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Habermasian Form of Societal Discourse

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Abstract: Communication plays a crucial role in influencing various aspects of our social life. However, communication has more often than not been distorted by unequal opportunities to initiate and sustain it. Such a condition has been criticized by Habermas who argues for an ideal speech situation. It refers to a situation of democratic communication with equal opportunities for social actors to communicate in an undistorted manner. This ideal situation is partially being realized by the advent of the Internet. The paper provides a case story of how an Internet-based tool can be used, for example by environment group, as a new avenue to create a more equal exchange of ideas among social actors. The Internet-based electronic forum, known by its acronym GRASS (Group Report Authoring Support System), is a generic software tool supporting the production of concise group reports that give their readers an up to date and credible overview of the positions of various stakeholders on a particular issue. Together with people and procedures it is a comprehensive socio-technical system which can play a role in resolving societal conflicts.

With the widespread use of the Internet, such an Internet-based forum has the potential to become an emergent form of communication for widely dispersed social actors to conduct debate and discussion. The barriers to such mode of communication still remain - in the form of entrenched power structures, and limitations to human rationality and responsibility. However, we believe that the support provided by a comprehensive system of technological functionality as well as procedural checks and balances may considerably reduce the impact of these obstacles. In this way, the ideal speech situation may be approximated more closely.

Key words: communication, generic software tool, Habermas, the Internet, transparency, legitimization, accountability, democratic forum, speech acts.

1 INTRODUCTION

The aim of this paper is to explore how the Internet may be used as a technological platform to support a kind of undistorted communication as suggested in the theory of communicative action of Habermas. We will illustrate our discussion with the case of an Internet-based system known by the name GRASS (Group Report Authoring Support System).

Communication plays a crucial role in influencing various aspects of our life. For example, it forms a core component of the democratic ideal which makes two assumptions about it. The first holds that, if a variety of ideas are given equal opportunity to compete continuously and publicly, the ideas best suited for society will win out in the long run. It also presupposes that dependable and relevant information will be inexpensively made available to all those interested. The second assumption is that the outcome of the debate would require that a majority of the general public be reasonably public spirited and patient, and would not be unduly confused and alienated by an excess of information and communication.

Habermas (1984) even goes one step further by framing the importance of communication in the context of human survival as a species. "If we assume that the human species maintains itself through the socially coordinated activities of its members and that this coordination has to be established through communication - and in certain spheres through communication aimed at reaching agreement - then the reproduction of the species also requires satisfying the conditions of a rationality that is inherent in communication action (p.397)." He argues for a set of rationalities to support a kind of **undistorted communication which is essentially a democratic system of exchange**. Such mode of communication provides a flat playing field for the social actors to apply speech acts in an undistorted manner. In other words, all participants in the social discourse enjoy an equal opportunity to initiate and sustain communication. The whole communicative exercise is transparent. Here the desirable features center on the strength of good, well-grounded argument provided in an open forum, rather than authority, tradition, ideology, power, or prejudices.

Habermas's view certainly appears idealistic if we are reminded by the reality of social life. Social experiences provide us with ample examples where the rich and powerful enjoy more than their fair share of control over information resources and communication channels, and that public debate is not always steered by reasons (e.g. Herman-Chomsky 1988). However, the advent of the Internet provides its users a platform to conduct potentially open discussion, debate and exchanges where there is equal opportunity for the participants, and free from constraints of power relations. It is a kind of communication infrastructure that approaches the requirements of a Habermasian communication, at least potentially.

In the next section, we give a brief account of Habermas's idea of knowledge and human interests, and of communicative action. Subsequently, **we** discuss some implications of these ideas for the designs of information systems which can initiate and support such communication. We examine how the Internet possesses some of the features that render a Habermasian communication, or at least some aspects of it, not so utopian. This is followed by section 4 which dwells on practical challenges to this. The potential of the Internet is being moderated by the existing structure of power and ownership of the data-communication infrastructure, as well as our limited capacity to live up to the Habermasian model. However, is there a way of maximizing the potential while coping with the difficulties? The extent to which these ideas can **be** realized in an Internet-based information system as embodied in GRASS is explored in section 5. We proceed to report in section 6 some experience in using the system, the current situation and the problems confronting the GRASS system. Finally the concluding section discusses limitations of Internet-based forums. We also examine what we have learned from the exercise and gives a tentative view of how to continue in the future.

