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GENRE ANALYSIS IN INFORMATION SYSTEMS RESEARCH

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ABSTRACT

In this paper we examine the information systems (IS) literature surrounding the use of genre analysis. We look at why IS researchers use genre analysis, the insights that using genre analysis brings forth, and the resulting impact the research has. We also show that genre analysis is successfully providing an identity for the IS discipline. We use this review to provide insight into new avenues that IS researchers might explore using genre analysis, as well as show how practitioners may be able to benefit from its use.

INTRODUCTION

Introduced in 1976, bulletin board systems still abound on the Internet (Yahoo Groups alone has over 2,000,000 such boards operating (groups.yahoo.com)) and provide a way for people to communicate. Lately, new ways to communicate such as Internet messaging (IM) over the Internet and text messaging using cell phones have arisen. How can we understand the types of communication taking place using these widely disparate systems?

Such an understanding is important as more and more work becomes a matter of electronic information exchange (Orlikowski and Yates, 1994). Genre analysis, first introduced to the field of IS research by Yates and Orlikowski (1992), provides a powerful tool to help understand the communication practices occurring within different IT and non-IT supported systems (although our present focus will of course be on IT-supported systems). In particular, genre analysis is useful in examining how a community communicates. Such interpersonal communication creates structures that then affect what else gets said and done and by whom (Weick, 1979), and indeed, without it "there would be no organizing or organization" (Orlikowski and Yates, 1994).

How one defines community is not of great import; it could be a small group of workers in an R&D lab, or a widely dispersed

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(both geographically and based on depth of interest) set of owners of Honda Odysseys. What matters is that genres of communication are "socially recognized types of communicative actions – such as memos, meetings, expense forms, training seminars – that are habitually enacted by members of the community to realize particular social purposes" (Yates and Orlikowski, 1992). In an organizational context, such purposes typically include the completing of work, but may also extend to the formation of social relationships, which can have a significant effect on the quality of work (Firth, 2003). Of equal importance, these technologically mediated organizational discourses play an important part in the institutionalization of organizational roles, which later enable and constrain organizational actors (Hasselbladh and Kallinikos 2000).

In this paper we will first lay out the basic concepts of genre and genre analysis. We then examine how genre analysis has been used in the IS literature. This will focus on why genre analysis was used, and the impact using genre analysis has had on our understanding of systems and communication. To show that genre analysis is not an irrelevant research tool but is indeed helping to provide an identity for the IS discipline, we will use the principles described by Benbasat and Zmud (2003). Finally we will use our review to highlight directions for future research.

BASIC CONCEPTS

A *genre* within a community serves as an organizing structure that shapes the ongoing communicative actions of community members through their use of it (Orlikowski and Yates, 1994). It is this ability to shape interaction amongst individuals that gives management as well as the users of a community the ability to use genres "both as instruments and outcomes of organizational power and politics" (Yates and Orlikowski, 1992). Each genre is differentiated from another as a typified communicative action by having both a socially recognized *communicative purpose*, and a common characteristic of *form* (Yates and Orlikowski 1992). A communicative purpose is one that is relevant to the community within which it is used. For instance the communicative purpose of the *trip report* genre identified by Yates, Orlikowski and Okamura (1999) is to report on events that occurred at a seminar. Form refers to observable aspects of the communication, such as structural and linguistic features (Yates, Orlikowski and Okamura 1995). For example, the *trip report* includes lists or specifications of the trip as aspects of form.

Genre repertoires represent a cluster of genres that typically get used. They are useful in revealing the shared knowledge and norms that members of a community have about how to communicate (Yates, Orlikowski, and Okamura 1995). For example, in performing a consulting project, a team of consultants interacting with a client may use genres such as a proposal, a work program, progress reports, invoices, and a final report, which together form a genre repertoire for the consulting team. This genre repertoire is one of the consulting firm's critical resources for

CONTRIBUTION

The objective of this paper is to 1) examine the use of genre analysis in information systems (IS) research, 2) show why genre analysis is useful for such research both for practitioners and academics, and 3) suggest likely future research directions using this technique. This review brings together papers employing the technique of genre analysis, and shows how using this technique has furthered our understanding of organizational communication and the technology supporting it. We also show that scholarly research using genre analysis is successfully providing an identity for the IS discipline. This paper is valuable to IS researchers and practitioners seeking to understand the use of new communications technologies such as Internet Messenger (IM) and text messaging, as well as in developing and enhancing our understanding of old communications technologies such as bulletin board systems. In addition, we posit that genre analysis will prove to be of value to colleagues studying the construction of open source artifacts such as Linux, as well as scholars interested in researching technology mediated organizational change.

work and interaction, enabling the firm to produce organized action (Donnellon, Gray and Bougon 1986).

