



Fitting EMS to Organisations

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ABSTRACT

A major purpose of an electronic meeting system (EMS) is recording data, which allows the production of an immediate and unbiased report. But reports produced by commercial EMSs have some weaknesses that make difficult the organisational integration of meeting results. In order to contribute to the solution of this problem, it was developed a new system supported in the concept of communication genre and genre system. A prototype was implemented and used in corporate environment. Preliminary results from its application showed that this approach contribute to a better fit to organisational needs than the traditional EMS.

1. INTRODUCTION

The concept of genre had its genesis in the literature. In that context, a literature genre considers a category of literary works that, having the same fundamental purpose, will present similar structure and will obey to similar norms. Its systematic study started with Plato, in the Republic, and Aristotle, in the Poetic, that sought to typify the literary works according to its common characteristics. During centuries, this concept was used either as mere form of organising the literature either as a way of imposing rules to the literary creation. Consequently, it originated so much strong oppositions as staunch defenders. This concept passed then for other areas of the artistic creation, like the movies and the television. More recently, it was incorporated in the organisational context (Yates and Orlikowski, 1992).

A major purpose of an electronic meeting system (EMS) is to record data, allowing the production of an immediate and unbiased report. But those reports have some characteristics that can be seen as weaknesses in the perspective of the organisational integration of meeting results. It means that its characteristics make difficult the flow of information from the meeting to the rest of the organisation.

- Those reports are a digital replica of a printed reports, it means that some of the features supplied by multimedia are not presented in those meeting reports.
- Most of the reports are even longer than the printed ones, being even more difficult to "read" either by humans or by machines.
- Those reports are not adjusted to a specific target (specific process, department, agent or system).
- The meeting reports are not integrated with context or support data. It means that there are a great quantity of information related to a meeting that typically does not appeared in the final meeting report.

In order to answer those and contribute to the answer the problem of organisational integration of meeting results it is presented here a solution based in the concept of communication genre and genre systems. After a brief literature review related to the communication genres, the solution is here presented and prototype produced is also described, as well as its use in an organisational context.

2. LITERATURE REVIEW

Genres of organisational communication are socially recognised types of communicative actions that are habitually enacted by members of a community to perform particular social purposes (Yates and Orlikowski, 1992).

Linked to the concept of genre are concepts like repertoire of genres and genre systems. In fact, the set of genres routinely enacted by a particular community form what can be called a repertoire of genres. On the other hand, genre system is a complex web of interrelated genres where each participant makes a recognisable act or move in some recognisable genre, which them may be followed by a certain range of appropriate generic responses by others (Baserman, 1995).

Communication genre proved to be a very useful concept in the analysis of organisation communication. (Orlikowski, W; Yates, J; 1994; Yates, J; Orlikowski, W.; 1992). In fact, it was used in several organisational areas with the purpose of making the diagnosis of communication. It was used with the purpose of analysing groupware (Orlikowski, W; Yates, J; 1998), in the analysis of Internet documents (Crowston K.; Williams, M.; 1997) or in the analysis of meetings (Yoshioka T.; Yates, J.; Orlikowski, W.; 2000)

The use of genre was complemented with concepts like decomposition and specialisation, in order to create more integrated frameworks to analyse organisational communication. (Yoshioka, T. and Herman, G, 1999).

The emphasis has been put in the analysis, but this concept may also play an important role in the production of new or improved artefacts. For example, it was used to redesign documents supported by electronic document management systems (Tyrväinen, P.; Päiväranta, T., 1999). In this context, it was verified that organisational document genres and genre systems should be systematically rethink in collaboration with information systems specialists, organisation designers and domain experts. Some authors also used the concept of genre to produce better WebPages and network applications (Shepherd, M.; Watters, C., 1999). Some authors also propose genre as the principal object of design for new media (Agre, P., 1998).

The concept of communication genre is widely used and by many media (Agre, P., 1998), this is a reason because there are a number of competing definitions of genre, and discussions about what actually constitutes a genre.

Miller, 1984 defines genre as "typified rhetorical actions based in recurrent situations". It means that a communication genre implies not a single document or other communication artefact but a stream of them. It implies a community of users, composed of a particular sort of audience and a particular sort of activities, as well as a relationship between the producer and consumer of the mate-

rial in question (Agre, P.; 1995).

Swales, 1990 emphasises the role of communicative purpose. In this context, a collection of communicative events becomes a genre due to a shared set of communicative purposes. These purposes are recognised by the discourse community owning the genre. A discourse community is a group of people linked together by occupation, working premises, special interests or with some set of shared knowledge, possessions and behaviour.