2 HABERMAS'S THEORY OF COMMUNICATIVE ACTION

There are many easily accessible, succinct accounts of Habermas's **ideas of** communicative action which are directly relevant for this study, e.g. McCarthy (1978), Lyytinen and Hirschheim (1988), Alevesson and Willmott (1992), and Ngwenyama

and Lee (1997). We will thus restrict ourselves to the very essential points that we need to present our story. In his *Theory of Communicative Action*, Habermas (1984, 1987) describes two archetypes of social action, namely, purposive-rational action and communicative action. Purposive-rational action in the narrow sense is often known as instrumental action. It refers to action or systems of action which is governed mainly by rational decision and instrumentally efficient implementation of technical knowledge. Its orientation is towards decisive control over rational and social processes. An example of this is the rationalization of administration through the use of empirical knowledge based on researches in the behavioral sciences. Purposive-rational action in the broad sense includes what is known as strategic action in Habermasian literature. It refers to action that takes account of the behaviour of others and is thereby oriented in its course; it is determined by expectations as to the behaviour of external objects and of other persons, and making use of these expectations as conditions or means for the rational, successful oriented pursuit of the agent's own rationally considered ends.

In contrast to purposive-rational actions, communicative action is motivated by the wish to understand the other side in a communication. Interaction takes place on the basis of an already achieved common notion of the situation. It assumes a sort of background consensus that includes a common recognition of the validity claims raised by the communication partners: the claims that the speaker's utterances are *comprehensible* and that the contents of their proposition are true, and the claims that the speaker is *truthful* or honest in uttering them, and that it is *appropriate* for him to be doing so. Where agreement between actors about a shared background can no longer be taken for granted, the actors undertake to examine and clarify various assumptions concerning the communication background, and to test their validity. Such action is oriented towards the co-operative search for truth, the clarification of unclear message content, the analysis of the intended use of the messages, etc. It is initiated to establish the validity claims as well as to discover and weigh up the arguments proposed for or against a message, in terms of its validity claims. By means of systemic self-reflection, Habermas hopes to lower the barrier to meaningful and genuine social relations. This is consistent with a belief expressed by him earlier that the ideal of a speech conversation is not

closure but an infinite horizon of possibilities to seek truth and achieve understanding (Habermas 1979).

A communicative action requires that all actors abide by certain ground rules **which allow the** actors a chance to express their opinions, and honour only the force of the better and more rational arguments. For all interested participants there is a symmetrical distribution of chances to choose and apply speech acts. Such a situation is considered an ideal speech situation, which enables communicative rationality and is in **turn** pervaded by it (Alvesson and Deetz 1996). Here the desirable features center on the strength of good, well-grounded argument provided in an open forum, rather than authority, tradition, ideology, exclusion of participants, power, rules of experts, fear, insecurity, misunderstanding or prejudices.

3 THE INTERNET AND ITS POTENTIAL TO SUPPORT HABERMASIAN COMMUNICATION

The Internet is a unique blending of military strategy, big science corporation, and counter-cultural innovation (Hafner and Markoff 1991). The roles of the American Defense Department and National Science Foundation in initiating and subsidizing the ARPANET, and later the ARPA-INTERNET are pretty well known and they need no repeating here. The second aspect of the story, that of counter-culture, is less well-known. Parallel to the efforts of the Pentagon and the Big Science, “a sprawling computer counterculture emerged in the United States, often mentally associated with the after shocks of the 1960s movements, in their most libertarian/utopian version (Castells 1996, p.351).” In such culture a few technological breakthroughs emerged, e.g. the modem and the Bulletin Board Systems. The acceptance of standard in the Internet is essentially a bottom-up process, through trial-and-error and popular acceptance (Kahn 1994). This grassroots culture is a key feature of the evolution and use of the Net. The counter-culture may be forgotten with the passage of time, but the social codes have continued to frame its utilization. This is illustrated by the increasing popularity of open source code software, which blends the traditional Internet values of sharing and bottom-up

development with restricted forms of commercial interests (Berhman Center for Internet and Society 1999).

