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Designing "Communication Action Patterns" for Global Communication and Cooperation: A Discourse Ethical Approach

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DESIGNING "COMMUNICATION ACTION PATTERNS" FOR GLOBAL COMMUNICATION AND COOPERATION: A DISCOURSE ETHICAL APPROACH

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ABSTRACT

Designing intercultural communication and cooperation systems involves at least two central issues, i.e., concepts for modeling communication and the legitimacy of communication norms and conventions established through modeling and designing. This paper discusses the concept of genre in regard to modeling communication and reflects on how discourse-ethical principles may inform the design of intercultural genres (or communication action patterns). It also describes a model for the collaborative construction of communicative action patterns that may form part of an information system, which supports communication and cooperation in virtual intercultural teams. In addition, it provides a set of general communication claims, which – if challenged – may lead to breakdowns in genre-based communication. Finally, it discusses the shortcomings of the approach and provides suggestions for further research.

1. INTRODUCTION

1.1. Background and Motivation

The fact that collaborative work is increasingly being done in a distributed fashion (e.g. virtual professional communities) involving the participation of people from many different organizations and locations raises new challenges: Facilitating computer-mediated communication and cooperation with participants from around the globe involves a concomitant complexity arising from the various different cultural norms for communication. The more diverse the community that performs communicative actions, the more important it is to facilitate communicative actions and coordinate the information involved in communication, because different people have different expectations and different preconceptions of their communicative actions due to their experience with the cultural norms and conventions of the communities to which they belong (Günthner/Luckmann 1995, Günthner/Knoblauch 1995, Yetim 1998a,b). Thus, a relevant question for the design of global communication and cooperation systems is whether any norms, and if so, then what norms or principles should inform the design of interaction.

Several works in the field of information systems have emphasized social aspects of information systems development, and the importance of meta-communication within this process (for example, Winograd/Flores 1986, Hirschheim et al 1995, Yetim 1998a, Iivari et al. 1998, Stamper 2000, Klein/Hirschheim 2001, Ulrich 2001). It is argued that whenever information systems are developed, they serve some interests at the expense of others, and hence, the design of information systems must not be limited to technical design, but should also deal with value conflicts through informed dis-

163

course. Moreover, concerning meta-communication, it has also been argued that a design derived from pro-active discussion (ex ante meta-communication) about design ideals, system features, etc., might not guarantee successful use of the system. In situations where different background information and interpretations play a role (Hoppenbrouwers/Weigand 2000, Yetim 2001), and intercultural contexts (Yetim 1998a) are certainly the best examples of such situations, breakdown cannot always be accurately predicted, and communication during system-use (ex post meta-communication), for example, when breakdowns occur, should be considered as a potential solution to the problem. From this perspective, a flexible communication system should provide users with means to define or change the existing properties or structures of the system, which are not fully addressed by a pre-use design. Such methods to support the continuous co-evolution of a system from the requirements to the use phase would increase the legitimacy of changes in the information system of a professional community as well (de Moor/Jeusfeld 2001). The need for a mechanism to negotiate the norms of use and to discuss the "rule of order" is also articulated in other works (e.g., Turoff et al. 2002 for "social decision support systems", Ackerman 2002 for Computer-Supported Cooperative Work).

However, besides these general acknowledgement of the importance of meta-communication and the participation of all stakeholders in discussing socio-organizational conditions or technological and communication aspects of a particular kind of information systems, little attention has been paid to the issue of how to support such meta-communication between culturally-different stakeholders. Furthermore, these more or less critical approaches rarely model communication whose concepts provide the basis for a meta-communication. Different communication concepts used for modeling communication may cause different issues to be focused on at the meta-communication level.

The concept of *speech act* (Austin 1962, Searle 1969, Habermas 1984) has been adopted in information system development for designing computer-supported communication and cooperation systems (Winograd/Flores 1986, Johannesson 1995, Dietz et al. 1998, Iivari et al. 1998). Speech-act based modeling has been also criticized in several works (e.g., Suchman 1994, for a review see for example Ljunberg/Holm 1996).

