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Thompson S. H. Teo

National University of Singapore, fbateosh@nus.edu.sg

Shirish C. Srivastava

National University of Singapore

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INFORMATION SYSTEMS (IS) DISCIPLINE IDENTITY: A REVIEW AND FRAMEWORK

Thompson S. H. Teo
bizteosh@nus.edu.sg
 Shirish C. Srivastava
 Department of Decision Sciences, School of Business
 National University of Singapore

ABSTRACT

The recent debate about crisis in the Information Systems (IS) discipline is largely attributed to its having a fluid discipline identity. Myriad conceptualizations of IS discipline identity have resulted in a plethora of unstructured and disconnected recommendations for the survival and growth of the IS field. It is therefore essential to have a theoretical framework which explains: What is IS discipline identity? In this study, we address this void in the identity literature. By extending and borrowing from the concepts of organizational and self-identity, we propose a theoretical framework for discipline identity and explicate its dimensions with respect to the IS discipline. The three contextual questions of discipline identity about purpose, period, and place set the stage for an in-depth inquiry of the three constitutive questions (or dimensions): periphery, perspective, and process, to provide a holistic framework for conceptualizing IS discipline identity. Further, we conceptualize IS discipline identity process as consisting of four recursive and iterative sub-processes: copy, consolidate, differentiate, and demonstrate (CCDD). We posit that an iterative hermeneutic focus on these four sub-processes is vital for the health of the discipline and neglecting even one of them will lead to an imbalanced identity structure. Through this paper, we seek to stimulate and further the ongoing debate on the topic.

I. INTRODUCTION

Information systems (IS) scholars in the recent past have been vigorously deliberating on the issue of crisis in the IS discipline and have offered myriad recommendations for overcoming it [Agrawal and Lucas 2005]. The current crisis in the IS discipline is largely attributed to its fluid discipline identity with undefined boundaries [Benbasat and Zmud 2003]. Although some IS scholars do not perceive a real identity crisis in the discipline [Power 2003; Baskerville and Myers 2002; Dufner 2003; Galliers 2003], nonetheless all scholars agree that an ongoing effort is required to prevent/alleviate the crisis in IS discipline (in present and also in future). A well-formed IS discipline identity can certainly achieve the objective for long-term survival and growth of the discipline [Benbasat and Zmud 2003]. This belief further propelled the scholars to make an attempt to understand “what forms the core of IS?” This has also led to some empirical studies that examine core topics published in journals [Lim, Rong, and Grover 2007; Neufield, Fang, and Huff 2007].

Different scholars have conceptualized the core or the identity of IS discipline in different ways, based on their preferred perspectives on the subject [Lyytinen and King 2006; Weber 2006]. The multiplicity of perspectives can be largely attributed to the differing perceptions of scholars about

what they believe to be important for overcoming the crisis. From Appendix 1, we see that researchers writing on the issue seek to understand the answers to different kinds of questions about the IS discipline. This has led to divergent standpoints for viewing IS discipline identity. For example, some of them construe “IS discipline identity” on the basis of “what it consists of” [Benbasat and Zmud 2003; Alter 2003a; 2003b], others view it in respect of “what it does” [Agarwal and Lucas 2005; Orlikowski and Iacono 2001], still others conceptualize it from the perspective of “who are its stakeholders” [DeSanctis 2003; McCubbery 2003] or “how it is forged” [Hirschheim and Klein 2003; Deans 2003]. Though there are some scholars who have adopted multiple perspectives simultaneously for understanding the IS discipline identity, the questions considered differ from one scholar to the other. The current debate on the subject has led to a number of diverse recommendations for overcoming the crisis. We posit that the prime reason for these diverse recommendations concerning different issues about the discipline is the lack of a structure that explains “What is IS discipline identity?”

At this point in time, when a lot has been said and written about the identity of IS discipline and an array of recommendations have been provided by scholars, it is imperative to structure our thinking about the subject, so that the internal disconnects in this body of knowledge (BoK) (about IS discipline identity) are bridged, and we are able to chart out a meaningful future trajectory for the IS discipline [Hirschheim and Klein 2003]. Integrating the basic holistic framework of the five Ws and one H (why, where, when, what, who, and how) to the advances in the literature on self-identity and organizational identity, we propose a framework for IS discipline identity. The proposed 6P framework seeks to answer the three *constitutive* questions about periphery, perspective, and process forming the dimensions of discipline identity in a scenario of the *contextual* questions of purpose, place, and period. Please note that the key objective of this paper is to classify/synthesize previous research on discipline identity into a framework which can serve as a guide on the various considerations involved when making any suggestions/recommendations on the direction of the field.

The paper is organized as follows. In the next section, we define the concept of discipline identity. This is followed by an elaboration of the constitutive dimensions of discipline identity as well as an illustration of how our discipline identity framework could be used to generate key issues for debate and discussion/recommendation. We conclude the paper by summarizing some of the salient issues highlighted in our IS discipline identity framework.