Genre Analysis in its most basic form is the process of determining the genres within a given communication. Typically a communicative message is coded based upon the two identifiable dimensions of genre: *purpose* and *form* (Orlikowski and Yates, 1994; Yates and Orlikowski, 1992). For instance, in the coding of messages posted by newly admitted MBA students to a U.S. university, Firth (2002) coded the messages using purpose and form categories as follows:

Purpose categories: Topic area (e.g. school-related, non-school-related), and communicative purpose (e.g. solicitation, response, comment).

Form categories: A message's formatting (e.g. greeting, lists included in the message body, e-mail addresses included in the message body).

A particular genre of communication is then determined by the occurrence or not of combinations of these purpose and form categories. For instance, Firth (2002) coded a message from the MBA students as being of the *memo* genre if:

Topic   = any

Purpose = individual or group comment;

Form   = no sign-off, no opening salutation (Hello, Hey or Hi), no aside to an individual, no iconics, no embedded message, no shorthand (ellipsis, b/c, BTW, thanxs / tnks, w/), no non-standard grammar, no non-standard punctuation.

An example of a message coded as a *memo* by Firth (2002) is shown in Figure 1 below.

USE OF GENRE ANALYSIS OUTSIDE THE IS LITERATURE

Yates and Orlikowski (1992) were the first to use genre analysis to study communication within an IT-based system. The idea of using genres to study communication is not new, however. It has been used in a diverse set of fields to illuminate and enrich our understanding of
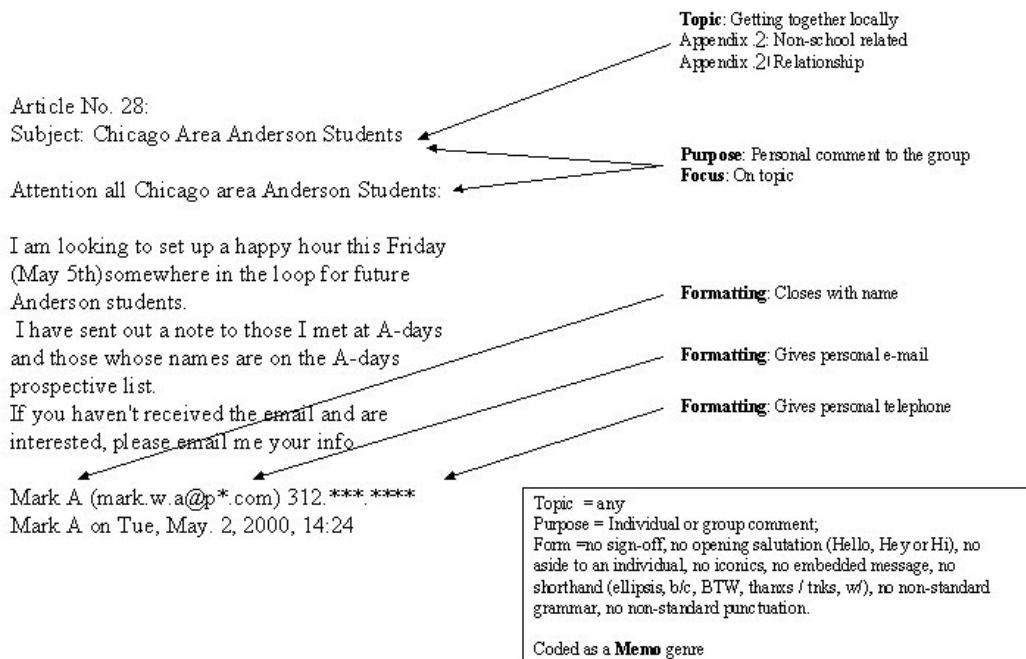

