

From Genre Analysis to the Design of Meetingware

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ABSTRACT

Genre analysis is an approach to study organizational structures, focusing on communication patterns, which can be applied to the specific context of meetings. This research investigates the impact of genre analysis on the design of meetingware. The paper describes how genre analysis was used to develop meetingware for several organizations and meeting genres. The paper covers the whole design process, from genre elicitation to validation. The obtained results indicate that genre analysis impacts meetingware design in five major dimensions: organizational integration, situated nature, meeting lifecycle view, focus on communication patterns, and preservation of the meeting context.

Categories and Subject Descriptors

H.1.2 [Models and principles]: User/Machine Systems – human information processing; H.4.1 [Information Systems Applications]: Office Automation – Groupware.

General Terms

Design, Human Factors.

Keywords

Genre Analysis, Meetingware analysis and design.

1. INTRODUCTION

The genre concept was originally developed in literature analysis with the purpose to categorize different literary works such as poetry and novel (see for instance [36]). In this context, a genre is a taxonomic collection of speech or written communications that show regularities of form and content. A more elaborated perspective also regards the social purpose as a fundamental property of genre [22]. This perspective views genre as a kind of communicational template for action, enacted within a community of people in order to accomplish a socially recognized purpose [22; 33]. A simple example is the Call-for-Papers genre, understood by the research community as an invitation for paper submissions to a conference. The focus on social rather than individual purpose highlights a significant difference between genre and organizational communication, given that the

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former infers recurrent practices while the later merely addresses opportunistic communication.

Another property that is important to characterize genre is relative stability [31]. By relative stability it is meant that a genre is conventional within a community of users, otherwise the social purpose would not be present. However, a genre is not static: it may be constructed over a long period of time, appropriated from outside the community and restructured to accomplish different purposes, evolve to reflect new practices or technology and, of course, the use frequency may become so low that it naturally dies.

Genre analysis has interested people studying organizational interaction for natural reasons. Organizations construct, adopt and modify genres to suit their coordination and collaboration needs [35]. Such a collection of genres is designated genre repertoire [21]. Furthermore, in an organization, genres are linked together in sequences of interrelated and recurrent communicative actions forming what is designated as genre systems [36].

Besides relative stability, two other properties of genres should also be considered: contingency and decentralization [31]. Contingency means that organizational work is opportunistic sometimes and thus genre systems should not be considered formal specifications of coordinated activities (as workflow) but rather under-specified communication patterns. Decentralization means that purpose is disseminated throughout the genre system and thus the whole genre system is necessary to explain an individual genre. For example, to understand a Call-for-Papers it is necessary to understand the whole Conferencing system.

These considerations substantiate the genre theory of organizational communication as an analysis tool capable to explain how an organization structures and choreographs interactions [22].

The increasing computerization of the organization expanded the notion of genre from the classic verbal and written communication towards emergent digital genres supported by digital documents and digital communication. Examples of digital genres are FAQ (Frequently Asked Questions), Web Portals and e-commerce Shopping Baskets. In this context, genre analysis contributes to understand how organizations appropriate and use these new forms of communication. For instance, recent research studied videoconferencing [25] and persistent conversation afforded by online communities [5; 17]. Others, following the traditional genre concept, created new taxonomies of Web genres [15; 16; 29]. The concept may as well be applied to new interaction media, such as human-computer interfaces. One good example is given by Screen genres [30].

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We would like now to turn our attention from analysis to design. The genre approach has already proved useful in several areas, e.g. improving Web search engines [29], developing collaborative information retrieval [26], reorganizing document management [27; 32], constructing new types of documentation [37], and defining metadata for computer mediated information [19]. In all of these cases the advantage provided by the genre approach seems to draw upon a better integration between contents and tools.

One issue that seems open for investigation is designing collaborative tools that appropriate the communication patterns and other properties captured by genre systems. In this paper we will address this topic. Considering that genre systems model communication, purpose and form, under the assumptions of relative stability, contingency and decentralization among a community of users, we felt compelled to try out to design collaborative tools based on such requirements.

