Revealing a Research Agenda: An Inter-disciplinary Perspective to Strengthen IS Research on Boundary Spanning

Rajiv Vashist,
*Swinburne University of Technology, rvashist@swin.edu.au*

Judy McKay
*Swinburne University of Technology, jmckay@swin.edu.au*

Peter Marshall
*University of Tasmania, peter.marshall@utas.edu.au*

Follow this and additional works at: [http://aisel.aisnet.org/acis2011](http://aisel.aisnet.org/acis2011)

Recommended Citation


http://aisel.aisnet.org/acis2011/54

This material is brought to you by the Australasian (ACIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in ACIS 2011 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.
Revealing a Research Agenda: An Inter-disciplinary Perspective to Strengthen IS Research on Boundary Spanning

Rajiv Vashist, Judy McKay
Faculty of Information and Communication Technology
Swinburne University of Technology
Hawthorn, Victoria, Australia
Email: rvashist@swin.edu.au jmckay@swin.edu.au

Peter Marshall
Faculty of Science, Engineering and Technology
University of Tasmania
Hobart, Tasmania, Australia
Email: peter.marshall@utas.edu.au

Abstract
The concerns that the identity of the IS discipline is unstable and there is a crisis in the discipline are viewed by some scholars to be a consequence of IS researchers' tendency to under-investigate the subject matter that is at the core of the IS discipline and over-investigate phenomena that are argued not to be the central concern of the IS discipline. In this paper we engage with different perspectives that not only question the notion of a disciplinary crisis but suggest that the IS discipline, by considering a diversity of ideas and viewpoints regarding the subject areas being studied, is appropriately settled in a polycentric state. We take further these perspectives in proposing that IS research focus, rather than being 'disciplined' by self-imposed boundaries, should be determined by the significant problems of IS practitioners. Such organisational problems cut across disciplinary boundaries and we, therefore, suggest that interdisciplinarity in IS research is much needed to improve the vision and perceptiveness needed to identify and uncover interesting and useful research opportunities. We attempt to do so by first, adopting an inter-disciplinary perspective for developing a research agenda for understanding the work of IS practitioners in boundary roles and next, by outlining how the proposed research agenda may be operationalised into specific research questions for understanding the boundary spanning practices of business analysts. We conclude with discussing some implications of the proposed agenda for inter-disciplinary research and practice.

Keywords
Interdisciplinarity, research agenda, boundary practice, boundary spanning

INTRODUCTION

In the past, the IS research community has undertaken significant reflection on the state of the IS discipline, particularly on what constitutes the core of IS and what is bounded by the IS discipline. The debate on the unstable identity of the discipline occupies a significant space in this reflection. The unstable identity of the discipline has been seen to emanate from IS researchers’ tendencies to under-investigate phenomena associated with IT-based systems and over-investigate phenomena that are argued by some not to be the central concern of IS discipline (Benbasat and Zmud 2003).

Despite the focus on rigour, relevance, and the nature of the core of IS, there are other, equally important perspectives that IS scholarship needs to engage with. One such perspective questions whether the ‘crisis’ in the IS discipline is ‘real’. In this view, the IS discipline is seen as a community-of-practice and instead of being judged by whether its research and resulting artifacts allow it to be viewed by others as a ‘legitimate’ discipline, it is judged by the fruitful social interactions amongst its scholars and its active and changing membership (DeSanctis 2003). A more recent analysis of the discipline suggests that the IS discipline, rather than being in a crisis, is appropriately settled in a polycentric state that signals a diversity of ideas and viewpoints regarding the subject areas being studied (Taylor et al. 2010). This pluralism is considered important for understanding the dynamically changing phenomena that the IS discipline is concerned with understanding. The suggestion that IS research is ‘legitimate’ when it focuses only on the IT artifact and its immediate nomological net (Benbasat and Zmud 2003) seems to be at odds with what some view as an important purpose of research:

We are not students of some subject matter, but students of problems. And problems may cut right across the borders of any subject matter or discipline (Popper 1963, p. 88).
If we consider Popper’s (1963) statement, IS scholarship needs to emphasise the centrality of addressing the real and significant problems of IS practitioners in research efforts and, instead of being excessively ‘disciplined’ by self-imposed boundaries, be more open to an inter-disciplinary perspective in research. Tightly bounded disciplines may find it difficult to cope with real world problems that are too new, complex, wicked, hybrid, or too risky (Schmidt 2008). Although IS researchers are open to appropriating, adapting, and extending theories from other disciplines (Wilson and Lankton 2004), interdisciplinary requires more. An inter-disciplinary research would involve studying problems that are too difficult to be studied within the IS discipline alone and require an integration of assumptions, theories, and insights from and interaction amongst several disciplines (Zaman and Goschin 2010). In order to move in this direction, there have been efforts made by IS researchers to foreground the significance of interdisciplinarity (e.g., D’Atri et al. 2008). The lack of openness of IS journals to interdisciplinary research (Wilson and Lankton 2004), however, suggests that there has been little motivation for IS scholars to undertake inter-disciplinary empirical investigations of IS related phenomena.

We are of the view that IS scholarship needs to consider how an inter-disciplinary focus can strengthen the ability of IS research to make sense of important IS phenomena. An inter-disciplinary perspective becomes more significant for making sense of certain phenomena (Bardhan et al. 2010) when insights from a single discipline are not sufficient to investigate the phenomena in any critical way (Greckhamer 2008). The boundary spanning work of IS professionals and the use of boundary objects is one such phenomena that involves the inter-disciplinary, multifaceted, and diffused nature of the boundary concept (Heracleous 2004, p. 99) and is difficult to understand through a single theoretical framework (Oliver 1993). While there is a growing literature on boundary spanning across several disciplines, efforts to adopt and utilise an inter-disciplinary perspective to present an integrated review of this literature and to recommend potential research directions are rare. The objective of this paper is, therefore, to adopt an inter-disciplinary perspective for developing a research agenda for understanding both the work of IS practitioners in their boundary spanning role and further, how their work can be better supported. We believe, such an effort will not only be useful for advancing IS discipline-specific scholarship on boundary roles but could also increase the influence of the IS discipline on other disciplines that have an interest in understanding the work of boundary practitioners (Kock 2009).

The remainder of the paper is structured as follows. First, we discuss what we mean by the notion of interdisciplinarity. Second, we outline the process that was followed in undertaking an inter-disciplinary literature review and developing the research agenda for understanding the work of IS practitioners in boundary roles. Third, we integrate insights from the literature in several disciplines to propose a research agenda that suggests potential directions for future scholarship. Next, we demonstrate how this agenda may be implemented for understanding the boundary spanning work of business analysts. In the last section we conclude with some implications of the proposed agenda for inter-disciplinary research and practice.

**INTERDISCIPLINARITY IN FRAMING AND CONDUCTING RESEARCH**

The concept of interdisciplinarity is vague and under-theorised (Friman 2010), and thus needs to be briefly discussed. Following Greckhamer (2008), we view a discipline as an institutional mechanism that controls and standardizes knowledge production by enforcing norms and standards in scholarship. This would include classifying what subject matter, theories, and methods are legitimate within the boundaries of a discipline and enforced through the activities of the discipline’s gatekeepers. One way by which the emancipation of scholarly work from the disciplinary boundaries can take place is through interaction with other disciplines. This interaction may take place in one of three modes: multidisciplinarity, interdisciplinarity, and transdisciplinarity (see Table 1). Based on this understanding, our inter-disciplinary perspective is guided by firstly, the use of insights, concepts, and theories of multiple disciplines in developing integrated theoretical and research frameworks; secondly, by integrating concepts from multiple disciplines in designing inter-disciplinary research protocols; thirdly, by disseminating inter-disciplinary research results both within and outside the discipline and finally, by authoring publications with scholars from other disciplines (Larson et al. 2011).