Another approach to conceptualize communication in information systems is based on genre theory, which has been introduced and applied in the information systems field most significantly by (Orlikowski/Yates 1994, 1998; Yates et al. 1999) with a focus on computer-supported collaborative work. Genre theory is also discussed within Computer-Mediated Communication (Erickson 2000), Human-Computer-Interaction (Brown/Duguid 1994), as well as within the critical approach to information systems development (Päivärinta 2001). Genres as socially recognized patterns for communicative actions (Luckmann 2001) provide one source of norms and conventions for computer-mediated communication. Although these studies on genres provide insights into genre properties and the practice of genre use, they do not inform designers as to how a normative orientation for the establishment of genre norms and conventions in the context of global cooperation and communication systems can be legitimated where culturally-different genres may apply. Thus room still exists for further theoretical and practical work on the application of genre theory in information systems development.

1.2. Purpose of the paper

The purpose of the current research is in general to support computer-mediated social interaction among large groups of people, particularly long term, textually-mediated interaction. The paper focuses in particular on a meta-communication model that aims to support intercultural online discourse on designing communicative genres for global computer-mediated communication and cooperation. It is primarily based on the assumption that genre theory provides useful concepts for modeling communication and promotes the kinds of meta-communication that meet the goals and guiding principles, and principles for the development process identified with discourse ethics (Habermas 1990) and the critical approach in information systems (Hirschheim/Klein 1994, see also Päivärinta 2001). In this sense, the approach for designing intercultural genres values "communicative rationality" instead of relying just on traditions that lead to conventions. The reason for the choice of discourse ethics is that

164

(a) the main concern of discourse ethics is legitimation, and (b) discourse ethics claims to be universalistic and applicable to more than one specific culture or epoch. Therefore, the application of its principles to the design of global communication systems is regarded as relevant in general and to the collaborative construction of intercultural genres for electronic communication in particular.

I will pursue this goal in the following manner: First, I will describe the basic feeling of the genre theory that underlies this work by introducing the key concepts and then taking a closer look at what genre analysis reveals, including cultural differences as well as CMC aspects and discuss the consequences for design. Second, I discuss the application of discourse-ethical principles to designing a meta-communication model for genre-based communication and argue that ideally intercultural (new) genres should be constructed through informed discourse. Third, I will present on an abstract level a meta-communication model for designing 'intercultural genres' based on discourse-ethical principles and briefly describe the preliminary works done so far, including the process model and possible breakdowns that may occur in genre-based communication. Finally, I conclude with reflections on the shortcomings of the genre-based approach and suggestions for further research. Throughout this paper, I will also use the neutral notion of "communication action pattern" instead of genre, to include other patterns of communication that may not be regarded as genres but may have a similar function.

2. GENRE THEORY AND ITS FUNDAMENTAL CONCEPTS

2.1. Genre, Genre System, Genre Repertoire

The concept of *genre* has a long tradition in rhetorical and literary analysis (Bakthin 1979/86), and a number of different approaches to genre analysis have emerged in recent years, which show that this concept is a useful analytical tool for the description and explanation of certain (oral and/or written) communicative activities. Among them two sociological approaches provide the foundation for our treatment of genre-based communication: The way communicative genres are treated in the sociology of language and communication (Bergmann/Luckmann 1995, Günthner/Knoblauch 1995, Luckmann 2001), which takes into account the traditions of genre research and links the notion of genre to the theoretical model of social constructivism within the sociology of knowledge (Berger/Luckmann 1966), provides us not only with a theoretical conceptualization of "genres", but also with empirical results about the cultural differences of genres for everyday interaction. The works of Orlikowski and Yates (Olikowski/Yates 1994,1998; Yates et al. 1999), which draw greatly on Anthony Giddens' structuration theory (Giddens 1984), support a richer understanding of how genres function in the context of CMC and CSCW.

Although there is no universally-accepted definition of genre, most studies regard a genre as a *historically and culturally specific pre-patterned solution to recurrent communicative problems*. Genres – such as letters, résumés, announcements, research articles, etc. – are fixed patterns of communicative action, and structure communication by creating shared expectations about the purpose, form and content of the interaction, thus easing the burden of production and interpretation. For example, the purpose of a résumé is to present information that will enable its author to get a job. Resumes follow many conventions of form and content: They can be short, highly structured and contain job-related and contact information, depending on what is seen as appropriate for employment in a particular field, and what technology is available to create them.