As a technology, the Internet has opened new pastures of opportunity for those who are not in the seats of established power and wealth to reach out to a global public. It solves the problems arising from hierarchical and spatially separated positions, thereby promoting a new form of information storage, dissemination and active exchange. It can contribute to discourses which would otherwise be difficult, if not impossible, because of communication costs, time-space separation, emotional inhibition, etc. In other words, it lowers the financial and technical barriers for social activists with a personal computer with multi-media accessories to reach out to a bigger public. The cyberspace of the Internet is cosmopolitan in scale and in a very real sense it transcends the direct regulative control of any particular state. It is a technology made for a world where fragmentation creates a space for weaker voices marginalized by institutionalization, centralization and concentration (Clegg and Hardy 1996, p.8). The PCs, the laptops, the Internet and the fax machines have created an once unthinkable network for them to co-ordinate strategies, to share resources and experiences. This possibility has been noticed by research literature and the media indicating that the Internet offers an opportunity to enhance political participation and horizontal communication among individual citizens. Such communication and sharing give them strength., But not only individuals benefit. We also find a process of empowerment for grassroots groups, who can operate and collaborate more efficiently using the Internet as an instrument of information, communication, and organization (Castells 1997). “It appears that it is in the realm of symbolic politics, and in the development of issue-oriented mobilization by groups and individuals outside the mainstream political system that the new electronic communication may have the most dramatic effects. (ibid: 352)”

Thus, the Internet has become a medium for international organizations like Greenpeace. It has also become a medium within which the diaspora of exiles and political activists can find a community and a voice. A rather vivid illustration of how the Internet can be used as channel to voice protest is provided by the Free Burma Coalition (see box below). In fact, since the 1990s, a number of non-governmental-organizations have begun

to make effective use of IT networks in developing countries for voicing their concerns on issues of human rights, the environment, etc. The Association for Progressive Communication was founded to co-ordinate global networks working for protection and preservation of the environment; currently it has member networks in 16 countries and provides access to over 20,000 activists and organizations in 133 countries (Madon 1997). It is partly because of this possibility of reaching out to a world public by anyone with access to the Internet that is causing concerns to authoritarian governments.

When spiders unite, they can tie down a lion.

The line that you just read is the motto used by the Free Burma Coalition to adorn their fax messages. The group is a movement dedicated to the downfall of the military junta. It has effectively exploited the potential of the World Wide Web and the Internet for its campaign, and its aphorism of the strength of the spider web is beautifully appropriate. It offers the movement a cheap and immediate way of communication, and partly as a result of that a sense of solidarity.

The movement has an electronic news service named BurmaNet, providing up-to-date news to its 700 subscribers. Campaign information is also easily accessible at its web site. Partly with the help of the Internet, it has successfully persuaded several transnational corporations to stop doing business in Burma.

Source: The Economist, 10 August 1996

In the Habermasian scheme of social life, there should be no obstruction to an equal communicative exchange between social actors. In the technological sense, the infrastructure provided by the Internet and related networks helps to meet this requirement. However, to create truly effective electronic forum for societal discourse it is not sufficient to merely provide access to information tools. Well-balanced systems of appropriate technologies, combined with organizational rules and procedures are needed. The systems need to satisfy the social norms of the network of users, and must be embedded in a wider societal context for the discourse to be successful. One such system

is being developed in the GRASS (Group Report Authoring Support System) project (which will be discussed in Sect.5); please see <http://infolab.kub.nl/gmsd/grass>.

4 LIMITATIONS OF THE INTERNET

Though recognising that the Internet provides new avenues of opportunity for those not in power or wealth to voice protest, we must not lose sight of the fact that real powers are still strongly entrenched. This view is necessary to balance the tendency towards a rather euphoric view about the possibility of the micro-politics of power with the advent of the Internet. This is illustrated by the reliance of the Internet on the telecommunication infrastructure still in the control of giant telecommunication concerns. The established powers that be still can legislate laws to deny access to certain sites, which is a very real issue in countries run by authoritarian governments. Moreover, the opportunity to directly participate in an Internet-based forum would be denied to those who have no access to a computer linked to the Internet. All these represent a serious barrier to fully realise the potential of the Internet to support electronic form of Habermasian communication.