II. WHAT IS DISCIPLINE IDENTITY?

Albert and Whetten [1985] characterized organizational identity as “a self reflective question” (Who we are as an organization). Organizational identity is the organizational members’ perception about what is *central, distinctive, and enduring* in the organization. Though Albert and Whetten described organizational identity as enduring and distinctive, yet they presented organizations shifting between normative and utilitarian identities over time [Gioia 1998]. This leads us to reconsider the term *enduring* in the original definition of organizational identity, and whether organizations have an enduring identity or the identity endures the organization. Identity is a relatively permanent aspect of the organization structure which facilitates its long-term survival and growth. Sarason [1995], in her conceptual framework, has acknowledged the reciprocal influence of action on the organizational identity. Organizational identity also undergoes changes like self-identity and has to be “routinely created and sustained in reflexive activities”; the only difference is that it is much more fluid than the identity of individual actors in the organization [Gioia, Schultz and Corley 2000]. Individual self-identity is guided primarily by a single person while the organizational identity is shaped by the powerful stakeholders in the organization (usually the founders and owners). However, the discipline identity (especially for an emergent discipline like IS) is influenced by not only the members in the emerging field but also by members from other established disciplines. This makes “discipline identity” for an emerging field much more malleable than either self identity or organizational identity.

From an epistemological perspective, for having a comprehensive conceptualization of discipline identity, it is imperative to answer the five fundamental Ws (Why, When, Where, What, Who) and one H (How) about the discipline identity. These six fundamental questions can be grouped into two types: *contextual* (why, when, and where: purpose, period, and place) and *constitutive* (where, who, and how: periphery, perspective, and process) as shown in Table 1. The answers to the *contextual* questions for the IS discipline identity provide a broad background for understanding the deeper *constitutive* issues (dimensions) of IS discipline identity.

	Questions	Description
Contextual	Why (Purpose)	Reason for IS discipline identity
	When (Period)	Time period for IS discipline identity
	Where (Place)	Nation or region for IS discipline identity
Constitutive	What (Periphery)	Topics to be studied in IS discipline
	Who (Perspective)	Stakeholders important for IS discipline
	How (Process)	Process of IS discipline identity formation

This first contextual question is about the purpose of IS discipline identity and addresses the fundamental question of *why* discipline identity. Benbasat and Zmud [2003] have highlighted the importance of defining the IS discipline identity for the survival and growth of the IS field and this is the guiding rationale behind the *why* of IS discipline identity. The second contextual question of *when* addresses the concern whether the IS discipline identity is important in the present or the future period. As discussed, the IS discipline identity seeks to facilitate survival and growth of the discipline in the present as well as the future periods. The third contextual question seeks to address the issue about the place (where) of IS discipline identity. In today’s Internet-impacted IS scenario, it is important to appreciate whether the conceptualized IS discipline identity is for the U.S. alone, or is applicable for other parts of the world as well. We posit that in the current situation, where the world is fast shrinking due to rapid advances in the ICTs, the barriers of time and geography are becoming inconsequential. Hence, the IS discipline identity cannot be conceptualized from the perspective of one nation or region; every individual nation has a unique role to play in the forging of the IS discipline identity. However, this issue may be complicated by the fact that different regions around the world are at different development stages and consequently may have different priorities.

After establishing the *contextual* canvas for the IS discipline identity, we elaborate the deeper *constitutive* issues which form the *dimensions* of IS discipline identity. For a comprehensive knowledge of the identity of a discipline, it is imperative to understand the *declarative* (what) as well as *procedural* (how) aspects of identity [Zack 1998]. Further, before a relatively new discipline like IS establishes itself as a distinct field, it has to balance two competing objectives: subscribe to the views of the members of other reference disciplines [Keen 1980] for “acceptance and legitimacy” and at the same time prevent the migration of “field specific skills” to other disciplines [Hirschheim and Klein 2003]. Hence it is of utmost importance to understand *who* are the stakeholders constituting the IS discipline identity. In the subsequent sections, we seek to unravel the three explicated dimensions of discipline identity which explain: what is the *periphery* of the discipline (what it is about), from whose *perspective* is the discipline identity being construed (who the relevant stakeholders are) and how do we describe the *process* of discipline identity formation (how the discipline identity is forged) as shown in Figure 1.