<table>
<thead>
<tr>
<th>Nature of relationship between disciplines</th>
<th>Multidisciplinarity</th>
<th>Interdisciplinarity</th>
<th>Transdisciplinarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple aggregation that preserves unchanged the perspective of each discipline</td>
<td>Combination and integration of assumptions, concepts, theories, tools/techniques, methods/information/data</td>
<td>Creation of a new discipline by transcending disciplinary boundaries</td>
<td></td>
</tr>
<tr>
<td>Investigate the subject of research from different perspectives, using methods and insights offered by different disciplines</td>
<td>Assumptions, insights, and methods from various disciplines are connected to investigate problems that are difficult to be studied by one discipline</td>
<td>Aims at unity of knowledge beyond any discipline</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Modes of Interaction among disciplines (Based on Zaman and Goschin 2010)
DEVELOPING THE RESEARCH AGENDA

Our approach to developing the research agenda comprised three steps: a literature search, a literature review, and agenda development (see Figure 1). The literature search was part of a study into the work practices of business analysts in which the work of business analysts was viewed as a boundary practice that connects the users and IT staff (Vashist et al. 2010). This required a review of the literature that was dedicated to understanding work of professionals in boundary roles so that extant knowledge in the form of insights, contributions, concepts, theories, and methods of investigation could be revealed. The literature search was conducted across many disciplines and followed a two pronged strategy that has been followed in other IS literature reviews (e.g., Alavi and Joachimsthaler 1992). First, we searched online databases like EBSCOhost with keywords like ‘boundary spanning’, ‘boundary objects’, ‘boundary roles’, ‘boundary practices’, ‘boundaries’, ‘boundary spanner’, and ‘boundary spanning practices’. Second, we followed the references of papers that have made significant contributions in the area of boundary spanning and boundary object (BSBO) research (for example, Aldrich and Herker 1977; Ancona and Caldwell 1990; Levina and Vaast 2005; Star and Griesemer 1989) to locate other relevant literature. We collected about 108 papers in total.

The literature review that followed can be understood as consisting of two parts: a descriptive review and an integrative review (Khoo et al. 2011). Similar to the approach adopted in Fjermestad and Hiltz (2000), the descriptive review involved treating an individual study as a unit of analysis and extracting from it any information of interest such as the context of study, research objectives/questions, concepts/theories and methods, contributions, and suggestions for future research. The integrative review involved aggregating and synthesizing the information from the individual studies to get a cumulative understanding of firstly, the various contexts in which BSBO research has been undertaken, secondly, the nature of boundaries that have been investigated, thirdly the research paradigms, concepts, theories, and methods that have been employed, fourthly the typologies and characteristics that have been attributed to boundary spanners and boundary objects and finally, the abstractions proposed in various models of boundary spanning. The literature review, descriptive and integrative, involved classifying studies based on nature of studies (conceptual/empirical), research methods, data collection methods, and types of boundaries. The classification approach has been widely used in IS literature analysis studies (e.g., Alavi and Carlson 1992, Chen and Hirschheim 2004).

Develop research agenda for understanding work of IS professionals in boundary roles

Step 1: Identify challenges in boundary spanning role that need investigation
Step 2: Identify ways by which research focus could be varied for new insights
Step 3: From suggestions given in the literature for future research in boundary spanning, abstract main research themes
Step 4: Develop a research agenda by organizing the research directions identified in steps 1-3 under the relevant research theme

