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Participants as a Useful Aspect of Genre Analysis

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Abstract

In this paper we analyzed an online community based on a mailing list that was created as an internal marketing tool for launching a new network service. We focused on the change in communication over time among dispersed Sales representatives and the employees in a centralized Service Department. We conducted a genre analysis based on content (what), purpose (why), timing (when), form (how) and participants (who communicates to whom) (Yates and Orlikowski, 2002). Analyzing the participants in a genre and how those participants changed over time highlighted a shift from centralized to dispersed, peer-to-peer communication in this community. We highlight implications both for genre analysis and for organizational practice.

Introduction

In this paper we look at how a relatively informal communication channel based on a mailing list created an online community in a company and how communication in that community evolved over time. As online communities have proliferated in recent decades, they have drawn considerable attention among researchers and practitioners (Herring, 1999; Murray, 2000; Rheingold, 1993; Lewis and Knowles, 1997). In this paper we use the term 'online community' as any virtual social space where people come together to get and give information or support, to learn, or to find company, although we recognize that there is controversy regarding the term and that there is no accepted definition (Preece, 2001). Much research in this area has focused on publicly accessible online communities of interest that cross organizational

boundaries (e.g., Baym, 2000), since they are most readily available for analysis. Yet online communities also exist within organizational settings. Some companies have already incorporated online communities into their daily work. For example, a product development team in a Japanese firm adopted a Usenet-based system, adapting it over time to support their development effort (Orlikowski et al., 1995). Based on ethnographic research about the work of customer service engineers, researchers at Xerox Corporation built the Eureka online system to support and improve knowledge sharing over time among repair technicians (Bobrow &Whalen, 2002). Even though most companies have informal, IT-supported networks that cross organizational boundaries in their work setting, relatively little research has been conducted on the role of online communities within a company (Bobrow & Whalen, 2002; Füller et al, 2004; Orlikowski et al, 1995; Quan-Haase & Wellman, 2005). Füller et al. (2004) indicated the importance of community-based innovation and suggested a method for using the existing innovative potential of online communities by integrating its members virtually into new product development. Quan-Haase and Wellman (2005) applied social network analysis to investigate a computer-mediated community in a software company and made visible the actual lines of communication within departments, between departments, and outside of the organization in order to understand how a collaborative community is maintained online and offline. As they pointed out, more studies are needed that examine online communities in the actual business context, rather than analytically isolating them. Little attention has focused on the changing role of an online community in an organization over time.

In this paper, we examine use of an online community in the launching of a new business in a company that already had an incumbent business. Such a company faces a challenge if it wants to roll out a new type of product or service using its existing sales channels (Westerman,

McFarlan, & Iansiti, 2006). More communication is needed to resolve hitherto unexplored issues. A list-based online community, we found, played a useful role in supporting the launch of a new business.

In this paper, we use genre analysis (Yates and Orlikowski, 1992; Orlikowski and Yates, 1994; Yates and Orlikowski, 2002) to understand the changing communication in this community over time. We focus particularly on *participants, that is, who communicates to whom* (who/m) to illuminate subtle variations and shifts in the qualitative nature of the discourse and how participants' particular knowledge and powers shape the genres. Communication and organization researchers have looked at the relationship among different players in communications, including through social network analysis, to identify the structure of communications and to consider the meaning and performance of a communication network or structure (Cross and Cummings, 2004; Quan-Haase and Wellman, 2005). Examination of the role of participants is quite rare in genre research, however.

In the following section, we'll review relevant research about genre analysis of organizational communication and justify our approach and focus. We will then explain the site and methodology for our study. The heart of the paper presents the results of our analysis: the genres and genre systems identified and their changes over time, including the intriguing shift from centralized to peer-to-peer communication. In the subsequent section, we explore implications of our results for genre researchers and for practitioners.

Genre research

Scholars have used *genre* as a lens for analysis and design in a variety of organizational communication (Orlikowski and Yates, 1994; Yates and Orlikowski, 1992; Yates, Orlikowski,

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and Fonstad, 2001; Yates and Orlikowski, 2002) and information systems research (Crowston and Williams, 1997; Ihlström and Henfridsson, 2005; Karjalainen et al., 2001). Yates and Orlikowski (1992) introduced the notion of genres, or socially recognized types of communication into the organizational literature a decade and a half ago. They showed that assuming communication is embedded in social processes, rather than the result of isolated rational actions, was useful in the study of organizational communication. They characterized genres based on socially accepted purpose, content, and form (with purpose the leading characteristic). They also found the notion of *genre systems*, series of interconnected genres comprising a social activity (Bazerman, 1994), as an especially useful lens for studying interaction because it focuses on how people use communicative actions to coordinate their activity over time and space, as in the peer reviewing of papers for a journal or conference. In addition, they proposed the notion of a group's *genre repertoire*, the set of genres used by that particular group, and argued that it can reveal a rich and varied array of communicative practices that characterize the group and its work (Orlikowski and Yates, 1994).

In a more recent paper (Yates and Orlikowski, 2002), they elaborated the framework for studying genre and genre systems beyond the traditional dimensions of purpose (why), content (what), and form (how), noting that genres and genre systems are organizing structures that also provide a community with expectations about participants involved as both initiators and recipients of communication (who/m), timing (when), and place of communicative interaction (where). To our knowledge, this elaborated framework has not yet been used systematically in any empirical studies. Yet the added dimensions illuminate additional expectations that accompany genres and genre systems. In particular, the participants or who/m dimension may add to our understanding of genres of organizational communication, for example, by

highlighting who has the authority or privilege of initiating particular genres or genre systems and who can only play a receiving role in such genres. Only a few studies using genre analysis (Yates, Orlikowski, and Fonstad, 2001; Yoshioka, Yates, and Orlikowski, 2002) have considered the roles of the different players at all, and then typically only in a limited way.

We adopt this elaborated framework in studying change in genres over time in the online community. The temporal dimension, when, is captured in the analysis over time. The spatial dimension is all on a particular mailing list. Thus we focus particularly on the who/m dimension, or participants in various genres and genres systems, which allows us to highlight a key development in the communicative practices of employees in different occupations and organizations of the company—a move from centralized to peer-to-peer communication.

Research site: Online community related to the introduction of a new business

The case we explored was at a Japanese manufacturing company (the Company) that already had a well entrenched business based on hardware sales. In late 2002 a service development department (the Service Dept.) in the Company launched a new business (which we call 'the Network Service' or 'the Service'), a secure internet connection service including access to hardware, software and consulting. The Service Dept. tried to sell this new service through Sales representatives at the Company's existing, geographically dispersed sales subsidiaries (Sales). Because the Network Service was a novel business for the Company, most people in Sales did not initially have the skills to sell it to their customers. Their customers also did not expect the Company to offer such a network service. Thus, in addition to conducting general marketing and advertising, the Service Dept. needed to conduct internal promotion and provide an educational program to enable Sales representatives at the subsidiaries to sell the Network

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Service. This program helped Sales to understand the Service better, improve their skills, and improve processes and practices between Sales and the Service Dept.

Even before the Service Dept. announced the Network Service to their customers, they established a Community Mailing List (CList) as part of the educational program aimed at Sales. CList was initiated to cultivate communication between Sales and the Service Dept., and, secondarily, among Sales representatives. While employees in the Service Dept. used CList to announce formal organizational information to Sales, such as the release of a new function in the Service or the establishment of a new organizational procedure around contracts or accounting, CList was generally a fairly informal communication channel. The list participants discussed and shared information related to the Network Service without any restrictions. They discussed how to sell the Service, how to solve technical problems related to it, and how to improve their back office procedures both before and after selling it. They shared and discussed information about the emergence of competitors and trends in the networking industry. The Service Department sometimes used it to discuss problems or ideas about the Network Service itself directly with Sales.