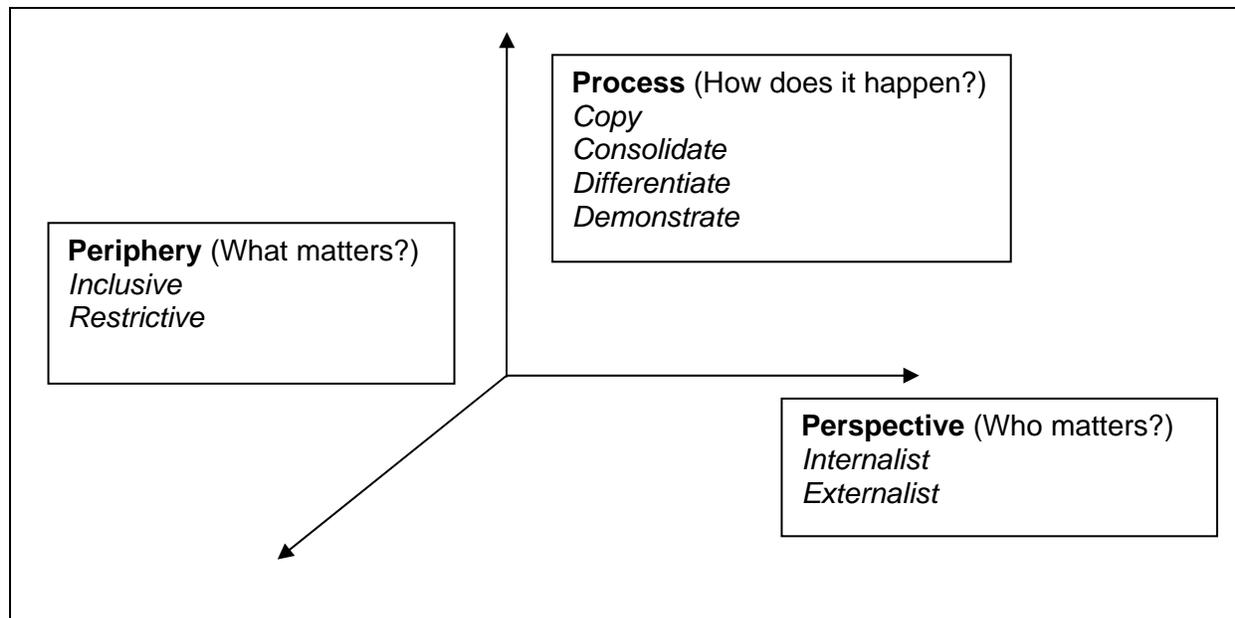


Figure 1. Dimensions of Discipline Identity

III. IS DISCIPLINE IDENTITY

PERIPHERY: INCLUSIVE VS. RESTRICTIVE

The first *constitutive* question pertaining to discipline identity that needs to be addressed is *what* should be part of IS research for its long-term survival and growth, implying the preferred boundary or periphery of the IS discipline (should it include only the IT artifact or go beyond it?). Literature review of recent articles (Please see Appendix 2) on the “core of IS discipline” reveals that scholars are divided on the issue of defining the periphery of the discipline. IS research in the past has been quite liberal as regard its boundary. The core of IS has traditionally been an inclusive one and issues even remotely connected to IT have been classified as IS research. Recently, there has been a growing concern among a section of IS scholars that this inclusive trend is leading to a dilution of the core of IS and there is a need to redefine the IS core in a restrictive way, so that it includes only the elements of IT artifact and its immediate nomological net [Benbasat and Zmud 2003].

The different views of IS researchers about the core of IS reaffirm the diversity in IS research [Benbasat and Weber 1996; Robey 1996]. The apprehension shared by the restrictive group of scholars is that the current diversity of IS research may sound its death knell [Benbasat and Zmud 2003; Hirschheim and Klein 2003; Benbasat and Weber 1996]. On the other hand, many IS scholars are quite optimistic about the diversity in IS research and consider it instrumental in promoting richness and continued vitality [Banville and Landry 1989; Robey 1996]. The paradigmatic and topical diversity of IS, which can be attributed to its drawing upon multifarious reference disciplines [Keen 1980; Baskerville and Myers 2002] is the major reason which restrictive scholars attribute to the lack of a “cumulative tradition” for the IS field.

To inculcate an IS discipline identity, Benbasat and Zmud [2003] suggest that the IS research and publications should include the IT artifact and the elements of its immediate nomological net. They exhort that IS research should primarily focus on the IT artifact in relation to the related tasks, structure, and context. This will prevent researchers from committing the errors of exclusion and inclusion and gradually develop a cumulative research tradition leading to a well-defined restrictive identity for the field. On the other hand, Alter [2003a] conceptualizes IS as “systems in organizations” and his definition of the IS core includes the entire contemporary IS research. A review of the related literature on the core of IS (Please see Appendix 2) reveals that

many scholars tend to support the inclusive periphery for the IS discipline. They articulate this philosophy in multifarious ways: systems in organizations [Alter 2003a], connection, immersion, and fusion view [Sawy 2003], diversity as a strength [Myers 2003], non static and amorphous core [Power 2003], open source [McCubbery 2003], umbrella definition for core [Guthrie 2003], multidisciplinary and diverse IS research [Holland 2003], flexible identity [Robey 2003], organization, society, and cross-cultural issues [Galliers 2003].

SYNTHESIS: IS DISCIPLINE PERIPHERY

Despite a diversity of views on the core of IS, we observe a polarization of views on the two ends of the dialectical spectrum, the restrictive definition [Benbasat and Zmud 2003] and the inclusive definition [Alter 2003a]. The question to be considered here is that, which of the two is the desirable periphery for the survival and growth of IS discipline. In our argument about the *what* of IS discipline, taking Carr's [2003] article as the point of departure, we posit that the IS discipline should include those topics in its periphery that *prevent its commoditization*, hence ensure its long-term survival and growth. For this purpose, we extend the Alter's conceptualization of IS as "systems in organization" to the study of the "Web of IT."

