Abstract

There have been numerous calls to incorporate narrative more explicitly into social science methods. Towards that end, this paper identifies a range of choices concerning the analysis of narrative data. I argue that preserving the most basic features of narrative (sequential structure) is helpful, but that incorporating more aspects of narrative (such as the focal actor(s), narrative voice, and evaluative context) creates some interesting possibilities in the area of collaborative systems research.

1. Introduction

As Barthes (1977, p. 79) remarked, narrative is “simply there like life itself.” More recently, Weick (1995, p. 127) argued that “most organizational realities are based on narrative.” Everywhere we look, we find stories of what has happened and what might happen. As researchers, we tell such stories to ourselves and to others. The difficulty, of course, is that the stories we find are usually filled with particulars: details about specific actors, acts, scenes, tools and intentions. In the stories we tell, on the other hand, we strive for generalities. Generalization, whether descriptive, explanatory or prescriptive, is a key part of our work as scholars. In our efforts to construct the generalities expected by our academic readers, we are often forced to abandon the details and the drama that give the social world its distinctive narrative texture. Rather than attempting to bridge the gap between the abstract and the concrete, we tend to choose one side or the other.

This paper addresses the question of how we might find a middle ground that honors the narrative quality of collaborative work and, at the same time, provides a useful basis for generalization. Although one could interpret this paper as advocating a particular approach, the intention is to delineate a set of choices and possibilities for empirical research that might otherwise be ignored. This is not just another incarnation of the tired, old choice between experimental and field studies, or between qualitative and quantitative methods. Rather, the choice involves the extent to which the narrative structure of collaborative work is captured and incorporated into our analysis.

This paper is intended to be somewhat provocative. It starts from the premise that because social life is constituted by narrative, traditional variance methods (Mohr, 1981) are, to some extent, fundamentally flawed. By tabulating and correlating the variable properties of people and things, we risk mis-recognizing and mis-representing the phenomena we to study. This argument has been made in the sociological literature by Abbott (1992); my purpose here is explore its relevance to research in collaborative systems. While many studies of collaborative systems use qualitative data, and process-oriented studies use sequential data, the dominant model of research has traditionally been variance based. The question is, do narrative methods have something to offer?

After briefly outlining why narrative matters and how it has frequently been ignored, I will explore the various ways in which narrative has been (and could be) more fully incorporated into research on collaborative systems and information systems in general. I will conclude by suggest what we might gain by adopting a more narrative approach to the study of collaborative systems. It is beyond the scope of this paper to analyze new data or develop a detailed example, but readers are encouraged to reflect on their own examples. After all, stories are everywhere.

1.1. Ignoring narrative: Variance-based research

In the domain of collaborative systems research, as in nearly all social science, the primary mode of inquiry has been what Abbott (1992), Mohr (1981) and others have called the “variance” approach. Researchers attempt to identify and measure the variable properties of groups, technology, and outcomes so that their relationships can be estimated. Reviews of the groupware research (e.g., Kraemer and Pinsoneault, 1990) provide a detailed discussion of the contextual, independent, moderating,
and dependent variables that have been studied. Such studies make a strategic choice about the treatment of narrative: they ignore it in favor of a tabular approach that treats the social world as if sequential or cultural context was irrelevant.

More recently, there has been a growing stream of literature that emphasizes situational particulars and context from an ethnomethodological perspective (e.g., Suchman, 1993; Sharrock and Button, 1997). This research uses qualitative data, but makes little use of narrative structure per se. Likewise, process studies generally attend to sequences of events (Shaw and Jarvenpaa, 1997), which are a central aspect of narrative, but they tend to decontextualize those events in favor of generalizability. Examples of these studies will be examined in more detail, below, because they do suggest ways in which one can begin to incorporate narrative structure into our research. The point here is simply that narrative is generally not treated as data, especially in the variance-based tradition.