Genres are created by a combination of individual (cognitive), social, economic and technical forces, and range from relatively simple to complex and elaborate structures. Interrelated genres form a *genre system* (Bazerman 1994) which constitutes a more coordinated communicative process. For example, journal articles are often realized through an interlinked sequence of genres, including a submitted manuscript, peer reviews, and an editorial decision letter, which are enacted in a typical sequence (or limited set of acceptable sequences) in relation to each other. Like individual genres, genre systems too are organizing structures and create expectations about the purpose, content, form, participants,

165

time and place of communicative interaction – in other words, the *why, what, how, who/m, when, and where* (Orlikowski/Yates 1998).

The *genre repertoire* (Orlikowski/Yates 1994) or *communicative budget* (Luckmann 2001) of a community indicates its established communicative practices and thus reflects the common knowledge, expectations and norms that members of the specific community share about communication. If we take communicative genres as socially-constructed solutions which organize, routinize and standardize the ways of dealing with particular communicative problems, it seems quite obvious that different cultures may construct different solutions for specific communicative problems (Günthner/Knoblauch 1995). Moreover, whereas in one culture there may be generic ways of handling particular communicative activities, in another culture interactants may use spontaneous forms instead. Thus, the repertoires of communicative genres vary from culture to culture, as well as from one epoch to another.

For a deeper understanding of what issue these aspects raise for global (meta-)communication, let have a closer look at what genre analysis reveals and how genre-based communication function.

2.2. On What Genre Analysis Reveals and Cultural Differences

Analyzing a communicative activity as a genre means understanding its function, inner and outer structure, as well as situative aspects (Günthner/Knoblauch 1995, Luckmann 2001):

(1) The function (or purpose) of communicative genre consists in providing solutions to specific problems of communicative action. Since a genre may also be strategically used for other purposes, the functions of genres should be distinguished from individual goals.

In intercultural communication not only may various functions of communicative genres appear, but also differences in the assessment of particular genres. In Chinese argumentation, for example, proverbs and idioms fulfill an important function in supporting arguments (also in academic texts): They allow speakers to demonstrate their classical knowledge and present their own assertions as part of traditional and still valid collective wisdom. To the contrary, in the Western context books on style may advise against using proverbs (Günthner 1991).

(2) The inner (semiotic) structure of a genre (i.e., the convention of both form and content) consists of overall patterns of diverse elements, e.g., morphological, syntactic, semantic and prosodic aspects of a language and paralinguistic, gesture-related features, etc.

Concerning cultural differences, the discursive organization of the Chinese genre of request letters, for example, generally reveals a preference for providing reasons first, before the main point (the request) is stated, and conforms to the following schema: salutation, preamble (facework), reasons, and then the request itself (Kirkpatrick 1991, 198, cited in Günthner/Luckmann 1995, 15). Thus, in contrast to English request letters, Chinese not only tend to place the reason before the request itself, they also engage in extended facework which forms an integral part of their requests. Changing the order, by moving the request to the beginning, results in a letter or request marked as direct and possibly impolite.

(3) The situative aspects of a genre (i.e., the dialogical dynamic of genre performance*)* are aspects of the underlying situation (in both its technical and social guises), i.e., those elements which are part of the ongoing interaction and may influence genre's use.

Various researchers have observed cultural differences in signaling attentive listening in oral genres as well as differences in preferential structures, for example, a preference for the production of disagreement, which may lead to irritation (Kotthoff 1993). Whereas in some cultures direct disagreement seems to be preferred, in others it is avoided in favor of harmony.

(4) The outer (social) structure of a genre consists of definitions of communicative milieus (e.g., families, student cliques, ethnic milieus, etc.), communicative situations (formal, informal), the selection of types of actors (according to gender, age, status, etc.), the relationship between the actors, and the in-

166

stitutional distribution of genres. It links both the inner structure of "text" and the dynamic of dialogue to the social structures.

Cultural differences may appear, for example, in respect to the selection of social categories of actors, i.e., who has access to, is competent in or is allowed to perform particular genres? Gender-related differences in the use of communicative genres play an important part in many communities (Günthner/Knoblauch 1995).

In sum, these studies illustrate that for successful communication, one needs to possess not only knowledge of the elements of a particular genre, but also knowledge about the appropriate use of genres, i.e., when to use or not to use what genre (Luckmann 2001). Asymmetries in genre-related knowledge concerning their inner and outer structures, as well as situative aspects often lead to intercultural misunderstandings. Moreover, if there is little willingness to perceive asymmetries as a consequence of "structural difference", they are taken to reflect individual incompetence or malice (Günthner/Knoblauch 1995). However, since these empirical researches are not conducted within the context of computer-mediated interaction, it raises the issue of whether their results are also relevant for such contexts.