Data and Methodology

The messages posted to CList over four years constitute our primary data for this paper. We supplemented the primary message data with interviews, documents, and a questionnaire. In this section we first describe the CList data and how it was coded, then turn to the supplementary data.

CList data, coding scheme, and genre analysis

Table 1 shows the profile of the CList, including the time period, the number of participants, the cumulative number of posters, the number of messages, the number of replied

messages (messages that received at least one reply). The number of participants is based on the latest list of the members of the CList at the time the study was begun.[1] The number of posters is based on actual counts from the message logs. Although the employees in the Service Dept. made up only 3% of the participants, they posted 23% of messages, reflecting the fact that the Service Dept. regularly posted official announcements to the otherwise primarily informal CList. Figure 1 shows activities in the CList during the time period studied.

[insert Table 1 and Figure 1 here]

The messages in CList for this period were then coded according to a scheme developed to capture aspects of genre. We developed a manual coding scheme for content (what), purpose (why), and form (how), as described below. Data on participants (who/m) and time (when) were coded automatically from header information. Members of the Service Dept. were in one location and members of Sales were geographically dispersed in multiple sales subsidiaries. Location information other than that captured by department was judged not to be relevant in this study.

Based on prior research in the field (Orlikowski and Yates, 1994), we established a preliminary manual coding scheme for content, purpose, and form. Coders could identify one or two categories for content or purpose, and as many as appropriate for form. We trained three coders in this scheme and did a small trial sample. Based on this sample, we revised the scheme slightly and conducted further training. After two more trials, we attained a level of agreement that allowed us to stabilize the coding scheme. We tested this scheme for inter-rater reliability using a sample of over 10% of the messages (256 messages). As Table 2 shows, all of the

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[1] A few individuals who had been members of the CList and even posted on it earlier in the period had moved to other departments and were not members of the CList at the end of the period.

categories had agreements over 0.6, and all but one over 0.7.[2] We then manually coded all 2269 messages.

[insert Table 2 here]

To give some sense of the resulting data, the coding results about content (what) and purpose (why) are shown in Figures 2 and 3. The vertical axis in Figure 2 and Figure 3 shows the ratio of the number of messages including each type of content and purpose to the total number of messages in each fiscal year. We used fiscal years starting in April and ending in March, as that is the time period used in the Company for planning and execution.

[insert Figures 2 and 3 here]

In performing a genre analysis on the coded data, we started by looking at the five content areas (what) that we had discovered in the messages as we developed the coding scheme—technical matters, sales, formal information, competitor information, and industry trends—and identifying genres and genres systems related to each. Following previous literature in this area (Orlikowski and Yates, 1994; Yates and Orlikowski, 2002), we took purpose (why) and content (what) as the leading characteristics of a genre, with form (how) and participants (who/m) as secondary characteristics that might change over time (when) within essentially the same genre.[3] Within each of the five content areas, we explored which purposes were used most frequently, counting up the number of purpose/content combinations used in each fiscal year and calculating the ratio of the messages with any particular combination to the total number of messages posted in each fiscal year. We focused on combinations that accounted for at least 5%

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[2] We depended on Landis and Koch's (1977) benchmarks for assessing the relative strength of agreement, which are as follows: Poor (< 0), Slight (.0 - .20), Fair (.21-.40), Moderate (.41 - .60), Substantial (.61 - 80), and Almost Perfect (.81 - 1.0). By this standard all our categories had either Substantial or Almost Perfect agreement.

[3] None of the hand-coded form categories ended up being important to the story, though one automatically coded form feature (response to previous message) did reinforce the why coding.

of the total messages except for some combinations including competitor and trend information. While these two content areas had less than 5% of the messages in total, we had learned from the questionnaire and interviews that they were considered particularly important by list members. Consequently, for these, we analyzed the combinations with a relatively high percentage compared with others in the same coding category.

Interviews, questionnaire, and documents related to the Service

The supplementary data came from several sources. We conducted semi-structured interviews ranging from 1.5 to 3 hours with 10 employees in the Service Dept. and 20 Sales representatives in order to get an overview of the Network Service business and the usage of the CList and other communication channels. We collected relevant internal documents in the Service Dept. and Sales in order to understand past events, strategy, and sales outcomes. We also conducted a web-based questionnaire, described in more detail elsewhere [reference suppressed], to investigate how members of the Service Dept. and Sales used seven communication channels (three mailing lists, the largest and most inclusive of which was CList, two call centers, conferences, and newsletters intended to be posted on a wall) in launching and selling the Network Service. The targets of the questionnaire were the 1451 Sales representatives[4] enrolled in the CList, and we achieved a response rate of 36.2% (525 respondents). The self-reported usage of the seven communication channels between the Service Dept. and Sales for each topic in each year is primarily used elsewhere, but we refer to this data occasionally in order to motivate our approach to, or interpret the results of, the genre analysis.

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[4] The questionnaire was sent to all sales representatives, but not to sales staff (e.g., secretarial assistants) who were included on the CList but who never posted to it or really used it themselves. Eliminating staff reduced the 1564 members of the CList to 1451 members receiving the questionnaire.

Results

Our genre analysis helped us to identify genres or genre systems for each content

category: in technical matters, technical queries and responses; in sales, sales queries, responses,

and announcements; in formal information, official announcements; in competitor information,

competitor queries and responses; and in industry trends, trend announcements. In the following

sections, we present each genre or genre system, then analyze its change over time.

Technical queries and responses

Sales representatives frequently posted technical queries (purpose: query; content:

technical) about configurations, compatibility, and capabilities of the Network Service to the

CList. For example, one Sales representative posted the following:

> I'd like to know the compatibility of [a specific communication protocol] with the Service.
> This is one of the conditions that our customer asked me about. But, I don't know what it
> is at all. (12/10/2002)[5]

Such a query could be answered in a technical response (purpose: respond; content: technical) by

someone in the Service Dept., or by another Sales representative (who/m). In this case, the

query was answered by a top technical manager in the Service Dept., who said, in part, the

following:

> In conclusion, there is no limitation of using this protocol with the Service. For your
> information, I will write down how the Service handles it in terms of internal technical
> mechanism. (12/10/2002)

Together, the query and response form a genre system of technical queries and responses. This

particular instance of the genre system can be classified along the participants (who/m)

dimension as SR-SD (an interaction between a Sales representative and the Service Dept.). In

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[5] All messages cited are translated from the original Japanese, and proprietary details are disguised.

such interactions about technical information, the Service Dept. typically gave a theoretical answer to the query, based on knowledge of the internal technical specifications of the Network Service that they developed, even though members of the Service Dept. had never tested the protocol in the customer environment.

This technical query/response genre system was also enacted solely among Sales representatives (classified on the participants dimension as SR-SR), and with an important qualitative difference. For example, a Sales representative made the following query, clearly aimed at his peers in Sales:

> One of our current customers using the Service is interested in making a contract for using an optional function of the Service, which can be used with a mobile phone. Does anyone have the same case where your customer used this function with the following mobile phone service provided by company Z? (8/23/05)

He received a very helpful response from another Sales representative, who said:

> My co-worker actually tested this mobile phone with our service when the mobile phone service was started. We found that it is completely compatible without any trouble (8/23/05).