Figure 1: A message coded in the Memo genre

disparate communications. For instance, Achtemeier (1985) in the field of divinity uses genre analysis to show how elements of hymns within the Old Testament can be used to overcome subjectivity, moralizing, and negativism in preaching a sermon. Within the field of literary analysis, genre analysis has a rich tradition. For instance Bakhtin (1986) uses it to examine the repertoire of speech genres, and Devitt, Bawarshi, and Reiff. (2003) use genre analysis to study how ethnographers connect with what community members know and do with their language practices. In the field of education, Kearsey and Turner (1999), for instance, use genre analysis to determine differences in textbooks based on the manner of presentation of the material and the implied relationship between the author and the reader. As a final example, using genre analysis to study the field of corporate communications Tench, (2003), models the rhetorical moves behind the communicative purposes of the news release genre which provides a useful guide to writing effective news releases for practitioners and students working in the fields of public relations and corporate communications.

USE OF GENRE ANALYSIS IN THE IS LITERATURE

The following Table 1 shows the papers we have found within the IS literature which use genre analysis[1]. We classify the papers into three types, based on the type of communication being addressed: (1) discourse – representing written interaction, mainly two-way, between communicants, (2) document – representing a written one-way interaction between an author and a reader, and (3) web pages – which are a hybrid of (1) and (2) and also can contain some features unique to this type due to the use of technology.

This table aims to show five things. First, it shows which IT system was analyzed, which will show us any biases researchers

have for studying particular systems over others. The details of the system were taken directly from the paper. Given that genre analysis is a study of communication, we next characterize the communication being analyzed, again determining this directly from the paper.

We then attempt to summarize why genre analysis was used in this particular research. Where possible, we looked for specific language in the paper that explained this. When this was not presented, we used a careful reading of the paper to establish the purpose for using genre analysis. Fourth, we elucidate the insight that was derived from the use of genre analysis. To the extent possible we present the exact language used by the authors, usually found in the discussion or conclusion section of the paper. Where the exact language was verbose or spread around the paper, we use our own language to summarize. Finally we present the impact that this insight might bring, which is again extracted where possible from the exact language used by the authors, usually in the discussion or conclusion section of the paper.

This summary shows that the IT systems examined using genre analysis have been quite diverse – synchronous, asynchronous and collaborative IT systems have all been addressed. Most interestingly though, despite the fact that Orlikowski and Yates (1994) tell us that "genre and genre repertoire may be particularly useful for conceptualizing and investigating the introduction of new media in organizations", the newest media available to organizations such as Internet messaging or Text messaging has yet to be examined. The table also shows that the types of communication investigated are quite disparate – there has been coverage of web page communication, e-mails to support work, bulletin board postings to support MBAs coming to school, as well as digital documentation of work products. One author (Erickson, 1999; Erickson, 2000) addressed the more social aspects of communication, by looking at how limericks are written and how non-work related communications developed in the workplace.

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[1] Although an extensive search was conducted, we cannot be assured that all articles using genre analysis within the IS literature were addressed.

