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INTERVIEW AS CONFESSIONAL ACT: EXAMINING THE ROLE OF NARRATIVES DURING INFORMATION SYSTEMS DEVELOPMENT

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Abstract

While theoretical pluralism exists within the information systems community, considerable emphasis is placed on studying problems with methods based on the natural science model which tends to focus on technical issues. In a more hermeneutic tradition, this paper develops a narrative framework for studying socio-cultural processes during an information systems development project. The paper examines requirements analysis interviews in particular. For the most requirements analysis methods share an assumption that the interview is a critical tool eliciting information. This paper argues that interviews are critical sites for narrative construction. Unlike other forms of eliciting information, the interview places the client in a confessional role where transgressions are narrativized. The research reveals that through narration clients construe an implied subject which serves to legitimate transgressions. The subject constructed by tellers is a deviant subject that does not comply with providing information when necessary thereby causing needles informational gaps and workarounds. Future implications for research and practice are also discussed .

Introduction

A number of theoretical perspectives have influenced thinking on information systems within organizations. And although far from exhibiting theoretical unity, the field of information systems is dominated by approaches associated with natural science model (Mumford, 1991; Klein and Lyytinen 1985) and often labeled positivist, quantitative, functionalist or variance models (Orlikowski, 1991; Markus and Robey, 1988). Methods based on natural science assume that the social world is composed of concrete empirical artifacts and relationships that can be identified and measured. Therefore, the social world has a reality of its own and the individual has not participated in its creation (Burrel and Morgan, 1979). This dominant model borrowed by information systems researchers from the natural sciences seems to be composed of a few favored methods; between 50% to 90% of published research in top IS journals use either laboratory experiments, case studies or surveys (Orlikowski and Baroudi 1991; Vogel and Wetherbe 1984).

These natural science methods often focus exclusively on the technical or 'hard' side of IS at the expense of "softer" issues that involve individuals, groups, or organizations. As many have suggested, information systems is a wide-spanning field that includes the technical as well as an agglomeration of social, symbolic and subjective processes. As such, IS research should include the social world into which the technology arrives. Working within a more hermeneutic tradition, research argued for understanding information and information systems as politically and culturally mediated constructions (Coombs, Knights, and Willmott, 1992). Others have argued that IS encompasses both the 'hard' (technology) and the 'soft' (social) issues thereby warranting a interdisciplinary or "transdisciplinary" approach which brings tools from other disciplines to more fully examine information systems (Currie and Galliers, 1999).

This paper adopts an interpretive or hermeneutic approach (Ricoeur 1981) by drawing upon narrative analysis to better understand the social issues which influence information systems development. In particular, this paper examines narratives told during requirements analysis interviews. It is argued that the interview is a key instrument through which an *implied subject* is produced. Narratives give meaning to what we usually call the 'self' or the 'subject.' The subject, not unlike those characters we encounter every day in novels and plays, is given content, is delineated and embodied, primarily in narrative constructions or stories. This argument is based on understanding the interview as a confessional act. According to Foucault the principal technology for producing knowledge about the subject is the confessional act. The confessional is one of the main rituals that Western cultures

rely on for the production of 'truth' about the subject (Foucault, 1980b). In this study, narratives that were told by users are analyzed to reveal their function of organizing experience and their effect of producing an implied subject of the narration.

Narrativizing the Requirements Analysis Interview

This paper argues that narratives are central to information systems development interviews because interviews are critical sites for the creation of narratives. Research has shown that during interviews "people strive to organize their temporal experience into meaningful wholes and to use the narrative form as a pattern for uniting the events of their lives" (Polkinghorne, 1988:153). A narrative is an embedded and fragmented process in which gaps are filled in by the teller and audience. For example, during an interview, listeners provide verbal and non-verbal cues which prompt the interviewee to continue, repeat, expand or omit information. Cues are responded to by the speaker, thereby directly shaping the telling and meaning of the story. These subsequent comments and responses are not simply correcting mechanisms, but rather reveal an ongoing development of shared meaning.