In this variant of the genre system, in contrast to the SR-SD version of the genre system, other Sales representatives' answers typically gave real examples, in which their customer actually used the Service in the same or a similar environment. Both types of interactions were, of course, useful to Sales representatives who wanted to propose the Network Service to their customers, but they are qualitatively different and could be used by the Sales representative in somewhat different ways. Thus identifying the two genre variants along the participants (who/m) dimension adds to our understanding of the interactions.

The SR-SR variant of the genre systems also turned out to have some unanticipated positive benefits for the Service Dept. and ultimately for customers because the exchanges

sometimes helped identify a technical problem within the Service. For example, in several

instances when a Sales representative responding to a technical query indicated a problem under

particular settings or in particular customer environments, the Service Dept. initially assumed

that the problem was specific to the customer environment and unrelated to any problem with the

Network Service itself. However, after a few other Sales representatives also responded to the

query, pointing out the same problem under the same or similar conditions, the Service Dept.

started to investigate and eventually identified and solved the underlying technical problem.

Even though the Service Dept. provided a specific formal channel for gathering technical

problems from Sales (one of the Help Lines), that channel did not allow for sharing the problem

among different Sales representatives. The sharing of technical information among Sales

participants in CList in some cases encouraged the emergence of new information useful to the

Service Dept., as well as to those involved in the exchange. Indeed, the top technical manager

often decided to go to a customer site based on the customer's needs as revealed in the CList. A

similar positive consequence occurred around customers' needs for additional functionality in

the Service. When Sales representatives used technical queries and responses to discuss the

needs of their customers among themselves, Service Dept. members of CList could consider

implementing functions responding to those needs.

Looking at technical queries and responses over time (when) and taking into account the

participant (who/m) variants (SD-SR and SR-SR) provides additional information. As we can

see in Figure 2, the number of messages including technical information decreased from F2002

to F2004, then increased somewhat (though not to their original level) in F2005, when a new set

of technical features were introduced. Figure 4 shows that the two genres of technical queries

and technical responses followed a similar pattern (except for a slight increase in responses in F2003) if we ignore participants.

[insert Figures 4 and 5 here]

When we take participants (who/m) into account, however, an interesting new pattern emerges. Focusing on responses to technical queries initiated by Sales representatives only, Figure 5 shows that the technical responses could come either from the Sales Dept. (SD) or from other sales representatives (SR). Figure 5 breaks down the technical responses to queries initiated by Sales representatives by their sources (SD or SR), showing an interesting shift over time. In the first two years, responses to Sales representatives' queries about technical information were more often answered by the Service Dept. than by other sales representatives, but in F2004/2005, Sales representatives were more likely to respond than members of the Service Dept.

Over time, then, the genre system of technical queries and responses shifted from being used predominantly for interactions between Sales and the Service Dept. (SR-SD) to being used predominantly for interactions among Sales representatives (SR-SR). Sales didn't understand the nature and purpose of the Service early on (especially in F2002) since it was technically different from the established products and services of the company. It is not surprising that employees in the Service Dept were most able to respond to queries then. By F2004, however, responses to sales representatives' technical queries more often came from other Sales representatives than from the Service Dept. That is, the genre system of technical queries and responses shifted from a centralized pattern in which the Service Dept. responded to queries from Sales representatives to a peer-to-peer pattern in which dispersed Sales representatives responded to technical queries from their Sales peers.

Based on reading the contents of the messages, we observed that Sales representatives

increasingly shared results of experiments about the compatibility of other companies' services

with their own Network Service. This type of information could not easily be provided by the

Service Dept. because there were so many combinations of the compatibilities that they could

not test all of the possible combinations in advance. Sales, however, had thousands of

implementations from which to extract favorable or unfavorable combinations in a 'real world'

environment. For example, the Company's Network Service could be linked to compatible

internet services provided by hotel chains through a specific function of the Service. Doing so

required knowing the compatibility of internet services in each hotel chain. A motivated sales

force started to share this availability in the CList, creating one example of the peer-to-peer

genre system of technical queries and responses.

Sales queries and responses

A similar genre system of queries and responses occurred around sales information

(what). Queries about sales were generated by sales representatives but could be responded to

by either the Service Dept. or by another Sales representative. For example, the following query

was generated by a Sales representative:

> Our customer in a bank is interested in the Service. Does anyone have an experience of
> proposing the Service to a bank? (7/22/03)

Although the query seem aimed more to other Sales representatives than to the Service Dept., a
member of the Service Dept. responded to it, as follows:

> That's a very interesting case for the Service. I'd like to directly help to give a proposal to
> your customer. Could you let me know the details? (8/26/03)

This instance of the genre system can be classified along the participants dimension as an SR-SD

interaction—that is, an interaction between the centralized Service Dept. and the dispersed Sales

representatives. In such interactions, the Service Dept. was eager to help, but had no direct

experience in selling the Service to this customer segment.

In other cases the response came not from the Service Dept. but from another Sales

representative, for an SR-SR variant of the genre system. For example, a Sales representative

posed the following sales query to CList:

> Does anyone have a case of proposing the Service to medical institution? They are
> interested in multiple connections using the Service in order to share medical records
> among the distributed offices. (11/30/05)

In this instance, another Sales representative responded, beginning with the following statement:

> I've provided the Service to a medical institution. They are very satisfied with the system
> we developed. (11/30/05)

Here, the Sales representative is able to respond out of direct experience, not simply out of

interest in the customer segment. In this variant of the genre system, other Sales representatives'

answers often provided directly applicable experience of selling to similar customers.

Again, both SR-SR and SR-SD interactions were useful to Sales representatives

attempting to sell the Network Service to their customers. But responses from the two different

sources differed in nature and could be used by the Sales representatives in different ways. The

experience-sharing that occurred in the SR-SR variant offered particular advantages to Sales

representatives, allowing them to learn directly relevant information from each other. The SR-

SD variant, on the other hand, was more likely to provide general guidance than specific

guidance based on real experience.

Turning to a longitudinal analysis of the genre system of sales queries and responses over

time and classifying variants on the who/m dimension (SD-SR and SR-SR) again provides

additional information. We have seen in Figure 2 that messages with sales-related content

increased from F2002 to F2004, and evened off in F2005. Figure 6 shows that Sales queries and

responses followed a similar pattern of growth from F2002 to F2004, followed by relative

stability in F2005. But if we focus on Sales representatives' queries and break down the

responses by type of participant (see Figure 7), we see an interesting new pattern. Service Dept.

responders outnumbered Sales responders in F2002. In F2003, both types of responses increased

in F2002, but responses by other Sales representatives slightly outnumbered those from the

Service Dept. In F2004 and F2005, responses from the Service Dept. rose slightly then dropped,

while responses from other Sales representatives kept increasing, considerably surpassing

responses from the Service Dept. in both years. In other words, queries from Sales were

increasingly responded to by others in Sales—the same change from centralized to peer-to-peer

communication we saw in technical queries and responses.

[insert figures 6 and 7 here]

There was little experience with sales information around the new Service in F2002.

Interviews and documentation reveal (and the questionnaire confirmed) that employees in the

Service Dept organized a face-to-face conference to promote the Network Service to sales

representatives and sometimes even accompanied them to a customer office to educate them in

sales features. Beginning in the second year, Sales came to believe in the potential of the Service

and started to gradually increase sales while learning the relevant skills or knowledge related to

the Service itself. While both questions about sales information posted by Sales and the number

of licenses for the Service sold rapidly increased in F2003, the responses to the questions were

still mainly posted by the Service Dept, as Figure 7 shows. Based on interviews, we know that

the know-how about how to sell the Service was still being transferred from the Service Dept to

Sales during this year, with the Service Dept going to the sales subsidiaries to educate the sales

force in sales and marketing techniques and knowledge. In F2004-F2005, however, Sales representatives were responding to their peers elsewhere in Sales more often than the Service Dept. was.