Table 1. Use of Genre Analysis in the IS Literature

Author(s)	IT System Analyzed	Communication being analyzed	Why genre analysis was used?	What insight did using genre analysis bring?	Impact
Communication Type: Discourse					
Orlikowski and Yates (1994)	Electronic e-mail messages over the Defense Department's ARPANET network	LISP language programmers negotiations to produce a Common LISP (CL) language	"…genre and genre repertoire proved to be powerful tools for revealing certain aspects of the CL community's organizing process"	"When a community is formed, its members come to some understanding, whether tacit or explicit, about the set of genres they will use to interact as a collectivity".	"…understanding organizing processes becomes increasingly important as more and more organizational work becomes a matter of electronic symbol manipulation and information exchange."
Erickson (1999)	On-line asynchronous conversation salon on the Internet using a web-based bulletin board	Limerick creation between users of the Internet	The goal was to examine "an instance of a computer-mediated conversation that repeatedly produces well-formed, successful results over a long period of time. Genre analysis is useful as it examines how coherent conversations arise as a result of "the rules" in regard to content and conduct of a conversation."	Genre analysis allowed examination of the influences, such as the interface, shaping computer-mediated communication (CMC).	CMC system interfaces can support or inhibit the influences shaping CMC.
Bergquist and Ljungberg (1999)	A 1982 e-mail system at a Swedish IT company	One week of incoming e-mail messages to a key respondent	Genre analysis was used to show how genres are used in an organizational context	Genre analysis showed how organizational communication is enacted and shaped. In the system being studied, genre was a "dynamic and living phenomena"	The primary genres of communication "related to project work in some form".
Erickson (2000)	A computer-mediated communication (CMC) system providing asynchronous and synchronous communication	Communication related to work within a 19 person research group at IBM	Genre analysis was used "to explain ways of characterizing activity that occurs in CMC"	"Genre theory was helpful in thinking about the notion of activity in the system as a whole" and to show how "participants are recruited into different genres".	The analysis showed that certain genres could increase communication, termed "global pull", direct communication through "topic pull", and allow for continued communication through "conversational impetus".
Yoshioka, Yates and Orlikowski (2002)	A collaborative technology designed to host distributed electronic meetings among dispersed sites.	Business meetings	"What assumptions, expectations, and knowledge do participants [of the system] have about the genres they enact…and how do these cognitive understandings influence their enactment of genres in a new meeting technology?"	"There are differences in interpretive schemes across sites, nationalities, languages, and roles as well as over time. These interpretive differences help to explain the difficulties in appropriation of the technology and the limited development of shared genre norms."	Managers of collaborative systems should recognize that there exist "cultural barriers and differences in understandings of and motivations to use a technology". In particular, "a critical aspect of the effective use of collaborative technology across distance and diversity is a set of common assumptions and expectations about the genres to be used in the new electronic medium."

Table 1. Use of Genre Analysis in the IS Literature (Continued)

Author(s)	IT System Analyzed	Communication being analyzed	Why genre analysis was used?	What insight did using genre analysis bring?	Impact
Yates and Orlikowski (2002)	Team Room – a collaborative electronic technology from Lotus.	Communication supporting on-going work within an organization	Genre analysis was used to show that "genre systems – systems of interrelated communicative actions…are important means of structuring collaborative work"	"Genre systems…structure expectations about the purpose, content, participants, form, time and location of communicative interaction among members of a community".	Users of genre analysis may "benefit from explicitly recognizing the role genre systems can play in collaboration"
Firth (2002)	Bulletin Board at a U.S. university	Bulletin Board postings made by newly admitted MBA students	Genre analysis is used to enhance our understanding of the communicative practices of an emergent online community	The analysis showed that "genres form the template for communicative interaction"., and that genres emerge and change over time.	Managers of IT-based systems supporting communicative interaction can introduce genres to enhance communication. Designers of such systems should recognize the impact certain genres have on use and participation.
Communication Type: Document					
Tyrvainen and Paivarita (1999)	An Electronic Document Management System (EDMS) supported by Lotus Notes and a CAM system in a hi-tech manufacturing organization	Electronic documents supporting work at a 10,000 employee firm	Genre analysis was used to identify and evaluate documents within an EDMS	Genre analysis showed that a deep common understanding of organizational document genres does not appear to exist, even within those most familiar with the EDMS.	"A sufficient level of detail [of document genre understanding] would better enable the explicit development of a particular document genre or genre system along with the related technology and processes of the organization"
Toms and Campbell (1999)	(Paper documents and) digital documents displayed using a web interface	An experiment using different genres of documents displayed in paper and digital forms.	Genre analysis was used to determine if genre alone would enable a document to be identifiable	Genre analysis showed that "the attributes of a document's genre determine a document's ability to be identified uniquely".	"Recognizing genre will facilitate effective user-document interaction" and so a particular "genre can be seen as an interface metaphor"
Karjalainen, Paivarita, Tyrvainen, and Rajala (2000)	Digital documents stored on a variety of competing platforms and in a variety of forms at a non-profit organization	Documents reflecting work output	Genre analysis was used to define documents so that they can be stored and are shareable	Genres "provide terminology capable of bridging the discourse" about the way a document should be stored electronically.	Having the terminology by using genres to describe a document for storage will enable better document management within enterprise document management (EDM) systems
Rehm (2002)	German academic Web servers	German language web HTML documents residing on academic Web servers	Genre analysis was used to automatically classify web pages to allow web searches to be improved "as the user would be able to specify the desired *Web genre* along with a set of keywords".	Large parts of classifying pages can be done using genre analysis without examining the text at all. This should allow for automatic extraction of content that can then be placed into a structured XML document.	Using genre analysis allows unstructured HTML documents to be built into structured XML documents.

