Using the Glaserian Approach in Grounded Studies of Emerging Business Practices

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Abstract: Based on a recently completed major study of an emerging business practice in the area of information systems management, this paper explains and discusses several important aspects of using the “Glaserian” approach to grounded theory. Grounded theory is an effective approach to produce rigorous research that is simultaneously relevant to business and management theory development and to professional practice. The paper presents a research model and delineates a number of characteristics, risks and demands intrinsic to the method, which can help researchers contemplating the use of grounded theory methodology for their studies.

Keywords: Grounded Theory, Glaserian Approach, Information Systems Research, Socio-technical Studies

1. Introduction

To be relevant to the practitioner’s concern, theory needs to provide meaningful accounts that could be used in emerging business practices. However, the search for “relevance” does not necessarily imply lack of research rigour, or even relevance versus rigour. I perceive relevance and rigour as compatible and enhancing elements of academic work (a view also shared by Mason, 2001, Robey and Markus, 1998, Stokes, 1997). Furthermore, I have argued that relevance and rigour can be achieved simultaneously by using the grounded theory method (GTM) (Fernández et al., 2002) mainly because:

(a) GTM allows researchers to deal effectively with the important issues of bias and preconceptions, and provides a systematic approach that takes into consideration extant theory but is not driven by it (Glaser and Strauss, 1967, Urquhart, 1997, Urquhart, 2001, Sarker et al., 2001). Also, triangulation is embedded in the methodology, which facilitates achieving conceptualisations based in multiple perspectives and data sources (Glaser, 1978, Glaser, 1998, Glaser and Strauss, 1967).

(b) GTM can help researchers to avoid stating the obvious to the expert and instead provides categories based on many indicators and showing ideas based on patterns. These conceptual ideas allow practitioners to transcend the limits of their own experience, adapting and applying the substantive theory to other situations. Thus, by following the grounded theory methodology, researchers can significantly contribute by providing knowledgeable people with theory grounded in their field of work that has been enriched by conceptualisation and extant literature from multiple sources (Eisenhardt, 1989, Glaser, 1998, Glaser, 1978).

However, the method, while simple in nature, often appears daunting, or at least difficult, to the uninitiated. For example, an earlier article in this journal described a number of difficulties encountered by a researcher while using GTM; these difficulties were mainly related to coding and reaching saturation through conceptual emergence (Allan, 2003).

To further contribute to the understanding of the grounded theory method and its application to business studies, this paper presents a personal view of GTM which was generated from practicing GTM (rather than “philosophising” about it). Therefore, the discussion that follows centres on processes and issues I confronted while conducting a grounded theory study to investigate an emerging business practice in information systems management: the metateam project.¹

¹ Metateams are virtual teams of teams, which work in a common major collaborative project where teams belong to different firms that are engaged in specific and temporal contractual arrangements. Metateams result from the convergence of information technology outsourcing practices, virtual organisations, enabling technology, and demands for both global competitiveness and rapid delivery of business solutions.
2. The grounded theory method


Martin and Turner (1986 p.141) defined grounded theory as an "inductive theory discovery methodology that allows the researcher to develop a theoretical account of the general features of the topic while simultaneously grounding the account in empirical observations of data." (Grounded theory is also a deductive method: see 7). In grounded theory everything is integrated; it is an extensive and systematic general methodology (independent of research paradigm) where actions and concepts can be interrelated with other actions and concepts and nothing happens in a vacuum (Glaser and Strauss, 1967, Glaser, 1978). Among a number of tenets, there are two key beliefs of grounded theory:

(a) The research must not start with a theory to prove, disprove or extend. When unavoidable, deep-rooted beliefs can be captured as text and then analysed with other text as just another incident in data (Glaser and Strauss, 1967, Glaser, 1978).

(b) Grounded theory is discovered through constant comparison between incidents and properties of a category. Trying to observe as many underlying uniformities and diversities as possible is the essence of grounded theory.

As with many other methods, grounded theory evolved with practice, this evolution resulted in a colourful public disagreement between Glaser and Strauss as to how to conduct grounded theory research. Thus, the two main approaches to grounded theory are often called ‘Straussian’ and ‘Glaserian’ (Stern, 1994). This article does not aim to take part on an old debate; rather, its focus is to depict how I used the Glaserian approach to study an emergent business practice. To achieve this objective, it is first necessary to present a research model in order to enable the understanding of the whole process and its issues. This is discussed in the next section.

