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The Roles and Practices of Business Analysts: A Boundary Practice Perspective

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Abstract

To develop a better understanding of the practice of business and systems analysis, we adopted the boundary practice lens to view business analysis as a boundary practice between users and IT staff. This paper presents findings from an interpretive case study of a group of business analysts working within a large public sector university. We find that business analysts are largely expected to 'protect' the users and IT staff from each other. The business analysts' location in the organisation structure and previous work experience in business or IT is likely to influence (a) the focus of their work (b) the closeness and trust developed with users and IT staff and (c) their legitimacy in spanning users and IT staff. To be able to bring about agreed requirements specifications that are both technically possible to realise and can be delivered at an acceptable cost, but also will result in a system that is suitable for the business purpose and easy to use, business analysts need to negotiate a middle path between users and IT staff. Because business analysts need to work effectively with IT and the business and move easily between the respective cultures, learning outcomes in the education of BAs need to emphasise (a) dealing with social and political context of both business requirements and technical/economic feasibility and (b) using distinct skills, knowledge, tools, and techniques in dealing with users and IT.

Keywords

Business Analyst, Boundary Spanning, Boundary Practice, Interpretive case study

INTRODUCTION

There is a perception that business and systems analysts[1] act as a conduit between users and IT staff to overcome the so-called gap between these two groups while determining business and systems requirements (Evans 2004; Kaiser and King 1982). However, failure to identify 'real business requirements' has been noted as a major factor leading to IS failure rates (Goldsmith 2004, p. xvii), and thus the question must be asked as to whether business analysts (BAs) are able to bridge the gap effectively.

The literature regarding business analysis is largely rationalistic, a-contextual, based on abstracted models (Boland 1979; Lyytinen 1988; Mathiassen 1998) mostly adopting a positivist orientation (Oats and Fitzgerald 2007). This arguably limited view of business analysis is now being questioned by IS academics (Alter 2006; Surendra and Denton 2009). For example, such a view is detached from the reality of practice (Avgerou and McGrath 2007) and neglects the cultural, social and political context in which BAs work (Avgerou 2001; Brown and Duguid 2000). Research into the IS practitioner's world allows us to understand reality of practice and the relationship between context and business analysis. Our purpose then is to undertake a practitioner-grounded research into the roles and practices of business analysts (BAs) who are involved in determining business requirements. This gives us an opportunity to seek insights that might be relevant to both current and future business analysis practitioners.

Previous work on practice of BAs has focussed on issues like the differences in perspective and worldview between users and analysts (Green 1989, Kaiser and Srinivasan 1982;), user-analyst relationships (Kaiser and King 1982; Newman and Robey 1992), analyst's skills and knowledge requirements (Vitalari 1985), the analyst's cognitive problem solving behaviour (Vitalari and Dickson 1983), the analyst's model of the user

[1] From here onward we refer to business and systems analysts as business analysts.

(Dagwell and Weber 1983), and the difference between novice and expert analysts (Schenk et. al 1998). However, very little research has been done that looks at the roles and practices of BAs as boundary spanners involved in interacting with both users and IT staff and negotiating issues and differences between them. We believe that the extant work has emphasised the user-analyst dimension and largely ignored the analyst-IT developer dimension. Furthermore, there is very little research that investigates the tri-partite arrangement amongst the users, IT staff, and BAs. This work aims to contribute to our understanding of the role and practices of business analysts as they interact with users on the one hand, and IT staff on the other.

The paper is structured as follows. First, we discuss the theoretical foundations for our research by explaining what we mean by adopting a practice perspective and the concept of boundary practice (Wenger 1998). We then outline the research method and design of the study. This is followed by discussion on the analysis of the empirical data collected from BAs, users, and IT staff. In the last section we consider both the theoretical and practical implications of our findings.

THEORETICAL BACKDROP: BUSINESS ANALYSIS AS BOUNDARY PRACTICE

Adopting a practice perspective implies an understanding that individuals are enabled and constrained by shared practices by which they interpret the world and then behave in accordance with the meaning they derive from their interpretations (Reckwitz 2002, p 245). This perspective emphasises practice as a driver for action and social order. IS researchers have adopted various practice theories to guide their research. For example, they have used Giddens' structuration theory (Orlikowski 2000), Bourdieu's theory of practice (Levina and Vaast 2005), and Lave and Wenger's communities of practice concept (Klein & Hirschheim 2008) as a lens to understand practice. For this study, we adopt the concept of *boundary practice* that allows us to understand the tripartite arrangement amongst the users, IT staff, and BAs.