Miller, 1984 suggested that genre may be defined at different levels in different cultures in different times, depending on how the recurrence of rhetorical situations is viewed. For example, the business letter may be a genre at one point in time, and at another moment be more general and be transformed in a kind of super-genre assembling discourses. Yates and Orlikowski, 1992 propose the notion of sub-genres. For example, the positive recommendation letter would be a sub-genre of the recommendation letter.

Bhatia regards sales promotional letters and job application letters as belonging to the same genre, the promotional genre. This is due to the similar purpose of these letters. A promotional letters and job applications are aiming to obtain a specific response from its readers (to buy the products or to call the applicant for an interview). However, sales promotion letters and job application letters are two well-established names of different types of letters in the discourse communities where they are used. This situation may be the result of Bhatia mistakenly equating communicative purpose with the linguistic notion of communicative function. At this point, some authors make confusion between speech acts and genre purposes, neglecting the role of the community of users as true definers of communication genres.

While some authors emphasise the importance of the form others emphasise the purpose, there are also other authors that propose additional concepts to characterise genres, like functionality (Shepherd, M.; Watters, C., 1999). According to those authors, the use of this concept helps not only understand the influence of the Internet as new medium, but it also helps to use genre effectively in the design of computer and network-based applications.

Based in this important perception, it was developed a system based in the concept of communication genres and genre system.

3. USING GENRES TO SUPPORT MEETINGS

Based in the concepts of genre and genre system, it is proposed here a meeting support system. A repertoire of genre systems embedded in the system is used to help the participants of a meeting session. In the meeting process, the interaction between agents through genres is processed in the way that is described in the following figure, where the interaction between users and genres is made through artefacts, like proposition letters, acceptance memos, calls, meeting agendas or meeting sessions.

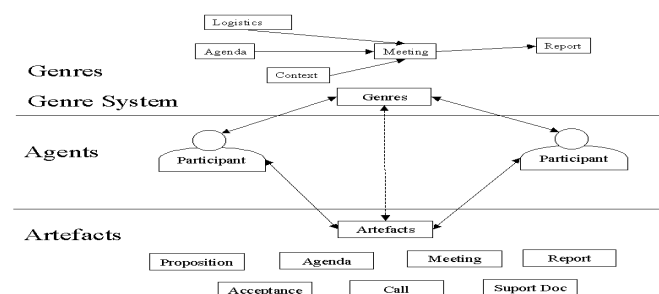


Figure 1 - Interaction between users and genre

Using a genre is just a phase in the genre life cycle. In fact, the communication genre life cycle can be decomposed in creation, choice and use. This last phase can be decomposed in artefact production and artefact use.

1) Creation of genres

The genre creation is a social process that may take a long time. Typically, the artefact is produced with a purpose and is composed of a set of components. By producing several artefacts, sometimes there is the need of classifying them, consequently, genres are created.

Associated with a community of users, a repertoire of communication genres may be identified. As noticed by Agre, 1998, any kind of life involves the routine use of several genres. For example, tourism involves guidebooks, menus, street signs, timetables, roadmaps, phrase books, photos and postcard notes back home.

2) Choice of a communication genre

The choice of a communication genre depends on the situation. Typically, associated to each situation there is a set of communication genres that compose a genre system. Like in the tourism example, there is a system of genres, composed with a set of genres. Each genre is enacted according to a pre-defined order but some events may also contribute to change this order. In an annual general meeting (AGM) of an enterprise, a meeting agenda has the same structure most of the times, the same support and context documents (profit and lost accounts, balance sheet, management report and auditor report) and the same expected results (approval of the financial statements and instructions to the accountancy). But some genres may be enacted according to the approval, or not, of the financial statements. If there is profit or losses, the resulting genre produced may also be different. Therefore, in a particular meeting there is a specific communication genre associated with it, but according to decisions taken during the meeting session, or some external factors, other genres may be used.

3) Using a communication genre

The use of a communication genre consists in the production of an artefact (e.g. book, software or leaflet) based in the genre template and also in the use of the artefact (reading or listening). In fact, in opposition to literature genres where there is a clear differentiation between producers (e.g. novel writer) and consumers (novel reader) of the artefacts (book) which are the support of the genre (novel), in the organisational communication everybody may be producer and consumer of memos, meetings or reports.

1. SYSTEM DESIGN

Based in the concept of communication genre it was created a software system to support the meeting process. This system was implemented in the web (with HTML, Javascript and Perl). The processes, which are supported by the system, are:

- Analysis process, where it is made the identification of the repertoire of genre and genre systems. This process is related to the genre creation phase in the genre life cycle.
- Planning process, where it is produced the plan of the meeting, by choosing communication genres and genre systems among the repertoire of genres. This process corresponds broadly to the choice of communication genre in the genre life cycle.
- Meeting session process, where the meeting is performed. In this process genres are used.