In this paper we will apply the genre approach to the design and development of meetingware. The selection of this specific type of collaborative system seems very adequate because of two major arguments. The first one is that communication is a fundamental component of meetings and thus there is a potential direct impact of the genre analysis outcomes on meetingware design. The second argument is that meetingware is relatively unsuccessful for various reasons (e.g., conflicting results, unbalanced positive/negative effects [18], process issues [7], facilitation problems [8], usage and economic difficulties [6]). Considering that the aims of meetingware (more productive and economic meetings) remain genuine (in fact, they are becoming more significant due to the increased frequency and cost of meetings in organizations [28]), there is a demand for innovative meetingware designs.

The paper is organized as follows. In the next section we will expand our perspective over genre analysis, providing definitions and describing the genre analysis process. We will also discuss the genre theory in the context of meetings and meetingware. Then, we will describe how genre analysis is applied, using several real case studies of genre analysis that we have carried out. Next we will address meetingware design. Given that genre analysis produces under-specified system requirements, at least when compared to other systems analysis techniques, our purpose in this section is to clarify how meetingware requirements can be drawn from genre analysis. The following section is devoted to address one problem with genre analysis: the outcomes are attached to a particular community of users and thus designing a generic meetingware system is difficult. The two following sections are dedicated to describe how the genre analysis approach contributes to improve the usability and utility of meetingware. Finally, we discuss the overall contributions of genre analysis to meetingware design and draw some conclusions.

2. GENRE ANALYSIS

A genre of organizational communication is defined as a socially recognized type of communicative action habitually enacted by members of a community to realize a particular communicative and collaborative purpose [33]. A genre answers six different questions that may be posed to the communicative action: why (purpose), what (content), who (participants), when

(timing), where (location), and how (form) [36]. [33] proposes the notion of sub-genre to afford different levels of analysis and generalization/specialization trees. Though, generalization/specialization must preserve the shared communicative purpose of sub-genres, or otherwise the community would not recognize them [3].

A genre system includes genres and relationships among genres, such as sequence [36]. Finally, a genre repertoire is a collection of genres routinely enacted by a community [34].

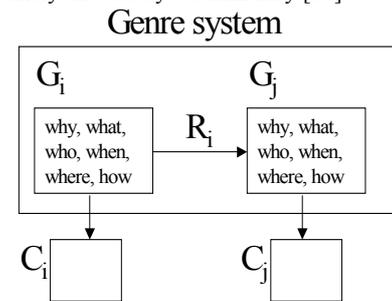


Figure 1. Genre analysis

Genre analysis is an approach to infer work structure (denoted by $G_{i,j}$ - R_i in Figure 1) by inquiring about communicative actions ($C_{i,j}$) observed in an organization and materialized through diverse media, such as memos, reports, e-mails, meetings, telephone calls, etc. The genre analysis process uses different techniques to identify genres, e.g. analysis of media, interviews, discussions with groups, ethnography and contextual analysis [4] among others. [23] illustrates in detail an example of this process.

The genre theory offers important advantages to the analysis process:

- Genres and genre systems are easy to comprehend by the community of users [24], facilitating interaction with analysts and fostering participation in the modeling and validation tasks.
- Affords efficient collaborative elicitation techniques [11; 14].
- Is adequate to situations where the organizational context must be clarified, work situations are not well documented and the user requirements may be unknown or are hard to formalize [12; 14].

Currently there is no broadly accepted formalism to express the outcomes of genre analysis. [35] uses tables to describe genres, trees to display genre repertoires and dependency diagrams to describe genre systems. [31] proposes genre ecology diagrams, which basically are node maps.

We should now discuss genre analysis in the specific context of meetings, given that our purpose is to apply it to develop meetingware. Communication is a fundamental component of meetings and meetings are a fundamental and recurrent component of organizations. Organizations tend to nurture relatively stable communities of people that organize and coordinate their work through meetings. Clearly, the meeting is a genre of organizational communication that is generally recognized by most organizations (see [28] for a characterization in terms of purpose, content, etc.) Planning meetings, project meetings, briefings, brainstorming sessions, welcome meetings, and workshops

are just few examples of meeting sub-genres common in organizations.