Wenger's (1998, p.129) *boundary practice* concept is based on his assertion that an organisation could be viewed as a *constellation of practices* that are connected by boundary spanning and boundary objects. Boundary spanning is an activity by which practitioners make connections among various organisational practices and boundary objects are processes or products that allow organisational practices to connect. These connections over a period of time may become part of what is called *boundary practice* where the purpose is to maintain connections between several organisational practices by *"addressing conflicts, reconciling perspectives, and finding resolution"* (Wenger 1998, p.114). We argue that business analysis can be viewed as a boundary practice (see Figure 1) because business analysts work as a liaison between the users and the IT staff, and thus, the purpose of this research translates into the following research objective: what constitutes boundary practice in the work of BAs?

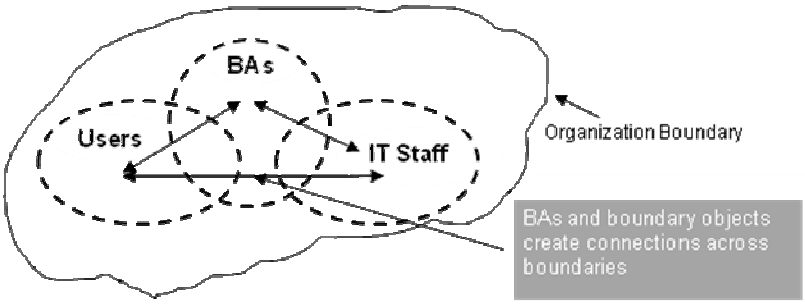

Figure 1: Business Analysis as a Boundary Practice (Adapted from Wenger 1998:73)

RESEARCH METHOD

Practices can be viewed from two perspectives: from *outside* and from *inside* (Gheradi 2009). Viewing practices from *outside* implies a focus on patterns and regularities but viewing them from *inside* involves understanding practices from the practitioners' point of view. We intend to *go inside* and understand the practice from the point of view of BAs. In order to do so we adopted an interpretive case study method. Case study method has been effectively used previously for boundary spanning research (Levina and Vaast 2005). The business analysts studied in the case study reported in this paper were employed in the 'business systems and data management department[2]' of Uni 1- a large public sector university in Australia. Uni 1 is multi-campus institution with a number of campuses in Australia and one overseas campus. It has close to 30,000 students and over 2000 staff. The business analysts are involved in the enhancement and maintenance of the student management systems in

[2] Pseudonyms have been used to maintain anonymity for participating organisations, departments, teams, and individuals.

the university and much of their work involves interacting with faculties and other administrative units across the university. The business analysts were located in the student administration department and not in the IT department. The research objective was operationalised using boundary practice concepts and semi-structured interviews were conducted with these six practitioners involved in business analysis, two users located in two different faculties, and two IT staff (Table 1 summarises the information about the interviewees).

Table 1: Summary of Interview participants

Participant	Job Title	Role
BA1	Senior Business Analyst	The analysts were involved in understanding problems of users in the faculties and other administrative units and writing the work requests that were to be taken up by the IT department. This involved liaison with users and IT staff, user acceptance testing, and systems training.
BA2	Business Analyst	
BA3	User Acceptance Test(UAT) Administrator	
BA4	Senior Business Analyst	
BA5	Manager, Systems Team	Allocated projects to the BAs, also involved in certain projects as a BA.
BA6	Manager, Data Team	As manager of the data team worked closely with the entire systems team. Having knowledge of systems and business rules was often assigned to important university wide projects as a business analyst.
U1	Manager, IT Faculty	Managing the administrative tasks for all the IT courses, liaison with students, teaching staff and other stakeholders in the university.
U2	Coordinator, Engineering Faculty	The coordinator reports directly to the Manager of the Engineering Academic unit and supervising a team of administrators runs the unit's administration.
IT1	Team Leader, Application Development Team	Lead a team of 10 staff that was involved in maintaining university information systems. This largely involved enhancing systems to meet changing business requirements.
IT2	Technical Support Officer	Member of the Application development team, played a key role in database design and implementation.