3. Research models for grounded theory studies

Explaining simply and correctly a method that “happens sequentially, subsequently, simultaneously, serendipitously and scheduled” (Glaser, 1998 p. 1) is challenging. One simple way of representing the grounded theory process is found in Lehmann (2001). Here the grounded theory process is represented as a spiral that starts by collecting slices of data in a substantive area of enquiry, which are then codified and categorised in a continuous process that moves toward saturation and results in the theoretical densification of concepts represented by a substantive theory (Figure 1).

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Figure 1: Grounded theory’s building process (Lehmann, 2001).
Although Figure 1 provides a good high-level view of the process of grounded theory, the model fails to include some critical activities. Thus, I expanded Lehmann’s (2001) model by:

1. Adding components from Eisenhardt’s (1989) seminal article on building theories from case studies. In particular the process of entering the field, which includes (a) defining the research problem and (b) ensuring theoretical flexibility and relevance by careful selection of cases.

2. Adding components from the Glaserian literature to highlight the importance and role of theoretical memos and extant literature in a GTM study.

By doing so, it was possible to present a picture that both includes all key aspects of the method and provides an accurate depiction of the iterative nature of the method. This is presented next in Figure 2, followed by a discussion.

**Figure 2**: Expanded Lehmann’s (2001) research model.

**Entering the Field** is the first research action to be conducted in the context where the phenomenon is found. To enter the field I considered three important aspects:

1. Following the grounded theory tradition, ‘the problem’ was to be discovered from participants’ accounts. The initial research question was as broad as possible and did not include a priori constructs or guiding theories.

2. I had to address practical issues like crafting ethical protocols and obtaining approval, selecting the software and hardware required for interviewing and processing the data, producing transcription protocols, and being trained to administer leadership surveys.²

3. Entering the field included preparation work such as selecting an appropriate

² These surveys, MLQ and MLQTeam, were designed to measure the leadership style of the project manager and the project team. The purpose of the survey was twofold: (a) to measure a priori the leadership style of the team and of the project manager, based on a suspicion that leadership was a key issue; and (b) to have data from the survey to later compare with evidence from interviews if leadership emerged as a main concern (it did not). The surveys had the secondary goals of introducing the team to the research and to establish rapport (in this regard the exercise was successful).
site, obtaining access to the case, getting consent from the participants and contacting them.

From that point, I became involved in **Theoretical Sampling**. Theoretical sampling is a data collection process that continues until the very end of the research (including the write-up stage). This allowed me to take advantage of emergent themes, acquire data continuously and maximise observation opportunities.

All interviews were recorded in both digital and analogue forms. The tape recording was then transcribed and ATLAS.ti, a software application for qualitative data analysis, facilitated **Open Coding** and other coding activities.

Open coding involves analysing the data to extract a set of categories and their properties. This is done by coding for as many categories as possible **without a preconceived set of codes** (Glaser, 1978). During open coding, I labelled the text of each interview, detecting new lines of enquiry, which guided subsequent data acquisition processes (337 codes were generated). While I read the text **line-by-line** I was primarily concerned with understanding the concept under discussion. That is, I was more interested on what was going on than on the words used to describe incidents. This characteristic of the Glaserian approach significantly reduced the drawbacks associated with microanalysis (Allan’s (2003) account of the Straussian coding technique suggests that analysing the text word-by-word- and line-by-line is a protracted and at times confusing activity). Furthermore, by concentrating on coding and explaining what is going on, one is naturally drawn to the next critical activity in grounded theory: the production of theoretical memos.

The writing of **Theoretical Memos** starts almost in parallel with open coding. Because memos are “the theorizing write-up of ideas about codes and their relationships as they strike the analyst while coding” (Glaser, 1978 p.83). Memos are produced constantly in grounded theory, from the beginning of the analysis process until reaching closure, capturing the thoughts of the analysts while they progress through the work. Memos raise the theoretical level via a continuous process of comparison and conceptualisation. They also provide freedom, flexibility, and enhance creativity (Glaser, 1978).