Davenport and McKim (1995) note that the results of variance-based research on collaborative systems, such as GDSS, have been inconclusive. Common wisdom suggests that one could improve on this situation by adding more variables, refining one’s constructs and their operationalization, and so on. This approach has generally been effective in the natural sciences, but as Abbott (1992) (and many others) have argued, the social world is different. Unlike molecules of gas or plots of hybrid corn, we actively construct our world, including our social relations, our work settings, and our technology. As I will argue in a moment, narrative is our primary vehicle for this on-going collective construction work. We tell stories, we hear stories, we enact stories, and we are constantly aware that other people tell, hear and enact stories about us.

To the extent that this is true, research that abstracts away from the narrative quality of the social world, in general, or collaborative systems, in particular, to create variables may be focusing on the wrong things. It may be a little like appreciating the work of Van Gogh purely in terms of the thickness of the paint, overlooking the color or the subject matter. The thickness does vary dramatically, but is that the most meaningful aspect of the painting? Of course, variance based research (whether conducted in the laboratory or in the field) does provide many insights into the social world because people do tend to enact regular, predictable structures. But given the frustrations that researchers have encountered in creating generalizable findings, it raises the question of whether an alternative might be worth exploring. In the sections that follows, I will argue that narrative methods may be a reasonable candidate. The logic is simple: if the social world really is constituted from narrative, then shouldn’t our methods take advantage of this fact?

1.2. What do we mean by “narrative?”

Reissman (1993) notes there have been many definitions and disputes about what narrative is and is not. Labov (1972, 1982), for example, identifies the functional parts of a well-formed narrative: an abstract (or summary), orientation (to the scene, characters, etc.), complicating action (sequence of events), evaluation (meaning or significance of the action), resolution (what finally happened), and a coda (brings the story back to the perspective of the present). Here, we are interested in the properties of narrative that any set of data (in whatever form) might have in varying degrees. The more clearly these properties are present, the more the text will seem like a narrative. Following Bruner (1990, p.77), we can identify four features of a text (or discourse) that marks it as “narrative”.

(1) Sequence in time. Narrative should include a clear beginning, middle and end, although even fragmentary stories can still represent time and sequence. Narratives do not need to present events in sequence; they are frequently re-arranged for dramatic effect (as in murder mysteries, where the corpse is usually found before killer is revealed). But chronology is a central organizing device. The events or actions referred to in a narrative are understood to happen in a sequence.

(2) Focal actor or actors. Narratives are always about someone or something. There is a protagonist and frequently an antagonist, as well. The characters may not be developed or even identified by name, but along with sequence, they provide a thread that ties the events in a narrative together.

(3) Identifiable narrative voice. A narrative is something that someone tells (Bal, 1985), so there should always be an identifiable voice doing the narrating. This may or not be one of the actors in the story.

(4) “Canonical” or evaluative frame of reference. Narratives carry meaning and cultural value because they encode, implicitly or explicitly, standards against which actions of the characters can be judged. In fairly tales (and their close cousins, textbooks), the moral is often explicit. It may even have a privileged section that isolates it from the actual events in the narrative. But even without any explicit moral, narratives embody a sense of what is right and wrong, appropriate or inappropriate, and so on.

Many kinds of text and data can have some narrative properties whether or not they exhibit all of them. White (1981, p.5) distinguishes three kinds of historical texts: annals, chronicles and narrative. Annals contain an explicit representation of sequence and time, but there is no suggestion of a connection between events or any attempt at explanation. As White (1981, p.7) notes, annals lack anything we normally associate with a story:
“no central subject, no well-marked beginning, middle, and end, no peripeteia, and no identifiable narrative voice.”

Annals are a familiar source of data for researchers in collaborative systems, of course, because they are a product of any electronic system that records transactions or keeps a “log file”. Electronic mail systems, for example, create annals. Imagine extracting a sample of messages from an email database. The messages would be time stamped and could be displayed sequentially, but unless someone had carefully arranged and annotated them, there would be no obvious or inherent sense of connection. Similarly, log files are sequential, but they are usually not narrative. Like other annals, they simply record various things that happened. A key question in this paper is how collaborative systems research can go further.