Since the case was largely instrumental in building understanding something beyond the particular case, we followed Stake's (1995) suggestion that data analysis approach should focus on abstraction by coding and categorisation. This allowed conceptual understanding to emerge from the detailed data collected from the case. Such an approach has been used effectively in IS research (Jin and Robey 2008; Levina and Vaast 2005). Data from the case study was analysed using techniques developed from Charmaz (2006) and Jin and Robey (2008). Initial coding involved line-by-line coding of the interview transcripts with a focus on interpreting participants' meanings and actions (Charmaz 2006, p. 49). The next step was focused coding that served two purposes. First it involved using the most significant and /or frequent initial codes to label larger amounts of data (Charmaz 2006, p. 57-58). This resulted in the first part of the code. Second, it required relating the empirical data to the theoretical concept by identifying which boundary practice concept(s) can be associated with the data segment. The identified concept was added as the theoretical part of the code. Focused coding resulted in 121 codes and 293 text segments. The next step was to build conceptual categories from the empirical codes and data segments. Codes for each of the theoretical concepts were grouped together. Within each group, codes and associated data segments were compared with each other to raise the analysis to a higher level of abstraction and to form categories. In the next section we discuss themes from some of the categories that are relevant to understanding boundary practices in the work of business analysis.

DISCUSSION OF RESULTS

The following sections identify the major roles of business analysts when viewed as boundary spanners. The relevant practices within each role are discussed.

Moat or Drawbridge?

The BAs were well aware of their liaison role between the users and IT. Liaison often results in helping to bring two parties together. However this was not always the case with these BAs. The BAs saw themselves as providing some connection between the users and IT. There was one view that they were representatives of the users to the IT department. One BA explained:

> *We are essentially representatives of the user group to IT and it's my experience generally that there is that trust that we will go to IT asking for exactly what they* [the users] *wanted…* (BA1).

However, there was a completely contradictory view in which the BAs perceived that they were seen as being representatives of the IT department and not completely trusted by the users:

> *I think the business probably see us as* [IT]*, but not fully. Like we're sort of "I like you. I'll talk to you," but I think at the moment because we are close to them* [the business] *and we're the ones delivering the information about why things can't go the way they want it, we're a little bit like outsiders to them* [the business]. *But* [IT] *treat us like insiders because we're working on the products that they're working on, we're the ones liaising with them* [IT] *about the issues on the majority of the occasions and we also speak their language. So they treat us more like we're part of their group* (BA2).

The reason for these contradictory views can be understood from the following comment about the role:

> *I consider it more as business and I think probably because I came from business. As a business analyst I suppose you can come from different directions. If the person had an IT background they might consider themselves closer to IT* (BA1).

Therefore, a BA's work experience, education, and location in the organisation structure are likely to influence their view on who they are representing in the conduit role. This is likely to influence the level of comfort they feel in their boundary spanning work with users and IT and how effectively they can deal with issues of trust and acceptability in representing IT and users. The perception of being trusted by users in the conduit role was confirmed in our interaction with users. The users saw the BAs as a drawbridge to the IT department. To users it seems more a matter of gaining access to a 'remote' IT department and not only an issue of translation of their requirements related to the student management system. This could be due to the service expectations not being met and being constantly told about system constraints. A user explained:

> *So what I've seen so far is that [BA's] position and positions like his are trying to form a bridge between the user of the systems and those who actually maintain and fix the systems if you like, so a bit of an interface… think [BA's] role is – because it's an interface – it has more appreciation of how the tools are used and not just telling us what the system won't do, if you like (U1).*

The IT staff, it appears, expected the BA to be representatives that acted as a 'moat' and shielded the IT staff from direct contact with users. IT staff did not wish to engage with users to explain the existing functionality of the student management system and how the system was already equipped to meet user requirements. BAs were expected to help users explore whether the existing system functionality could meet their new requirements.

> *Major part of their [BAs] responsibility is to work with business owners and/or business users and ensure they understand the system they're using. So for instance helping them understand if they've got a request they might go and do some research to identify that it can actually already be done in the system(U1).*

In case system enhancements were necessary, the IT staff, with the exception of a few initial meetings with the users, looked to interact more with the BAs and not with the users. When we asked if the IT staff ever goes back to the user, we got the reply that:

> *Initially there may be some meetings where we'd be involved in the meetings with some business analysts and maybe one or two users to clarify some information. Once the development or the project has been defined and the requirements have been gathered, a functional spec has been defined, then our major role is more in relationship with the Business Analyst (IT1).*

It is clear that IT staff prefer to be judged by how well they meet documented specifications and not so much by how the users might feel about the IT systems implementation. The documentation provides the IT staff with a structure that they need to guide their work thus keeping them isolated from user's world that is fluid and ever changing.