Narratives have particular structures and functions. Originally, stories about specific past events described a chronological sequence of events which moved in a linear way in time (Labov, 1972, 1982; Labov and Waletsky, 1967). Reissman (1993), on the other hand, uses the term story as a particular kind of narrative that has a beginning, protagonists, and culminating event. Other genres, Reissman notes, include habitual narrative (repetitive event with no peak in action) and hypothetical narrative (events that did not happen). Others have suggested that narratives also function as a tool of persuasion, they are a "politically motivated production of a certain way of perceiving the world which privileges certain interests over others" (Mumby 1987:114). In an effort to convince the audience, the teller may mix and juxtapose narrative genres (Riessman, 1993). For instance, the story may be juxtaposed with a hypothetical narrative to distinguish "what is" from "what could have been." In general, different genres, with distinctive styles, are modes of representation that are selected and invoked by tellers for different reasons and vary in their power to persuade. And still others suggest that narratives aid individuals in making sense of equivocal situations (Taylor and Lerner, 1996; Weick, 1995). When confronted by unclear situations, people will always tell a story to clarify and explain. In other words, narratives allow participants to bring order to what would otherwise be very "messy" situations (Bruner, 1990).

But the narratives told during interviews function to do more than organize experience or persuade listeners, this paper argues that the interview can be conceptualized as a confessional act. During the interview the client is expected to "confess." Confession is used here in the Foucaultian (1980a, 1980b, 1991) sense where the confessional is a power relationship which operates through avowal; the individual verbalizes thoughts, intentions, troubles, desires and whatever "transgressions" that are otherwise difficult to tell. It is through this ritual that self-reflection, self-knowledge and self-examination are obtained (Foucault, 1991). Here the confessional act serves to construct the identity of an implied subject. As clients confess they tell a story that constitutes a drama in which there is a leading character, and the meaning of this role is to be found only though the recollection and imaginative configuring of that history. In other words, in narrating the past clients define an implied subject generated by the confessional narrative. The confessional act does not take place alone it does so in the presence of an "authority who requires the confession, prescribes and appreciates it, and intervenes in order to judge, punish, forgive, console and reconcile" (Foucault, 1980b:61). The individual confesses to an expert by virtue of the latter being a person of greater wisdom or experience.

Now consider the requirements analysis interview, this act involves participants articulating the 'truth' about actions, problems, hopes and needs in regard to work life. Through the act of confessing actions and possible transgressions in relation to information (mis)use an implied subject is constituted as the object of knowledge (revealed through self-avowal) and given meaning. Although the requirements analysis confessional may not involve intimate personal self-reflection, this performance nonetheless allows the speaking subject to construct a subject. And finally, the information worker confesses in the presence of an 'expert' usually a systems analyst or highly paid consultant. The information worker discloses information, thereby making finer and more intimate regions of work life available for surveillance, judgment, evaluation and classification by these experts.

Narrative analysis holds much promise for requirements analysis. IS researchers would agree that requirements analysis is perhaps one of the most critical and challenging phases of information systems development. Research suggests that many system failures can be attributed to a lack of clear and specific information requirements (Cooper and Swanson 1979; Davis 1982). Furthermore, errors during requirements analysis that are not found until later stages of the implementation process can cost significantly more to fix (Boehm 1981;Marakas and Elam 1998). Yet, the preferred requirements analysis technique—the interview—presents major problems in eliciting data. . For instance, researchers have noted that communication between analysts and users is often problematic due to issues such as cognitive limitations and vocabulary differences (Agarwal and Tanniru, 1990; Byrd, Cossick and Zmud, 1992; Cronan and Means 1984; Guinan and Bostron 1986). Yet, interviews are critically dependent on what analysts ask and what they hear, and on what clients report and do not report. Since the discovered data is, in this sense,

partly a function of the talk between a client and an analyst, the study of this talk is central to the understanding how information is captured and understanding achieved. In analyst-client communications, achieving a shared understanding of the information requirements is essentially the crux of the matter and arguably the most challenging to obtain (Urquhart, 1997). Narrative analysis provides the tools by which close and systematic investigation of how understanding is accomplished through interview talk. While some attention has been given to examining narratives during IS projects (Brown 1998; Brown and Jones, 1998; Davidson 1997; Dube and Robey, 1999) only a few have given attention to requirements analysis (Alvarez and Urla, forthcoming).