Another serious problem is related to human weaknesses - our inability to act responsibly, ethically and rationally. It is reflected in the use of the Internet **in the service of** pornography, racism, sectarianism, and violence (Castells 1996, 1997). Habermas's theory of communicative action, like his other contribution to social critical theory, has **been criticised** for its overemphasis on the possibility of rationality and **value** of consensus, **and** for putting too much weight on the clarity and rationality potential of language **and human** interaction (Thompson and Held 1982; Burrell 1994; Alvesson and **Deetz** 1996). To some extent it relies on a model of the individual as potentially autonomous and clear-headed, and who is interested and committed enough in community affairs as to participate actively in communicative action. Vattimo (1992) **criticises his theory for its benign and** benevolent view of the humankind which counts on knowledge and argumentation to change thought and action.

The third point is related to the nature of interactive and instantaneous communication in political discourse. Internet conferences have been often referred to as electronic town-hall meetings. Such term borrows the use of town-hall **meetings in**

American past political practice. It has the merits of direct, two-way communication as opposed to the one-way communication associated with newspapers, radio and TV. However not all political commentators are persuaded by such merits. For example, Schlesinger (1997) says that interactivity encourages instant responses, discourages second thoughts, and offers outlets for demagoguery, egomania, insult, and hate. In too interactive a polity, a common passion could sweep through a people and lead to emotional and ill-judged actions. The Internet has done little thus far to foster the reasoned exchanges that refine and enlarge the public views (Schlesinger 1997, p.7). This is a strong statement which needs to be qualified. For example, many Internet newsgroups, mailing lists, etc. carry numerous spirited debates that do lead to new insights and productive collaboration instead of just generating (much publicized) flame wars. A good reference containing many examples of constructive group interaction is Rheingold (1993). In the next section, we describe an Internet-based information system of this genre, GRASS, which attempts to address the above mentioned problems in a systematic way.

5. THE GRASS PROJECT

To allow its users to approximate an ideal speech situation as much as possible, GRASS needs to explicitly address the real-world constraints mentioned in the previous section. In this section, we first briefly describe the rationale, background and objectives of the GRASS project. We then outline the group report authoring process enabled by the GRASS system and the core technological functionality it provides to its users. Subsequently, we discuss how various technological and organizational constraints are met in the system design.

5.1. The Need for Societal Discourse Mediation

Complex societal problems, such as those related to sustainable development, involve many issues and stakeholders. Sometimes, serious conflicts occur, requiring sophisticated conflict resolution processes. In some of these cases, democratic governments have launched initiatives, like expert panels and regional consultation

processes, to achieve consensus on what should be done, e.g. (Scientific Panel On Clayoquot Sound, 1994-5). However, these efforts are often expensive, slow, and involve only a small number of stakeholders. Mediators of societal discourse such as the traditional printed press and other mass media, have the advantage that they are fast and reach a wide audience, but on the other hand are also often selective and biased in their reporting (Herman and Chomsky, 1988; Keane, 1991).

A serious drawback of these traditional kinds of societal discourse mediation is that they are neither neutral nor transparent (De Moor and Weigand, 1996). Neutrality does not mean that individual opinions are to be free of bias, they cannot be. Instead, the discourse procedures, and thus the supporting technologies, should ensure that equal weight is given to all opinions, while not forcing participants into accepting false consensus. Transparency of the discourse process allows participants and third parties to see not only the end results of discussions, but also how these outcomes came to be.

The Internet offers considerable *potential* to actively involve widely dispersed stakeholders in prolonged discourse processes. However, current information tools such as mailing lists and newsgroups do not provide enough structure and social context to allow for focused discussion that leads to concrete and credible results. Furthermore, there is a danger of on-line communities being commercialized, thereby preventing the spaces for community formation from being truly open, diverse, participatory and democratic (Werry 1999). Therefore, concrete organizational and technological safeguards need to be established to ensure that the output produced by these virtual communities are dialogic texts, which, contrary to more traditional collaborative texts, reflect the involvement of multiple authorial voices (Harrison and Stephen, 1992). This offers the best chance of approximating the ideal speech situation. A system supporting the production of such dialogic texts is developed in the GRASS project.