A chronicle builds on this simple temporal organization by adding a focal character or theme of some kind: “things that happened to us“, for example. In White’s words, “A chronicle often seems to wish to tell a story, aspires to narrativity, but typically fails to achieve it. More specifically, the chronicle usually is marked by a failure to achieve narrative closure.” (1981, p.5, emphasis in original) White argues that what distinguishes narrative from a mere chronicle is this sense of closure, and that this closure is provided by the moral context that gives meaning to the events in the story. “The demand for closure in the historical story is a demand, I suggest, for moral meaning, a demand that the sequences of real events be assessed as to their significance as elements of a moral drama.” (White, p. 20, emphasis in original). What White (1981) calls “moral”, Bruner (1990) calls “canonical”, but regardless of the label, narratives embody evaluative criteria against which the conduct of the characters is implicitly or explicitly judged.

This demand for moral context has been taken up quite recently in the collaborative systems literature by Goguen (1997). He notes that moral (or in his terms, evaluative) criteria permeate narratives; they are not confined to the “moral of the story.” This is not merely an academic point about literary criticism, because stories are pervasive features of social life. Indeed, Goguen (1997, p.48, emphasis in original) argues that “everything in social life has an inherent ethical component, and it attains its meaning through the relations of accountability in which it participates.” I will revisit these issues in more detail in a moment, but for the time being, it is sufficient to say that what distinguishes narrative from the chronicle is this sense of moral or evaluative context. It is important to note, when talking about moral context, that one need not evoke “morals” in the Victorian sense. Rather, the stories told in any given cultural group will tend to reveal their values and their sense of what is appropriate. And as Goguen (1997) and many others have argued, these stories give meaning to the events, actions, and objects for that group.

2. Focusing on stories: Narrative as data

Abbott (1992) suggests that such stories – and narrative data in general – should be the basic data for social analysis (see also Orbuch, 1997, for a review of the sociology of “accounts” and narrative). At the same time, Abbott notes that most sociological research does not currently take narrative seriously. Rather, we measure the variable properties of distinct objects (such as the demographic or attitudinal properties of individuals) and relate them to the properties of other objects using models drawn from the natural sciences (“if more X, then more Y”). The same can be said for most empirical research on collaborative systems (Kraemer and Pinsonneault, 1990; Davenport and McKim, 1995). Indeed, a great deal of attention has been paid to identifying the appropriate variables to measure (Zigurs, 1993). Abbott argues that such research systematically excludes the central feature of social life. By taking narratives as our primary data and analyzing them directly, we might gain fresh insights into the social world.

Czarniawska (1997) also argues that narrative is central to organizational life. People enact “stories” and these stories provide legitimacy and accountability for their actions. In any given context, our expectations for appropriate service, management, decision-making and so on can be characterized as typical “stories” (good and bad) which guide our understanding of the situation. The observation that real decision-making deviates from the ideal, rational model (Kraemer and King, 1988) can be framed in these terms, as well. The rational model is an idealized narrative of how decisions should be made; it confers legitimacy on decision-making. But in many real situations, other narratives are apparently even more legitimate (or perhaps more salient) and tend to guide the actual stories that are enacted and later told by the decision-makers. For this reason, narrative data can often bring us closer to the “real work” going on in a setting, from the point of view of the participants. For example, Orr (1995) noted that narrative was widely used as a way for service technicians to share their experiences and collective memories. Their stories diverged considerably from the formal, official procedures for copier repair. But as Orr (1995) points out, these “unofficial” stories were more central to the technicians’ community of practice.