During that period, the Service Dept increased the number of internal marketing conferences for Sales from twice to four times per year and also launched a formal help center to sell the Service, but they decreased the number of visits to sales subsidiaries. These kinds of changes in the formal organizational structure were intended to increase the skills related to selling the Service as well as the number of Sales representatives selling it. Nevertheless, these formal channels did not capture much specific knowledge being accumulated by Sales representatives. When a Sales representative called the help center about whether or not a similar sales case was in its database, the staff of the center often suggested that the representative check in CList messages for F2004-2005.

In addition, sales representatives used CList to discuss how they could sell the Service to customers that they had never approached. For example, a motivated sale representative posted a plan to conduct an experiment confirming the compatibility of the Service with a mission critical server provided by another company. He asked the participants of the CList about additional experiments they were interested in. Another Sales representative asked about details of this experiment in order to refer to it when he proposed the same combination to his customer. By conducting this experiment and sharing its results, the Sales representative thus created a new target for selling the Service, a target that became a popular sales pattern especially for middle-sized customers who had such a mission critical server.

This kind of information could not be provided by the Service Dept. because it lacked a formal communication channel to gather information about their customer's environments, even

though they had one to gather past sales records as best practices. Thus Sales representative

often were better equipped to create ideas of how to sell the Service under a specific

environment than was the Service Dept.

Formal announcements

The Service Dept, as the organization in charge of the Network Service, provided formal

information such as news releases announcing a new function, an organizational change, an

implementation of the formal system that could support back office procedures between the

Service Dept. and Sales, and events or sales promotions. Such announcements sometimes

contained related requests, as well. A genre rather than a genre system, formal announcements

by definition were one-way communications from the Service Dept. to Sales. That is, only the

Service Dept. was empowered to make official announcements. For example, one such

announcement was as follows:

> As we've already announced the new function on this list, we have a plan to update the
> information about it on the intranet as follows:[…]. (3/7/2003)

Another announcement of a planned service stoppage offered the opportunity to respond if they

foresaw problems:

> We have a plan to stop the Service just for 10 minutes in order to update it. If you have
> any requirement and concern about the date/time for stopping the Service for your
> customer for some reason, could you let us know? (12/0/04)

Typically, however, announcements received no responses over CList.

As Figure 8 shows, these formal announcements peaked in F2004, a peak probably

related to the release of many new, optional services. Because this genre is composed of one-way

announcements from the centralized Service Dept., analysis by participants does not reveal any additional information or changes over time.

[insert Figure 8 here]

Competitor queries, responses, and announcements

Even though the total number of messages including competitor information is small (83 messages), one of the important roles of the CList, based on the results of the questionnaire described earlier, was to exchange competitor information.[6] In particular, the genre system of competitor queries and responses, though small, was important to CList users. Competitor queries from Sales representatives could ask advice on how to deal with particular competitors. For example, one sales representative asked:

> Our customer asked me about the difference between our Network Service and a service provided by another company. If you were me, how would you explain in order to clarify the difference? (6/14/04)

Another Sales representative responded, in part, as follows:

> I will provide you a fundamental comparison between them. I believe that it [the comparison] will help you to persuade your customer to choose our service. […] (6/15/04)

Responses could also come from the Service Dept. In another example, a Sales representative asked:

> I heard from our customer that another company proposed the same kind of service to our customer. If you have any good ideas of how to compete with them [the competitor] in order to get the deal, could you let me know? (7/28/04)

In this case, the Service Dept. responded as follows:

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[6] 44% of all questionnaire respondents had used the CList to get competitor information in each year.

Thank you for your information about a competitor. For your information, I will let you know the information that we've gathered from various sources about the difference [of this competitor service] from our service in terms of cost and function. I think that it's very important for all of us to share how to compete with this competitor from various viewpoints. We would be happy to promote these conversations more and more in the CList. (11/4/05)

In this response the Service Dept. both promises to pass along competitor information it has obtained and encourages the Sales representatives to continue posting to CList, sharing their knowledge about competing with specific rival services. This was a topic about which Sales representatives had information the Service Dept. did not necessarily have, so the Service Dept. encouraged them to share that information with each other on CList, thus also informing the Service Dept.

[insert figures 9 and 10]

As Figure 9 shows, the genres of queries and responses about competitor information (which combine to make a genre system) both spiked in 2004, about the time that one of the critical competitors from their incumbent business emerged into the Service market. Figure 10, focusing only on Sales representatives' queries on competitor information and responses to those queries, shows that the Service Dept. played very little role in responding (though the difference between Figures 9 and 10 shows that Service Dept. members occasionally initiated their own queries about competitors, which they or Sales representatives responded to) . From the start, peers were most able to respond to Sales representatives' questions in this area. The peer-to-peer pattern peeked in F2004. Competitive knowledge thus seemed best shared among Sales peers.

Trend announcements and discussion

A final genre that was small in total numbers but identified by questionnaire respondents as important to CList members was the trend announcement. Messages instantiating this genre

announced some change in the market or in government regulation and speculated about its

probable affect on future sales of the Network Service. Such messages included, for example,

the following announcement from the Service Dept. talking about recent computer viruses and

how the Network Service could help combat such viruses:

> I will inform you about the essential problems caused by computer virus incidents all
> over the world. …Our Service can provide the most robust solution for this kind of attack.
> (1/26/03)

Such announcements could also come from Sales representatives, as in the following:

> I will share updated information about the IP phone provided by the most famous
> internet service provider, which I've already posted in a different mailing list in our sales
> subsidiary company in order to discuss the possibility. Based on this information, we will
> be able to sell the Service with the IP phone more intensively, which might be a new
> pattern for selling the Service. (9/26/2003)

Messages on trends sometimes initiated multiple follow-on messages, from both Sales

representatives and from the Service Department, discussing the potential impact on selling the

Service (though too few to analyze as a separate genre).

[insert Figure 11 here]

As Figure 11 shows, the genre of announcements about trends more frequently came

from the Service Dept (SD) than from Sales representatives (SR), throughout the period. For

example, a knowledgeable product manager in the Service Dept periodically made the latest

trend news understandable even for non-technical Salespeople and posted it to the CList. This

genre sometimes included 'breaking news' that Sales couldn't get through mass communication

media such as a general industrial newspaper. In F2003 and F2005, one knowledgeable Sales

representative also provided his thoughts about trends affecting sales of the Service, which can

be seen in the peaks in SR trend announcements in those two years (see Figure 11).

Even though trend announcements posted in CList are few compared with other genres,

the questionnaire indicated that this type of information was obtained primarily through CList, rather than from the marketing conferences or other more formal channels. Because this information sometimes included individual interpretation, the Service Dept. may have considered it not entirely official, and therefore more appropriately shared through the informal CList than through other, more formal channels.

Implications for research and practice

This analysis of communication on CList reveals the importance of participants and participation patterns in genre analysis more broadly. It also highlights the important role that peer-to-peer communication such as what developed over CList can play in certain types of business situations.