In order to understand the system it is presented the data structure that supports the analysis process as well as what was called the "genre system mechanism". Finally it is described when

users and specially facilitators choose the communication genres and genre systems.

In this analysis process, it is made the identification of possible organisational situations in which users identified what genres they expect to use. In this process the community of users is asked to participate in the identification of the repertoire of genres and genre systems. They may also participate in the process of change of genres and genre system repertoire if needed. This information is stored in order that in the future all this information could be easily changed or used. The system produced to support the phase meeting of analysis process is beard a database structure based in the class diagram presented in Figure 2.

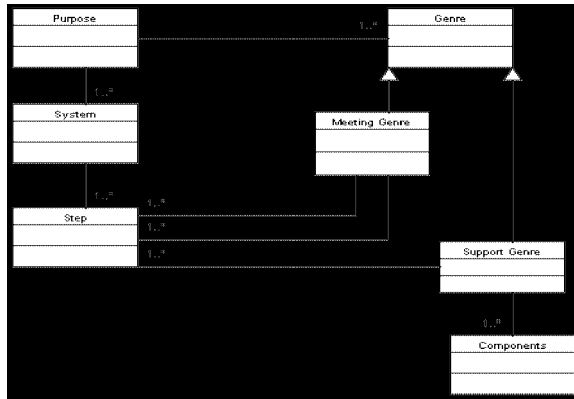


Figure 2 - Class Diagram

After using a functionality that supports the analysis process, users have a repertoire of genre and genre systems that can be used in a specific situation. It means that by having all this information stored in a database, there is a repertoire of communication genres and a genre system, ready to be used in the meeting planning process. Here, the concept of communication genre is supported mainly in forms, help menus and context description. With all this elements, artefacts are produced. Among those artefacts there are agenda, agenda items, meeting sessions, decisions or outcome statements

The “system mechanisms” is the structure of the genre system linked to a specific meeting session or repertoire of meeting sessions. As long as the “system mechanism” is nuclear in the implementation of the genre system, it is broadly described in the following paragraphs.

The system mechanism used in the system is presented in Figure 3. The agenda item (A_1) is used to plan the meeting issue or meeting decision (M_1). To support this meeting issue there is additional information (C_1 to C_{j-1}). As result of the meeting process, one or all of the expected results may be produced. Possible results are O_1 to O_{k-1} . Results produced may be incorporated in the next meeting issue (M_2) or included in the support data (C_j , C_j , C_1 , etc.).

O_1 to O_{k-1} includes all the possible results produced in meeting issue M_1 . It includes the most likely results if M_1 is decided, the most likely results if M_1 is not decide and the less likely but possible results.

Those possible results are defined when the analysis process is performed. Then, the expected results are defined when the issue is planned (A_1) and more strictly defined during the meeting (M_1).