Figure 1: The approach to developing the research agenda
Developing the research agenda involved drawing insights from the output of the literature review and following four steps. First, we identified challenges in boundary spanning research. These included issues like role conflict and trust, power and status, communication, IT related challenges, and issues of identity and belonging that arise from the membership of boundary spanners in multiple communities. Second, we considered how the research focus could be varied in future BSBO research in order to produce useful insights. For example, future research could focus on a comparative analysis of boundary spanning work undertaken in the organisation at different levels—operational, middle management, and strategic. This resulted in research foci such as investigating boundary practices, understanding boundaries prior to understanding practices, investigating the interplay of boundaries and practices, adopting a tripartite view for boundary practices (viewing the boundary practitioner as a bridge between two entities), and investigating what are the costs for the benefits received from boundary spanning. Third, from the suggestions given in the literature for future research on BSBO, research themes were extracted and the following five inter-disciplinary themes were considered: improve understanding of the boundary spanner role, understanding boundary spanning by varying the focus of investigation, understanding boundary spanning practices, understanding the conditions for boundary spanning, and understanding boundaries. Finally, research directions from steps 1, 2 and 3 were organised under these five themes to form a research agenda. This agenda is discussed in the next section.

**AN AGENDA FOR RESEARCH ON PRACTITIONERS IN BOUNDARY ROLES**

Although there is no universally accepted definition of boundary spanning, the boundary spanning concept is seen as being rooted in two theories: open systems theory and role theory (Johnson and Duxbury 2010). The open systems theory views organisations as open systems with clear boundaries across which organisations receive inputs and discharge outputs (Thompson 1962). Role theory, as proposed by Katz & Kahn (cited in Johnson and Duxbury 2010, p. 30), considers a role as a boundary spanning role if it is critical for the occupant of the role to interact with constituents located in a different organizational system. The boundary object concept emerged from a study (Star and Griesemer 1989) that proposed boundary objects as entities that are critical to translating between the diverse viewpoints held by the stakeholders. Considering the scope of this paper, we focus on the research agenda developed from the inter-disciplinary literature review and hope to discuss in detail the descriptive and integrative review of the literature elsewhere. The research agenda is discussed next by highlighting research directions under the five themes that are developed by integrating insights, assumptions, and theories from several disciplines (see Figure 2).

**Research Theme 1: Understanding Boundary Spanning by Varying the Focus of Investigation**

The focus of investigation in future research on boundary spanning could be varied in several ways. First, future research could examine boundary spanning at different units of analysis - individual, team, and organisational (Marrone 2010) and at different organisational levels - operational and strategic (Williams 2002). The extant literature in boundary spanning has largely focused on dyadic relationships, that is, boundary spanning involving two individuals. Given that organisational reality often involves boundary spanning encounters between groups, future scholarship needs to move beyond the dyadic perspective (Piercy 2009). Second, although a few studies, like the study of knowledge brokering by IT professionals (Pawlowski and Robey 2004), are encouraging departures from the dyadic perspective in boundary spanning research, there is little discussion on the roles and