2.4. Genres in Computer-Mediated Communication

Genre theory has also been applied to forms of computer-mediated communication (Orlikowski/Yates 1998, Yates et al. 1999, Erickson 2000). Since a digital medium is far more malleable than speech or paper, the application of genre theory to digital media raises new issues for genre theory, ranging from whether CMC-based conversations can be considered as instances of a genre to how genres both structure communicative actions and are themselves structured through the use of electronic media. The latter is of a particular importance for discussing the current issue.

Yates et al. (1999) identified two general processes of genre structuring in an electronic medium, which they label *explicit* and *implicit structuring*. The process of explicit structuring includes *planned replication* (i.e., predetermined action intended to reproduce prior forms of social interaction within a new medium), *planned modification* (i.e., predetermined action intended to create some changes in the status quo) and *opportunistic modification* of existing genres (i.e., this involves purposeful changes introduced in response to an unexpected occurrence, condition, or request). The process of implicit structuring includes *migration* (i.e., unreflective action that reproduces genres established in one medium or community within another medium or community) and *variation* of existing genres (i.e., results in a departure from established forms of social interaction by introducing some changes in the genres enacted within the new context). Yoshioka et al. 2000 provide cultural differences relating to assumptions and expectations about genre, technology and culture in global companies.

Drawing on these findings, especially concerning the process of implicit structuring, one can conclude that the genre differences and their consequences studied in non-CMC environments and discussed in the previous chapter may also be relevant for the CMC environment, since users habitually apply their genre conventions to the new media.

2.5. Summary: What Research on Genre Provides and What it Doesn't

In sum, research on genre analysis facilitates a deeper understanding of a community's communication practices and also of what is relevant for a community/society, since "relevance structures" (Schutz/Luckmann 1973) give rise to the patterning of communication to genres and similar forms, as well as of communicative processes that are available to individual members, categories of actors, groups, milieus and institutions within a container for the existing communicative forms in a particular culture. The research also makes clear that to the degree that communicative patterns guide interactants' expectations about the course of communicative action, predefined genres facilitate the co-ordination of communicative actions and thus may take the burden off of actors (i.e., relieving

them) of having to co-ordinate every communicative action anew. Therefore, genres can also be regarded as a 'model of' socially-relevant communication' (Günthner/Knoblauch 1995).

By making all the aspects of genre explicit, empirical research on genre analysis provides all stakeholders with the grounds for a critical reflection on them and also promotes designers' understanding of how genres function. This is important for system design, because the designer has considerable control over the technical underpinnings of on-line communication and thus has partial control over the nature of the genre and its conventions.

However, empirical research on genres does not provide a normative orientation for the designer of genre-based communication. For example, the structure of communicative genres exhibits a certain degree of obligation, and it does not merely facilitate action, it also constraints it with respect to milieus, the communicative situation, the type of social relationship, as well as social categories of actors. Which features of communication come to be pre-patterned and which steps of actions are to be expected (or obligatory) depends on cultural norms and values. Since the assessment of what is (or should be) facilitated or inhibited is culturally different, it raises the issue of how to legitimate patterns or structures and thus the routinization of action in intercultural contexts, where people do not share the same repertoire of communicative genres. The following section discusses how this issue can be addressed from the perspective of discourse ethics.

3. DISCOURSE ETHICS AND ITS RELEVANCE FOR DESIGNING GENRES

The communicative or discourse ethics advanced by Habermas (1990) and Apel (1998) is the theoretical approach that enjoys the widest critical attention. Discourse ethics – as a procedural moral theory – does not itself ground any norms. Instead, it clarifies the procedures for universally grounding norms of action. According to discourse ethics, only those norms may claim validity which could be approved by all those affected by them, were all affected parties to be participants in a practical discourse[1] (Habermas 1990).