Table 1. Use of Genre Analysis in the IS Literature (Continued)

Author(s)	IT System Analyzed	Communication being analyzed	Why genre analysis was used?	What insight did using genre analysis bring?	Impact
Communication Type: Web Pages					
Crowston and Williams (1999)	The World Wide Web	Web pages on the WWW	Genre analysis was used to describe the Frequently Asked Questions (FAQ) genre on the Web	The analysis showed that web pages and the links within them support the task of communicating on the WWW.	Web designers should consider that the FAQ genre must be adapted to the WWW
Shmid-Isler (2000)	The World Wide Web	Web pages and images on the WWW	Genre analysis was used to answer the question "what must be done to define the genres of digital products"	Genre analysis showed that a digital genre should be defined by its purpose, or function, "considering the rules 'form follows function' and 'function follows content'."	Genre analysis allows for digitization of communication to be classified into genres
Crowston and Williams, (2000)	The World Wide Web	Web pages on the WWW	Genre analysis was used to show the reproduction and adaptation of existing genres as well as emergence of new genres in the new environment of the WWW	Website designers need to consider which genres are appropriate for their particular situation.	Use of particular genres will enhance user satisfaction with sites on the WWW
Roussinov, et al. (2001)	The World Wide Web	Web pages on the WWW	The goal is to use genres of Web pages to facilitate information exploration.	Web page genres can be used to facilitate searching for information.	A user interface that uses genre-based searching should be possible
Ryan, Field, and Olfman (2002)	The World Wide Web	U.S. state government Web pages on the WWW	Genre analysis was used to examine the dimensionality of web page genres	Web pages have the genre dimensionality of form, functionality and content	Since genres are organizing structures for communication, designers of web pages should be aware of the importance of the templates they use when building web pages.

Our review shows that at the heart of each author's use of genre analysis is a desire to understand the communication being supported by the particular technology in use. Whilst the insights of using genre analysis are specific to the research question being examined, the impacts of using genre analysis appear to have a number of common threads. First, many of the authors used genre analysis as a tool for understanding the structure and concerns of communities using a particular IT. Given the range of IT being studied by our authors, this shows that genre analysis is a particularly useful tool for studying a wide range of IT supporting communication. In our introduction we asked how we could study emergent communication technologies such as Internet Messenger (IM). We have an answer; genre analysis provides an excellent way to understand the way in which these new technologies impact the community using them.

Several authors also show that if a user of a particular communicative format uses the appropriate genre for that format, context, or situation, then the communication will be better for all involved. How one defines "better" may vary, but it includes increased use of the system, increased understanding of the communicative intent, and increased ability to perform work functions. Each of these is clearly a desirable outcome. For instance Erickson (1999) suggests that genre analysis allows an examination of the influences, such as the interface, shaping computer-mediated communication (CMC). The implication is that through the use of genre analysis we can design a CMC interface to better interact with the genres that a user may be familiar and comfortable with, thereby increasing the use and effectiveness of the CMC itself.

Looking at the three types of communication (discourse, document and web pages) provides further insight into why genre analysis is useful. Common across the three types of communication is the notion that genres structure, shape, direct and organize communication. As a result, authors examining each type of communication suggest that IT should be designed with genre in mind, as the ability to use the appropriate genre for a communication is believed to enhance user satisfaction with the communication.

For discourse-based IT systems, authors suggest that designing the system around, or with consideration of supporting genres, should impact use and participation of these systems. This arises as people find them more relevant for the contexts in which they wish to use them.