![Figure 2: A research agenda for understanding work of IS professionals in boundary roles](image-url)
practices of boundary spanners in a boundary practice - a community-of-practice that has a designated goal of connecting two or more different groups. Future research needs to examine how boundary spanners that belong to such a community-of-practice connect two different groups. In so doing, it would adopt a tri-partite perspective which considers the involvement of three participants in boundary spanning: the boundary spanner’s group and the two groups that are connected by the boundary spanner. Third, there is a need to understand what contemporary organisational forms might serve as boundary organizations (O’Mahony and Bechky 2008) as some findings suggest that temporary boundary spanning units are effective in some contexts (Callahan and Salipante 1979). The fourth research direction under the theme of varying the focus of the investigation is to investigate the interplay between boundary and practices. There are views that boundaries come first and result in formation of communities (Abbott 1995) and distinct practices within the communities reinforce these boundaries (Wenger 1998). We call for future research to empirically investigate the nature of relationship between boundary work and practice work for practitioners. The fifth research suggestion is related to communication. Although the challenges of communicating across boundaries have been extensively studied for various kinds of boundaries: syntactic, pragmatic, and semantic (Carlile 2002), interpretive (Dougherty 1992), and epistemic (Boland and Tenkasi 1995), little focus is given to understanding how boundary spanning interactions lead to unplanned outcomes (Thompson 1962). The investigation of such interactions would provide insights into the role that communication plays in the unfolding of events that boundary spanners are unable to foresee. The sixth research direction relates to the boundary object concept. The boundary object concept is under-specified (Bacharach 2000) and, as a result, there is a temptation to label all objects that move across boundaries as boundary objects (Lee 2007) ignoring the notion that designated boundary objects may or may not be effective as boundary objects in practice (Levina and Vaast 2005). There is also a case for differentiating between the roles of different types of technologies as boundary objects (Lindgren et al. 2008) rather than assuming that all technologies serve the same purpose in boundary spanning. The role of boundary objects in altering boundaries (Lee 2007) is also unexplored. The characteristics, conditions, and consequences of effective boundary objects have been discussed in quite a few studies (e.g., Levina and Vaast 2005), however, no design principles have been discussed for the same (Landry et al. 2010). The changes in technologies, processes, structures, and market forces impact the viability of boundary objects (Subrahmanian et al. 2003). Such issues need to be included in a future research agenda to pursue the research community’s aim for an improved theoretical understanding of the boundary object concept and their role in boundary spanning practices. The last suggestion is to direct one’s research focus on a largely ignored issue: the cost of boundary spanning. Boundary spanning research has largely focused on benefits and imperatives of boundary spanning and only few studies have raised concerns for the cost of boundary spanning (e.g., Oliver 1993). Some scholars have argued that pursuing knowledge integration along the value chain has costs and at times it might not be economically feasible to span knowledge boundaries along the value chain (Postrel 2002). Others have suggested that the seemingly successful knowledge integration across knowledge boundaries in the short term needs to be compared with long term costs (Howard-Granville and Carlile 2006). Long term costs are seen to arise if the incompatibility of knowledge areas is not understood at the levels of the material reality of the knowledge areas.

Future research needs to examine all such concerns related to the cost of boundary spanning.

Research Theme 2: Understanding Boundaries- A Pre-Cursor to Other Boundary Spanning Research

Given the importance of boundaries in shaping communities and practices, boundary spanning research in organizations needs to be preceded by research that examines boundaries (Oliver and Montgomery 2005). Research dedicated to understanding boundaries is, however, limited (Heracleous 2004). Future research in boundaries needs to address certain challenges. First, extant research on boundaries is largely conceptual (e.g., Lamont and Molnar 2002). Boundaries implied by such conceptualizations, however, may turn out not to operate as boundaries in certain contexts, and it is only in a specific empirical context that one can define and locate a specific boundary (Aldrich and Herker 1977). The boundary spanning research in IS takes boundaries as a given. New insights are likely to emerge if these boundaries are identified and located empirically in IS contexts. The body of conceptual work in boundary research, therefore, needs to be complemented by empirical work. Second, taking note of suggestions that technology use influences boundary spanner’s understanding of the boundaries (Lindgren et al. 2008) and that an artifact can influence the nature, location, and operation of boundaries (Lee 2007), future research needs to investigate how the documentation, tools, and processes used by boundary spanners reflect and shape the boundaries that they encounter. Third, empirical investigations need to take note of suggestions that boundaries are socially constructed (Heracleous 2004), dynamic (Zietsma and Lawrence 2010) and contain characteristics that come to the foreground only in the experience of people at the boundaries (Diamond et al. 2004). Fourth, future IS research needs to deal with the challenge of theoretical guidance in the inter-disciplinary nature of boundaries (Heracleous 2004) where no single theoretical framework is considered adequate for all contexts (Oliver 1993). One way forward is to use interpretive empirical to gain an understanding of the nature of boundaries in context of information system activities and focus on theoretical development. For example, to understand the nature of boundaries in IS development,
research needs to empirically locate boundaries in various stages of the IS development lifecycle. However, it is worth noting that with contextually rich empirical studies driving theoretical development, the result may not be theories that can be easily exported to other contexts. Such studies, however, could provide frameworks for scholarship of relevance and focus.