Research Site and Method

The organization chosen for the study is State University[1] a large public research university located in the northeastern United States. The annual budget of State University exceeds $.5 billion. It has enrollments of 24, 000, faculty of 1184 and staff of approximately 3600. At the time of the fieldwork, the university had recently allocated $11M for an information systems development project. The new information system was to handle all the major administrative functions of the university including, financial accounting, human resources, and all student services such as housing, enrollment, financial aid and admissions. The system that was in place at the start of this project consisted of a combination of in-house developed applications and vendor software that had been heavily customized or no longer updated.

The research was conducted between January 1996 and December 1998. The focus of this paper is on the requirements analysis phase which lasted from August 1996 to December 1996 when the university contracted a consulting firm to conduct the requirements analysis study. For this research, the author was hired by the CIO of the university to document the entire software selection process. This role was disclosed to all organizational members involved in the ERP selection and implementation. My interest as an employee of the project was in capturing information that would allow me to create a case history of the entire selection process. The case study was completed and a report was provided to the CIO who read and approved its contents. From a research perspective, I was interested in capturing the social interactions that made up the discourse environment of requirements determination.

The data collection was conducted through participant observation of requirements analysis interviews. While my primary role was that of observing and documenting the selection process, my recognized technical expertise by clients and analysts often prompted questions directed at me, which required my participation in the discussion. In all interviews at least two analyst-interviewers were present. The analyst's strategy was to have one interviewer ask question and the other function as 'scribe.' Conversations during interviews were taped. Data was collected at thirty-two meetings in which eighty-two individuals from eight different departments participated. The data set consists of sixty hours of tape recordings, along with field notes where tape recording was not feasible. I personally transcribed all the tapes and converted them to line-numbered transcripts.

The emphasis during data analysis was on linguistic structure and interaction, therefore it was important to include intonation, volume, pacing and other qualities of speech to capture the mood and feel of the interview. Transcript transcription conventions are based on the work of Riessman (1990) and Gronn (1983, 1985) (adapted from Stubbs, 1983). These conventions ensured that overlaps, exclamations, questions, pauses and emphasis were maintained. Symbols used in the transcribed extracts are:

//	overlapping talk from the first to the last slash
(x)	pause of x seconds
[ ]	explanatory note
{ }	nonlexical utterances
italics	word emphasized by speaker
!	exclamation
?	question

Speakers are identified by **Name** (of narrator) and by **Int**. (for interviewer). Open coding was used to identify frames, and examine their interactional accomplishment, maintenance and resistance. The core features of open coding are: 1) the inductive development of provisional categories; 2) ongoing testing of categories through conceptual analysis and comparison of categories with data that is already coded; and 3) the altering of existing categories as other ones are created or eliminated (Strauss, 1987, pp.11-13).

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[1]Pseudonym is used.

Findings

Narratives in the form of stories, habitual and hypothetical emerged throughout the interviews during the requirements analysis process. I examined the narratives to uncover the subject (implied or otherwise) that was present in each plot. The findings show that the implicit subject of narratives recounted by users was that of a *deviant subject*. The subject was a student who in some way "violates" rules of the university. That is, a student is construed as a deviant or problematic subject because they fail to respond to a request for information, or have request made on their behalf for information that is unavailable. This deviant subject legitimates the labor intensive and often inefficient work-arounds that are carried out by staff.

The first passage involves Jerry from a department in Housing Services and a consultant who has asked about the time needed for billing students who are residents of the dormitories. Jerry describes the process by which billing and collection of housing charges takes place. Here is a section describing the process:

```
27    Jerry -- We do not bill automatically as a first thing.
28    The first thing that would have been is
29    we would send you a note
30    saying "hey Bob you're in a double single situation,² you have to
31    make a choice.
32    What do you want to do?"
33    So you have to have time lags for that exchange of information.  And
34    what Corey talked about
35    and here we will bill somebody
36    if they just sit there and ignore us.
37    Because in the past that is exactly what they would do
38    and then they claim that nobody told me,
39    nobody did this, nobody did that.
40    We're to the point now
41    where we actually hand deliver
42    under the doors,
43    the notice about this stuff.
44    They will claim,
45    they will cop a plea on campus mail
46    or anything else in terms of that.
47    So we are not federal express but we're pretty close.
48
49    (7 Hous. 27/8)
```

In this case, the subject constructed here is an irresponsible student who does not respond to billing notices. Jerry begins the narration with a habitual narrative to construct the tale of an effective billing process in the face of irresponsible students.