5.2. Background and Objectives of the GRASS Project

In 1993, the Global Research Network on Sustainable Development (GRNSD) was formed'. One of its goals, as laid down in its Charter was 'to develop new and

¹ Please see <http://infolab.kub.nl/grnsd>

creative approaches to increase the quality of research and communication processes' related to sustainable development. Although the network failed to obtain the necessary funding to continue its operations, it spawned a number of groups which have until recently been quite active.

One of these groups is the B.C. Forests and Forestry Group (BCFOR). In this group, Canadian and international members, representing a wide spectrum from timber industry consultants to environmentalists, discuss issues related to forests and forestry in the Canadian Pacific province of British Columbia. Initially, only a mailing list discussion was conducted. However, after some time, it was decided that the group should produce more tangible outputs: group reports in which forestry policies could be critically analyzed in a systematic way. After some relatively unsuccessful attempts it turned out that mailing list functionality was not sufficient, and that, besides technological aspects, complex social factors (related to the authoring process) also needed to be taken into account. To deal with these issues, the GRASS project was conceived.

The purpose of the GRASS project is to develop an arena for credible societal discourse. GRASS is to be a comprehensive socio-technical system, consisting of a balanced mix of people, tools, and procedures. It can be used to produce concise group reports that give their readers an up to date and credible overview of the positions of various stakeholders on a particular issue. As such, these reports may play an important role in catalyzing societal conflict resolution.

A group report should be a neutral document in the sense of showing all the, undistorted, views of its authors and its creation processes should be transparent to the reader, so that the way in which claims came to be can be easily analyzed. Such a report represents the various opinions of all participating stakeholders on a specific issue in a structured way. The report consists of parts about which true consensus has been reached, and parts containing opinions about issues of conflict, on which the authors have not yet reached agreement.

5.3. The Group Report Authoring Process

In the first pre-GRASS BCFOR group report project, a topic was successfully selected by the group as a whole, after which the authoring process was to take place. This we call the *core group report authoring process* (Fig. 1):

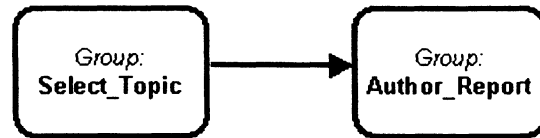


Fig.1 The core group report authoring process

However, the actual authoring process never got started. One of the reasons for the writing process to fail might have been that it was unclear exactly what role the group report was to play in *overall societal discourse*. Furthermore, there was no key beneficiary who could *motivate* others to participate. Thus, what we call both *external* and *internal motivators* for actively participating in the authoring process were lacking.

An alternative authoring process model, taking into account these issues, is the following. A *proponent* is interested in having a question answered and proposes that a report be written to investigate it. An example of such a proponent is an environmental group who claims that current forestry policies are unsustainable. The proponent defines the issue and provides the background material for the report. The group of report authors, including the important category of *opponents* who have an interest in refuting the claims of the proponent, criticizes and extends the material in line with the network neutrality/transparency guidelines. Only after the group has approved the final version of the report can it be disseminated and used externally:

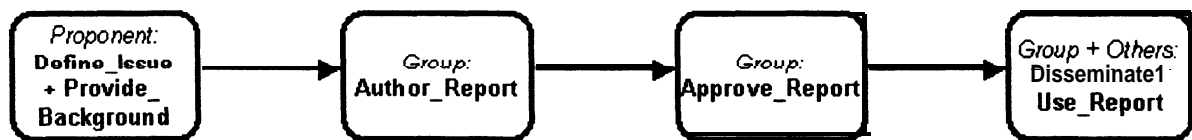


Fig.2 The embedded group report authoring process

This is what we call the *embedded group report authoring process* model, as adopted in GRASS. By embedding the core process in a social context of opposing stakeholders and

links to other for a of public discourse, both the credibility of the results, and the motivation for different categories of participants should increase. In the GRASS project, for each of these four stages a combination of human roles, organizational procedures, and technical features has been defined. Space is lacking to describe these combinations for all subprocesses here. We therefore focus on illustrating our approach to stage 2, the actual report authoring process.