**Research Theme 3: Understanding the Boundary Spanning Role**

This theme suggests several ways in which our understanding of boundary spanning role could be improved. First, we need to direct our research efforts towards understanding the challenges associated with the persistence of boundary spanners in their role (Wenger 1998). Given that many boundary spanners occupy influential positions in organisations, such research efforts may be insightful for initiatives made towards ensuring continuity of boundary spanners in their roles. Although a discussion on the role and status of boundary spanners was introduced nearly three decades ago (Tushman and Scanlan 1981), there is still little understanding of how boundary spanners persist, or on the other hand, do not remain, in their role over a period of time. Second, there is a potential to understand the role played by boundary spanners in decision making. The call to investigate how boundary spanners control over information influences organisational decision making (Tushman and Scanlan 1981) has received little attention. Further, there is little discussion in the literature about the decision making involved in the boundary spanning role. The third research direction includes an interesting proposal: to investigate the role of humans as boundary objects. The traditional perspective on boundary objects is that being non-human they are more stable and complement the boundary spanner (Wenger 1998). Future research to study how boundary spanners can serve as boundary objects (Zdunczyk 2006) could elaborate the known characteristics of boundary spanners and boundary objects and re-evaluate the complementary nature of the relationship between boundary objects and boundary spanners. A final research direction in this theme is to understand the nature of conflict in boundary spanning roles and how this is related to issues of trust and multi-membership of boundary spanners. Extensive research has been conducted in the area of role conflict (e.g., Bartunek and Reynolds 1983) and role conflict is understood to be an outcome of the boundary spanning professional’s attempt to balance potentially different expectations, behaviour, values, and objectives - of different groups. The output of the research, however, has not translated into an actionable agenda to manage role conflict (Goolsby 1992). Role conflict is related to the trust that individuals in groups spanned by boundary spanners have that boundary spanners will represent their views authentically. Hepso et al. (2008) examined the management of trust in boundary-spanning and suggested that boundary spanners must balance trust related paradoxes, such as, working through earning trust against working by virtue of power, building trust through specific circumstance against building trust through general mechanisms, building trust through the non-material against building trust through material elements. Future research could investigate and make actionable suggestions on how to manage trust related paradoxes.

**Research Theme 4: Understanding the Practices of Boundary Spanners**

Scholars agree that the actual ‘practices’ of boundary spanners have received little attention (Levina and Vaast 2005; Johnson and Duxbury 2010). Future research could advance the study of practices in several ways. First, given that boundary spanning competence is an important source of competitive advantage (Levina and Vaast 2005), we need to understand boundary spanning practices associated with routine and innovation in organisational work. Second, further research is needed to understand the ‘practices’ of designated boundary spanners as this will not only reveal ‘what they do’ but also allow an understanding of the ‘logic of practice’ that is implied in their work. Suggestions that the practice of boundary spanning needs to be investigated both within and outside designated boundary spanning units (Aldrich and Herker 1977) has been incorporated in a very few studies (e.g., Levina and Vaast 2005). Insights into the practices of designated boundary spanners would be useful in the following directions. Firstly, understanding those practices that change ideas and resources that are being transferred across boundaries (Hargadon and Sutton 1997) would allow us to understand the influence of boundary spanners in such transformation. Second, insights into how the practices that are directed towards mutual engagement within boundary spanning units (practice work) relate to or differ from those practices that directed at boundaries (boundary work)(Zietsma and Lawrence 2010) will provide us an understanding of how boundary spanners are able to meet expectations from colleagues within the unit and those external to the unit. An improved understanding of practices would allow us to see how boundary spanners structure their work environment (Lamont and Molnar 2002).

