research on dimensions of culture, but differs from the dimensions of culture in that the focus stays on the larger picture or context for culture as a dynamic system with norms both defined more concretely than dimensions of culture and situated within the interactions between:

- Outside influences including technology which supports knowledge communication
- Origins or ecological factors such as geography and history
- Consequences as manifested in institutions such as government, law, policy, etc.

These interactions are illustrated in Figure 1:

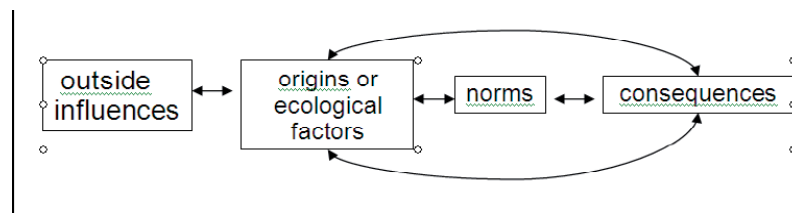


Figure 1: Culture as a dynamic system

In Figure 1, the origins, norms, and consequences balance each other, and shift to maintain that balance as outside influences, such as technology, are introduced into the system. Focusing on the dynamic system portrayed in Figure 1 offers a manner of including cultural context in understanding the rhetorical situation. In Figure 1, the influences from outside the system are indicated as affecting the origins or ecological factors directly and the norms and consequences indirectly. Thus, the arrow from outside influences enters the system through origins. Hofstede (1984) defines outside influences as forces of nature, forces of man, trade, conquest and scientific discovery. Kampf & Kastberg (2005) also include technologies, such as the internet, as an explicit part of outside influences. Outside influences have the ability to change or shape the origins or ecological factors which affect norms and consequences. These norms, underlying values, and their consequences do

not change directly through outside influences, rather the outside influences shift the physical environment, thus causing change in the system. For example, in the case of technical communication, we can use the dynamic system to portray the cultural bounds of technical communication shown in Figure 2. This operationalization of cultural boundaries allows technical communicators to approach audiences from a situated perspective through the combination of norms, origins and outside influences.

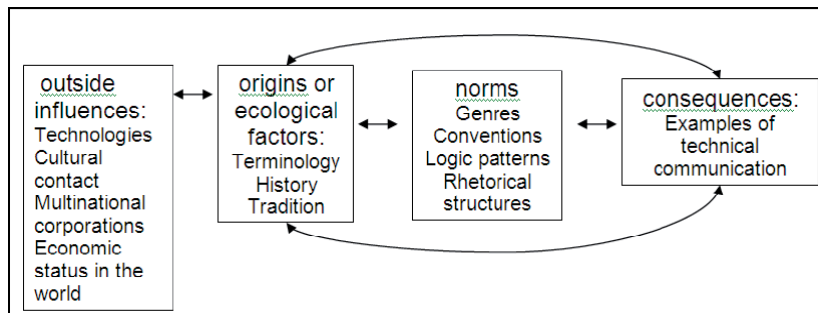


Figure 2. Systemic model of culture as a self-reinforcing system applied to technical communication (Kampf & Kastberg, 2005)

As the systemic model of culture demonstrates the interaction between examples of technical communication and the larger context in which they are formed, the model can also be applied to examples of knowledge communication to offer a model for operationalizing the context in which knowledge is created and diffused. Eppler (2005) defines knowledge communication from an interpersonal perspective, and argues that it goes beyond communicating information “because it requires conveying context, background, and basic assumptions” as well as “personal insights and experiences.” (p. 3) Eppler’s definitions approach rhetorical concepts such as ethos, logos, and pathos without using a rhetorical frame of reference. Eppler’s definition also builds a case for a rhetorical theory based approach to understanding knowledge communication. Figure 3 shows how knowledge communication can be seen as a consequence of experience, intuition, and rhetoric (ethos, logos, pathos) in the systemic model of culture.