But meetings are also genre systems. The first time we have seen a characterization of meetings as genre systems was in [22] that analyzed the interaction of several teams using a collaborative tool in an organization. According to [22], the meeting genre system includes the following genres: logistics, agenda, the meeting itself, and the meeting minutes (or report) distributed subsequently. This dual perspective of meetings, both as genre and genre system, highlights the organizational macro-level and micro-level perspectives typical in organizational literature. The micro-level perspective is particularly interesting to analyze several patterns that are recurrent in meetings, such as facilitation, negotiation or decision processes [2]. In Figure 2 we illustrate our generic scheme for meeting genre analysis, including meeting genres, sub-genres and genre systems.

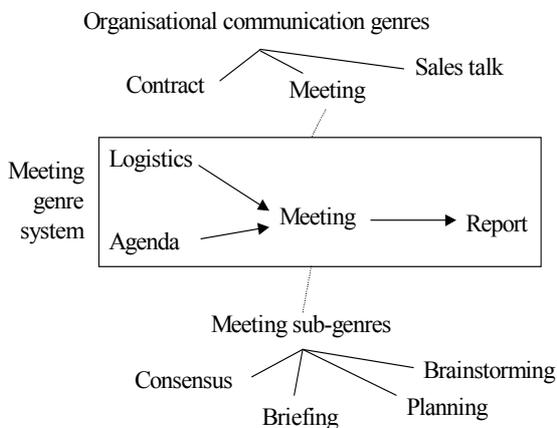


Figure 2. Generic scheme for meeting genre analysis

3. APPLYING GENRE ANALYSIS

In this section we describe how genre analysis can be used in practice to elicit design requirements for meetingware. This description is based upon a series of case studies that we were able to conduct, using real-world organizations. Although different organizations and meetings were addressed by these cases, in this paper we will mostly focus on a project that developed a meetingware prototype for a Portuguese accountancy company.

We were able to study in detail how the accountancy company conducted their meetings. This company was appealing to us because it is a small organization, with a flat structure, and a core business (mostly external consultancy work done by autonomous professionals) that turns meetings into a primary coordination mechanism.

The major criterion for selecting a genre elicitation technique was to minimize the burden required to the target organization. We started by participating in several meetings as observers. From these observations, using the generic scheme illustrated in

Figure 2, we found out that the target organization coordinates itself around three meeting genres: (1) process definition meetings, dedicated to analyze work processes in an informal way, clarifying and improving the organizational maneuver; (2) planning meetings, which allocate staff to projects; and (3) staff briefings, where the status of each project is analyzed.

Then, we discussed with some of the staff the relative importance of these meeting genres, to conclude that staff briefings are regarded as the most important coordination mechanism within the organization.

Considering this information, we decided that a more careful analysis of staff briefing was needed and continued with the observations. Staff briefings have a weekly frequency, occurring in general every Friday. The typical composition includes two senior consultants and one senior accountant. Staff briefings call for participants to report on the weekly progress of individual and group tasks, allowing the group to assess the overall project status, identify project risks and apply any needed corrective actions (sometimes there is a digression from briefings to process definition or planning meetings and back).

Using the generic scheme illustrated in Figure 2, we can say that this organization intensively uses the meeting genre and has defined along time a briefing sub-genre. The briefing sub-genre is also a genre system, consisting of logistics, agenda, meeting and report genres. Using the notions of generalization/specialization, we were able to further characterize the sub-genres that make up the briefing genre system. The obtained model is presented in Figure 3. We identified three different genre systems in staff briefings and named them according to the different agenda topics: accompanying projects, management and control, and clarifying problems. The purpose of the “accompanying projects” genre system is to get fresh information on current projects and tasks. The purpose of the “management and control” genre system is to propose, discuss and manage any modifications to tasks and projects, such as changing schedules or re-allocating personnel. Finally, the purpose of the “clarify problems” genre system is to raise and clarify problems related to project development, staffing, earnings, etc.