Participants (who/m) as an important aspect of genre analysis

During the four-year period studied, the company successfully launched a new product that differed fundamentally from its normal products. The informal online community clearly played an important role in allowing the geographically and organizationally dispersed Sales force to learn about the new Network Service and how to sell it, both from the Service Dept. and from each other. Our analysis, which used the broader definition of genre presented in Yates and Orlikowski (2002), highlighted particularly the importance of analyzing participants, or who/m, as well as the traditional purpose (why), content (what), and form (how) aspects of genre. While purpose and content are still primary indicators of a genre, information regarding who communicates to whom in a particular genre or genre system over time provides important information, as well.

[insert Table 3 here]

The value of this aspect of genre is especially salient in Response to Query for both sales and technical query-and-response genre systems over time. Table 3 summarizes the six aspects of genre (why, what, how, when, where, and who/m) for the responses to both technical and sales queries for two time periods—F2002/2003, and F2004/2005. Focusing on the first five aspects, we see no fundamental change over time. The one category with a significant change is 'who/m,' which highlights the shift from a centralized pattern in which the Service Dept. responded to Sales representatives' queries in F2002/2003, to a peer-to-peer pattern in which Sales representatives responded to each other in F2004/2005. This change in who answers a query, whether about sales, technical, or competitor matters, is important to capture, as the dynamic is much different for the participants in the genre, as is the qualitative nature of the messages. In F2002/, the participation pattern was 'hub and spoke' (or perhaps we should say 'spoke and hub'), with a central Service Dept answering questions from a geographically dispersed Sales force. When the sales force started answering their peers' questions they changed both the breadth of responders (now drawing from a larger group) and the number of responses based on real sales encounters and real technical implementations, rather than theoretical solutions. Moreover, the interviews suggest that the level of 'trust' among peers might be higher. CList moved from being a predominantly one-way channel to being a community of Sales representatives as well as of Service Dept. members,.

A similar shift in participants occurred in the Competitor queries and responses, though it happened even earlier, in F2003. Competitor information could be pieced together from the Sales representatives' shared observations of competitor behavior before it could be researched and announced by the Service Dept.—indeed, interchanges among Sales representatives in this

genre system undoubtedly provided new and useful information to the Service Dept., as well, as it did in the exchanges about technical compatibilities with other systems.

The who/m aspect is less salient in the other genres identified, but still potentially useful. The formal announcements on the CList, by definition, were directed from the centralized Service Dept. to the Sales representatives. Nevertheless, including participants in the genre analysis highlights the fact that only members of the Service Dept. are empowered to issue *formal* announcements. The participant information on trend announcements shows that both the Service Dept. and Sales representatives felt empowered to make informal announcements about trends. Even though the Service Dept. issued more trend announcements in all four years, Sales representatives consistently contributed them, as well.

Thus by including participants as an aspect of genre, researchers can highlight who participates in what role in genres and genre systems. This information says something about the power structure of the community using the genres. This dimension combined with analysis over time can highlight changes in genre participants that are linked to qualitative changes in instances of the genre (e.g., the use of real examples rather than drawing on abstract technical specifications) that might otherwise be overlooked. The linking of changes in participation with subtle shifts in content (or purpose, form, location, or timing) made possible by genre analysis adds value beyond what network analysis alone can provide. Changes in participation are often particularly significant when a genre migrates from paper to electronic form, since additional electronic copies are essentially costless. Thus adding the dimension of participants to genre analysis is especially useful when using this framework to study shifts to electronic communication.

Finally, when analyzing a group's genre repertoire over time in order to understand the group's changes (e.g., Orlikowski and Yates, 1994), researchers may benefit from paying attention to changes in genre participants. Such changes should signal shifts in power and participation over time, as well as direct closer attention to subtle shifts in content and purpose over time.

Peer-to-peer is more useful than centralized communication in some business situations

From the point of view of practitioners, rather than researchers, our study highlights the shifting role of participants in this online community over time, and the value of that shift to the Company. In F2004, whether intentionally or not, the CList shifted from being a place for communication primarily between the Service Dept and Sales to being a place for communication primarily among Sales representatives themselves.[7] The utility of this list for peer-to-peer communication emerged for a number of reasons. Over the period studied, other, more formal communication channels, such as call centers and marketing conferences, were established to take on some of the centralized communication needs. However, even if a query was answered through a formal channel, we found that some Sales representatives would also confirm the answer on the CList. This desire for confirmation suggests a higher degree of trust for peers in similar positions. Also, as shown when Sales representatives shared examples of implementations, peer-to-peer communication offered a broader set of participants with 'real world' examples that were better shared in a distributed, peer-to-peer fashion. Most aspects of

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[7] When we conducted interviews with employees in the Service Dept in 2006, they typically regarded the CList as a place for Sales representatives to communicate with each other.

the genres were the same, but the changes in participants apparently increased the perceived utility of the channel.

These findings suggest that firms should not try to formalize and regularize all communication channels as soon as possible. In cases such as this, where peers have information that the centralized department does not have, peer-to-peer communication plays an important role and should be encouraged. We can even identify a positive correlation between the number of sales queries and responses from sales representatives and the number of licenses sold, as Figure 12 shows. While we can't prove causality, there is an intuitive correspondence between getting satisfactory responses to sales questions among Sales themselves and more effective selling.

[insert Figure 12 here]

Finally CList, increasingly dominated by peer-to-peer exchanges, was treated as a much less formal channel than other channels (e.g., the Help line) added later. Genres focusing on certain types of content were apparently felt by many list members (both Sales representatives and Service Dept. personnel) to be best shared over a less formal channel. The questionnaire data confirmed that CList members considered CList the channel from which they acquired the best competitor and trend information, in spite of the existence of other, more formal (and typically more centralized) channels. This finding supports the notion that peer-to-peer communication can be more useful than centralized communication in some business situations. Although centralized communication may have been necessary and valuable in the early days of launching a new business, for example, over time, as sales representatives acquired more experience with selling the new service, we might expect more networked, peer-to-peer communication to become increasingly important. For another example, a company may not want to endorse

opinions about trends or competitors in a formal channel but may be willing to have employees

share this information informally. Thus, this research suggests to practitioners that they may

want to resist the impulse to formalize and centralize all communication, recognizing the value

of peer-to-peer communication in many situations.

Conclusion

In this paper we analyzed the communication within a mailing list that was launched as

an internal marketing tool and evolved into an online community fostering peer-to-peer

communication. We focused on the change in communication over time between Sales

representatives and the employees in a Service Dept. We conducted a genre analysis and found

that although the frequently studied aspects of genre and genre systems (purpose, content, and

form) capture much information, adding the participants dimension provides additional insights.

Changes in participants over time affect how genres are used and perceived. Thus researchers

using genre analysis should benefit from including the additional dimensions outlined by Yates

and Orlikowski (2002), and particularly the participant (who/m) dimension.

For practitioners, understanding participants and how they are using genres in online

communities can help identify shifts in communication patterns. Focusing on changes in

participants may also highlight emergent changes that can be leveraged into improved processes

or results. The change in participants (who/m) in genres can highlight a parallel change in the

formality of communication. In future work, we plan to focus on this shift in formality and its

interaction with research on organizational practices and processes.