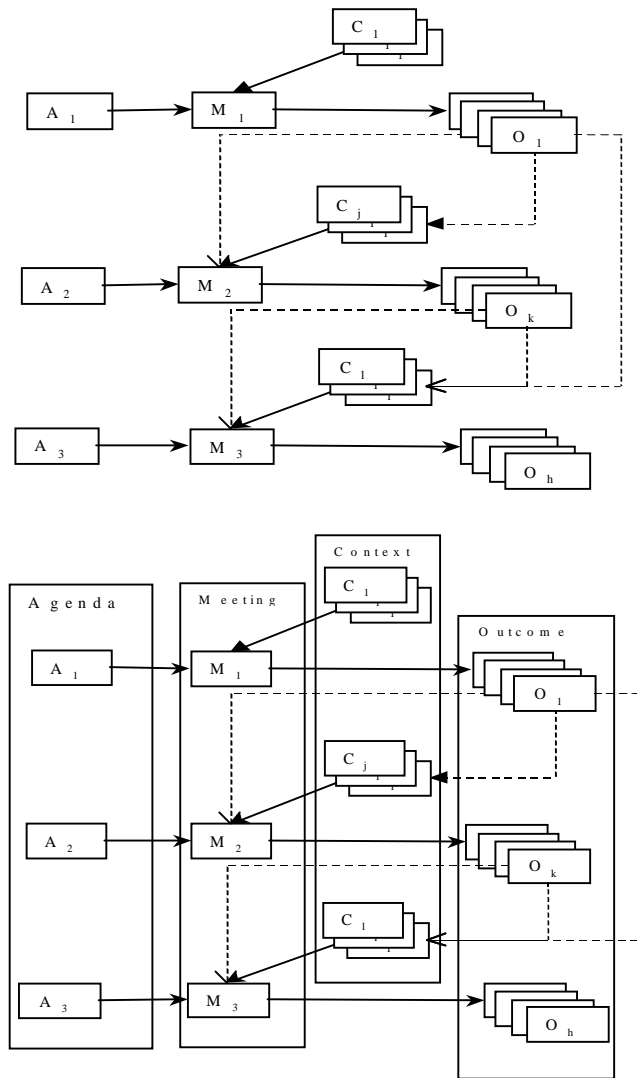


Figure 3 – “System mechanism”

After describing the data structure and the “system mechanism” it is also important to describe how, and specially when, the communication genres and genre systems are chosen in the meeting process.

Having as basis a repertoire of genre systems and a repertoire of genres, users and specially the meeting facilitator chooses the genres in several moments:

- during logistics process the most adequate meeting systems are chosen;
- agenda definition consists in the identification of a meeting system as well as each communication genre for each moment;
- some times the agenda must be redefined, so the meeting system or each one of the communication genres may be changed;
- decisions taken during meeting, more specific outcome genre are defined, as well as context genres;
- even after the meeting and according to type of decisions, some outcome genres may be changed.

In conclusion, the system developed supports the analysis process, meeting planning process and meeting session process. In the analyse process, users identify the repertoire of communication genres they use or need to use in a meeting process and then store (through a HTML interface) all this information in a database (Figure 2). In the meeting planning process, the facilitator (or the

group of participants led by the facilitator) chooses the adequate communication genres to plan a meeting. In the prototype developed, this process consists in the production of HTML forms and Perl script. Behind this, an important tool was the “system mechanism” already described. Finally, during the meeting session, participants are supported by the system to produce results.

1.EXAMPLE

The system described before was used in a small accounting firm, with the purpose of supporting annual general meetings (AGMs) and extraordinary general meetings (EGMs). In this context it was produced the repertoire of genres and genre systems presented in the Figure 4. This repertoire of genres was obtained by interviewing accountants and also by consulting legislation.

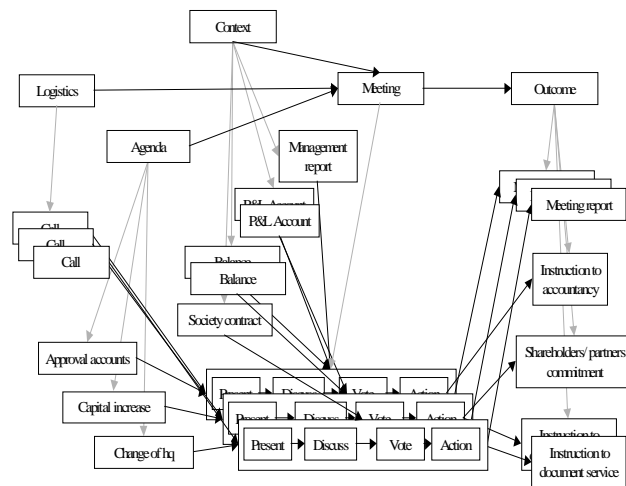


Figure 4 - Meeting Genre System Repertoire

For illustrative purposes, it is presented here the meeting for financial statement approval. This is already a specific genre system belonging to a repertoire of genre systems

This genre system is chosen when, in the first quarter of the year, financial statements of the last economic year must be approved. Then, based in this information, it was created a system architecture (Figure 5).

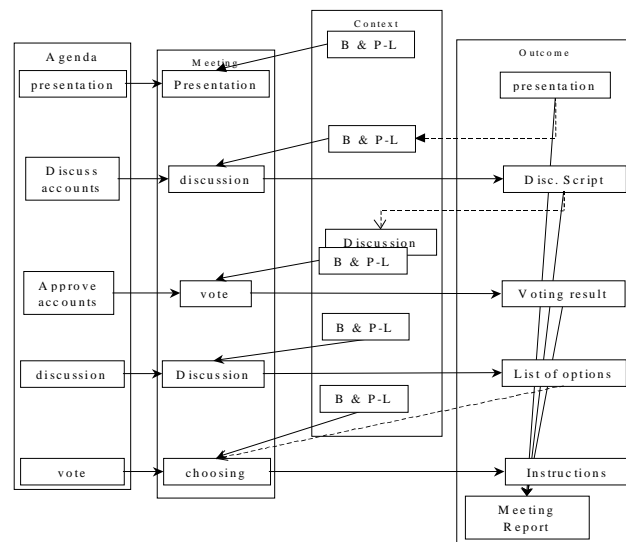


Figure 5 – Implementation of an AGM genre system (a schema)