For document-based IT systems, authors suggest designing the system with genre in mind should facilitate better classification of documents, leading to better storage of documents, and therefore an improvement in the results of document search. By having the IT systems designed in such a way that it supports the classification of documents, users should be able to more quickly recognize a document, if it is in a genre they are familiar with. If it is not a familiar genre, then they can know quickly that this document needs more time and energy to work with.

As with documents, genre classification of web pages should improve search. For instance if a user is able to specify the resumé genre as part of a search criteria, and web pages have been classified based on genres[2], our user should be fairly assured of his or her search results containing resumés, and not other potentially similar results such as job postings, which are in a different genre. Authors studying web page communication note that it provides the opportunity to deploy certain unique genres, for instance the ability to link to another page, file, image or object, by clicking on it[3]. They suggest that those designing communication for the web should not miss the opportunity to exploit these unique genres.

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[2] Rehm (2002) believes that this can be done automatically.

[3] Crowston and Williams (1999) state that "linking that affects the purpose of the document changes the genre of the document", and that "omitting links may make the document unsuitable for its usual purpose, which would change the genre".

PROVIDING AN IDENTITY FOR THE IS DISCIPLINE

Our review of the use of genre analysis within the IS field, summarized in Table 1 above, shows that there are many ways in which it has improved our understanding of communication using IS-based systems, which, in turn, has increased our understanding of the IT artifacts. This approach of seeking theoretical insight into not only the social implications of technology, but also into the IT artifacts themselves, is consistent with Orlikowski and Iacono's call to theorize the IT artifact (Orlikowski and Iacono 2001). However, a recent article by Benbasat and Zmud (2003) highlighted another problem faced by the IS discipline as a result of "under-investigating phenomena intimately associated with IT-based systems and over-investigating phenomena distantly associated with IT-based systems." In Table 1 we highlighted the IT systems being studied to show that IT researchers using genre analysis are indeed investigating phenomena intimately associated with IT-based systems. Still, we feel that addressing the concerns of Benbasat and Zmud (2003) by determining whether genre analysis helps provide "an identity for the IS discipline" will only further strengthen the case for genre analysis being a useful tool for our field.

Benbasat and Zmud (2003) suggest that IT researchers using genre analysis can contribute to the identity of the IS discipline if they ensure their research pays close attention to both the IT artifact, which is "the application of IT to enable or support some task(s) embedded with a structure(s) that itself is embedded with a context(s)" (Benbasat and Zmud, 2003, pg. 186), and addresses one or more of the following four elements:

1. The managerial capabilities and operational practices involved in planning, designing, constructing and implementing IT artifacts.

2. The human behaviors reflected within, and induced through element 1 and the direct and indirect usage of these artifacts.

3. The managerial and operational practices for directing and facilitating IT artifact usage and evolution.

4. The impacts of these artifacts on the humans who interact with them[4].

Benbasat and Zmud, (2003, pg. 188) feel that the identity of the IS research field has been poorly served by papers "that include neither the IT artifact nor at least one of the [four] elements". To see where information systems researchers using genre analysis stand in regard to examining the IT artifact and one or more of the four elements we developed Table 2 below. Here we highlight the IT artifact and which of the four elements was addressed by each genre analysis author in our review. The IT artifacts examined by the authors in our review were identified by a careful reading of the paper, and are usually specified in the "Methods" section. Most of the authors in our review identified which of the four elements specified by Benbasat and Zmud (2003) they were examining explicitly. Where this was not so, a complete reading of the papers allowed it to be easily identified from the text.

The table shows that our reviewed authors considered both the IT artifact and one of the four elements specified by Benbasat and Zmud (2003) in their research. The distribution of the four elements covered by our authors does bear mentioning. Of the sixteen papers reviewed, two looked at the managerial capabilities and operational practices involved in planning, designing, constructing and implementing IT artifacts, nine examined the human behaviors reflected within, and induced through both the planning, designing, constructing and implementing and the direct and indirect usage of these artifacts, four examined the managerial and operational practices for directing and facilitating IT artifact usage and evolution and only one looked at the impacts of these artifacts on the humans who interact with them.