Systems in organization [Alter 2003a] concept adopts an altogether different lens from that of the IT artifact [Benbasat and Zmud 2003] and views everything including IT as one of the many elements existing as a part of organizational systems. In our conceptualization of Web of IT, we still continue viewing from the lens of IT, but the difference is that the periphery includes anything in the Web that is "relevant, and impacts business, organization and society, thus preventing commoditization of IT." The IT artifact may or may not be the locus of study (unlike Benbasat and Zmud [2003]). This no doubt makes the boundary of IS difficult to be concretely defined, but it certainly reduces the chances of its becoming a mere tool to be applied in a mechanistic fashion. The omnipresence and dynamism related to IS conceptualized as the Web of IT makes the definition of periphery of IS discipline an ongoing and onerous task, but the uniqueness of the relevant contextual features within the Web of IT gives IS an inimitable strategic value which enhances its survival and growth prospects. This view is in some ways similar to the macro view advocated by Agarwal and Lucas [2005], which exhorts IS researchers to focus on high visibility and high-impact research (e.g., choose those topics which demonstrate the transformational nature of IT). Implicit in this argument is the non-commoditization aspect of IT.

Moreover, many IS researchers currently conceptualize and research IS in the inclusive, rather than the restrictive way. Restricting the current IS research to the IT artifact and its immediate nomological net may severely limit the research agenda for many of our fellow researchers. It is an acknowledged fact that one of the strengths of IS discipline is the increasing numbers of IS researchers and the diversity which they bring in [Alter 2003a; Robey 1996]. A restrictive periphery for IS will decrease the numbers of IS fraternity which might prove detrimental for the survival and growth of the field. Lastly, "diversity and inclusivity" in IS research has become a cumulative tradition and should be leveraged as a strength [Banville and Landry 1989; Robey 1996]. Most of the first generation IS researchers have contributed to the IS field in terms of their rich perspectives from their parent disciplines, adapted to IS.

Researchers should definitely restrict their research on issues related to IT, but whether it is restricted to the IT artifact as the prime component or can be extended to include IT and its related relevant (to the business, organization, and society) contexts, structures, and tasks as the prime phenomenon (Web of IT) is the issue in question. Based on the argument in this section, it appears that restricting the scope of IS research may not be helpful for the long-term survival and growth of the discipline. As long as the research topic is academically and practically relevant, and serves to prevent commoditization of IS, researchers should have the freedom to choose their research agenda whether it is only about the IT artifact or includes their related contexts, structures and tasks which create an impact and are considered important by business, organization, and society.

PERSPECTIVE: INTERNALIST VS. EXTERNALIST

Discipline identity can be viewed as the sum total of perceptions of multiple stakeholder groups. These stakeholder groups have different motives and objectives at different points in time [Jawahar and McLaughlin 2001]. Broadly, the stakeholders of IS discipline identity can be divided into two groups: the ones within the discipline (IS academics, IS practitioners, etc.) and the ones outside the discipline (academics from other disciplines, deans of business schools, non-IS practitioners, funding agencies, etc.). From the literature on organizational identity, we see that organizational identity has also been broadly conceptualized from two different perspectives by researchers: stakeholders within the organization and the stakeholders outside the organization. The second “P” of the discipline identity seeks to address the issue of perspective and deliberates whether the IS discipline identity should be conceptualized from the perspective of the internal stakeholders or the external ones, for the long-term survival and growth of the discipline.

Organizational identity researchers understand how individuals in an organization perceive and categorize themselves as members of a group, an organization, or a larger encompassing community [Ravasi and Rekom 2003]. The concept of identity has been discussed in a range of disciplines from individual to societal levels of analysis. The proponents of the internalist perspective to identity theories draw from the conception of the self. Personal identity theories [Erikson 1968; Markus 1977] view identity as a self-concept in the individual schemas and knowledge structures culminating in the ideas of central and enduring properties of organizational identity [Albert and Whetten 1985]. Group level cognition of self [Klimoski and Mohammed 1994; Wegner 1987; Pratt 2003] explains how identities are shared by members of a group or an organization. “Communities of practice” [Brown and Duguid 1991] is yet another manifestation of the internalist approach which highlights how professional subgroups are bounded by the collective understanding of what their community is about and a shared repertoire of language, routines, and stories [Wenger 1998]. Social identity theories [Tajfel and Turner 1985; Ashworth and Mael 1989; Brewer and Gardener 1996] also take an internalist stance focusing on the perceptions of individuals. Social categorization (including self-categorization) of individuals as members of a group not only serves as a means for classifying others but also as a means to locate oneself in the social environment.

In contrast, many other theories view identity from an external perspective. Symbolic interactionism [Mead 1934; Goffman 1959] explains the origins of identity in social interaction. Taking an externalist approach, it explains that one’s sense of self is formed in the perceptions of others [Mead 1934]. The identity of an organization (or a discipline) is what the relevant others perceive it to be. Discourse analysis [Foucault 1972; Fairclough 1992] mirrors the role of the external discursive activity taking place in the society facilitating the social construction [Berger and Luckmann 1967] of the identity. Narrative analysis [Czarniawska 1997] also has an external orientation in the formation of identity though it favors organizations making “self presentations” for a more realistic understanding of their identity. Similarly, communication theory views the identity from an external perspective and highlights how individuals’ affiliations affect their credibility in the eyes of external audience [Burke 1985]. The reverse causation of a person’s identity and association influencing the organizational identity provides an alternative way of conceptualizing identity through rhetoric.