Acknowledgement

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Table 1. Basic profile of CList

Time period	Jul. 2002 – Mar. 2006
# of participants	1612 (SR: 1564, SD: 48)
Cumulative # of posters	303 (SR: 232:, SD: 71)
Total # of messages	2269 (SR: 1120, SD: 1149)
Total # of reply message	825 (SR: 480, SD: 345)

SR: Sales representatives

SD: Service Dept. employees

Table 2. The coding scheme and Cohen's Kappa

Coding category	Types in category	Definition of types	Reliability (Cohen's k)	N	%
What (content)	c1. TECH	technical matter / trouble / setting of Service	0.83	649	28.6%
	c2. SALES	how to sell Service/ sales material / past and similar sales case	0.76	475	20.9%
	c3. FORMAL	formal information of Service and Service Dept	0.75	949	41.8%
	c4. COMP	competitor information	0.91	83	3.7%
	c5. TREND	trend or general information in a related industry	0.84	113	5.0%
Why (purpose)	p1. QUERY	ask a question	0.81	408	14.1%
	p2. RESPOND	answer to the question	0.73	596	20.6%
	p3. PROPOSE/REQUEST	ask someone to do something(together)	0.67	405	14.0%
	p4. INFORM/ANNOUNCE	let the participants know something	0.73	1060	36.6%
	p5. THANK	appreciate something	0.78	214	7.4%
	p6. APOLOGIZE	apologize for something	0.87	94	3.2%
	p7. COMMIT	commit to do something	0.73	122	4.2%
How(form)	f1. EMBEDDED	with an embedded message	0.82	673	29.7%
	f2. GRAPHICAL	contain a graphical element	1.00	42	1.9%
	f3. INFORMALITY	use an informal and colloquial expression	0.76	431	19.0%
	f4. NICKNAME	use a nickname	0.74	27	1.2%
	f5. OPEN SALUTATION	started from open salutation	0.71	1382	60.9%
	f6. LINK	include the link to other information	0.85	715	31.5%
	f7. LISTING/ITEMIZING	use listing/itemizing	0.76	858	37.8%
	f8. CITED	cited information on other source	0.84	236	10.4%

Table 3. Change in predominant who/m pattern in Response to Technical and Sales Queries over time

Year	F2002/2003	F2004/2005
Why	Respond	Respond
What	Technical and Sales information	Technical and Sales information
How	Email mailing list	Email mailing list
Where	Geographically dispersed	Geographically dispersed
When	As queries are posted	As queries are posted
Who/m	Service Dept to Sales	Sales to Sales