Narrative thinking also figures prominently in some perspectives on individual cognition and sensemaking (Weick, 1995). For example, Bruner (1986) suggests that narrative is our basic mode of understanding and interpreting the world. In contrast to theories of cognition that give a central place to static knowledge structures, Bruner (1986) puts stories at the center.
Ethnomethodologists have also sought to explain how individuals make sense of the world, and have emphasized the importance of “accountability” (Heritage, 1984). Indeed, our ability to construct accounts of our actions (and the actions of others) is central to social relations (Orbuch, 1997). Goguen (1997, p.40) articulates this as the “principle of accountability”: “Members are held accountable for certain actions by their social groups; exactly those actions are the ones constructed as socially significant by those groups.” When called to account for one’s actions, the result is a narrative: a specific telling of events, with a focal actor and theme, embodying the values of the social context in which it is told.

The idea of accounts and accountability has had a great deal of influence in social science (Orbuch, 1997). To cite two examples that have been influential in the information systems area, consider structuration theory and sensemaking. Giddens (1984) adopts the ethnomethodological idea of accountability into his theory of the subject as “reflexive self-monitoring”. As agents go about their activities, they check to see whether they are acting accountably. In this way, the narratives (and values) shared by a social group are instantiated in the actions of individuals. This self-monitoring is a central property of agents in Giddens’ theory of structuration. In the organization literature, the concept of sensemaking (Weick, 1995) depends, to a great extent, on our ability to think in narrative terms: to look back, retrospectively, and ahead, prospectively, so as to construct an understanding of events. This view has found application in the systems literature, as well (Dervin, 1992; Weick and Meader, 1993). Thus, it seems fair to say that some of our most influential models of the individual as a “knowing subject” depend on the ability of individuals to narrativize the social world.

3. Narrative analysis: Tension between the general and the particular

The preceding discussion suggests that narrative is central to social life. By implication, it should be equally central to collaborative systems research. But even if we grant that this is true, and we accept that narrative matters, we have an interest in producing generalizable research findings. Unfortunately, when the phrase “narrative analysis” is used, there is a tendency to assume that this means unpacking the details of a particular narrative. From the perspective variance-oriented readers, such research suffers from a lack of generalizability due to low sample size. One great strength of variance-based research is that it facilitates generalization by reducing phenomena to variables that can be summarized and compared across many cases.

Unpacking particular narratives is one approach, but I would like to suggest that there are other choices, as well. To borrow a metaphor from Goguen, the stories we tell are very wet – full of moral judgements and innuendo and situational particulars that are enormously interesting, but not easily generalizable. By capturing and analyzing these stories, we dry them out. In writing up our results, it is common to organize our presentation in the driest possible manner, according to “themes” or categories or research questions. Many qualitative techniques, including simple content analysis, rely on this approach (Miles and Huberman, 1994). In this way, the reader is given all of the information that relates to a particular theme. Even if stories were used as the raw data, they are cut up and reassembled into their constituent parts for (re)presentation. Thus, we find quotes used to support particular points (as in Suchman, 1993), but they are usually narrative fragments, at best. Whole stories are usually not the direct object of analysis.

The question is, how much drying out is desirable, or necessary, to gain a little more generalizability? And along which dimensions can narrative be dried or reduced, while still preserving valuable aspects of its structure? We want to achieve some kind of generalizability without completely sacrificing the narrative structure that is central to group life. Clearly, this is a trade-off and a choice. In the sections that follow, I will examine how various authors have made this choice in collaborative systems and in the broader information systems literature.

3.1. Unpacking particular narratives

Taking one particular story and “unpacking” it in various ways is the most easily recognized form of narrative analysis. Orlikowski’s (1996) case study of a software support hot line makes an excellent example. She details the activities of the support group through five stages of “metamorphosis”. Although she does not explicitly invoke the techniques or concepts of literary theory in her analysis, she narrates an entire story (with many sub-stories). This approach is typical of many case studies, where the details of a particular story are examined.