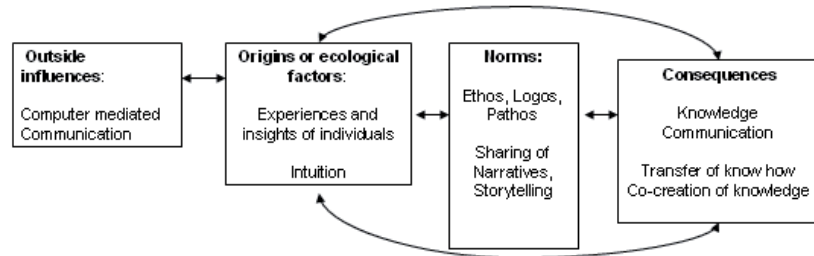


Figure 3. The systemic model of culture applied at the individual level to Knowledge Communication.

Figure 3 offers a model for operationalizing the context in which knowledge communication occurs. The outside influences are posited as the computer-mediated communication technologies which enable knowledge communication and add the technical affordances of speed and reach which increase the potential of knowledge communication. The origins are framed at the level of individual experiences because knowledge communication is an interpersonal communication process, affected by the intuition and insights of the communicators. The norms box represents the rhetorical situation in which the interpersonal communication takes place through ethos, logos and pathos, as well as the modes of communication through which knowledge is communicated. These modes of communication include storytelling and narrative based interactions. The consequences of the norms inherent in the rhetorical situation being acted out are knowledge communication as both transfer of know-how and co-creation of knowledge.

This model offers a manner of beginning to unpack what Eppler (2005) refers to as the “black box” of context. By applying rhetorical analysis at the level of norms in interpersonal communication, we can include the interactions between the people involved in a communicative situation as part of a systematic analysis of context. Norms in the modes of sharing knowledge, such as using narratives and telling stories, are influenced by the experience and insights of the communicators in the origins box. Thus, the model in Figure 3 offers a view of context and the audience in an interpersonal knowledge communication situation which can be operationalized.

The parallel systemic models of culture applied to both technical communication (figure 2) and knowledge communication (figure 3) demonstrate the norms in both contexts as rhetorical in nature, and offer a method for applying rhetorical concepts to understand instances of both the interpersonal process of knowledge communication and the more global process of technical communication. Through these models which operationalize context at both interpersonal and social levels, rhetorical constructs are demonstrated as normative forces which underlie both knowledge communication and technical communication.

2. Communities of Practice

In contrast to the systematic model of culture approach to understanding the intersection of technical communication and knowledge communication, an approach modelled in Wenger's communities of practice offers a manner of combining the interpersonal and social together. Whereas the systemic model of culture shows how norms based in rhetoric underlie both technical Communication and knowledge communication, the duality of participation and reification underlying Wenger's concept of communities of practice brings the individual and the global together through the duality of individual participation and reification from the global context. Participation and reification are two processes which Wenger demonstrates as underlying the knowledge communication which occurs in communities of practice. Wenger defines practice as based in meaning which emerges from this duality of participation and reification. Figure 4 demonstrates Wenger's model of meaning (1998, p. 53):

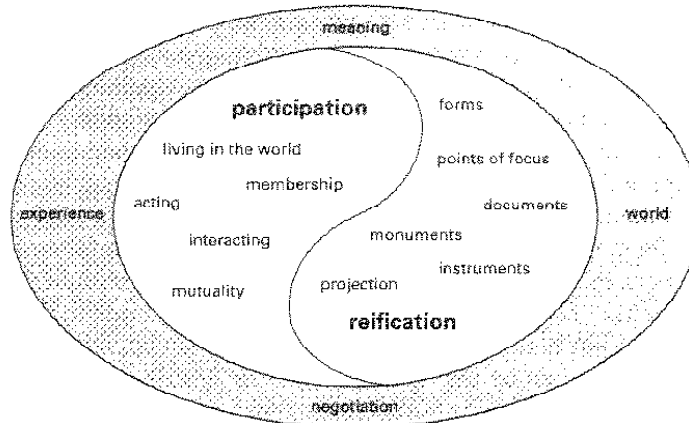


Figure 4. Wenger's Model of meaning emerging from the duality of participation and reification (1998, p. 63).

According to Wenger, as people participate in practice and use artefacts in the world around them, they produce meaning. Wenger uses the eastern ying yang form for his model to represent motion, or negotiation of meaning which goes on between participation and reification. Communities of practice negotiate meaning. The practice of negotiating meaning integrates participation and reification, with participation being a creative process and reification being a reductive process – content and structure are intertwined to produce meaning or knowledge in an environment.