Interacting with one group at a time

In the conduit role, BAs appeared to link the two parties by participating in two separate interactions that occurred at different points in time. One BA explained:

> *Well it's kind of unidirectional really because what happens is when you're dealing at the beginning of the process, it's generally the user has a requirement. So what you work towards in the direction of the IT representative, is documentation, diagrams, workflow, generally sort of prose based description of "as is" to "to be" and going through that process is very much "I'll write this down and hand it to you* [the IT] *and then you go ahead with it"* (BA1).

This makes the BAs' role very challenging as they are eliciting user requirements by engaging two different practices. The differences are not only in the vocabulary and meanings but also in the interests of the two practices. Reconciling differences in two different interactions is a challenge.

The separation of users and IT staff was important to the IT staff that was aware of the different ways in which users and IT staff worked and looked at problems. The mismatch made direct communication difficult and required mediation by the BAs to avoid any unpleasantness. A member of IT team explained the difference between users and IT staff:

> *I think many of the users… don't necessarily expect logical system flows. I don't think that humans work like that, but obviously when you're working with computers you get into that mindset that you need a very logical systematic flow of events to occur before you can get an outcome…it can be very difficult to talk to the developers. They can be a bit grumpy and difficult to talk to. You have to talk to them, in like I say, a very logical, structured kind of method. You can't just ramble on to them… They'll just throw it back and say "No. This isn't going to work. Start again." (IT2).*

This explains what living in two worlds could mean for the BAs. In the world of the users they are dealing with people and unstructured issues. In the world of the IT developers, BAs are dealing with issues related to logic, algorithms, and data. Spanning these two worlds would mean first to be able to understand the two orientations and then to find a meeting ground for the two views. For example, the approach to analysis and the documentation of user requirements needs to adapt to unstructured world of users. Structured approaches that largely serve the IT staff may be necessary at some point in the systems development, but not too early in stage of understanding user requirements.

Speaking 'two languages'

To be effective in the conduit role, BAs were conscious of the need to use 'two languages'. From their responses we can see they needed to use a different vocabulary in either direction of the conduit:

> *The businesses have no idea what [IT] is going on about with them and they [the business] generally talk in a language that is not system orientated or technical orientated* (BA2).

> *Well I found for me the communication is critical, so making sure that the language that I use with my clients is not the same language that I use with IT. I think that translation is important and we need to be very mindful that we cannot always assume that our client's understand technical issues. So often we have to change the language to suit their understanding* (BA4).

> *I think just in terms of the use of language and I guess you've got to really live in two worlds I suppose in this role. You've got to understand from a user's point of view how they're seeing the end product as well as understand from an IT point of view how these products are developed*(BA3).

BAs understood that the users and IT people didn't use the same language and their work was different (McKay et al. 2010). The BAs knew that their ability to be able to make sense of both worlds and bring out the 'translation' required was really important. In their absence, they thought, the users and IT people would be unable to communicate effectively:

> *It's very common that you get those two people in a room without a BA and they are going to go round in circles because* [of] *the gap in the language* (BA1).

Speaking 'two languages' refers to the need to understand and simplify technical jargon for the users and understand and structure user requirements for the IT staff. BAs are required to learn the two abilities fairly well to be able to build relationships with IT and users. Previous work experience in business or an IT education then go a long way in enabling the BAs.

Being a diplomat

Along with the need to speak 'two languages', BAs understood that they also needed to practice diplomacy in their role. One BA expressed this as being "a *diplomat"* and when asked to elaborate explained:

> *Guess because I work as a bridge, a liaison between the business, between the stakeholders and the IT department, there's a lot of diplomacy involved in communicating the business requirements from the business to the IT department and communicating solutions or problems from the IT department to the business* (BA3).