**Research Theme 5: Understanding the Conditions for Boundary Spanning**

Although a large focus of boundary spanning research has been on understanding the conditions for effective boundary spanning, there are some research directions that are largely unexplored. First, we could follow the
suggestion for examining the conditions that potentially influence the variation in the operating success of boundary organisations (Marrone 2010; O’Mahony and Bechky 2008). For example, how do conditions like job rotation and making explicit the differences in departments (Dougherty 1992), regular exposure of individuals to people from other professional groups (Becky 2003), and use of IT (Lindgren et al. 2008), influence boundary spanning effectiveness. Second, we could investigate the influence of conditions created by issues of power and politics on boundary spanning effectiveness. By virtue of their information and representation roles (Aldrich and Herker 1977), boundary spanners are in position to exert influence on others. Many boundary spanners acquire power from being in managerial positions (Levina and Vaast 2005) or in positions that have a strategic impact on the organisation (Tyler and Stanley 2001). The balance of power among the stakeholders also is an important influence on boundary spanning work. For example, Howard-Granville and Carlile (2006) noted that IS design is influenced by the dominant organisational shareholders. The roles of power and status in practice have been recognized by researchers but there is little actionable advice on how boundary spanners need to manage issues of power and status.

**OPERATIONALISING THE RESEARCH AGENDA: AN EXAMPLE**

Realising that the proposed research agenda is quite broad and at a high level of abstraction, we demonstrate how specific research questions can be derived from the proposed research directions (see Figure 3). We consider the business analyst, who spans the boundaries with users and the more technical system developers, as an example of an IS professional in boundary spanning role. Assuming there is a practice or theory driven interest in understanding the work practice of business analysts, one could begin by deciding the focus of research. From the several research directions suggested in theme 1, one may choose to focus on the boundary spanning of business analysts working at an operational level. Instead of focusing on individuals, one may adopt a practice perspective and consider the group of business analysts as the unit of analysis. Further, one may take a tripartite view on the boundary spanning situation and consider the group of business analysts as a boundary practice (Wenger 1998) that connects users and developers. The next step is to consider the suggested research directions under the other themes and decide on appropriate research questions. The choice of the research questions would depend on the desired focus of the researcher, the empirical context of investigation, and scope of the research. Figure 3 gives some examples of research questions that are based on the research directions suggested under the five research themes. The research questions demonstrate the usefulness of interdisciplinarity in highlighting the significant practical problems of business analysts such as the nature of boundaries that they encounter in their interaction with users and IT staff, the influence that the temporary nature of their assignment with organisations could have on their performance, and the issues related to their decision-making practices. The research agenda could be operationalised for understanding the work practices of boundary spanning professionals in other disciplines.

<table>
<thead>
<tr>
<th>Research Theme</th>
<th>Research motivation (Theory / Practice driven): To understand the work practice of business analysts</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the focus of investigation (Theme 1)? - Operational level, Group focus, Tri-partite view, temporary boundary spanning units</td>
<td></td>
</tr>
<tr>
<td>Understanding boundaries (Theme 2)</td>
<td>Q. What is the nature of boundaries that business analysts (BAs) encounter in their work?</td>
</tr>
<tr>
<td></td>
<td>Q. How are these boundaries socially-constructed amongst BAs, users, and developers?</td>
</tr>
<tr>
<td></td>
<td>Q. How does use of boundary objects – processes and products - influence BAs’ boundary experience?</td>
</tr>
<tr>
<td>Understanding boundary spanning role (Theme 3)</td>
<td>Q. What is the extent and nature of persistence of BAs in their boundary spanning role?</td>
</tr>
<tr>
<td></td>
<td>Q. How do business analysts contribute to organisational decision making? What is the nature of decision making involved in the boundary spanning work of BAs?</td>
</tr>
<tr>
<td>Understanding boundary spanning 'practices' (Theme 4)</td>
<td>Q. What practices of BAs are associated with routine and innovative boundary spanning?</td>
</tr>
<tr>
<td></td>
<td>Q. How do practices of BAs influence the boundaries with users and IT developers?</td>
</tr>
<tr>
<td>Understanding conditions for boundary spanning (Theme 5)</td>
<td>Q. How do conditions like job rotation and making explicit the differences in thought-worlds influence effectiveness of BAs’ work?</td>
</tr>
<tr>
<td></td>
<td>Q. How do BAs deal with political and power related issues in their work?</td>
</tr>
</tbody>
</table>