Participation explained as experience “living in the world,” acting, and interacting, implies an individual perspective, similar the the definition of knowledge communication as an individual process explained in the systemic model of culture approach. But here Wenger also includes processes of identification, such as membership and mutuality. So that participation is not merely an individual process, but operates at the interface between individuals and the group, or community as practice from Wenger's perspective.

Reification focuses on the material aspects of genre with the inclusion of forms and documents, but Wenger also includes the interactive processes of points of focus and projection, implying that reification goes beyond the material objects to include the manner in which

the group chooses points of focus and the manner in which individuals project their understanding onto the objects.

The combination of reification with participation highlights the manner in which individuals interact together with the material objects of genres in an environment. The connection between the individual and group comes through the shared material objects and experiences, but the model does not open up a space for the larger picture of context operationalized by the systems model of culture perspective because a place for the rhetorical process inherent in knowledge communication is missing.

This combination of reification and participation in communities of practice could be understood as a detailed view of the manner in which norms are played out in context, with genre following Miller's definition of genre as a repeated response to a recurring situation. Individuals participate by responding to the repeated situation, and through the collective responses, they work together to enact, form and reform genres. Reification is a group based reductive process channelling the manner in which community members participate, and participation itself is a creative process through which individuals experience the world around them. Thus, the communities of practice model plays out the interpersonal aspects of knowledge communication as people participate in communities of knowledge formed around work objects.

Wenger's frame of reference, focused on communities of practice, offers a dynamic approach to the manner in which individuals participate and interact with the materiality of genre. However, the larger cultural context in which the individuals and material objects are situated is lacking from the model. This model also offers a more complex view of knowledge from a perspective which includes both the individual actions and participation in a community of practice in through which knowledge is communicated. Using Wenger's approach, technical communication and knowledge communication interact with each other through genre, with technical communication focusing on mastery of genre for conveying information and knowledge communication focused on the creation and recreation of genre through individual participation.

3. The Intersection of Burke's Terministic Screens and Entitlement

In contrast to Communities of Practice in which the individual perspective is seen as creative and the group or genre perspective as reductive, Kenneth Burke posits individual processes of interacting with the world as reductive, through the notion of terministic screens. Then, for Burke the productive process occurs through the group, set out in his concept of entitlement. When the reductive processes operate at the individual level and the productive processes operate at the group level, knowledge communication the notion of context is emphasized over the individual for articulating the creative aspects of the knowledge economy.

Terministic screens is a concept that Burke refined from Veblen's notion of occupational psychosis. He developed the concept across several books, exemplified by the following quotes:

"a way of seeing is also a way of not seeing."

From *Permanence and Change* (1954)

"Men seek for vocabularies that will be faithful reflections of reality. To this end they must develop vocabularies that are selections of reality. And any selection of reality must, in certain circumstances, function as a deflection of reality."

Grammar of Motives (1945) p. 59

When I speak of "terministic screens," I have particularly in mind some photographs that I once saw. They were different photographs of the same objects, the difference being that they were made with different colored filters. Here something so factual as a photograph revealed notable distinctions in texture, and even in form, depending upon which color filter was used for the documentary description of the event being recorded."

Language as Symbolic Action (1966) p. 45

Terministic screens can be understood as linguistic filters which we, at the individual level, develop through our personal experiences. These filters are encoded in the language that we use to describe work, and in the vocabulary inherent in the situations in which we work. The terminology we use to describe and perform work directs the attention of the individuals engaged in interpersonal communication and obscures or deflects other information available in the situation, much like the color filters which Burke describes in the third quotation above. Much as the

definitions of knowledge communication which use the vocabulary and theory of interpersonal communication (i.e. Eppler 2005) deflect:

- 1) the interaction with communities of practice highlighted in Wenger's model of participation and reification
- 2) the operationalized notion of context which includes rhetoric as part of the norms in both technical communication and knowledge communication.

Entitlement can be understood as community processes through which we create terminology through our shared signs and shared manner of attaching terminology to those signs. In explaining entitlement, Burke challenges the traditional logic that words are the signs of things, or labels which we attach to the objects around us by using the notion of entitlement to argue the inverse – that things are the signs of words. In other words, that by the linguistic process of entitling, the group creates things (i.e. the material objects of genres such as documents and forms).