Figures *
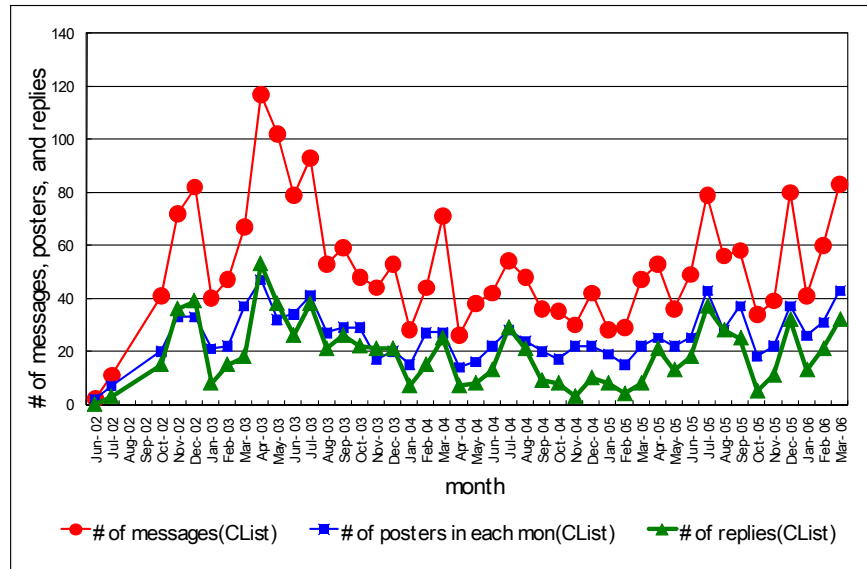
Figure 1. Activities in the CList (Monthly)
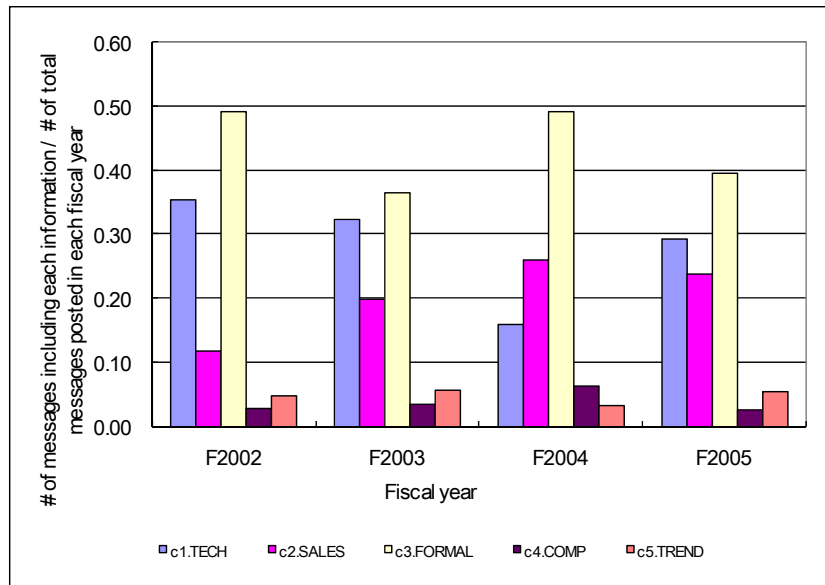
Figure 2. Content (what) in each fiscal year
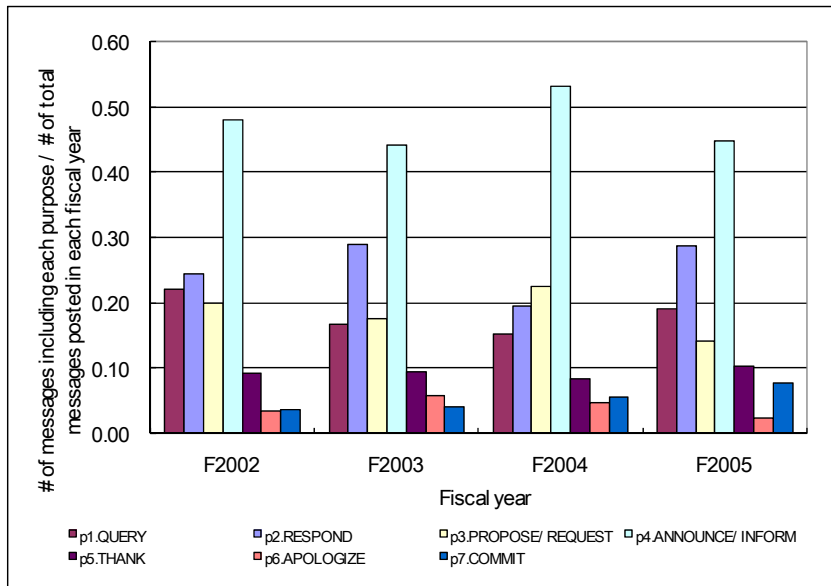
Figure 3. Purpose (why) in each fiscal year
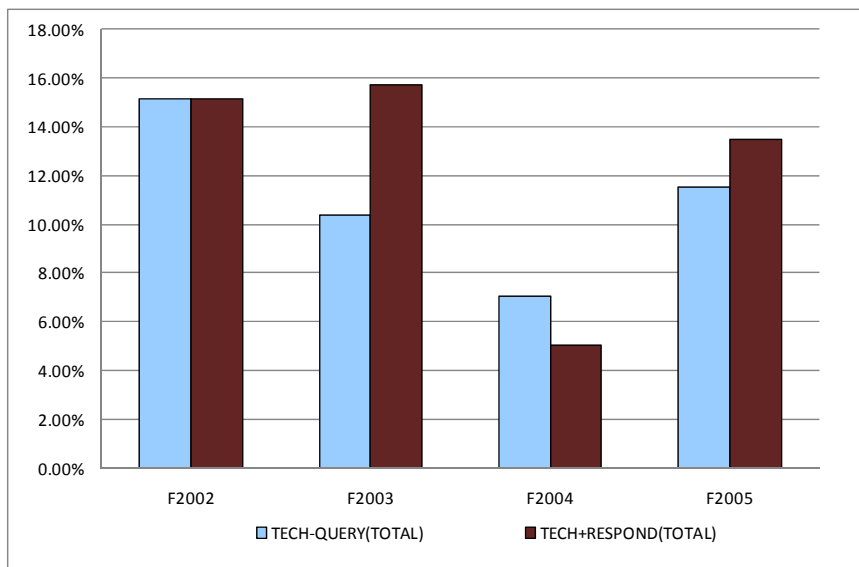
Figure 4. Queries and responses about technical information
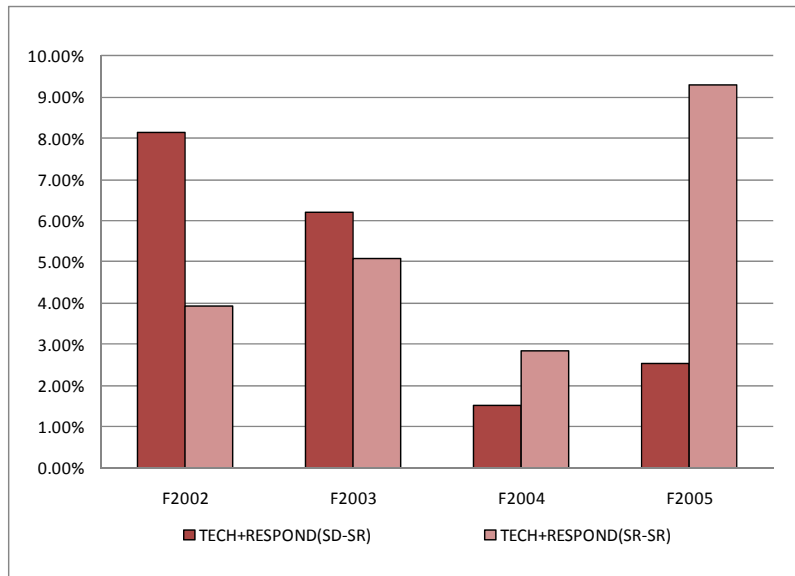
Figure 5. Responses to Sales representatives' queries about technical information
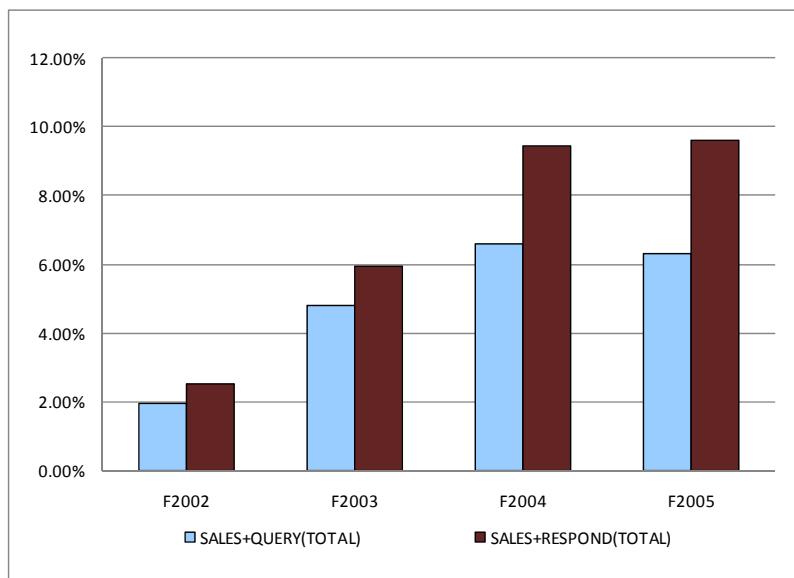
Figure 6. Queries and responses about sales information
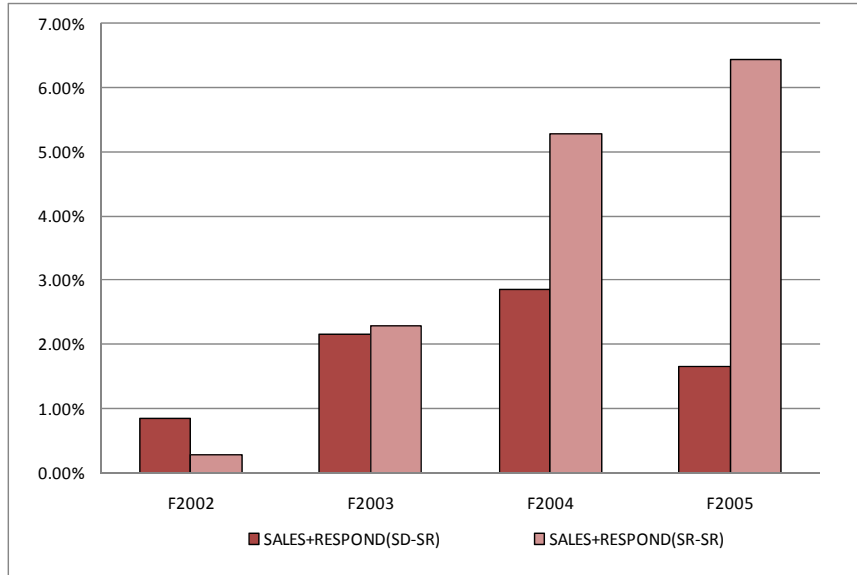
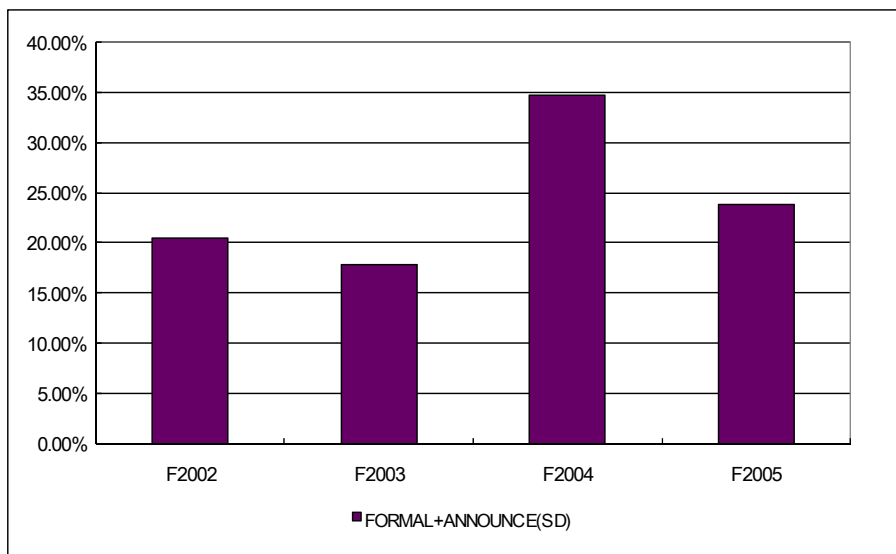**Figure 7. Responses to Sales representatives' queries about sales information**