We also analyzed the other properties of staff briefings. The agenda and report are paper-based while the meeting itself is face-to-face. No particular person owns the agenda. Given that the agenda is unchanged every week, the sense of ownership was completely lost. Every briefing produces individual to-do lists, which means that no formal report is produced, unlike many organizations. To-do lists usually identify projects, tasks, deadlines and allocated staff. The group has defined that briefings are held on every Friday at a fixed hour and thus there is no need to communicate changes in time or location. The briefings are cancelled if any of the participants are unable to participate, or the meeting collides with a holiday, which are the only situations where the logistics genre is enacted.

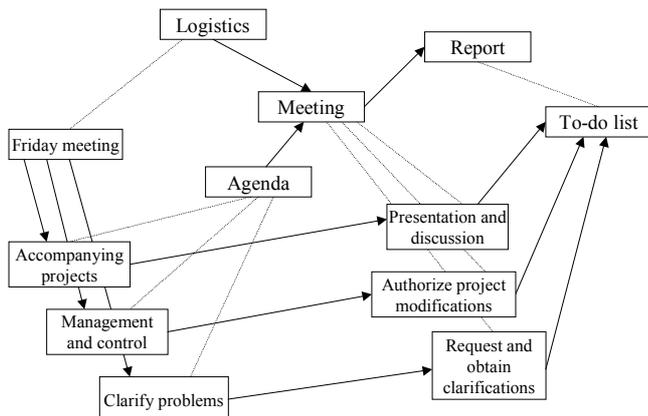


Figure 3. Model of staff briefings

The model described above was finally presented, discussed and approved by the members of the target organization.

Besides the case of the accountancy company described above, we have been able to apply the same approach to several other cases and meeting genres, such as executive board meetings, general assembly meetings, strategy meetings and marketing meetings [1; 10-12; 14]. Although the techniques used have changed from case to case (we have used document analysis, interviews, electronic meetings and surveys), the analysis process has been kept very similar to the one described before, consisting of: (1) information gathering; (2) modeling genres and genre systems; and (3) validating the model with users.

4. FROM GENRE ANALYSIS TO DESIGN

How can we move from genre analysis to design? The first thing to note is that there is a clear pattern associated to the meeting genre system: the logistics and agenda precede the meeting, and the meeting is followed by the report. It thus makes sense to include this restriction into the meetingware design. So far, this is not really innovative since most meetingware follow the same logical pattern. However, considering that the genre system is specialized according to the particular community of users, the designed meetingware may be tailored to comply with the established patterns. For instance, the community may not have an agenda and thus the system should not require that an agenda be used.

Following the same line of reasoning, innovation may come from incorporating into the design the properties of genres (why, what, who, when, where, how) used by the community. As an example, the accountancy company uses a specific type of report for staff briefings: a to-do list. The meetingware should then support that purpose, content and form. Innovation may also come from changes in medium. For instance, the agenda and report may become digital genres, allowing users to more easily manipulate and search the available information. The meeting genre may as well be transformed into a digital genre, which may be implemented with a shared whiteboard – thus preserving the face-to-face interaction – or a chat or videoconferencing tool – if remote interaction is envisaged. Our efforts to design a solution for the accountancy company were mostly centered on preserving face-to-face interaction, which turned us

to the issue of transforming the agenda and report genres into digital genres.