As codes and memos accumulated, I started to perceive relationships between them. This process, called **Theoretical Coding**, conceptualised the interrelation of substantive codes by generating hypotheses for integration into a theory. The integration of concepts is a flexible activity that provides broad pictures and new perspectives; yet, however flexible, theoretical codes must remain grounded on data, they cannot be empty abstractions. Flexibility implies theoretical sensitivity to a number of possible coding paradigms, or coding families, consciously avoiding over-focusing on one possible explanation.³

The emergence of a pattern, in my study’s case resolving conflicts, marked the beginning of **Selective Coding**. This process refers to delimiting the theory to one (or two) core variable(s) which acts as a guide for further data collection and analysis (Glaser, 1978:61-72). By doing so, the research focused on one of the several basic social processes or conditions that are present in the data. The delimitation of the analysis to those significant variables affecting the core variable contributes to parsimonious theory (Glaser and Strauss, 1967). In my study, the significant interrelated variables identified were Trust, Communication, Conflict and Cost.

At this point in the process, the role of the **Extant Literature** becomes very important, the researcher needs to acquire sensitivity and knowledge on grounded concepts. The literature is therefore read as a source of more data to be compared with existing grounded data. For example, readings about trust, shared mental models, conflict, psychological contracts, transaction cost economics, and organisational psychology raised the theoretical level and improved construct definitions (as suggested by Eisenhardt,

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Most of these readings were outside the substantive area of research, yet they were made relevant by the actors’ main concern and the emerging theory.

I achieved Theoretical Saturation when I was able to account for the main concern of the research and further sampling failed to add significant value to the study (i.e. new categories or properties).

At this stage, the theory became dense with concepts and enriched by relevant extant literature: I discovered a Substantive Theory. Substantive theories are applicable to the particular area of empirical enquiry from where they emerged (Glaser and Strauss, 1967). They can be classified as ‘middle-range’ theories; that is, between ‘minor working hypotheses’ and ‘grand-theories’ and they are relevant to the people concerned and are readily modifiable (Glaser and Strauss, 1967). In my case, the substantive theory was able to explain the interplay of trust, cost, conflict and communication in major information technology projects enacted by multiple teams and multiple firms.

4. Particular characteristics of the method

Researchers doing grounded theory often have to deal with issues of unfamiliarity with the methods (own or others’) regarding methodological aspects such as the role of the extant literature, the unit of analysis, or the use of analysis tools. This section presents some of these aspects.

4.1 Role and place of the literature in a grounded theory study

The approach of reading the literature first with the objective of identifying gaps and relevant theories is opposite to the role that the literature has in grounded theory. Glaser is very specific in this regard:

Grounded theory’s very strong dicta are a) do not do a literature review in the substantive area and related areas where the research is done, and b) when the grounded theory is nearly completed during sorting and writing up, then the literature search in the substantive area can be accomplished and woven into the theory as more data for constant comparison.4

(Glaser, 1998 p.67)

The purpose of these dicta is to keep the researcher as free as possible of influences that could restrict the independence required for theoretical discovery, not to ignore extant and relevant knowledge. Adopting a grounded theory method commits the researcher to a rigorous and constant literature review process that occurs at two levels:

1. the researcher must be constantly reading in other substantive areas to increase their theoretical sensitivity, and

2. conceptual emergence forces the researcher to review convergent and diverging literature on the field related to the developing concept.

Because emerging theoretical construction drives the literature review, the extant literature is incorporated into the study as data. Therefore, to be true to the method, most of the relevant reviewed literature needs to be presented as it finds its way into, and becomes integrated with, the substantive theory – “forcing” a typical PhD dissertation’s ‘Chapter 2: literature review’ would be methodologically unsound, detracting from the true role of the literature in grounded theory.

4.2 Unit of analysis

The qualitative datum is defined as a string of words capturing information about an incident; this incident is the unit of analysis and represents an instance of a concept coded and classified during the coding process (Van de Ven and Poole, 1989). The source of the datum may be a person, a group, a document, an observation, or extant literature.