Then it was produced a prototype that implements this AGM genre system (Figure 6). As it was mentioned, this prototype was developed in HTML, Javascript and PERL. The figure shows the screen that the participants use during the meeting session. This screen is composed of an agenda, a set of tools to support the actual task (decision) and links to support documents (profit and losses account, balance sheet) and help/comments. It also may show images of the other participants, a feature especially important in a distributed environment. The facilitator screen is a more sophisticated one because he has the possibility of leading the group by locking some tasks (e.g. items of the agenda), changing the agenda, or handing out other documents.

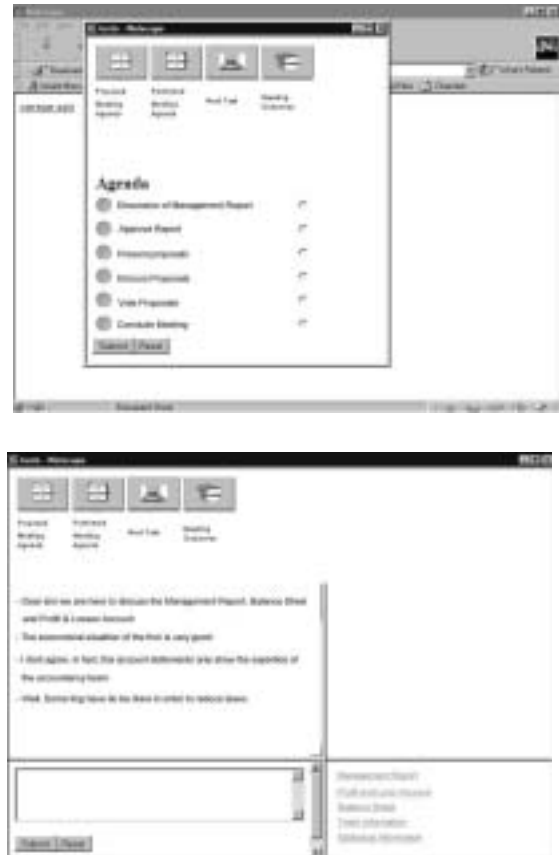


Figure 6 – Implementation of an AGM genre system (a prototype)

Deducing from statements, several decisions may change the initial genre system. Supposing that financial statements are not approved. In those circumstances other kind of decisions must be taken, instead of deciding what to do with profits.

1. PRELIMINARY RESULTS

At this moment, a formal evaluation of the system developed was not performed yet. The system was implemented in a small accounting firm to support the process of production reports by the annual general meetings (AGMs) and extraordinary general meetings (AGMs). Through the use of the system some observations were already collected.

It was found that performance of the server and databases employed were modest, what made the process slow and the interaction between users was affected. But, because of the existence of a clear agenda that everybody could follow it was noticed that

participants did not spend time in accessory subjects. It was also noticed that results produced were much clear to the accountants, as long as in addition to the meeting report it was produced a specific document to the accountancy.

By comparing this system with some commercial EMS already used by the participants it was found that this one was more adjusted to the specific situation but less flexible. In fact, the production of the repertoire of genres is a process that takes some time.

The use of HTML and Javascript for the interface with users was also an advantage because it was possible to make little changes very easily. Those changes on the interface were made according to the needs or preferences of the users, in order to facilitate the introduction of the system. Some of the changes were the following: changes in colours, the use of the trademark of the client or the use of an additional window or frame.

This preliminary evaluation consisted in the reporting of user opinion about the system. At this moment it is possible to classify opinions according to some categories: performance of the system, flexibility, perception of fitness to the activity, participants' interface, ease of understanding results and ease of converting results to the other processes.

2. CONCLUSIONS

Electronic meeting systems have some weaknesses that make difficult the organisational integration of results produced during the meeting. In order to deal with this problem, it was developed a new system supported in the concept of communication genres and genre systems.

This system supports (1) the identification of a repertoire of communication genres and genre systems; (2) the planning of a meeting session by choosing specific genre systems; and (3) the use of a specific genre system in the meeting session and post-meeting phase of the meeting process.

A prototype was implemented and used in a corporate environment. This system proved to be more adjusted to specific situations, but less flexible than commercial electronic meeting systems (EMS). In fact, this system can better fit in the needs of the organisation than other EMS also tested in the same organisation. But, the process of analysis needed to identify and produce or enlarge the repertoire of genres or genre systems takes a longer time compared to the meeting planning process in others electronic meeting systems.

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