Figure 8. Announcements of formal information
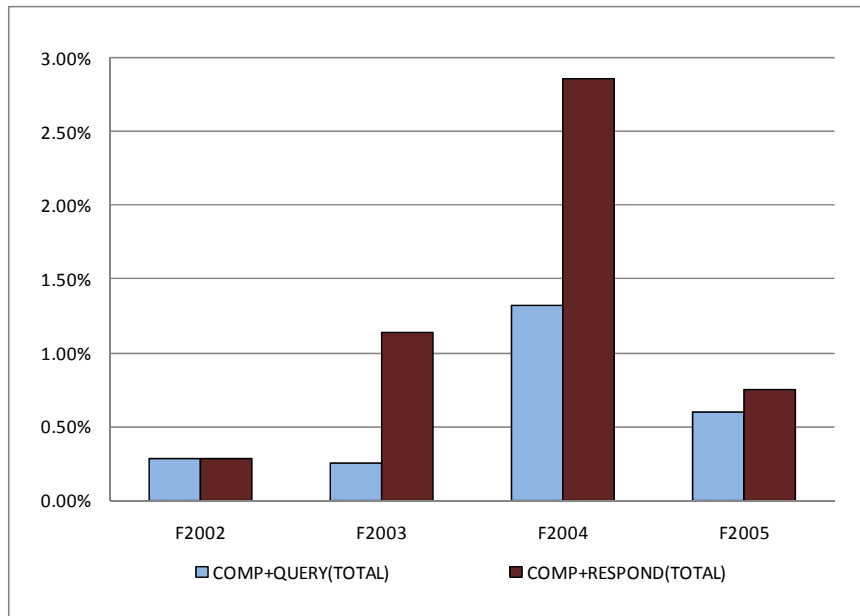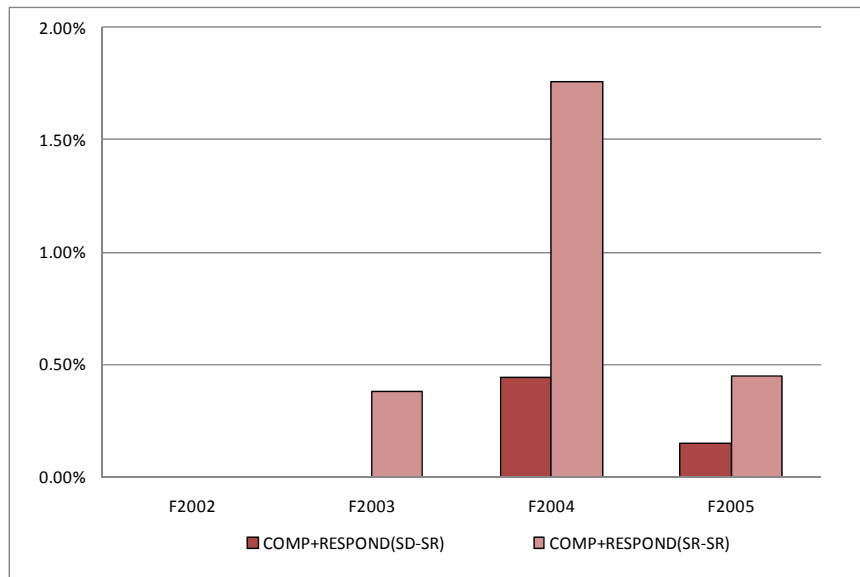
Figure 9. Queries and responses about competitor information

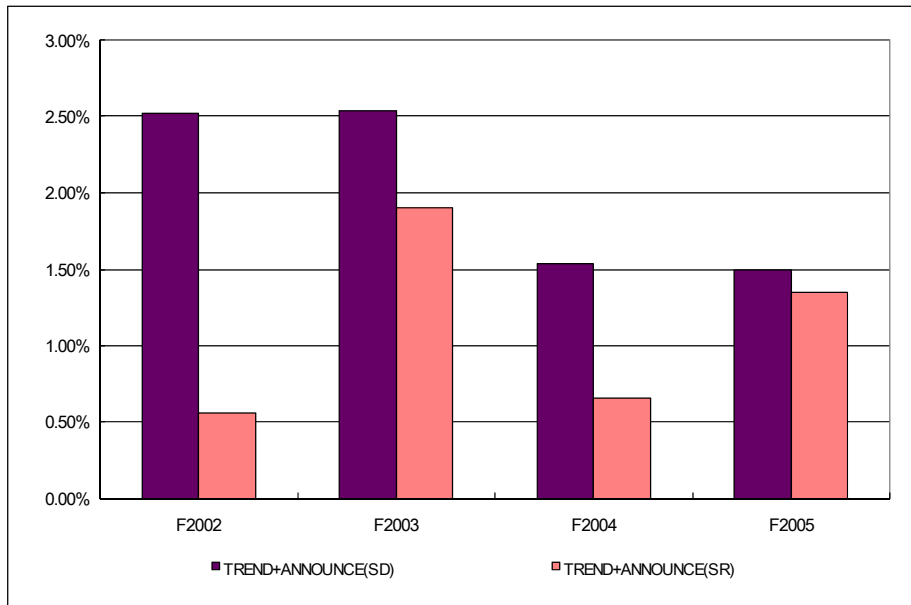**Figure 10. Responses to Sales representatives' queries about competitor information**

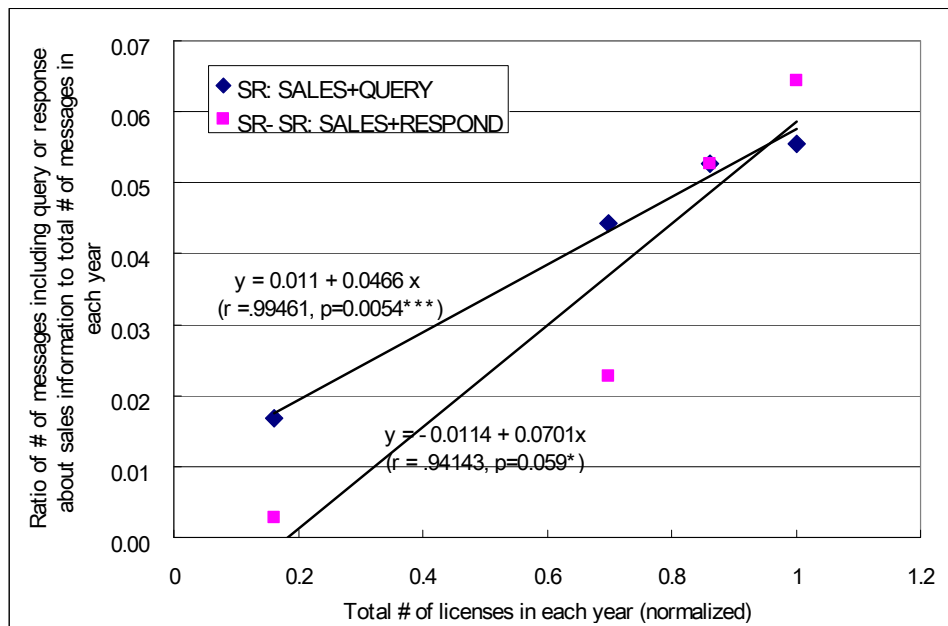**Figure 11. Announcements of trend information**

Figure 12. Total number of Service licenses related to Sales queries and responses (r = Pearson's product-moment correlation, p = p-values)