Irrespective of whether they saw themselves aligned with business or IT, diplomacy was practiced with both parties. The BAs had to be careful about how they presented user requirements to the IT department. The BAs

were equally careful about how to convey the IT staff's response to the users. They were conscious of the fact that people in the IT department were not sensitive to user needs and wishes, and that their choice of words could upset the users:

> *Again, it's one of those situations of letting people know without sort of dashing their hopes for a better system, that for the first part the system needs to do the integral parts* (BA1).

The emphasis on diplomacy suggests that along with other attributes a BA would need to be tactful.

Supporting users

The BAs were concerned about providing reliable tools to users, understanding their knowledge levels, addressing knowledge gaps, and informing them of new ways of doing things that are required due to changes in system or for other reasons. One BA explained:

> *So what we need to be able to do is provide staff and faculties who do have direct access to students, a reliable resource tool for* that… *It's important to know what people understand to begin with, try and fill the gaps with what they don't understand to try and bring them up to speed… That works in well with training because obviously any change and especially any new features to a program requires the user group to be informed as to the new practices* (BA1).

The BAs showed good intentions but the users were not satisfied with the support they got for using the systems and were expecting more training and interactions with other users in different parts of the university. One user said:

> *I think the area has been hampered largely by lack of resource information to support our systems, i.e. how to run reports through* [student management system] *– it's pretty difficult to find that information and so if one had more of that sort of information and perhaps a few promotional activities inter-faculties, visits and that sort of thing, say "Hey do you know how to do this or do that?" it would help us* (U1).

One implication for BAs in the conduit role is that both the users and IT expect them to provide training to users. Supporting users then would require BAs to acquire training skills.

Managing user expectations

Supporting users had to be balanced by managing their expectations to levels that were feasible. Speaking 'two languages' and being a *diplomat* in the conduit role was used in managing user expectations of the student management systems and systems support. This involved explaining to users how their requirements could adversely affect other users. However, at times practicing diplomacy was not helpful and BAs expected someone in a position of authority to intervene:

> *It's more about furnishing the end user or the person who's making the request with a sense of "It impacts you, but it also impacts other people in other ways… Now, they don't generally like it when you tell them you can't do one part or that part, but in some scenarios you've got someone higher or something that's saying 'No.' So it's not just you as a team saying 'No, we're not doing it,' or it's not just* [IT department] *going 'No, too hard. We don't want to do it'* (BA2).

After understanding the impact of requirements on all affected stakeholders, BAs evaluated them for feasibility by matching user expectations with system constraints. A BA explained how the interaction with the users starts with discussing requirements but then system constraints become the focus:

> *So although in the beginning the focus starts as the business requirements, they get gathered. But then the constraints come in and then things just start dropping off (BA2).*

It is clear that one user's identified requirements could be diluted with systems constraints and impact on other users. However, it was not only the system constraints and contradictory user requirements that were an issue but also the IT staff's expectations that BAs should help manage scope creep or changed requirements. A member of the IT development team explained how BAs work is used for managing users:

> *One thing about BAs is that they go through and get clarification of all the requirements in writing. They have these processes and if ever the user turns around and says "The report that you wrote for me is incorrect. It's not what I asked for," you can always go back to what's in the document and say "Look, this is what you've asked for. You didn't specify this other thing that you've been talking about." (IT2).*

Understanding differences in user requirements

BAs were aware of how users of the same system have different requirements. This is a challenge for the BAs:

> *I'm working on another project at the moment with Aged Debtors. It's astonishing that the University's Finance Department that deals with student finances and the Student Financials Group are two different groups and they don't talk to each other and they both work in totally different ways.* (BA4).

The BAs are also aware that users engaging in the same kind of work could also have a slightly different view of the requirements and have equally valid claims for their view. Despite the challenge, the BAs view these different interests as 'normal' and empathise with the users. One BA said:

> *It was interesting to see that some of them cared about a particular component and others weren't really concerned at all. That was an interesting experience and a varied expectation on behalf of the faculties, especially when I would consider that ... faculties are kind of even, they're equal. But they all do business in different ways and most interestingly, they all want to use their system in different ways... I think it's human nature for people to think "The part that I'm interested in is the most important"* (BA1).

The BAs were concerned with different faculties adopting disparate processes and aimed at harmonising such processes by bringing about an agreement among the faculties:

> *Is there a process that all the faculties are doing, but in a slightly different way? Is there one of them, can they all just do the same one? Is that valid or are there reasons why one does it and one slightly different, like legislation or something? So we're going to be looking at working together, finding out what they do, all their little intricacies on their little processes that they do, why they do it and is there a possibility that we can amalgamate that all into the one process* (BA2).