Apel (1998) takes argumentative discourse to be the ideal agent for grounding and justifying all norms and concentrates on a discourse ethics that investigates the presuppositions and procedures of rational argumentation. He elaborates the foundations of the process of reaching an understanding by means of argumentation. In contrast, Habermas (1984, 1990) locates his version of discourse in a broad framework and is interested in a reconstruction of all dimensions of the communicative process for reaching an understanding. In analyzing the constituents and basic orientations of the use of language for reaching an understanding, he found the operation of four universal validity claims that a speaker simultaneously raises in communicative actions to come to an understanding with a listener. They are the *truth* of the statement, the *rightness* (*appropriateness*) of the intended interpersonal relationships, the *truthfulness* (sincerity) of what is expressed and the *comprehensibility* of the statement.

Habermas argues that the fact that each of the validity claims can be disputed and redeemed shows that the agreement presupposed in communicative action is rationally motivated, that is, it can be examined, grounded, and renewed. In argumentation, participants concentrate on contested validity claims and attempt to vindicate or criticize them through arguments. The central question here is how to secure a consensus attained by argumentation. According to Habermas, consensus concerning disputed norms is guaranteed and intersubjectively secured by means of the formal conditions of discourse, which must satisfy to a sufficient degree of approximation those of an ideal speech situation. This must be understood as communication in which there is no limitation on participants and themes and no burden of action or coercion. The participants can change the form of discourse and they enjoy free movement between action and discourse. They all potentially have the same chance to put forward interpretations, assertions, recommendations, explanations and justifications and to treat as problematic,

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[1] Whereas *theoretical discourse* is the form of argumentation in which disputed truth claims are concentrated on and grounded, *practical discourse* is concerned with the disputed status of norms of action and is conducted with the goal of achieving a consensus that will resolve the dispute about their normative rightness, thereby argumentatively justifying the norms in question.

168

justify or refute their claims to validity, so that no prior opinion has a lasting exemption from discussion and critique.

Habermas's thoughts have been applied in several works in the field of information systems and have especially provided the theoretical basis for "language/action perspectives" (Winograd/Flores 1986) on modeling communication, as well as for critical (emancipatory) research in information systems (e.g., Hirschheim/Klein 1994). In the face of critical research, one can evaluate an information system (a) as to whether and to what extent it aims at, supports and enables participatory forms of communication; (b) to what extent it contributes to guaranteeing equal opportunity for participation in discourse; (c) whether and to what extent it uncovers existing relations of distorted or restricted communication and works toward overcoming them; (d) whether and to what extent it serves as an emancipatory advocate for the right and possibility of all to engage in communication.

In the following, a meta-communication model will be described which aims to realize some of these features.

4. TOWARDS INTERCULTURAL DISCOURSE ON COMMUNICATION ACTION PATTERNS

4.1 The Model

I will use the neutral notion of 'communication action pattern' (Yetim 2001) to refer not only to communicative genres, but also to other communicative patterns that might not be regarded as genres. The model focuses primary on 'conversation for intercultural communication action patterns' that may be part of an information system which supports communication and cooperation in virtual intercultural communities. This type of conversation is a type of conversation for clarification, and it is a means to reach understanding on the structure, content and form of communication action patterns.

Fig. 1 shows actors from different cultures, each of whom has his or her own culture-specific communication action patterns or genre repertoire.[2] Actors may consciously or unconsciously use their own patterns in their communication (*structured communication action layer*), which may lead to breakdowns, for example, due to differences in their structures. Actors may pay explicit attention to them on the meta-level (*conversation for communication action patterns*). At the *discourse layer,* more fundamental and general rules and norms underlying communication action patterns can be discussed.

At the meta-communication level, actors may reach an understanding on the norms and forms of their cooperative action patterns and thus define new *intercultural communication action patterns* or modify existing ones. Moreover, since meta-communication would lead to an actor's awareness of his or her own communication patterns, including their enabling and/or constraining features, this may lead to some modifications as well as enrichments in their own communication pattern repertoire.

The academic community has, for example, its established, but evolving scholarly genres (calls for papers, research articles, reviews, letters to editors, etc.) for communicating research within the "global information system" of the academic world. Improving scholarly communication (i.e. communication at the action layer) by replacement or modification of scholarly genres is hardly dependent on the decisions of systems developers alone, but on the more or less critical debate among a number of those involved in academic communication (i.e. meta-communication layer).

In line with Habermas's rules of discourse (Habermas 1990), each actor is allowed to introduce any proposal into the meta-communication in intercultural teams. In this discourse, all validity claims should be open for discussion, and users should have the freedom to decide which claims to discuss. The expectation is that agreements that are intersubjectively valid on all dimensions can ensure con-

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[2] Note that it is also possible that a bicultural actor may use (unconsciously) a communication action pattern which is a mixture of the patterns of both cultures.