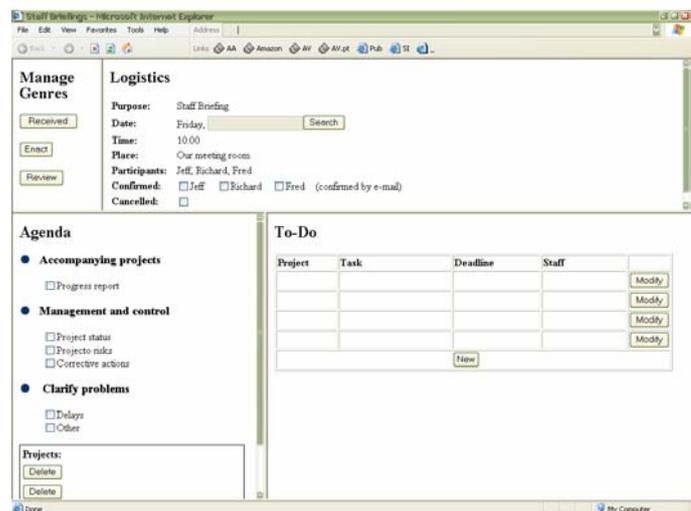
Finally, innovation may also appear from supplying users with an integrated view of the meeting genre system rather than individual genres. This means that the users will not only interact with the genres that are enacted in a particular moment (i.e., the report generated when the meeting is closed), but will be able to view these genres within the context of the other genres that make up the genre system.

So, to summarize, from genre analysis we have drawn the following design requirements:

- Provide a pattern for enactment of genres following the community practices.
- Design digital genres to substitute previous genres, offering increased functionality.
- Provide an integrated view of the meeting genre system, rather than a singular genre view.

To implement these requirements we have to accomplish two tasks: (1) materialize the agenda and report genres in concrete artifacts, including support for additional functionality; and (2) develop a management system for digital genres. The task 1 was accomplished by developing agenda and report HTML pages. Forms within the agenda and report allow users to track agenda items, and manage projects, tasks, deadlines and allocated personnel. The task 2 was accomplished with the development of a relational database (hereby designated meeting database) with tables for logistics, agendas and reports. Users access the meeting database through an HTML browser. Users can create meeting agendas and to-do lists, associating them together with logistic information for a particular meeting.

A HTML page, shown in Figure 4, offers an integrated view of the genre system. Forms within the HTML page allow users to



enact, search and review genres, making visible the other genres that take part in the genre system.

Figure 4. Integrated view of the genre system

5. GENERALIZING THE APPROACH

One critic that can be made to the genre approach is that the requirements captured by genre analysis pertain to a unique community of users and thus it is not possible to develop generic collaborative support. We are aware of the problem. The solution that we adopted to overcome the problem consists in focusing the development efforts on the portions of the system that are invariant. And, in fact, a significant part of the system does not have to depend on unique requirements raised by genre analysis. The invariant part is the one that manages the meeting genre system composed by logistics, agenda, meeting and report. We developed our meetingware prototype with this generalization in mind: the meeting database handles these genres independently of their particular purpose, form and contents, and by default does not impose patterns to users. The prototype can be configured to impose patterns, in case the designer finds it necessary.

The advantage of using an HTML browser as front-end to the meetingware is that with this approach it is easy to accommodate different genres within the integrated view of the genre system. For instance, we have used the meetingware prototype in both face-to-face and remote settings. The only difference that we made was that in the later case we incorporated a chat tool within the front-end.

We also developed support for genre management in the meetingware prototype. This component of the meetingware allows designers to characterize genres (name, purpose, form, producers and consumers) and sub-genres (ancestor, descendants), define genre repertoires, and specify genre relationships (precedence) to form genre systems. All this information is saved in the meeting database and later on used by the meetingware.

We used the meetingware prototype, including the genre management tool, to support several meeting genres. One of them was a general assembly meeting, typically intended to approve annual financial reports (although we were also faced with an extraordinary meeting dedicated to approve the change of social capital to the Euro denomination). In order to implement this case we had to develop document templates for the agenda and report genres. The report was the most complex to develop given that there was not much latitude to change the traditional format (it has legal implications). The meetingware was used in three general assembly meetings.

Another case dealt with several marketing meetings related with a real estate project of about 20 million Euros. The objective of these meetings was to creatively develop a slogan for the real estate. After developing digital genres for the marketing genre system, we used the meetingware in three consecutive meetings, devoted respectively to generate ideas, evaluate ideas and select a slogan. In the case of idea generation, we integrated a chat tool in the prototype, thus supporting a remote meeting. The other two meetings were held face-to-face. We also made slight modifications to the marketing genre in order to support a series of strategy meetings for a software company. Three meetings were held with the purpose to generate business ideas, evaluate ideas and action planning.