Ethnomethodological research is also committed to the in-depth analysis of particular situations (Sharrock and Button, 1997), but does not necessarily treat the raw data as narrative. For example, Suchman (1993) reports details accounts of the actions in an aircraft operations room. The data are reported in great detail, with explicit reference to time, place, and other details, but narrative voice is Suchman’s. She interprets events for us: “Here we have a simple bit of screen-based activity – an entry by Randy, received with an OK from the system.” (p. 117) Randy’s actions are examined in great detail, but Randy himself is barely allowed to speak. He addresses his remarks to us, in his own voice, just once (p.121),
when he explains his interpretation of the images on his video monitor.

In contrast, Brown (1998) provides a set of three narratives, one from each of the major groups involved in the implementation of a medical support systems: the patient ward, the lab, and the system developers. Each group tells its own story of the implementation project. These narratives are reconstructed from interviews, but they are told in the members’ own voices. Brown (1998) then uses this data to compare each group’s interpretation of the events that transpired. In doing so, he does not utilize the tools of literary or narrative theory, but he provides an excellent example of the value of unpacking particular stories in detail. One of the key insights from Brown’s (1998) analysis is the way in which narrators privilege some voices and silence others and in so doing, exercise power. This selective silencing is an unavoidable feature of narrative (White, 1981; Bal, 1986).

Finding the silent voices and revealing hidden sources of power is, of course, one of the key purposes of narrative analysis. Boland and Schulze (1995) use a simplified form of Chatman’s (1977) technique to analyze Cooper and Kaplan’s (1988) famous and influential story about “the mother of all information systems”: activity based costing. This is the story of two ball-point pen plants, where Cooper and Kaplan (1988) show, in a brief and compelling parable, how measuring costs in the “right way” helps you make the “right decisions.” By carefully applying the structural techniques of literary criticism, Boland and Schulze (1995) are able to show how this story works. They reveal the moral and evaluative context of the story, as well as the key structural elements that make it effective. Using the same elements, they are then able to re-write the story to create alternatives, with very different outcomes, that reflect different possible worlds (Bruner, 1986). Their analysis is, in a sense, a deconstruction (plus a clever reconstruction) that reveals the (il)logic underlying the design of a widely used kind of information system.

One might object that Boland and Schulze (1995) are analyzing a fairy tale; how can literary techniques be applied to real situations? This is a valid concern, and it suggests the need for a framework that can be applied to narrative data as collected in field research. One approach to narrative analysis that seems particularly attractive for collaborative systems research is Burke’s (1969) framework for dramaturgical analysis. Burke’s pentad provides a natural place for the technology and the people, as suggested in table 1. Burke suggests that one can analyze narrative in terms of five categories: actor, act, scene, agency and purpose. Note that the “actor” can be human or machine and that the “act” can be described in varying levels of detail (or granularity). In his framework, the term “agency” is somewhat confusing, because it refers to the tool use by the actor to accomplish the act; if I send a message via email, email is the agency.

<table>
<thead>
<tr>
<th>Analytical Category</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actor</td>
<td>Staff member</td>
</tr>
<tr>
<td>Act</td>
<td>Send message</td>
</tr>
<tr>
<td>Scene (context)</td>
<td>Academic department</td>
</tr>
<tr>
<td>Agency (tool)</td>
<td>e-mail? phone? post-it?</td>
</tr>
<tr>
<td>Purpose (goal)</td>
<td>To report a problem</td>
</tr>
</tbody>
</table>

One can use Burke’s framework to analyze particular acts (sending a message via email), or whole work processes (designing a new product via videoconferencing). Furthermore, the categories used for each of these elements can be member categories (meaningful within the participant’s culture) or analytical categories (meaningful within the analysts culture). And one can choose to add as much detail as necessary to convey the dramatic import of the situation. In short, one has all the degrees of descriptive freedom one might otherwise have, but the description is organized to reveal the dramatical structure of the event. That structure is what gives meaning to the event.

### 3.2. Summarization of a collection of narratives

Larger collections or samples of narratives can also be analyzed and summarized in terms of their structure. Such analysis typically entails stripping away many of the surface features of the story to arrive at a representation of the underlying structure, or fabula (Bal, 1985). Propp (1928) analyzed Russian folk tales in this manner to arrive at an underlying structure which each story followed. These structure can give rise to many possible stories through permutations of characters, sequences, and so on. For example, Boland and Schulze’s (1995) analysis could be extended to explore the commonalities between other folktales of accounting and information management.