Dealing with lack of user engagement

The challenge of supporting users and managing user expectations was made more difficult for BAs when they experienced a lack of users' willingness to understand the issues and user's lack of commitment to organisation wide mandate or policy decisions:

> *I think that I am giving them time… but that has to coincide with the willingness on the part of the user or the business owner to be willing to spend the time with me* (BA1).

This was especially true, a BA felt, when it came to explaining technical issues to users:

> *The issue is that they don't want to know what* [IT department's] *issues are, they just want their system to work and do what they want it to do in a basic sense. If you say to them 'Because of technical reasons we can't do this,' you've got to win them over a little bit more because they don't understand by just saying 'Because of technical reasons,' because they're just 'Well make the system work'*(BA2).

Seeing the low involvement and sometimes poor commitment seen in users, BAs were keen to keep lines of communications with users open and improve their participation:

> *It is important that you prompt buy-in at the business analysis to any project or any improvement that you want to do, so you really need to involve those people and make them feel like they are contributing and make them feel like you are trying to help find the best solution and answer some of their concerns. You have got to show people that what you are doing is going to be of benefit or else they are just not going to turn up and not have any participation and then just whinge that they did not have any participation.* (BA6).

The issues of managing user expectations, improving user involvement and avoiding contradictory user requirements are likely to be a concern where, like in this case, there are multiple stakeholders relying on a large information systems. The routine meetings and facilitation sessions for information requirement determination involving multiple stakeholders will not be enough unless there are ways to make explicit system or other constraints.

Dealing with the attitude of IT people

Some BAs felt that IT, on the basis of having a better system knowledge and technical knowledge of programming than the users, assumed to have a better understanding of the functionality that user expects. This attitude, according to BAs, was then reflected in the IT department's documentation:

> *"Well I know more about the system than the user does," or "I have a better understanding of the link between programming and function," ends up manifesting in the documents…* (BA1).

The BAs revealed another problem. At times the IT people had the tendency of looking at BAs in the same way as they looked at users. The BAs disliked the fact their system knowledge wasn't appreciated:

> *Sometimes talking to IT can be a frustrating experience because I feel like I'm treated as though I were just a user from time to time. When I report something I am returned with I suppose a response of "No, no, that's not what the system is doing," and I've done a lot of testing in my time* (BA1).

Another concern was that IT people were not much concerned with user requirements but more with the ease of maintaining systems. When asked about the ways in which the BAs were able to change practices of the business and IT, one BA explained that it was more difficult to influence IT than to influence business:

> *Whereas IT, they can be very technical minded, so they don't care that the business want it to be a little bit more like this. They'll generally build it in a way that might be easier for them to manage, but may not necessarily be what the business really ask for… I don't think we're yet in a stage where we're prepared to tackle [IT] on the way they do things, but definitely [business] (*BA2).

There was a concern about the culture of the IT people that preferred technology based interaction to face to face interaction. BAs were aware of the lack of customer orientation in the IT staff and attributed this to overdependence on technology for communication:

> *I think that it's a cultural issue. I think that for too long IT considered themselves exempt from the customer service standards that most organisations try to adhere to, that as business analysts, there is no avoiding the human contact component and that for too long IT have been sitting in a room looking at a computer, doing something with a computer and sending an email* (BA1).

This concern was shared by the users. The users needed to interface with BAs that presented a human face:

> *There tends to be this faceless wall where there's no doors and no windows and the IT Department live there but nobody ever sees a real person. They tend to be a bit removed and remote from what seems to be the business of some parts of the Uni. I know that's not entirely true, don't get me wrong but because I don't know where the Help Desk is for instance, you can't go and knock on a counter and say, "Hello, I'd like to log this request" it's all just on a number. They could live in Sydney for all I knew, they could (U1).*

Emails and online logging of service requests were seen by users as means by which IT department serves its own interests and not something that helps them get a better service:

> *I think businesses' propensity to go down those paths all the time all for the sake of KPI's which is what it seems to me is a register to prove how many thousands of calls you got – well maybe if you had systems that solved the problem at the first call and not having to get 10 others, you might not have so many things to log. What are you counting? Are you just number crunching numbers by having that system? Is that what its purpose is? I mean a good tracking system is fine but then there should be somebody looking at the tracking system and saying "Why are we getting 10,000 calls about the computer labs in the library going down?"(U1).*