The section opens with Jerry using the word "first" which indicates to the listener that he will describe a series of events or actions over time, rather than what took place at a specific point in time. He describes the standard letter that follows and subsequent actions. In using the habitual narrative, events are temporally organized. Jerry walks us through the process using linear time as an organizing principle. Jerry's temporal ordering of events allows him to remember and recapitulate past experience in a way that is understandable to the listeners.

As the narrative progresses, Jerry steps into the past for a second, breaking the tight sequence of events. This disjuncture in time or "flashback" (Polanyi, 1985, p. 10) is signaled by "But in the past." Here he brings us to a particular time when students behaved irresponsibly. This flashback serves to draw the listener in because it allows Jerry to embed a dramatization within a narrative. By reenacting the scene of the unresponsive student, he mobilizes support for his position – that students are negligent. He constructs an image of irresponsible students, who do not respond to requests and then ask for undeserved forgiveness ("cop a plea"). He then returns to the habitual discourse by indicating "We're to the point now" signaling a shift once again. In general, this kind of temporality conveys to the listener the repetitious nature of things. Tracking down students and making them respond to billing problems did not occur once, it happened over and over again.

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²Single occupancy of a double dorm room.

Jerry description of the billing process seems lengthy and inefficient. Jerry confesses to the work-arounds that are required in order to complete the process (sending notes, hand delivering under doors) which appear somewhat inefficient, but seem justified because of the behavior of the deviant students. He convinces the listener that his transgressions are necessities because of non-compliant students. Jerry further recuperates the legitimacy of his process by searching for a symbol to represent his process for billing students. He selects "federal express" to convey his offices competence in delivering billing information. By comparing his organization to federal express, Jerry differentiates the student's negligent behavior from his office's effective process.

Jerry produces a habitual narrative of billing students which functions to persuade the listeners that the process of delivering billing information is a fairly effective one and in so doing, he constructs the student as irresponsible subject, one that avoid financial responsibilities and then demands undeserved understanding. Jerry's selected mode of representation --the habitual narrative-- allows him to bring order to his memories of delivering billing information to students and helps the consultant and co-workers understand it. Things are in their place and follow a sequenced path. We get a sense of a repetitive and effective process in the face of irresponsible students.

The following excerpt involves three staff members from the enrollment management office. Alice and Sandy have been asked by a consultant to describe instances where they are unable to provide services due to the lack of information.

27   **Int2**— in terms of how you see this in the future, the real question is
28   do you feel there is something that prevents you from giving out more
29   information than you are requested or asked for?
30   **Alice** -- I think a lot of the information is there.
31   For instance, and I'm used to dealing with them, you ask them if
32   they've pre-registered,
33   half of the kids don't pre-register.
34   So you know it wasn't the institutions fault,
35   they didn't comply and go through orientation and pre-register.
36   **Sandy** -- During this past summer
37   we had a very hard time with them,
38   especially parents who were expecting information for health
39   insurance,
40   the student was turning nineteen during the summer and is not
41   enrolled at all in our program
42   because they did not preregister,
43   so we cannot say they're our student.
44   It's gonna get harder and harder for them.
45   **Alice** – Like, for instance,
46   what can happen is that if you take one semester and you get a
47   warning,
48   and it takes three warnings,
49   on the fourth warning you will get a suspension. But now you have
50   people returning like that
51   that we have to track,
52   even though on the second semester they should have been out of
53   here.
54   **Int1** -- So really what it is is a problem of not having enough fields
55   to maintain all the information that people need.
56   **Alice** - yes
57   (12 Reg. 27)

As we look at this passage, we see that Alice begins answering the interviewers question by providing the listener with the theme that will link the narratives she subsequently presents – that of a non-compliant subject. She believes that the students who are non-compliant create informational gaps and problems. Alice begins with a short habitual narrative of her interactions with students and her discovery that they do not comply with the rules (lines 32-37). She starts with "For instance," which is an example of "entrance talk" (Jefferson, 1979) signaling to the listener that a story is about to begin. She begins the narrative by establishing her source of knowledge about students "I'm used to dealing with them" which positions her as someone with experience and authority to make an assessment about student behavior. She describes the repetitive events that are evidence of student non-compliance with registration policies rather than system problems. Although this brief narrative lacks linguistic elaboration, it makes a point. For Alice the repetitive incident illustrates a larger theme – student non-compliant behavior.