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[4] These ideas are highly summarized. The interested reader is directed to Benbasat and Zmud (2003) for a more complete description.

Table 2: IT Artifact and Element addressed

Paper	IT Artifact	Element Addressed			
		(1)	(2)	(3)	(4)
Orlikowski and Yates, 1994	The application of IT to an e-mail system to support the task of producing a Common LISP language.		✓		
Erickson, 1999	The application of IT in a bulletin board system to support limerick creation.		✓		
Bergquist and Ljungberg, 1999	The application of IT to an e-mail system for organizational communication.		✓		
Crowston and Williams 1999	The application of IT to link documents and parts of documents on the WWW.		✓		
Tyrvainen and Paivarita, 1999	The application of IT to an organization-wide EDMS.			✓	
Toms and Campbell, 1999	The application of IT to support the display of digital documents.		✓		
Shmid-Isler, 2000	The application of IT in the digitization of communication	✓			
Erickson, 2000	The application of IT in a CMC system to support communication between team members.		✓		
Karjalainen, Paivarita, Tyrvainen, and Rajala, 2000	The application of IT to provide document storage and to support document sharing.			✓	
Crowston and Williams, 2000	The application of IT to the WWW to support communication.			✓	
Roussinov, et. al., 2001	The application of IT to display web pages and support search for information.				✓
Rehm, 2002	The application of IT to automatically identify genres.	✓			
Ryan, Field and Olfman, 2002	The application of IT to display web pages to support communication.		✓		
Yoshioka, Yates and Orlikowski (2002)	The application of IT in collaborative technology to support business meetings.		✓		
Yates and Orlikowski, 2002	The application of IT to Team Room to support ongoing work with the organization		✓		
Firth, 2002	The application of IT to provide a bulletin board system to support communication between admitted MBAs			✓	

1. The managerial capabilities and operational practices involved in planning, designing, constructing and implementing IT artifacts.
2. The human behavior reflected in and induced through the use of the IT artifact.
3. The managerial practices for directing and facilitating artifact usage and evolution.
4. The impact of the artifact on the humans who interact with them

Given that genres structure, shape, direct and organize communication, it is not surprising that the majority of the papers reviewed (56%, nine out of 16) examined the element related to the human behaviors reflected in and induced through use of the IT artifact. Further, since genre analysis is best suited to the examination of communication which occurs as a result of the use of an IT artifact, it is perhaps not surprising that there is little coverage of the capabilities and practices involved in planning, designing, constructing and implementing IT artifacts. This is not to suggest that understanding the types of genres in use could not influence the design of user interfaces - these are addressed by the managerial and operational practices for facilitating IT artifact usage. In fact, we suggest scholars concerned with the construction of open source artifacts such as Linux, may benefit from the inclusion of genre analysis into their research. Open source development communities are typically globally distributed communities whose primary form of communication is posting to various bulletin boards. This type of analysis

may provide researchers with an interesting way to illuminate the complex social interactions that lead to the planning, designing and construction of these sophisticated technical artifacts. What is surprising, however, is that lack of coverage of the *impact* on humans as a consequence of IT artifact usage. For instance, if genre analysis can be used to automatically identify and classify documents, what impact does this have on a person's ability to conduct their work?

Another area where genre analysis may prove helpful to researchers is in the area of technology mediated organizational transformation. This area has traditionally received considerable attention from IS scholars including some of the most influential voices in our discipline. We suggest that approaching the study of technology and change in contemporary organizations through the analytic lens of genre analysis can bring to the fore more complex and nuanced elements of the change process. Specifically, we submit that genre analysis can complement the more sophisticated conceptualizations of technology mediated organizational transformation, such as Orlikowski's situated change perspective (Orlikowski, 1996) or Ciborra's notion of improvisation in IS design and implementation (Ciborra, 1999). The explicit focus upon language to understand change is not without precedent. Colleagues in sociology have long considered "linguistic framing" as an important part of the analysis of organizational and institutional change processes (Scott, 2001).