An analysis that stops at characterising the IT staff to be software-centric, self-centred, user-unfriendly, inflexible, physically distant, and not in touch needs of business would serve little purpose unless it also suggests a way forward. We are of the view that BAs need to stop being a 'moat' for the IT staff and work towards bringing the IT staff closer to the business. The themes suggest that there were issues other than the student management software that were of equal, if not more, concern to the BAs. The work assigned to BAs involved determining IS requirements and the metaphors that the BAs used- diplomacy, living in two worlds, and being bilingual – better reveal the realities of their work. BAs were concerned whether or not they were seen as insiders by IT staff and users. This would have implications on their allegiance and level of comfort they experience when interacting with IT staff and users. Even though the BAs claimed that they strived for achieving some common understanding about the problematic situation among stakeholders, it was not very clear how they actually incorporated that in their work. To us it appears that IT department's perspective is the dominant one and it is the one that the analysts are expected to communicate to the users. We suggest this because of the following indicators: (a) The BAs attributed the IT department with a higher status and (b) they were overly conscious of the constraints of the existing systems and resources with which IT department works. Our findings suggest that information systems analysis and design is likely to be dominated by groups that are more powerful in the organisation (Howard-Granville and Carlile 2006, p. 483). The boundary spanning role of the BAs is challenged equally, if not more, by the pragmatic boundaries than by the syntactic or semantic boundaries (Carlile 2004). Therefore, along with developing common vocabulary and shared meaning among the stakeholders, BAs also need to develop common interests. Living in two worlds requires reconciling different ways of engaging in practice, different responses due to different forms of accountability, and different tool kits (Wenger 1998, p. 159-160). The BAs were aware of these differences in relation to interactions with the users and with the IT department. Even though different issues were acknowledged in the two interactions, there was no reflection on how two interactions could be conducted differently.

CONCLUSION

Our findings enhance our understanding of business analysis in the following ways. First, we find that, among other things, the BAs protect the users and IT from each other and play the role of the drawbridge for the users and moat for the IT staff. Second, BAs are required to learn to *live in two worlds* and speak 'two languages'. The lived experience across boundaries forms the basis for negotiating shared goals. Third, concept of power or as Wenger (1998) describes it as *negotiation of meaning* plays out with more complexity for boundary practitioners like BAs. Negotiating with practices across boundaries seems more important than negotiating within their own practice. This involves more of *perspective taking* communication across boundaries rather than *perspective making* communication among the BAs (Boland and Tenkasi 1995).

The challenge of answering the 'so what?' question faced by practice based research (Jarzabowski et al. 2007) can be met by extrapolating our findings to potential implications for practice. First, organisational structure and recruitment decisions can influence the work practices of the business analysts. BAs' work in the boundary spanning role may be influenced by their previous work experience, education, or location in the organisation structure. Their closeness or distance from either IT staff or users is likely to influence (a) focus of their work (b) users' and IT staffs' perceived closeness and trust (c) legitimacy in spanning boundaries. For example, a team of BAs that is part of business areas is likely to have a focus on user requirements, seen as insiders by the users, and have more legitimacy in representing users to IT staff. Whereas, a team of BAs in the IT department is likely to have a system focus, seen as outsiders by users, and have less legitimacy in representing users. Thus for organisations that have constraints of existing systems, it would be helpful to have business analysts within the IT department and in situations where new systems are being developed the BAs should be closer to business in the organisation structure. Second implication relates to authority. Any perceived or formalised difference in status of business analysts and users and IT staff could result in biased requirement determination. The challenge for organisations is to balance the power of the business analysts with the power of the users and IT staff. Third, in order to achieve its objective of spanning IT and users, BAs should not be acting as a shield for IT staff.

The findings and implications for practice can be used to inform education. Future BAs must be made aware that their role is more complicated than just using requirements documents, meetings, and dealing with IT systems. First, analysis, modelling, and communication teaching needs to emphasise learning outcomes for dealing with social and political context of business requirements. Second, the learning outcomes for future BAs should emphasize that distinct skills, knowledge, tools, and techniques are needed in dealing with users and IT.

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