169

tinued participation. Since the procedures for compromise construction are themselves justifiable through discourse, the legitimacy of the structures of communication patterns may also be strengthened.
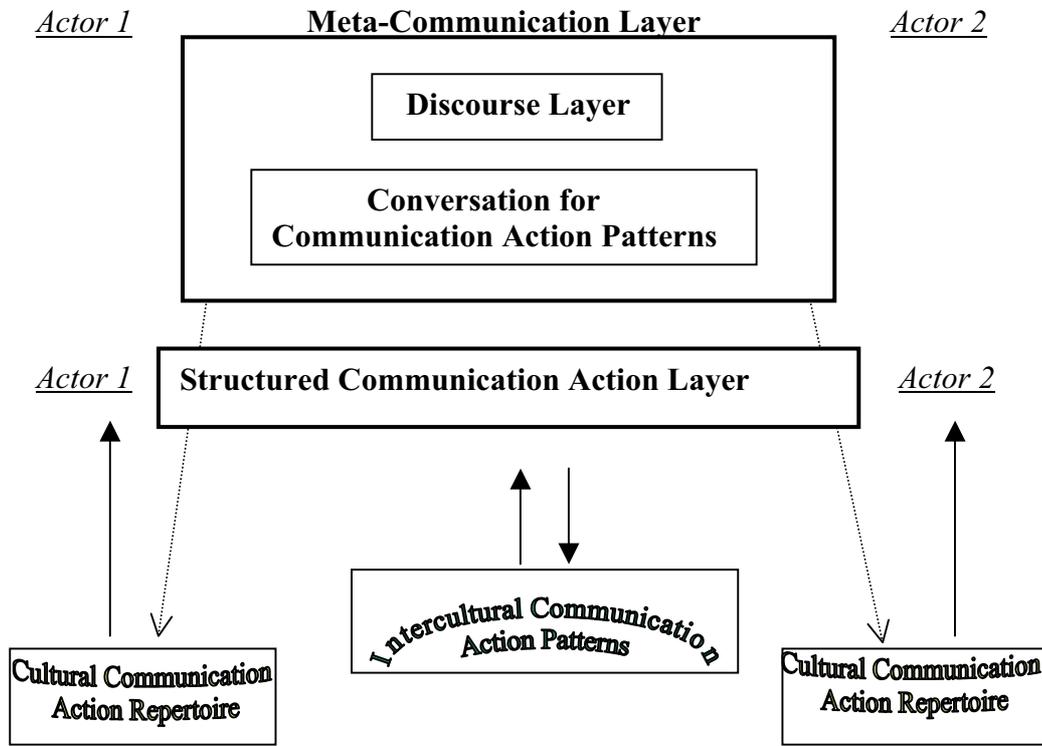

Fig. 1: A meta-communication model for structured communication

4.2. The Process Model

There are different situations in which meta-communication can be commenced (Fig. 2). Actors included in a communication may identify a new recurrent communicative situation or a change in a previous recurrent situation and may see the necessity to propose a new communication action pattern for that new situation or a change in an existing one. Meta-communication can also be commenced when a receiver of a pattern becomes aware of a breakdown in an ongoing communication and either proposes a change in the current pattern or articulates the breakdown. Of course, actors can be aware of situations and breakdowns and not articulate this awareness, which is not included in the process model. In addition, the meta-communication itself can draw attention to new situations or breakdowns, which in turn would lead to a new proposals or breakdown articulations.
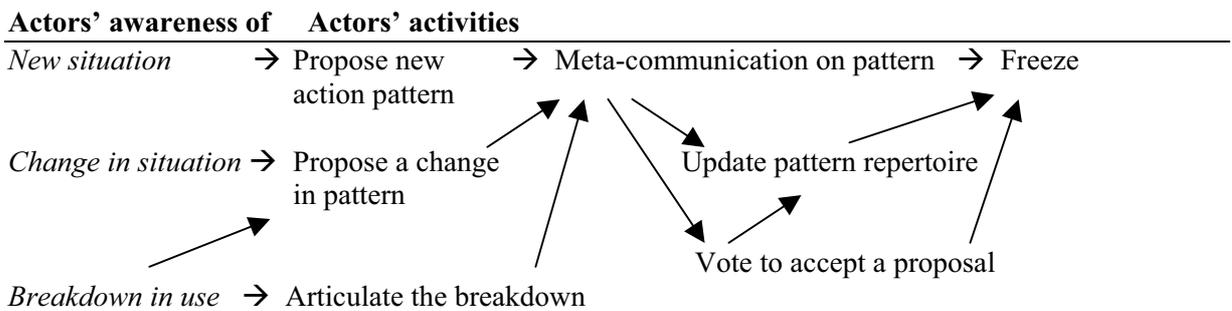