Burke describes entitling in *Language as Symbolic action* as follows:

“In sum, then the dialectical resources intrinsic to entitlement and abbreviation would be these:

- (1) There can be a verbal expression of varying duration that sums up, or entitles, a non verbal situation.
- (2) this expression can be so abbreviated that a portion of it stands for the whole of it, the shorter portion thus in effect being the title-of-a-title.
- (3) similarly, an actual object can have this same abbreviated role, as when something identified with a person ceases to be merely what is in itself, but becomes in effect an aspect of that person, or we may think of a particular tree as the ‘essence’ of a situation involving yard, house, sky, season, mortgage, and so on;
- (4) when an expression is thus reduced to a portion of itself (a word) and a nonverbal situation is represented by some fragment or portion that is felt to stand for the essence of the situation (which is in effect its context), conditions are now ripe for a shortcut whereby the *summarizing object can be paired with the summarizing word.*” (p. 361).

This process of creating language which Burke calls entitlement, does not produce terministic screens, but rather “entitlements” or identifiable signs of non-verbal situations. Terministic screens operate from the individual level, and entitlement operates at the group level.

Burke brings together the function of rhetoric as both a constitutive and interpretive process through his notions of terministic screens and entitlement. Terministic screens allow for user agency, whereas entitlement appears to be focused more at the cultural level, with the agency shared by the ‘tribe,’ the language itself, and the context of situation.¹ In other words, “terministic screens” appear to be extrinsic, while “entitlement” appears to be intrinsic. Carmichael summarizes Burke’s essay, “Antinomies of Definition,” from a *Grammar of Motives* as demonstrating that ‘the intrinsic and the extrinsic can change places’ “such that to define is always to contextualize and to uncover the absence of a solid ground for a claim to knowledge.”² So if the intrinsic and extrinsic can change places, the interpretive process of “terministic screens” at the individual level and the constitutive process of “entitlement” at the group level may well be interrelated in a similar way to Wenger’s creative process of participation at the individual level and reductive process of reification at the material and group level, exhibited by the ying-yang interaction in Figure 4. The implications of this reciprocity for understanding knowledge communication include:

- 1) the creation of knowledge as process with both interpersonal and group communication aspects
- 2) the reification of knowledge as occurring both at the individual level of experience through terministic screens and as a group process through entitlement
- 3) genres as “entitled” through group interaction and both reified and recreated through individuals repeatedly enacting them

Thus, Burke’s concepts of terministic screens and entitlement work together to blur the boundaries between the interpersonal processes currently understood as knowledge communication and the contextualized global processes included in technical communication.

4. Conclusion

Although knowledge communication is currently discussed by Eplers a specifically interpersonal process situated in context, the three frameworks discussed – the cultural systems approach, communities of practice, and the intersection of terministic screens and entitlement – all bring knowledge communication into the realm of technical communication through the interaction of individuals in larger rhetorical contexts. The cultural systems perspective demonstrates how norms in rhetoric are part of context in both knowledge communication and technical communication. Wenger argues that communities of practice create and communicate knowledge through participation and reification which include the interaction of individuals and groups (i.e. communities of practice). In addition, Burke's concepts of terministic screens and entitlement demonstrate how the creative processes inherent in entitling language and forming genre are group processes, and reductive processes can also operate at the individual level through terministic screens. Thus, Burke blurs the boundaries between technical communication and knowledge communication by presenting a group processes as creative and individual processes as reductive – directly in opposition to Wenger's model of communities of practice. This opposition does not necessarily indicate the need to accept one and reject the other, instead it highlights the fragility of distinctions such as interpersonal vs. group communication processes and opens the door to more complex models for understanding knowledge communication.

These three frames offer perspectives for conceiving of knowledge communication as distinct yet inseparable from technical communication. All three frameworks contain elements of rhetoric for unpacking context. The creative and reductive processes in Wenger's communities of practice and Burke's entitlement and terministic screens merit more reflection, and inclusion in a richer understanding of knowledge communication couched in both interpersonal and rhetorical processes involving the group or community.

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