There are many techniques for summarizing stories, of course. Colby et al (1991) proposed a method for inductively generating story grammars based on folk tales. A variety of similar techniques have been proposed by cognitive scientists (Mandler, 1984) as a means to facilitate machine-based textual interpretation. The objective of these methods is to summarize the common elements of some set of narratives. In that respect, these techniques are similar, to the use ethnographic data to develop formal models (e.g., van der Veer, Lenting, & Bergevoet, 1996; Corsaro and Heise, 1990). In collaborative systems research, similar techniques could be used to identify the folktales of “virtual work”, for example.
3.3. Reduction of narrative to sequence

While Abbott (1992) advocates narrative analysis, his methods rely almost exclusively on sequences of events which are, at best, a kind of chronicle. Abbott (1992) strongly emphasizes the importance of selecting and defining events that have clear theoretical significance and identifying the relationships between events. In this way, he can preserves the focal actors. Shaw and Jarvenpaa (1997) review a number of “process studies” in the information systems literature that adopt variations on this general approach. Collaborative systems research that relies on log files and purely observational records (e.g., Olsen, Herbsleb and Reuter, 1995) is in a similar category. The data are annals, or perhaps chronicles, and it is up to the researcher to re-impose the narrative voice and the moral context that makes it meaningful.

For example, Saberwahal and Robey (1993) use Abbott’s methods to discover typical sequences in software development projects. They collected stories, but then reduced them to sequences of 14 kinds of codable events for analysis. The resulting sequences were then clustered to find the typical ones – the metanarratives – that were prevalent in their sample. Among these, Sabherwal and Robey (1993) find the “textbook” approach, but also a variety of others for which they provide the interpretation and evaluation. The stories do not speak for themselves; it is the researchers who do the narrating.

In their research on collaborative systems, Olson, Herbsleb and Reuter (1995) use sequential methods to analyze group interactions. Their method is similar, in some respects, to that of Bales (1976) and other methods for mapping small group interaction. Olson et al. (1995) use theoretically derived categories (e.g., raising an issue, discussing alternatives, and so on), and they code these events from videotaped records of actual group interaction. In this way, the raw interaction data are captured as chronicles, not as stories. The resulting sequences provide an extremely detailed description of the group process. But it is abstracted away from the narrative context that gives it meaning. Each “issue” and each “alternative” is treated equally, regardless of how it figures in the system(s) of meaning of the group members.

3.4. Summary: A range of choices

Thus, it would seem that we have a range of choices, depending on how much we dry our stories out. We can characterize those choices using the four core attributes of narrative, as defined by Bruner (1990), White (1981) and others. In other words, our methods can be more or less “narrative” depending on the extent to which they embody the elements of narrative. It would be foolish to argue that “more narrative” is necessarily better, in all cases, because one’s choice of methods always depends on the research question. To the extent that questions about collaborative systems are deeply connected to questions about social interaction, however, narrative will be intrinsic to the phenomena of interest. For that reason, it seems reasonable to ask the following kinds of questions about our methods.

**Does the analysis use sequential structure?** All of the examples discussed here make explicit use of sequence, even if they do not rely on a clear beginning, middle and end. This in itself is a significant extension to the traditional, variance-based approach. Even in methods that only use sequence (e.g., most process methods), this basic narrative element retains its significance.

**Is there a central actor or actors?** The need to generalize makes it difficult to analyze a single, focal agent. In a sense, this is the aspect of narrative analysis that runs most directly against the norms of statistical sampling, experimental controls, and aggregation as means to promote generalizability. Except for Saberwhal and Robey (1993), who dry out their narratives sufficiently to apply mathematical clustering techniques, the examples we have mentioned here emphasize a central actor or set of actors. Ethnomethodological studies, such as Suchman (1993), take special care to focus on particular actors and their actions. Case studies such as Orlikowski (1996) do not necessarily do so, of course. Data can be collected and analyzed by department, or by process, or by some other unit of analysis.