Synthesis: IS Discipline Perspective

From a literature review on the core of IS, we observe that IS researchers are divided between *internalist and externalist* perspective(s). In the case of organizations, considering the long-term timeframe, the relative importance of its multiple stakeholders change as the organization evolves through the stages of formation, growth, maturity, and decline or revival [Jawahar and McLaughlin, 2001]. Using the resource dependency theory [Pfeffer and Salanick 1978], prospect theory [Kahneman and Tversky 1979] and organizational lifecycle models [Chandler 1962], Jawahar and McLaughlin developed a “descriptive stakeholder theory” to explain, at what point in the organizational lifecycle, which of the primary stakeholders are critical for the organizational survival and growth. The critical stakeholders for the different stages (start-up stage, emerging

growth stage, mature stage, and decline/transition stage) are different. For its survival and growth, organizations need to address the needs of the different stakeholders at different points in time of the organizational lifecycle.

The descriptive stakeholder theory serves as a valuable analogy for resolving the perspective dilemma in the case of IS discipline identity. IS is a relatively young discipline compared to other established disciplines in the business schools, like marketing, finance, strategy, management science, and organization. Since its emergence in the 1970s, the IS discipline has seen a lot of evolutionary changes and some scholars now even consider it to be mature enough to serve as a reference discipline [Baskerville and Myers 2002]. But certainly, the discipline as well as its body of knowledge (BoK) [Hirschheim and Klein 2003] is still evolving and can be considered to be in the emerging growth stage of the descriptive stakeholder model. In organizations, for the *start-up stage*, the external stakeholders like creditors and customers are of utmost importance and their needs should be addressed to, whereas in the *emerging growth stage* the organizations should follow a risk averse strategy of addressing the needs of all stakeholders in a proactive and accommodative manner [Jawahar and McLaughlin 2001]. The theory further spells out that for the *mature stage*, the risk-averse strategy of the emerging growth stage, should continue and the needs of all stakeholders should be addressed proactively except for creditors who will be accommodated. The literature review of the related articles on the core of IS indicates that most of the IS researchers tend to emphasize the needs of one group of stakeholders, either internal or external rather than both groups of stakeholders simultaneously. For example, Guthrie [2003], Holland [2003], DeSanctis [2003], Galliers [2003], appear to take an internalist stance whereas Lucas [1999], Myers [2003], Robey [2003], McCubbery [2003], and Dufner [2003] appear to take an externalist perspective. Relatively few IS researchers in their articles about the core of IS have highlighted the importance of addressing the needs of both group of stakeholders simultaneously e.g. Hirschheim and Klein [2003], Benbasat and Zmud [2003], Wu and Saunders [2003]. The descriptive stakeholder theory indicates that the present life cycle stage position of the IS discipline (*emerging growth stage*) calls for proactively addressing the needs of all the stakeholders and this strategy should continue for the *mature stage* also. The rationale is that in the start-up stage the IS discipline, by addressing the needs of external stakeholders (like choosing research topics of their interest, following the accepted methodology, etc.) has gained substantial socio-political legitimacy, but in its current lifecycle stage may still lack cognitive legitimacy. This theoretical deduction is in consonance with the views highlighted by Benbasat and Zmud [2003], who highlight the importance of working towards gaining cognitive legitimacy in the IS discipline. For gaining cognitive legitimacy, the needs of internal stakeholders have to be addressed with equal fervor as that of the external stakeholders. Hence for the survival and growth of the discipline, the IS researchers at this stage have to proactively adopt a balanced mix of 'internalist and externalist perspective. They should make an attempt to indicate how their research is adding value not only for the external stakeholders (like deans of business schools, non-IS researchers/practitioners, etc.) but also internal stakeholders (like IS academics and IS practitioners) so as to make them realize the value added in their respective domains.

Figure 2 shows the various possible, present and desirable (recommended) positions (A to I) which IS researchers could occupy on the *periphery* and *perspective* dimensions of the IS discipline identity. As highlighted in the previous sections, currently the views of the majority of IS researchers on the 'core of IS' are in segments A and G. Opinions of a few of them can be considered in segments D and F. From the preceding discussion, it emerges that for the survival and growth of the IS discipline, the IS discipline identity should converge to position D in Figure 2, on the *periphery* and *perspective* dimensions. The position "D" in Figure 2 indicating an inclusive periphery and an even mix of internalist and externalist perspectives is perhaps the most desirable position for the current IS research identity in terms of the two dimensions for the long-term survival and growth of the IS discipline.