Incidents are indicators of a concept. The constant comparison of indicators confronts the analyst with similarities, differences, and consistency of meaning which result in the construction of a concept (or category) and its dimensions. Figure 3 represents a process of induction and deduction where the comparison of indicator to indicator generates a conceptual code first and then indicators are compared to the emerged concept, further defining it.

4 Bold text in the original.
In studying emerging socio-technical phenomena it is important to focus on indicators of actions and accounts of actions, which occur in a particular context and within a process enacted and constructed by the actors. Consequently, the study needs to consider the need to focus on properties of a process versus properties of an actor or unit (as a person, group, or organisation).

4.3 Focus on process not on units

Properties of a unit are more relevant to descriptive qualitative studies while properties of a process are more relevant to studies aiming at theoretical conceptualisation (Glaser, 2001, Glaser, 2002, Glaser, 1978). My metateams study, for example, aimed to provide a theoretical conceptualisation of a basic social process (BSP).

According to Glaser (1978), basic social processes can be of two types: basic social psychological process (BSPP) and basic social structural process (BSSP). BSPP refer to process such as becoming (e.g.: a nurse, a leader, a system) or inspiring (e.g.: followers, peers) and are useful in understanding behaviours. BSSP are concerned with social structures in a process (e.g.: centralisation, organisational growth, outsourcing, or recruiting). Basic social processes are a type of core category (not all core categories are BSP), exhibiting the following characteristics:

1. BSPs “process out” at least two emergent stages that “differentiate and account for variations in the problematic pattern of behaviour” (p.97).
2. BSPs are ideally suited to qualitative studies where the analyst observes the evolution of a process over time (i.e., influencing outcomes in a project).
3. BSPs are labelled by a gerund that reflects their evolving nature and a sense of motion (e.g, resolving, influencing, becoming).

As BSPs may or may not be present in a grounded theory study, their presence (or lack thereof) further guides the research design and execution. Thus, understanding the distinction between doing unit-based or process-based sociological analysis is critical to the research design, as these dissimilar objectives place particular demands on sampling, analysing and theorising.

5. Theoretical sampling

In grounded theory, sampling is driven by conceptual emergence and limited by theoretical saturation, not by design. Theoretical Sampling is the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges. This process of data collection is controlled by the emerging theory, whether substantive or formal (Glaser and Strauss, 1967 p.45).
Consequently, the selection of data sources is neither a random selection nor a totally a priori determination. For example, I decided a priori that a combination of data sources was most appropriate for this study; however, the specific details of what data was available and which of the available data was relevant, depended on the emerging data itself.

Another critical a priori sampling decision was to control the variation by organisational delimitation while allowing for within-case diversity of access to multiple data sources. This allowed controlling environmental variation while clarifying the domain of the research, as suggested by Pettigrew (1988).

To counteract the risk of sampling too superficially I also selected a case study that provided the “meatiest, most study-relevant sources” (a strategy recommended by Miles and Huberman, 1994). The selected project also provided the best accessibility; this practical consideration was later proven critical as in-situ observations gave me a better appreciation of what was going on and of what was important to the actors. Furthermore, listening to the somehow heated discussion between two parties with conflicting interests in real-time (versus reconstructed evidence) gave me yet another perspective.

6. The core category: role and selection criteria

To generate substantive theory, the analyst must discover the core category and delimit the investigation around it. The core category is the pivotal point for the theory; most other categories relate to it, and it accounts for most of the variation in pattern and behaviour. The core category “has the prime function of integrating the theory and rendering the theory dense and saturated as the relationships increase” (Glaser, 1978 p.93).

In the metateam study, the core pattern was “resolving conflicts”, a basic process that engaged actors (people and organisations) in a series (pattern) of activities aimed at resolving incongruence and misunderstandings. Resolving conflicts is how managers of metateams (and the component teams) achieved project delivery. The core category in the resolving conflict pattern was “trust,” which had a number of key interrelated categories that explain the core pattern.