Overall, from these experiments we can assert that each case required some effort to develop document templates for the logistics, agenda and report genres. Excluding the meeting genre

from the equation, most of the meetingware functionality is invariant from case to case. The support to the meeting genre presents a different challenge because there are very different possibilities to consider. Although there is a good degree of generality in some tasks, such as idea generation, we currently cannot envisage a way to generalize so many different meetings occurring in organizations. For instance, in order to support the marketing meetings, we integrated functionality in the meetingware prototype to display pictures and plans of the real estate development in discussion. In other meetings we added a genre referencing documents that support the issues being discussed.

6. IMPROVING USABILITY

Many times the evolution to digital genres results in mere replication of non-digital genres. A good example of this situation is given by the meeting report genre. Typical meeting reports fall in one of these two categories: (1) a very long narrative, including a detailed list of participants, copy of the agenda, list of decisions taken during the meeting and sometimes a transcription of most if not all of the communications between the participants; or (2) a very brief reference to logistics plus a brief list of decisions taken during the meeting. In both situations the meeting reports tend to comply with archiving purposes required by institutionalized rules or even by law.

However, the evolution to a digital genre introduces new opportunities for improved usability: facilitating the dissemination of the meeting results throughout the organization, providing triggers for organizational action, supporting content search based on meeting metadata, or even preserving information about the genre system associated to the meeting report.

We investigated the role of genre analysis in the process of adapting report genres to the digital domain and improving their usability. We will illustrate the process based on a case focused on improving the usability of the Portuguese Parliament reports. The Parliament reports have been recently made available on the Internet. The analysis of these reports reveals that they are extremely detailed, including for instance a complete transcription of the dialogs as well as attitudes and behaviors of the assemblyman. Consequently, a report of a normal parliamentary session is very long, typically 70 printed pages.

The usability of these reports is very low. We made an experiment with several consultants where a meeting was set up to discuss the implications of the national budget recently approved in the parliament. The participants were interested in this experiment since their profession and business is directly affected by the national budget. The consultants met face-to-face and had access to the digital version of the Parliament report available on the Internet. In the end of the meeting we requested the participants to qualitatively evaluate the usability of the report. The results made clear that the available digital report was not adequate for interactive use.

We then requested suggestions for improving this digital report genre. Some of the suggestions that were made included: add links to specific parts of the document, divide the text in small manageable parts, organize the interventions from the same persons by colors, add contextual information such as photos of the parliament's room taken during the session and include a search engine for the different topics discussed in the session.

From these suggestions we developed a new digital genre for the parliament's reports. Our approach consisted in incorporating a genre view of the parliament's sessions into the report. The report was then organized according to the logistics, agenda, and meeting genres. One more genre was added to deliver contextual information necessary to explain some of the interventions, proposals or decisions taken. Official documents, newspapers, pictures, previous session reports can now be explicitly referenced in the report.

The improved digital genre was at last compared to the initial genre. To accomplish this, we requested 31 students from an economics class to respond to questions about the national budget while using the two genres. Afterwards, the students were requested to respond to a 9-point Likert scaling questionnaire. In Table 1 we show a partial list of the obtained results (more information can be requested to the authors). The results confirm that the improved genre is better suited to the participants needs than the previous one, which supports the claim that genre analysis offers a mechanism to improve the usability of digital genres in the meeting context.

Table 1 – Results from the questionnaire

	Initial genre	Improved genre	
Frustrating	3.6	6.8	Very satisfactory
Terrible	4.1	6.4	Wonderful
Boring	3.4	6.2	Stimulating
Hard	3.8	7	Easy
Rigid	3.9	6.7	Flexible
Horrible	3.9	6.8	Attractive
Hard to read	3.8	6.9	Very easy to read

7. VALIDATION WITH USERS

Validation with users is more an ongoing cooperative process than a task executed by the end of meetingware design. Users start their participation in the genre elicitation phase and proceed with the validation of the genre model. Then, participate in the design or re-design of digital genres and, finally, close their participation by validating the final system.