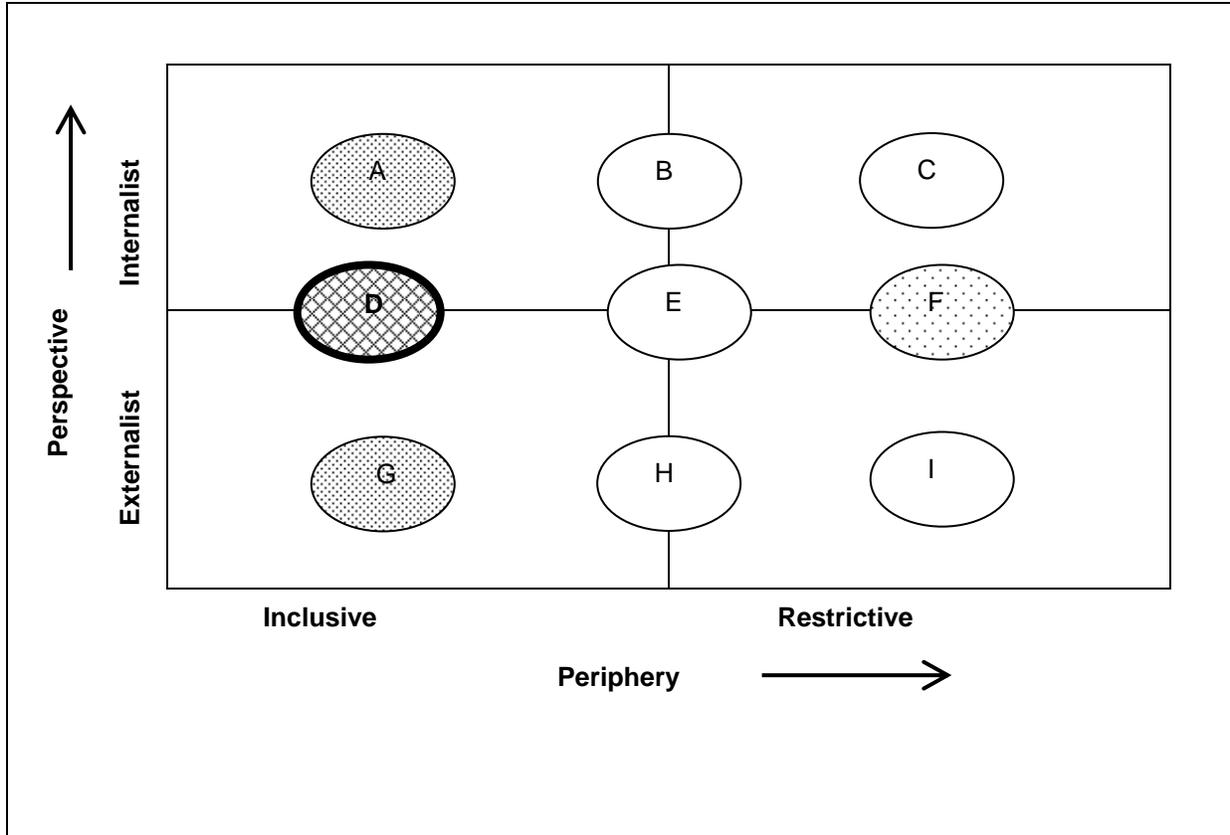


Figure 2. Possible, Present and Desirable Positions of IS Discipline Identity on Periphery and Perspective Dimensions

PROCESS: COPY, CONSOLIDATE, DIFFERENTIATE AND DEMONSTRATE (CCDD)

Organizational identity has been viewed as a process and also as an entity. Ravasi and Rekom [2003] posit that organizational identity can be conceptualized as some asset which organizations *have* [Fiol 1991; Gioia 1998] or as a continuous process which *happens* in an organization [Gioia Schultz and Corley 2000; Hatch and Schultz 2002]. Institutional theory considers *identity* as a symbolic aspect of an organization. Organizations create, maintain, and abide by their own institutional rules, which serve as myths to gain legitimacy and enhance their survival and growth prospects [Meyer and Rowan 1977]. These norms need not always be formulated in opposition to rational or efficiency arguments but may be seen as complementing and contextualizing them [Scott 1987]. These institutional rules create a strong isomorphic tendency among organizations making them alike in structure to provide them legitimacy in order to operate and gain resources and stability [Ravasi and Rekom 2003].

The identity of a discipline is a socially constructed reality [Berger and Luckmann 1967] which changes over time. Social identities are defined by and also define the actions of actors [Giddens 1976; 1979]. The identity of a discipline in the institutional realm residing in the deep structures lays down the norms of interpretation for the academic actors. The relative power and relevance of the academic stakeholders guides the structuration of the discipline identity. The discipline identity is not a static but an evolving entity which undergoes continuous metamorphosis in form, structure, and function throughout its existence. During its formative period, an emerging discipline has to play by the existing institutional rules to gain legitimacy. This requirement coerces the discipline to bank upon the accepted reference disciplines' theories, research methods, and norms of academic rigor. The effort is to make the discipline acceptable to the academic community by demonstrating the "sameness" which the emerging discipline has with the established disciplines. The effort to **copy** or replicate the existing discipline structures is to

convince the actors of its relevance and continuity. After wooing a critical mass of academic following the endeavor of the discipline is to **consolidate** itself by systematically developing a cumulative tradition for the discipline which surfaces in the form of grounded theories, rules, laws, axioms, and principles. In addition to consolidating its position as a relevant branch of academics, the discipline has to **differentiate** itself from its parent disciplines in an effort to demonstrate its uniqueness. It has to exhibit to the academic stakeholders (internal as well as external) that its identity is not only distinct from other disciplines but that it also adds value in a unique way. After establishing its distinctiveness as a discipline with its own set of guiding principles and theories, the discipline has to make a constant effort to **demonstrate** and communicate the value it adds to the body of learning and practice. Though in the above paragraph, we have explained the evolution of discipline as a well-structured process, the fact is that it follows a fuzzy and iterative development path with the discipline shifting recursively between the sub-processes of *copy, consolidate, differentiate, and demonstrate* (CCDD). Often the elements of CCDD are not present consecutively, but concurrently, though in varying degrees. The survival and growth of a discipline is dependent on its ability to constantly balance the proportion of its four sub-processes hermeneutically implying that each sub-process has to be considered individually (as a part) and also in relation to the other sub-processes (as a whole) (Figure 3).