7. Induction and deduction in grounded theory

While grounded theory is classified as an inductive method (e.g., Glaser and Strauss, 1967, Glaser, 1978, Strauss and Corbin, 1998, Martin and Turner, 1986) theoretical sampling is a deductive activity grounded in inducted categories or hypotheses. This acts as a virtuous circle where “[d]eductions for theoretical sampling fosters better sources of data, therefore better grounded inductions” (Glaser, 1998 p.43). The difference between an inductive and a deductive method relates to ‘pacing’; if the researcher looks at data first and then forms hypotheses (inductive), or if the researcher forms the hypotheses first by conjecture and then seeks for research data to verify the deduction (deductive) (Glaser, 1998). This cycle of induction and deduction is represented in Figure 4.
Two practical aspects of my research facilitated both induction and deduction activities, namely: (a) recording and transcribing interviews and (b) using a qualitative data coding and analysis tool. These activities are discussed in the next two sections.

8. Recording and transcribing interviews

Glaser does not encourage the use of tape recording (Glaser, 1998). Glaser argues that recording is unnecessary because the researcher is after important concepts and patterns not precise accounts as in other, more descriptive, methods. Therefore, for conceptualisation purposes the actual words are not as significant as they belong to one of many possible units in a process. Another perceived problem with recording is that it becomes time consuming and inefficient for this type of research; interviews are taken for transcription and then corrected, causing the analysis of many non-important parts. Glaser is very conscious of wasting time in what he considers superfluous activities.

However, not recording is too risky a strategy to follow. Above and beyond fulfilling the need for evidence in a study, by recording and transcribing interviews, researchers can revisit and re-code text as more evidence emerge and patterns are detected. The ability to have access to the full transcription and to replay the interview at any time is a distinct advantage, especially in studies of organisational cases that are conducted over a long period of time.

In addition, the iterative nature of grounded theory demands the constant comparison of incidents with already collected data; in doing so, previously undetected incidents are likely to emerge. These new incidents could benefit the study and therefore justify the extra effort required to record, transcribe, and code potentially irrelevant data.

In the metateam study, I recorded interviews using analogue and digital technology. The analogue tape was then professionally transcribed.\(^5\) While Open Coding an interview for the first time, I would load the transcription onto ATLAS.ti and simultaneously play the digital (MP3) version of the interview on my computer. This combination of actions had two effects. First, it improved recollection and stimulated mental activity as the interview was recreated with sound not just text. As a result, the production of memos was prolific. Second, it allowed the correction of transcription errors that can be very frequent due to the technical jargon used by actors.

As Glaser predicted, the extra time involved in open coding full interviews, rather than coding just the important concepts, was substantial. However, the detailed analysis helped to acquire a deeper understanding of the issues. This understanding facilitated the emergence by discovery of the core concept and made me more comfortable with the coding activity. As re-listening to the actors

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\(^5\) The reason for using analogue technology was related to the tools used by the professional transcribers available at the time. Digital recording is a better and more flexible option.
often triggered theoretical memos and facilitated the finding of relations, I considered this as a productive activity, not a wasteful one.

9. Using qualitative data coding tools

Glaser (1998 pp.185-186) also alerts against the ‘technological traps’ of data analysis tools such as NUDIST (or ATLAS.ti in my case) because they create unnecessary restrictions, inhibit the researcher’s development of skills, and impose time-consuming learning curves. Glaser perceives computing technology as an easy way out and as a hindrance rather than an aid to creativity. To be sure, computing tools can be used in many ways and some of those ways will indeed have the negative consequences Glaser mentioned; yet the opposite can also be true.

For instance, using ATLAS.ti for open coding and memoing was a substantial advantage in my study; it provided a fast way of checking and comparing incidents and the flexibility of exporting data to other tools as I perceived appropriate and necessary. The software ability to collect memos allowed the efficient writing, analysis, and retrieval of memos at any time in the process. It is also true that ATLAS.ti was not everything I needed. A number of tools and techniques contributed to my study. I used butcher’s papers and a white board to draw box diagrams representing the interrelation of emerging concepts. I drew many types of diagrams on notepads or flowcharting software and used a word processor to analyse sets of incidents and memos. I also found very useful to use a mind mapping software package (MindManager) to organise and visualise my thoughts. Therefore, Glaser is correct in asserting that this is creative work, yet retrieving and connecting concepts was extremely easy and efficient. Also, while ATLAS.ti has some automated coding facilities (i.e., coding all occurrences of a word or phrase), coding was done entirely manually. Automatic coding is a disadvantage for the grounded theorist as it obscures the discovery of what is going on in the text; in this regard, Glaser’s reservations are fully justified.