Our design approach to validation consisted in setting up meetings with the users and discussing the meetingware prototype with them. Although this is a very informal approach, it allows participants to freely express their preoccupations with the meetingware. For instance, some of the marketing people participating in the marketing meetings expressed their worries about threats to creativity, considering that the system gave equal importance to participants from engineering and financial fields. These observations lead us to avoid putting excessive constraints into the meetingware.

In general, we always got good feedback on how meetingware outcomes could satisfy the group needs and be better integrated in the organization as well. From the several validation sessions that we conducted we concluded that the genre approach is well understood and accepted by users, allowing the identification of subtle problems with meetingware and contributing with suggestions to improve its design.

8. LESSONS LEARNED AND DISCUSSION

On the whole, in this research we analyzed and modeled four different meeting genres: staff briefings, general assembly, marketing and strategy meetings. We developed meetingware for all these meeting genres and made experiments in two different organizations. From these experiments we were able to draw several lessons summarized below.

Genre analysis

- The use of the genre concept was useful to clarify the organizational context of meetings. The approach resolved a difficult situation in preliminary design, when neither the problems nor solutions are sufficiently known to build a requirements list.
- Genres were easy to comprehend by users. The simple formalisms used to represent genres were sufficient to support their identification, discussion and validation by users.
- Genre analysis did not cover 100% of the meeting genres. Users identified which genres were more important to the organization.
- Most of the meetings that we evaluated were very informal (the exception was the general assembly, due to legal constraints). The participants considered meetings as not adequate to normalization or formalization. Although the participants could provide us with meeting patterns, they did not regard them as processes. Focus on patterns seems to be a major strength of genre analysis.
- Users understood the genre analysis process and accepted to participate in it. We felt that this technique was very successful, considering the typical time/effort organizational constraints that information systems analysts commonly face. We attribute the success to the circumstance that most of the times only two short meetings were necessary to elicit and validate genre systems.
- The portrayal of meetings as patterns including logistics, agenda, the meeting itself and report were always valid in our experiments. Nevertheless, in several circumstances we had to include one more genre – context genre – referencing to external information necessary to support the discussion.
- Generally meetings and meeting arrangements are not well documented in organizations. In addition, the perspectives are also fractional and very personal which makes it hard to collect data individually. Thus, the adoption of a cooperative elicitation process was very useful and efficient.

Design of digital genres

- Digital genres were fundamental to design the meetingware, as natural targets for delivering increased functionality to users. In particular, the agenda and report were the most useful to users.
- Users liked having reports reflecting the genre system.
- Our approach to design new digital genres involved the participation of users, who contributed with many suggestions for improving usability, using new media and better integrating the meeting results in the organization.
- It was only at this phase that a formal list of meetingware requirements started to be clarified by users.

Design of the Meetingware

- The participants were accustomed working face-to-face and felt no particular need to use technology to improve meetings. This situation challenged the meetingware design, but the focus on communication (rather than meetingware functionality) allowed us to propose a meetingware system that was accepted by users.
- Although the genre analysis outcomes are specific to a community of users, a significant part of the meetingware is invariant from case to case. That part manages the genre system specification by designers and the genre system view given to users.
- The participants confirmed that the most complex issue with the meetingware concerns the meeting genre. More support in this area seems to raise negative reactions from users, except when meetings were held remotely.
- The major aspect of the solution that made the users generally satisfied is that it preserves the flexibility of the team. The meetingware does not mandate formalized work procedures but, instead, supports the recurrent work practices and types of information exchanged by the meeting participants.