Fig. 2.: Process Model

170

Each of the activities in the process model itself consists of sub-activities and preconditions (note that only one of the potential transitions from an activity is possible). Activities can be supported by the activation of other tools, e.g., tools for articulation (such as described in De Moor/Jeusfeld 2001 on breakdown resolution in workflow specifications) or for voting (such as discussed in Turoff et al. 2002 on voting for options within a SDSS systems).

In the following, we focus on the type of breakdowns that may occur in a genre-based communication model and may induce meta-communication.

4.3. Breakdowns in Genre-based Communication

As mentioned before, individual genres (communication action patterns) and system of genres (system of communication action patterns) create expectations about various aspects of communicative interaction. Their differences and the lack of knowledge of their appropriate use may cause breakdowns. One way to classify the types of breakdowns is to look at what kinds of claims actors (implicitly or explicitly) raise when communicating – in the footsteps of J. Habermas.

According Habermas (1984), when a speaker is performing a speech act he or she is (often only implicitly) making a number of validity claims, such as claims for truth, rightness, and truthfulness." A *validity claim* is equivalent to the assertion that the *conditions* for the *validity* of an utterance are fulfilled" (p. 38). These validity claims can potentially be challenged by the listener. To accept a speech act the listener accepts the validity claims. To reach a shared understanding, the speaker and listener must agree on universal validity claims. Habermas asserts that claims to truth (concerned with the "existing state of affairs" (p. 88)), normative rightness or appropriateness (concerned with "the existing normative context" (p. 99)) and truthfulness or sincerity (concerned with the "manifest intention of the speaker" (p. 99)) are universal, i.e., applicable to all possible speech acts, whereas comprehensibility as a validity claim is seen as a basis for these three claims. If the speaker cannot present a linguistically understandable utterance, then there is, by definition, nothing to understand and assess.

Goldkuhl 2000 examines Habermas' validity claims and suggests further differentiation. He illustrates that a requested action can be considered *inappropriate* in different aspects, for example: inappropriate for the listener to perform; inappropriate for the speaker/requester concerning action efficiency (means); inappropriate for the speaker/requester concerning action result (ends); inappropriate for the relationships between speaker and listener; inappropriate for other people (disturbing actions); impossible to perform, etc. (Goldkuhl 2000, 184). He suggests some other general "communication claims", such as descriptive correctness, addressee relevance, respectfulness, deliberation, dialogical adequacy and argumentativeness.

We argue that since communication action patterns contain various speech (or communicative) acts, these thoughts on validity and communication claims are also applicable to them. In addition, if one takes the features of communication action patterns into account, further claims such as relevance, completeness, deviation, purposiveness, etc., which may or may not be universal, can be relevant for the patterned-based communication.

In particular, the following communication claims may be contested:

- *Comprehensibility (syntactic and semantic clarity)*: A conversation for clarification of communication patterns may be needed, when an actor (a) does not comprehend the purpose, structure or (parts of the) content clearly (unsuccessfully communicated), or (b) an actor suspects he/she may have made an incorrect interpretation.

- *Expressive validity (sincerity, truthfulness, authenticity)*: An actor may challenge the truthfulness of an utterance within a pattern as well as that of the whole pattern.

- *Descriptive validity (truth, descriptive correctness):* An actor may contest either the truth or the linguistic adequacy of utterances within a communication action pattern.

171

- *Purposiveness*: Communication action patterns and their communicative acts can be contested due to means and ends, e.g., whether appropriate means were chosen for a given end.

- *Connectivity (coherence, cohesion, dialogical adequacy)*: The relatedness of communicative acts within an action pattern, as well as the relatedness of patterns within a system of communication action patterns may be challenged.

- *Relevance:* The occurrence of structural elements or action steps within a genre and genre system can be contested as to its relevance.