Synthesis: IS Discipline Identity Process

As discussed in the preceding section, the discipline identity has to perform a continuous balancing act of its four constituting sub-processes: *copy, consolidate, differentiate, and demonstrate*, to sustain its existence and importance. IS researchers have talked about these four identity constituting processes, but the accent has been skewed more toward some rather than all of these processes. This paper conceptualizes the IS discipline identity process as a four-legged chair, which will remain stable as long as the four legs balance and complement each other, structurally as well as aesthetically. For the long-term survival and growth of the discipline, it is important to consider all the four processes (CCDD) in a hermeneutic fashion, i.e. we have to understand each process individually and also in relation to the complete picture of all the four processes together. This hermeneutic iteration of looking at parts in relation to the whole will help us comprehend the process dimension of IS discipline.

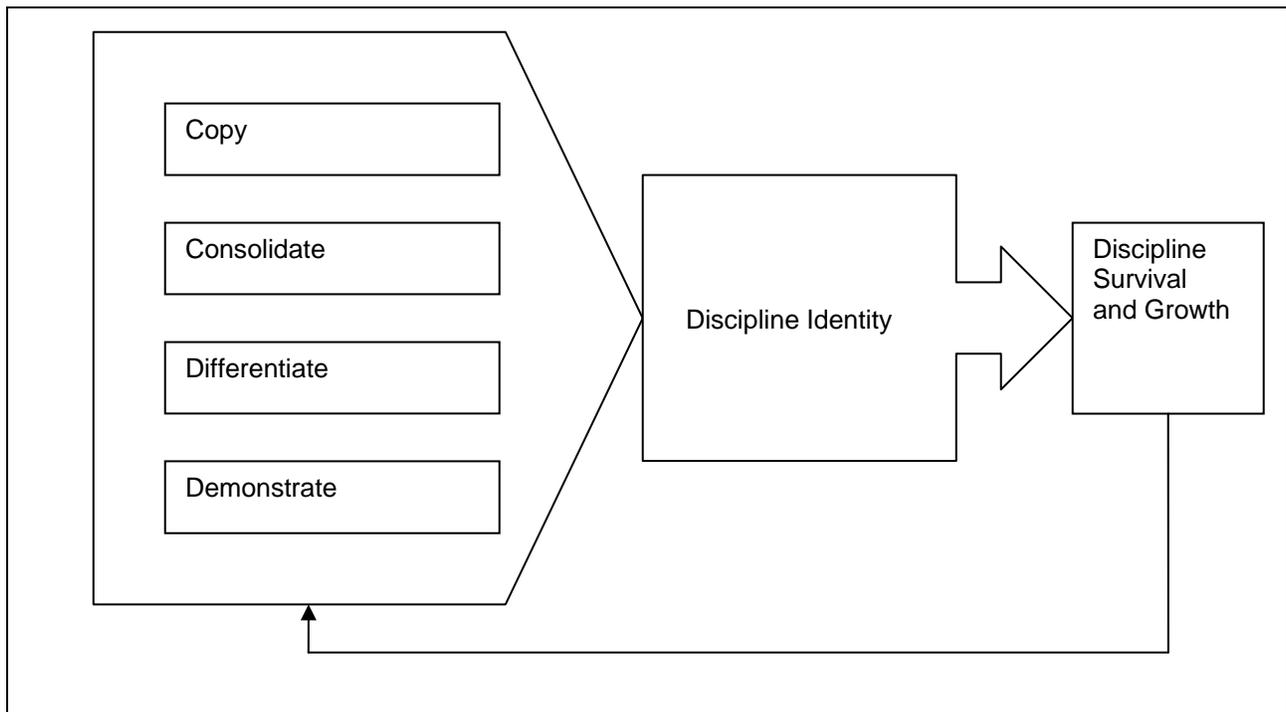


Figure 3. Discipline Identity as a Process

Copy- IS discipline has traditionally drawn from a number of reference disciplines [Keen 1980]. The early IS researchers migrated to IS from other disciplines and brought with them a tradition of research methods, paradigms, and theoretical backgrounds to the IS field. Their research reflected a part of their cumulative research tradition which they had acquired from other fields. Apart from this, their need to exhibit rigor and relevance (to their field) motivated them to copy and replicate the research traditions of their parent discipline.

In addition to the early legacy of IS, the pervasiveness of IT in almost all aspects of personal, organizational, and social life makes the interaction of IS with other disciplines inevitable. This discipline specific characteristic leads to a perpetual bi-directional influence of other disciplines on IS and of IS on other disciplines [Baskerville and Myers 2002]. In such an interdependent disciplinary environment, the replication of academic systems from other disciplines in IS is a mechanism for gaining cognitive and sociopolitical legitimacy [Aldrich 1999].