Now we will discuss how far genre analysis has influenced the meetingware design. Meetingware has been characterized as a combination of tools allowing users to communicate, deliberate and manage common information in a concerted group effort [20]. The problem though is that there is no consensus about the detailed functionality of meetingware and thus comparisons are difficult. For instance, some meetingware systems may provide support for generating and organizing ideas and neglect report generation, while the system described in this paper does exactly the opposite.

To tackle this problem, we developed an evaluation grid for meetingware [9; 13]. This grid identifies a large collection of relevant meetingware features organized in a 3x3 matrix according to two major dimensions: (1) organizational, group and individual work levels; and (2) roles, processes and resources. Based on this evaluation grid, we set up several evaluation actions where participants compared different meetingware. We will not discuss here the detailed results, but will present five major advantages of the genre approach to meetingware design identified by these evaluation actions.

Organizational integration

Meetings are one of many mechanisms for coordinating work in the organization. Thus, there is a natural emphasis on organizational integration (emphasizing the roles of logistics, agenda and report as triggers for action) and less focus on the meeting itself. This should be contrasted with other approaches that stress support to the meeting itself (e.g. generate ideas, organize ideas, vote).

Situated nature

The digital genres managed by meetingware are tailored to a specific community. This should be contrasted with mostly generic purpose meetingware.

Meeting lifecycle view

One aspect highlighted by genres is that meetings are not a single task or a single decision process. Thus, meetingware must

preserve and integrate meeting information and accommodate long-term usage.

Pattern view

Genres highlight patterns, not processes. The genre-based meetingware avoids managing the high-level and complex issues associated to decision-making processes (e.g. strategy, negotiation, team-building).

Meeting context

The digital artifacts reflect and preserve the genre system that originated them, providing many contextual cues and explaining factors necessary to make them useful to users. For instance, accommodating different views and targets (a process, department, agent or system).

9. CONCLUSION

This work departs from a discussion of genre analysis in the meeting context. Genre analysis is an approach to infer work structure by inquiring about communicative actions observed in an organization and materialized through diverse media such as paper-based reports, e-mail memos, telephone calls and meetings. Considering that meetings fundamentally deal with communication, it is natural that genre analysis may contribute to analyze meeting structures.

Based on this assumption, we investigated the impact of genre analysis in the design of meetingware.

Following a case study research approach, we applied genre analysis to a set of different organizations and meetings: staff briefings, general assembly, marketing and strategy meetings. From the obtained results we were able to draw several requirements for meetingware design. First, there is a pattern inherent to meetings (logistics, agenda, meeting, report) that should be reflected in the meetingware functionality, although tailored to the specific community practices. Second, previous meeting genres should be substituted by new digital genres offering increased functionality. Third, the meetingware should provide an integrated view of the genre system, linking the genres enacted in a particular moment with the several genres that have been enacted in the past and may be enacted in the future.

Based on these design guidelines, we developed several meetingware prototypes for the target organizations. The prototypes, although tailored to the target organizations, have two components that are invariant from case to case. One is the component that manages the generic meeting structure (the meeting genre system). The other one is the component that supports genre management, allowing designers to specify genres, sub-genres, genre repertoires, relationships and systems. The resulting meetingware were validated with an informal approach: open discussions with users. In general, we got good feedback from users, with the identification of subtle problems with the meetingware and suggestions to improve the design.

We also investigated the role of genre analysis in improving the usability of meeting genres, in particular meeting reports. A case study showed that the genre approach improved the design of parliamentary meeting reports, producing documents that were better suited to the purposes of the target community.

This research work provides the following contributions to the design of meetingware. It adds an organizational dimension in the meetingware, showing that electronic meetings are not isolated but rather interconnected with other organizational genres. It shows that meetingware has a situated nature, where genres are tailored to the specific community of users. It introduces a lifecycle view of electronic meetings, where meeting information produced in the past must be integrated in present meetings. The proposed solution focuses more on patterns than processes, avoiding formalized work and stressing flexibility. Finally, the digital artifacts produced by the design solution reflect the underlying genres and genre systems and thus preserve many contextual cues and explaining factors about work in meetings.

10. ACKNOWLEDGMENTS

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