- *Completeness:* A communication pattern or the system of patterns can be contested regarding its completeness to address a recurrent communicative problem.

- *Normative Validity (norm alignment, normative rightness, appropriateness, legitimacy):* An actor may not find the communication pattern appropriate to the existing social rules, institutions, or socio-culturally habitual forms of life, etc. However, for practical reason, the broad notion of normative validity can be further differentiated and some special cases can be considered separately, such as the followings.

- *Actor's relatedness:* an actor, for example the addressee, may contest his or her relatedness to an action pattern, for example, that he or she should perform the action. This can be regarded as a special case of normative validity.

- *Deviation:* A pattern usage can be challenged due to its deviation from an accepted or agreed common communication pattern. This is also a special case of normative validity, since a prior agreement on the purpose and structure of a pattern serves as a normative basis for the future use of that pattern.

- *Politeness (respectfulness):* An actor may regard the pattern (e.g. its form or content) as insufficiently respectful. This is concerned with ethical treatment in communication situations and is directly related to the addressee. In this respect, it is a case of normative validity as well.

When breakdowns occur in the structured communication layer, the participants in a communication forum may (or may not) make this explicit. Communication claims show that there could be different grounds for contesting communication action patterns, i.e., due to the different perceived deviations between the action and some other circumstances such as desired inter-personal relationships, self-respect, established rule, existential circumstances, proposed means, interpreted purpose, plans and desires of actors, etc. The questioning concerns the relation of the parts or of the whole of a pattern to the sender's intentions, to social norms, to the addressee, to means and ends, to other semiotic elements within a pattern or a system of patterns, and to its purpose, etc.

Although there is a need for further theoretical and empirical investigation on possible breakdowns, the current classification of breakdowns provides analysts with a useful means to analyze intercultural computer-mediated interaction. Explicitly considering (at least some) of them in designs would provide users with a semantic means for breakdown articulation. Based on their semantics, an information system in the technical sense may also be able to provide support (for example, additional information for clarification, etc.) during breakdown resolution.

5. CONCLUSIONS

The model discussed so far aims to allow the participation of actors in the construction of common co-operative genres (or communication action patterns) and is informed by discourse-ethical principles. It takes into account that breakdowns in intercultural communication occur when an actor does not observe norms or fails to understand the actions of others. A breakdown raises doubts about the validity claims of the social action being considered. Genre differences may induce meta-communication

172

where the aspects of validity claims in communication can be debated genre by genre in a focused way, as necessary.

An important contribution of the model is – through the application of discourse ethics – that it values reflection on the possibilities and limitations of communicative genres with regard to participation, emancipation, and advocacy. The model allows discussing communication rules and norms and thus advocates norm-based authority structures which are relative and can be easily challenged and questioned. Contrary to this, power-based authority cannot be easily challenged. The establishment of discourse rules for the definition/modification of communication rules can take into account the interests and social values of the various participants. In addition, through application of the Habermasian concept of validity claims and other communication claims to genre-based communication, the paper provides semantic means both to analyze genre-related breakdowns in computer-mediated communication environments, as well as for their articulation in such environments. The model can be applied to collaborative systems that value discourse principles. It can be used both for communications about the system to be designed and for allowing systems users to overcome design limitations and to achieve changes during system use.

A number of challenges need to be overcome in adopting a genre-based approach to CMC. Offering a genre repertoire as a means of structured communication may allow users to improve communication methods by looking at the roles genres play for communication, as well as by coordinating information, reviewing various examples and finding similar cases of communicative action. However, it should be remarked that identification of genre repertoire requires considerable effort and involvement on the part of numerous individual stakeholders, often with varying motivations and from different cultural backgrounds. Furthermore, identifying genres means abstracting from recurrent, routine-like instances of communication to create typologies, thus losing some of the richness of real communication in day-to-day life.

Further issues will be addressed, including (a) the organization of the repertoires of communication action patterns, i.e., the representation of action patterns, which may also provide a support for the automatic detection of their differences; (b) definition of further explicit semantics for the classification of interpretive contributions to meta-communication with respect to either their *content* (what is this contribution about?) or their *rhetorical relationship* (what level of contribution is this? how does it build on existing ideas?); (c) the decision making aspects, e.g., whether discourse processes should be moderated to facilitate discourse in intercultural teams, (d) and finally the issues relating to the integration of the voting mechanism.

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173

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174

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175