**Is there a distinctive narrative voice, and whose voice is it?** The basic choice here is the extent to which researchers let their research subjects tell their own stories, in their own voice, rather than substituting a “scholarly” voice. To a large extent, the presence of the scholarly voice is necessary and unavoidable. The question is extent to which the voices of the participants are silenced. This question mirrors, to some extent, the choice of emic versus etic categories. This issue has received a great deal of attention in the CSCW literature, given the differences between “users” and “developers.” In the examples given here, we see the full range. In Brown (1998), the actual participants in the IT implementation are narrating the story. Brown’s paper is especially instructive because three groups of participants tell three different stories. “Narrative voice” is not just a stylistic issue; it actively constructs meaning and, to the extent that it is accepted, it constructs reality, as well. Orlikowski (1996) highlights members’ own terminology through the use of extensive quotations, and we get a sense of the participants perspective, even though Orlikowski is the narrator. In Suchman (1993), we find extensive use of quotations and detailed observational data, but Suchman provides the narrative voice.
Is the evaluative or moral context made explicit? If we take Goguen’s (1997) argument seriously, the most challenging and important issue in narrative analysis is how to retain the aspects of moral context that give it meaning for the participants. Information, events, actions, and things have no significance outside these relations of accountability that are instantiated through narrative. To explore those relations, we need to preserve them in the stories we analyze.

4. Possible contributions to collaborative systems research

If one accepts the premise that relations of accountability are central to social life, and that those relations are instantiated through narrative, then it seems clear that methods for narrative analysis are worth taking a look at. This point extends well beyond research on collaborative systems, of course, but there are some special advantages that might arise if researchers in this area began taking narrative seriously.

First, narrative brings technology into the analysis as something that enables or constrains meaningful action. This point has certainly been made before (Orlikowski, 1992), but I am suggesting that putting the action into its dramatic context may be a useful next step. If we apply Burke’s (1969) framework, for example, it’s not just “email”: it’s an agency than an actor used, in some scene, to perform some act, for some purpose. Retaining the dramatic implications of the technology creates the possibility of understanding it from the point of view of the role it plays in the social world.

A brief, rather informal, example may help illustrate the point. Like many social science departments, our unit has traditionally had inadequate technical support. When I arrived, three years ago, there was no system for reporting problems, not even a paper-based one. Faculty or staff would grab the support person in the hall or leave him a note, but all too often, the request was forgotten and no action was taken. Nobody could be sure what the support person was working on (or if he was working at all), because much of his work required him to float around, out of his office and out of reach. The level of frustration was overwhelming, and the dominant sentiment was something like this: “Why bother reporting problems? Nothing ever gets done; nothing ever changes.” I heard dozens of variations on this story. Had I taken notes at the time, these stories would have been an ideal source of folktales about broken machines and helpless users.

Knowing that we could do better, we created a web-based system for reporting and tracking computer service requests.¹ It is a simple shared database that allows everyone to see the status of all current requests. It also facilitates followup and communication between the support staff and the individuals who made the request. Our goal was to create a tool (in Burke’s terms, an “agency”) that would allow us to collectively “re-write” the way support interactions were enacted in our department. Putting the requests in a database, for example, helped to keep things from “falling through the cracks”. But more importantly, by making the requests visible to everyone via the WWW interface (as opposed to just sending email to the support person), the system capitalized on the relation of accountability between the support staff and the individuals making requests. Making the requests public makes them more real, in a sense, from a social point of view. Although people still grab the support person in the hall, or leave notes on his door, the addition of this particular tool to the scene seems to have improved the situation. We still have folktales of broken machines, but the users are not quite as helpless.