Sandy contributes by following with a story about the previous summer, where student's unwillingness to register caused her office and student parents a difficult time. This flashback is signaled by "this past summer" drawing the listener in to a time when problems where encountered due to students lack of compliance with policies. Alice continues with a hypothetical narrative of suspension practices (lines 47-55). The hypothetical narrative serves to organize the series of events that will occur when a suspension is issued. She then brings us back to what actually happens with students signaling that she will begin detailing current practices with "But now". She describes an instance where the student should have been expelled but due to some process failure, was not. Here she confesses to her work-around of tracking these deviant students, which we can infer is a time consuming process.

Through the mixing of genres (habitual, story and hypothetical), both Alice and Sandy contribute to creating an implied deviant subject of the narrative which is construed as non-compliant student. The student does not comply with either registration policies causing parents problems or other academic policies causing them to be suspended. The ordering of narratives helps provide coherence to the overall plot as well as persuade the consultant that the student is at the source of information problems.

Discussion and Conclusion

This research argues that narrative theory can provide us with a useful theoretical framework and tools for analyzing the structure and content of some of the stories that consultants typically encounter in response to their questions during requirements analysis. This framework can be used to augment other requirements analysis methodologies which rely on the interview for information gathering. This study has shown that what ordinarily is perceived as "messy" data, is actually highly organized, rich and meaningful information which conveys knowledge about the information system, work practices and the perceptions of users about their clients (in this case students). There are several points that reinforce this observation.

Narratives function to provide us with a point of view of what is perceived as important to the narrator when working with an information system in their particular organizational context. For this study, we see that deviant subject (as student) and to a lesser degree system inefficiency are issues of importance to the narrators. When interviewees were asked to describe information requirements, they responded with narratives about irresponsible students. Jerry, for example, talked about problematic students who did not respond to requests for action. Alice told us of the students who did not follow policies for registration. In both cases we get a window into the social environment in which these individuals work through their construction of a problematic student. Both Jerry and Alice confess to cumbersome work-arounds and other transgressions that are legitimated through the construction of a deviant student.

To the degree that narratives users tell give insight to the larger social world, this knowledge is essential to understanding the organizational environment. Although not analyzed here for this purpose, the narratives could also give analysts a window into the social networks that exist within the organization. These social networks must be taken into account when the new information system is installed otherwise there is a possibility that the new system could be socially disruptive if not destructive of necessary relationships. Hence, a sound grasp of social networks is surely advantageous to the successful design of a new system.

Constructing an implied subject as deviant has other consequences for information systems development. The subjects that are constructed as deviant are done so in a fairly uni-dimensional manner. Where the student was cast as an irresponsible or non-compliant, the narratives focus on somewhat negative aspects. The narratives highlight points that function to persuade the listener that the student is a deviant subject. Consequently, highlighting negative characteristics may tend to obscure other dimensions of the subject (or client). In other words, focusing on the deviant characteristics of the subject might obscure changing demographic, psychological, or other traits that might reveal informational items or characteristics of the subject that would produce a more robust set of requirements. Exposing these other dimensions would provide a more nuanced picture of the client. If in fact, the purpose of requirements analysis is to obtain a robust set of information items, identifying how the production of deviant subject might limit information gathering would serve to enhance the information gathering process.

And finally, this study also suggests broad curricular implications for students of information systems. Great emphasis is placed on training future analysts and IS professional in the tools and techniques of software engineering, data diagramming techniques, and programming, the more "rational" objective tools. Little if any attention is given to the more qualitative skills of interviewing. If in fact, narratives do provide a window into the concerns and perspectives of information system users, and we find these to be valuable to the successful assessment and design of a new information system, then analysts need to become better skilled at conducting and interpreting interviews. Rather than being removed from the stories, analysts would be encouraged and armed with probing techniques to actively elicit narratives.

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