5.4 Structure of the Group Report

Each GRASS group report is subdivided into three main parts. The ‘Research Problem’ part contains an *introduction* of the problem domain, the *central issue* that is the focus of the report, and a list of one or more *key questions* that are to be answered. The ‘Sections’, described in more detail next, contain the body of the report, in which the actual discussion takes place. The final part is the ‘Conclusion’.

Each section comprises an ‘*introduction*’ describing a key question to be examined as well as a number of *positions* that authors can take. For each position, *arguments* pro and contra can be entered. An argument can also be linked to other arguments.

5.5 GRASS Functionality

Given that the group report authoring process is sufficiently embedded in a wider societal context, the problem of coordination and performance of authoring tasks remains. In the BCFOR case, they were very hard to support with just the primitive mailing list functionality then available. For GRASS, a prototype web server has therefore been developed, accessible through any standard web browser*. Through this tool, users can either read current reports, or participate in the authoring process themselves.

In order to co-author a report, a user has to register. Several editor roles have been defined. Each editor role can be filled by one or more authors, thus preventing undesired power structures from developing. An overall *report editor* is responsible for editing the ‘Research Problem’ and ‘Conclusion’ parts, as well as for adding new sections. A section

² Please see <http://infolab.kub.nl/grnsd/grass/>.

editor is responsible for the ‘Section Introduction’, and for editing the section introduction and conclusion. *Authors* can add new positions and also indicate the degree to which they support or reject each of these positions and add arguments pro or contra positions and other arguments. Positions taken can be modified continuously, reflecting the change of opinions held (Fig.3). Arguments, once made, cannot be changed, to prevent loss of discussion **structure**. An important feature of the GRASS tool is that it stores all report elements in a database, which can be used to generate group reports in many different formats. For example, a list of the issues everybody agrees on (i.e. the positions are not rejected by any author), or issues of discontent (i.e. at least one author rejects it) can be produced simply. Another option would be to make a summary of all positions adopted and arguments made by different stakeholders (e.g. the positions taken by the representatives of environmental organizations vs. those of corporations).

The tool facilitates participation in the process by notifying authors of changes in the report at intervals of their choosing (i.e. every change, daily, weekly). Furthermore, those authors or readers who do not have access to web-technology, but, for instance, only have an e-mail account, can be sent report parts and changes in text-format.