**CONCLUSION**

The proposed research agenda has the potential to make useful contributions to future inter-disciplinary research in boundary spanning and boundary objects. First, the agenda is not only based on inter-disciplinary insights, but also calls for an inter-disciplinary implementation. Like Barley’s (1996) study of technicians from various fields...
(programmers, science technicians, medical technicians, computer technicians, engineering technicians, emergency medical technicians, and radiological technicians), research project(s) that would investigate the work of boundary spanning professionals from different disciplines (for example, business analysts, marketing executives, human resources personnel, public relations officers) have the potential to make theoretical contributions and to address the problem of the inter-disciplinary nature of boundary concept (Heracleous 2004). For example, the findings from such diverse, yet related, investigations could, through abstraction, lead to the development of empirically grounded models of boundary spanning and boundaries. The second implication is that the implementation of these proposed research directions may lead to an IS led, inter-disciplinary theoretical development of the boundary practice concept which is underdeveloped and discussed largely as one type of community-of-practice. We noted elsewhere (Vashist et al. 2010) that boundary practitioners ‘live’ more at the boundaries of other practices than at the core of their own practice and therefore the dimensions of practice specified for a community-of-practice need to be altered or further specified for a boundary practice. We are of the view that an implementation of the proposed research agenda on boundary spanning would provide the appropriate empirical basis for the much needed specification of the boundary practice concept.

Research outcomes from implementing the agenda have useful implications for practice. While the research agenda provides research directions for theorising about boundary spanning and boundary objects, its primary focus is on the empirical context in which practitioners span boundaries - the boundaries they experience, their understanding of their role, the work-practices they engage in, and conditions for effective boundary spanning. The inter-disciplinary research agenda would allow for an improved vision and perceptiveness in understanding the significant problems of practitioners in boundary roles if the agenda is operationalised as practice research-research about practices, research for practices, research with practices and usually research in practice (Goldkuhl 2011, p. 1). Practice research views the empirical field in terms of practices and aims to develop both, the situation-specific knowledge on local practice and the abstract knowledge useful to the general practice and the research community. The insights resulting from such research may enable boundary practitioners from various disciplines to reflect on their work or even serve as actionable advice. For example, an improved understanding of boundaries in the work of business analysts has implications for the design and use of tools, techniques, and documentation that business analysts use in their interaction with users and IT developers. Prior research suggests that there is little reflection by practitioners on such issues (Vashist et al. 2011). Such contributions to the professional practice of IS professionals would also address concerns about the unstable identity of IS discipline (Hassan 2011). We hope this paper serves to highlight that, while pragmatic concerns for establishing a discipline’s boundaries and identity cannot be ignored, scholarly pursuits of problem-specific knowledge should not be constrained by the subject matter considered to be at the core of a discipline.

REFERENCES


COPYRIGHT

Rajiv Vashist, Judy McKay & Peter Marshall © 2011. The authors assign to ACIS and educational and non-profit institutions a non-exclusive licence to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The authors also grant a non-exclusive licence to ACIS to publish this document in full in the Conference Papers and Proceedings. Those documents may be published on the World Wide Web, CD-ROM, in printed form, and on mirror sites on the World Wide Web. Any other usage is prohibited without the express permission of the authors.