CONCLUSION

This state of research review of genre analysis in information systems research has shown that authors in the IS field using genre analysis have gone a long way in helping to advance our understanding of the communicative actions taking place over IT-based systems. We have shown that the IT systems being examined are disparate, as are the types of communication involved. In each case, genre analysis was used appropriately, and as a result useful and informative insights could be drawn from the research that might have an impact on the users, managers and

designers of such systems. By examining the IT artifact and the critical elements closely associated with the artifact in each paper reviewed, we feel that we have also shown that authors using genre analysis are contributing to the identity of the IS discipline, rather than detracting from it.

Genre analysis shows that genres can impact what gets said, by whom and when. For instance Firth (2002) showed that the introduction of the resumé genre into an online community populated with business-oriented users had the effect of significantly increasing the use of the IT system, and influenced some users to contribute for their first time. It seems, then, that managing the types of genre used during communication can influence the levels of use and participation. Just as information systems can be objects of power and politics (Markus 1994), future research may be able to show that use of certain genres in certain contexts can provide the grist for such power and politics to be exerted. This position is also supported by Orlikowski and Yates (1994), who showed that the use of the ballot genre by a principal actor in the Common LISP project allowed that actor to close one chapter of the project and move onto the next.

In looking at the state of research using genre analysis into web pages, we find that authors have yet to suggest that IT can be designed to support certain genres. Future research might seek to explore the communicative effects of IT designed specifically for the web such as plug-ins for web browsers. A significant amount of work is performed by companies to develop and deploy such plug-ins. A good number of these provide a completely new way of communicating – such as providing the ability to view all sides of a 3-dimensional object. Genre analysis might be well placed to examine the impact these new communication genres have.

Looking at the types of communication addressed, only one author (Erickson, 1999; Erickson, 2000) has looked at social rather than work related messages. Recent work using social network analysis (e.g. Firth, 2003; Wasko and Teigland, 2002) has shown how the social aspects of communication can have

an impact on work being done in the workplace. We suggest that using genre analysis to examine the social communications taking place between work place actors may provide interesting insights.

Looking at the IT artifacts examined by our authors, we find that whilst the array of different systems studied is diverse, it is also not very current. New types of communication systems, such as Internet Messenger (IM) and Text messaging have yet to be put under the lens of genre analysis. Both of these examples are finding a greater place in the work place, and are influencing the way actors within organizations communicate. Anyone dipping their toe for the first time into the general pool of IM or Text messaging on the Internet will likely be surprised at how little they can understand. A great deal of jargon and iconics[5] tends to get used. Genre analysis could be employed to see to what extent such jargon and iconics is used by business users of such technologies, and whether or not there are any unique genres to these contexts. This is important, because Yoshioka, Yates and Orlikowski (2002) have shown that different communities of users can understand the same genre in different ways, and there can be problems in the way shared genre norms are developed. They also showed that these differences lead to difficulties in appropriation of the technology.

We also suggest that our understanding of the complex planning and design processes that lead to the construction of open source artifacts could be enhanced through this type of analysis. Genre analysis is clearly a well placed analytic device that can help us seek insight into these interesting phenomena.

Most research using genre analysis seems to focus on the human behaviors reflected by the usage of the IT artifact, and the managerial and operational practices for facilitating IT artifact usage. We see limited

work in the genre analysis field on what impact IT artifacts have upon the humans who interact with them as a consequence of ordinary social technical interaction. It is a logical progression in the research agenda to move from an examination of IT use to a more nuanced study of the organizational impact of use, if any, different genres might have. Given our understanding of the fact that selecting the appropriate genre for a particular type of communication is important, future studies might include, for instance, an assessment of the impact of the introduction of a unique genre within a communicative system, or to what extent work processes are improved by being able to search using genre or from classifying documents by genre.

Genres are organizing structures shaped by the communicative actions of individuals, and they provide an analytical lens to investigate those actions (Orlikowski and Yates, 1994). When it comes to understanding the communicative practices existing within organizations, genre analysis provides a powerful tool for researchers and practitioners alike. Given its successful use to date, and its solid contribution to the identity of the IS discipline, its continued use is strongly encouraged.

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[5] Iconics are defined as "of or pertaining to an icon, image, figure, or representation" (Oxford English Dictionary), and include the use of punctuation such as :) indicating a person is happy, or ;) indicating a person is a winking.

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