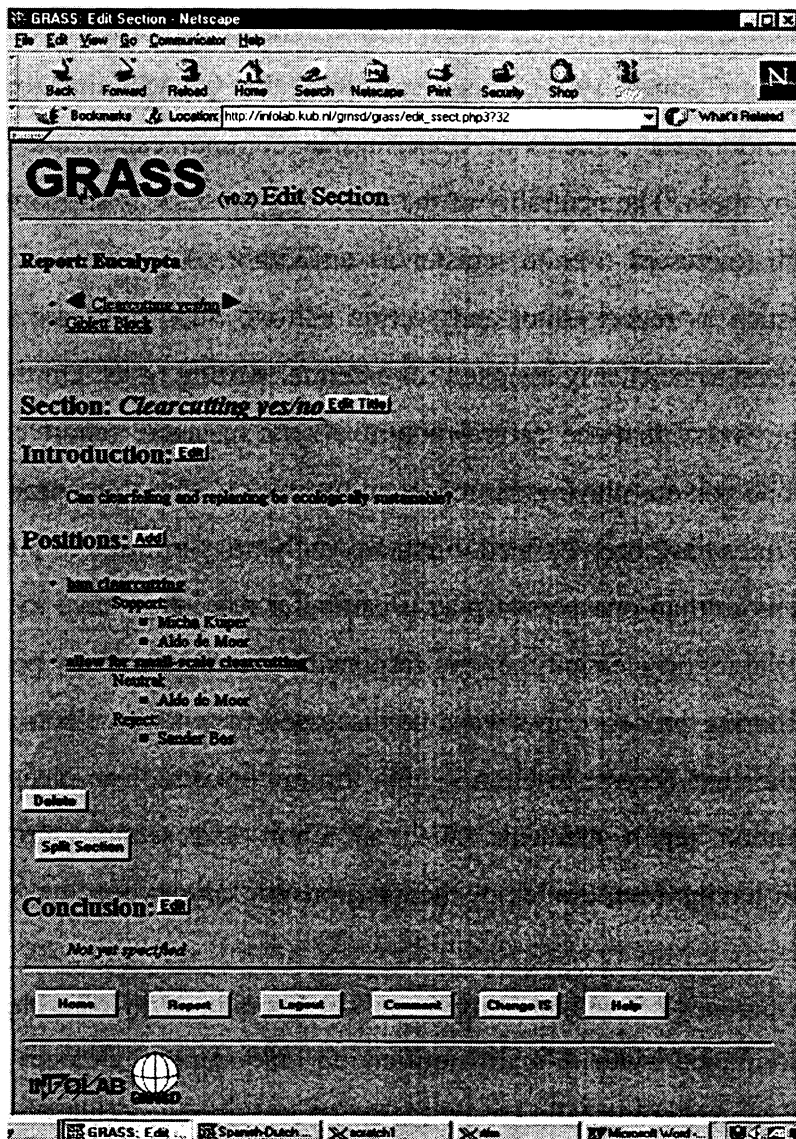


Fig.3 Editing Sections with GRASS

5.6 Discussion

Habermas' theory of discourse ethics contains general rules for practical discourse leading to an ideal speech situation. These rules guarantee discursive equality, freedom, and fair play by not excluding anybody from participating, and by allowing them to challenge anything they deem important, while ensuring that nobody is prevented from exercising these rights. However, an important question is how to translate these ideals into actual conversation support for the real world (Chambers 1993). Public discourse,

instead of conflicting parties *having* an argument, should be turned into stakeholders *making* an argument (Tannen, 1998). This is something that GRASS aims to do.

GRASS endorses the ideals of Habermasian communication and its design is strongly guided by them. The neutrality of the authoring process is supported first of all by allowing each interested user to register as an author. A problematic issue is the authoring roles such as report editor and section editors. Such roles are needed, since responsibilities need to be clearly assigned for essential writing tasks. On the other hand, there may be the worry that the neutral nature of, for instance, report conclusions is violated if only one person (playing the report editor role) is able to manipulate this text. Therefore, three rules have been defined. First, any author is permitted to play the various editing roles. If more than one person play a particular role, they have to agree on any change made in the report element they are responsible for. Second, any problem related to the report authoring process can always be discussed in a public electronic forum, to which every author has access. In GRASS this forum consists of an electronic mailing list. Third, common report elements, such as report and section introduction and conclusions, after having been drafted by their responsible editors need to be agreed upon by every author.

The transparency of the authoring process is guaranteed by offering simple Web functionality, combined with e-mail notification and report element and change distribution, and by technologically ensuring that no unauthorized changes can be made in the report elements.

Habermas stresses the importance of multiple, overlapping conversations. Consensual will formation is not the product of a single conversation, but an accumulation of effects of many, interrelated conversations over time (Chambers 1996). GRASS supports this process of creating expanding yet focused webs of conversations, by lowering the barriers for people to initiate and participate in conversations dealing with contemporary societal issues, while at the same time increasing their value and credibility.

Respectful conversations with a commitment to seek understanding and truth present the participants with the opportunity to appreciate the strength and weaknesses of

various positions. In the spirit of Mill (1859), a participant “must be able to hear [opposite arguments] from persons who actually believe them, who defend them in earnest and do their utmost for them. He must know them in their most plausible and persuasive form; he must feel the full force of the difficulty which the true view of the subject has to encounter and dispose, else he will never really possess himself of the portion of truth which meets and removes that difficulty (p.36).” Such exchange of view challenges views and beliefs which may draw on habits or powerful institutions, or more subtle forms such as prejudices, superstitions, envy and self-interest. The goal of such dialogue is thus to reach for a deeper level of understanding and to build consensus which has a better guarantee of commitment.