10. Demands and risks of grounded theory

Every methodology poses particular demands and Grounded Theory is not an exception. Based on my own experience and discussions with other grounded theorists, I strongly concur with the advice provided by Glaser (1978, 1998, 2001); that is, the grounded theorist must:

1. Tolerate confusion—there is no need to know a priori and no need to force the data.
2. Tolerate regression—researchers might get briefly ‘lost’ before finding their way.
3. Trust emerging data without worrying about justification—the data will provide the justification if the researcher adheres to the rigour of the method.
4. Have someone to talk to—grounded theory demands moments of isolation to get deep in data analysis and moments of consultation and discussion.
5. Be open to emerging evidence that may change the way the researcher thought about the subject matter, and to act on the new evidence.
6. Be able to conceptualise to derive theory from the data.
7. Be creative—devising new ways of obtaining and handling data, combining the approach of others, or using a tested approach in a different way.

Additionally, due to the minority status of grounded theory some research arenas (such as Information Systems research), it is likely for researchers, specially Ph.D. candidates, to experience what Stern (1994), described as Minus-mentoring—that is, learning from books, employing grounded theory for the first time without
the guidance of a supervisor with practical knowledge of the methodology. ‘Minus mentees’ can reduce this risk by (a) networking with researchers conversant on the methodology; (b) reading the wide Grounded Theory bibliography (Urquhart, 2001); and (c) participating in relevant discussion groups.

It must also be recognised that sometimes minus mentees can face issues of prejudice, or “methodological turf”, within their local research community. Namely, they may have to confront negative comments from learned colleagues or supervisors lacking a deep understanding of the grounded theory method. Often these comments are simply ill-formed opinions destined to influence the minus mentee’s methodological decision towards a more “conventional” approach. When this happens, researchers must assess (a) the level of opposition—and their own level of commitment— to the grounded theory method, (b) the source, intention and influence of the opposition, and (c) their own ability to respond to this opposition with academic rigour.

Finally, a grounded theory emerges through intensive intellectual action. Researchers need to interact with their data and while this interaction is often highly rewarding and satisfying, it is also extremely intensive, time consuming and all-absorbing, and the researcher must be persistent (as also attested by Urquhart, 2001).

11. Conclusion

The previous sections discussed processes and issues I confronted while using the grounded theory method over a period of two years. I presented a research model that follows the Glaserian approach to grounded theory and highlighted some particular characteristics of the approach and briefly stated some demands and risks of the method.

Grounded theory is a rigorous method that allows researchers to produce theory that is relevant to business people. Relevance for the grounded theorist means bringing tangible benefits to the experts. According to Glaser (1978 p.14), when the field experts can understand and use a theory by themselves “then our theories have earned their way. Much of the popularity of Grounded Theory to sociologists and layman alike, is that it deals with what is actually going on, not what ought to go on”. Thus, the grounded theory can facilitate the emergence of clear, logical and parsimonious theory that both (a) fulfils the canons of good science and (b) can be used in IS practice to explain and predict the phenomena on its environment. In other words, the researcher can produce theory-building studies which are rigorous, useful, relevant and current.

Yet, when investigating emerging business practices it is paramount to use a method that facilitates and motivates actors’ participation. I experienced a high level of cooperation from the participants while conducting the grounded theory study. This can be partly attributed to: the open nature of the interviews; the focus on experiences as perceived by the actors and the method forcing me to act as a very active listener. Research that focuses on actors’ perspectives provides actors with opportunities to articulate their thoughts about issues they considered important, this articulation allows participants to reflect on empirically significant events (to them), gaining further understanding of past actions and acquiring new insights.

From a more personal point of view, I was intellectually stimulated by the participants’ positive attitude towards the research, which gave me access to richer data (such as invitations to attend meetings, or sharing documents and e-mails). I also had a sense of contributing to a wider audience through conceptualisations that were not restricted by the case studied, and yet firmly grounded on it, this positive feeling helped to counteract the heavy demands of the grounded theory method.

References