Second, narrative analysis allows a kind of middle-range generalizability. By distilling meta-narratives, or fabula, from the stories we encounter, we would produce scenarios that could be quite useful in systems design (Bodker & Christiansen, 1997). These are not the grand meta-narratives of progress and modernity; these are the little narratives of “making a good decision” or “designing a good product”. What counts as “good” in these stories emerges from the participants points of view, as do their views of the tools required to enact those stories.

We can use the request tracking example again to illustrate this point. A major part of the frustration with the original, pre-WWW system could be attributed to lack of feedback from the support person at all stages in the process. When staff members made a request, they were unsure if it had been received. There were numerous stories about leaving a message with no response. Second, they had no idea if their problem was “in the queue” or simply forgotten. They were given no “expected completion date”, for example. And finally, since a computer looks the same whether it’s fixed or broken, people had no way of knowing when the work was done. Stories from users frequently included these kinds of elements. We realized that a “good service process” is not simply one where problems gets fixed. Rather, a “good service process” includes feedback to the customer at every stage. It has additional communicative steps that are not needed to fix the problem but that enact better service. In recognition of this, we built the new WWW request system to help the support staff enact a

¹ The system was designed and implemented by Chyng-Yang Jang, our departmental webmaster. It can be reached via the “technical support” section of our web site: http://www.lir.msu.edu/. But please don’t report any problems!
better story. Of course, this is basic common sense from a customer service point of view, but it continues to be a revelation in the world of technical support.

Third, if we do pursue meta-narratives (a.k.a., story grammars), it is important to note that these representations are generative: they describe a large set of possible stories, not just the ones we happened to observe (Mandler, 1984). In this respect, these methods tend to overcome the inherent conservatism of ethnographic methods which are limited to describing what currently exists.

In the request tracking example, there are many ways in which this phenomena emerged. For example, putting all problem requests in a shared, public list that could be viewed by everyone created an unexpected side-effect. When a particular kind of problem emerges (e.g., a printing problem), it can create a flurry of requests. Seeing several problems labeled, “I can’t print” adds a degree of urgency for the support people and a sense of “strength in numbers” for the users. It also creates the possibility of someone visiting the support list and noticing that other people have already reported the same problem. These kinds of scenarios would not have been possible with a paper- or email-based system, for example.

Finally, to the extent that we preserve moral context in the analysis, we are likely to gain a better understanding of how technology “fits” (or fails to fit) into certain cultural contexts. Cultural groups have stories of the good, the bad, the appropriate, the inappropriate, the desirable, the undesirable, and so on. As Czarniawska (1997) argues, these stories tend to define social institutions and are used to socialize new members.

The request tracking system makes an interesting case when compared to another system we attempted to deploy in our department. Functionally, the two systems were nearly identical: they were both shared databases intended to create a publicly available list of issues to be resolved. But while the computer request system has been an ongoing success, the other system was a complete failure. It was never used. The difference can be explained, in part, by the nature of the issues being tracked. The successful system presupposed that staff would be willing to raise issues that could be seen as critical of their supervisors, which is clearly a problem. A convincing analysis of the differences between the two systems, in narrative terms, is beyond the scope of this paper. Using Burke’s (1969) framework, the actors, acts, and agency were all the same; the difference hinged on the scene and the purpose.

People were comfortable raising routine problems with the technical support person, even in public, because that’s his job. But they were not comfortable raising (potentially threatening) issues with their peers and supervisors, especially not in public. Those were not the kinds of stories that our staff wanted to tell, or get told about them. The system just didn’t “fit.”

5. Conclusion

As we go about our lives, we enact variations on the themes that matter to us, subject to the constraints and affordances presented to us. Technology, of course, is one important dimension of that system of constraints and affordances. From a narrative point of view, technologies are “culturally appropriate” to the extent that they enable the right kinds of stories -- they fit into narratives that people want to experience and tell, about themselves and about others. These are the stories we hear and tell all the time. They define the reality of our social and technical systems. Why not use them as data?

6. References