The GRASS tool can be classified as an issue-based information system or IBIS. An IBIS helps its users to identify questions, develop the scope of positions in response to them, and assists in creating discussions (Kunz and Rittel 1970). IBIS support stakeholders in their conversations about complex or ‘wicked’ problems, by structuring the creation and handling of ‘issue nets’ (Conklin-Begeman 1988). Issue nets have three main types of nodes: issues, positions, and arguments. Many refinements of nodes and the types of links between them are conceivable. A good example of a Web-based tool that closely follows the IBIS-paradigm is **HyperNews**.³

There are two main problems with many IBIS tools, including **HyperNews**. First, they allow discussions to diverge, but have no support for discussion convergence. There are no stopping rules, or ways to wrap up discussions and have them feed back into a higher-level document structure. Second, these tools generally do not incorporate **workflow** models tailored to the specific context of use, which makes it hard to produce useful results. One example of a tool that aims to do this, in its case for the objective of scientific collaboration, is the Scientific Collaboration System (Kim et al 1993). GRASS is unique in the sense that it does contain a document structure in which the discussions have a clearly defined role. Furthermore, its facilities, including role division and

³ Please see <http://www.hypernews.org/HyperNews/get/hypernews.html>

organizational procedures, are tailored to its particular context of use, as defined by its main objective of facilitating structured societal discourse .

6. SOME INITIAL EXPERIENCE IN USING THE GRASS SYSTEM

As of March 2000, the design of the GRASS tool has been completed, and part of its functionality implemented. It is possible now to read reports and register as an author. As far as writing reports is concerned, one can add and edit (sub)sections, add, edit, and select positions, and add argumentation to a certain position. Still to be implemented are the role assignment and enforcement functionality. The report generation facilities are still primitive, in that only one report summary format can be generated. However, in the near future, reports in different formats tailored to the specific needs of report authors or readers should be implemented.

This initial version of the tool is currently being tested by a small group of non-technical users, and a number of test reports on environmental issues have already been created. Entering the various report elements turns out to be feasible, but not trivial. One reported problem is in the lack of awareness exactly where in the report an author is located. To resolve this problem, on top of each section editing-page, an overview of the complete report structure is given, with the current (sub)section highlighted. Once descended into the position and argumentation editing page, a similar overview of the argumentation tree belonging to that position is given. Another reported difficulty is the lack of procedural knowledge. Since report authoring is a complex process, comprising many sub-processes and participants in various roles, users often do not exactly know what kind of input is expected at what moment. Therefore, together with the test users, a set of tutorials is currently being written that should make the expected actions more easy to understand. In a future version of the tool, a user playing certain roles could see the possible actions at a specific moment in a separate window, if needed. In this way, lost users can be guided to the writing process, making the process more effective and efficient.

The value of the tool has been acknowledged by several groups of potential users. For instance, a Dutch platform of non-governmental organizations wants to use the tool to

write a series of reports in which the societal implications of the adoption of gen-technology are assessed. Involving scientists, high school students, politicians, and the press, it hopes to foster a national debate on this controversial technology.

7. CONCLUDING REMARKS

Information systems researchers have used the theory of communicative action of Habermas to do theoretical studies of information systems development (e.g. Lyytinen and Hirschheim 1988) and to conduct hermeneutic studies of e-mail exchanges (e.g. Ngwenyama and Lee 1997). Here we are using Habermas' ideas as inspiration to design and build an Internet-based electronic forum supporting public discourse. The Internet provides a technological environment to build a cyberspace venue with a very low financial and technical threshold for people to potentially conduct undistorted conversation. The GRASS system is a generic software tool supporting the production of group reports that give their participants an up-to-date overview of the positions of various stakeholders on a particular issue. The only requirement to participate in it is the observance of a set of rules intended to serve the Habermasian form of discourse. To ensure that these rules are actually observed, a number of organizational, procedural, and technological checks and balances have been built in. The prototype version of the system is currently being tested by a small group of users, and a number of test reports on environmental issues have been created. The system has attracted the interests of several groups, e.g. a platform of non-governmental organizations which wish to use it to discuss the impacts of genetic technology. We hope to follow closely the activities supported by the system to gain more insights into the extent we can achieve Habermasian communications with the help of the Internet, and in what ways such activities can contribute to theory building in undistorted communication.

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