Consolidate - Minton (1983) lays down the following criteria for the existence of a discipline:

1. A theory and a body of literature
2. A significant number of professionals working in the field
3. More than a few professional journals regularly publishing new advances in the subject
4. A significant market demand for its services

Most of the IS scholars agree on the consolidation process for the formation of a relevant identity for the IS discipline. The importance of consolidation of a cumulative tradition emerging as the repository of the discipline's body of knowledge has been acknowledged by almost all scholars [Benbasat and Zmud 2003; Hirschheim and Klein 2003]. Theories and a body of discipline specific literature facilitate the incremental progress in philosophical stimulation and enquiry. Research in which the discipline starts drawing on its own literature signifies the maturation of the field. Though IS studies draw upon numerous reference disciplines, a recent study by Vessey, Ramesh and Glass [2002] demonstrates the preponderance of IS (27.2 percent) as the major reference discipline for contemporary IS research. This result indicates a substantial consolidation of a discipline for which "the field's then-evangelist, Peter Keen, rallied for a cumulative IS tradition and for the critical need to draw on research paradigms for theory development from the pure reference disciplines (such as psychology, sociology, computer science, and economics...)" [Sawy 2003]. The IS discipline is maturing but still some scholars feel that it is too early for defining a core for IS [Myers 2003]. Many scholars consider consolidation of the discipline as the culmination of the discipline's identity but the fact is that it is just the start.

Differentiate - The concept of identity generates insights of how and why organizations want to be similar (copy) and at the same time different (differentiate) [Deephouse 1999]. Brewer [1991] talks about it at the individual level and refers to it as "optimal distinctiveness" i.e., balancing the two competing requirements of belongingness and uniqueness. The sustainability of a discipline lies in the duality of its identity which posits it to be simultaneously similar as well as different from other disciplines. Too much of replication will make the existence of the field *redundant* and too much differentiation may make it *deviant*. IS discipline's reliance on a number of reference disciplines leads to the replication of theoretical foundations and at the same time, the unique lens through which IS studies seek to integrate the elements of the Web of IT make it distinctive. Sawy [2003] brings forth three perspectives for viewing IS, connection view,¹ immersion view,²

¹ "IT is used as a tool by people to help them in their work. It is a separable artifact that can be connected to people's work actions and behaviors."

² "IT is immersed as part of the business environment."

and fusion view.³ The transition from connection to fusion view results in the blurring of the IS discipline boundaries and makes the differentiation process a difficult task. The ubiquity of IT visualized in the fusion view has two opposing effects on the IS discipline. As discussed earlier, the extreme pervasiveness of IT in all aspects of individual, organizational, and social life no doubt enhances the relevance of IS discipline [Baskerville and Myers 2002] but at the same time, there is a fear that IT may be subjugated to the status of a mere commodity [Carr 2003]. To overcome this perceived crisis for IS, the discipline has to incorporate and stress the study of topics and areas which visualize the value of IT as a strategic tool rather than as a commodity. This macro view of IT which visualizes the transformational power of IT [Agarwal and Lucas 2005] will serve to prevent its commoditization. Many of the IS researchers conceptualize and research IS in the inclusive rather than the restrictive way, which further enhances opportunities for studying those aspects of IT which prevent its commoditization, thus increasing its survival and growth prospects.

Demonstrate - The identity of the discipline should incorporate not only the elements of value addition but also demonstrate and communicate them to the relevant stakeholders. The survival and growth of a discipline is contingent on the unique value it adds to the body of knowledge and practice. It should demonstrate how it enhances the human learning and development in a way which no other discipline is doing or can do. The long-standing debate on rigor versus relevance is not yet resolved, but we realize the importance of both. The discipline should add practical value as well as academic value. The term “rigor” in a discipline indicates two dimensions of academic value, the *methodological rigor* and the *philosophical rigor*. Methodological rigor is the systematic application of the well established norms of discipline research practice for granting it legitimacy. Philosophical rigor implies the deep thinking and creativity which goes into explaining and understanding the new and existing phenomenon in the discipline. For demonstrating value, disciplines have to exhibit *replication* in methodological rigor and *differentiation* in philosophical rigor.

Communication of the value added by the discipline to the stakeholders is also of utmost importance to avoid a crisis in the field. In particular, improving the perception of others by conveying a sense of value the discipline adds to them, preparation of students and academics and promotion of the discipline to the members of the society are important [Iman 1995] The recent article of Agarwal and Lucas [2005] also emphasizes the need for focusing on high-visibility research. For the IS discipline, the Association for Information Systems (AIS) is doing a fair share of its work in lobbying and communicating the value added by the discipline to industry and practitioners. The members of the IS community have to communicate to the relevant academic stakeholders (deans of business schools, senior faculty members of other disciplines) the philosophical rigor and promise which the discipline has.

While traditionally IS has paid much attention on the “copy and consolidate” processes, it is important for us to focus also on the “differentiate and demonstrate processes.” In other words, instead of copy and improve, we should also invent and focus on theory building⁴ such that IS becomes a key reference discipline for other fields. Doing so helps us clearly differentiate and demonstrate our value to key stakeholders, such that our research becomes high value and high impact, and not easily commoditized. In other words, if we only continue to copy without inventing or focusing on theory building, we will always remain behind other disciplines. This will hinder our evolution as a reference discipline for other fields.

³ “IT is fused within the business environment in a way that modulates work in hidden ways that changes the boundaries between work and personal life, and that fuses personal and public information.”

⁴ We thank the AE for this comment

IV. ILLUSTRATIVE USE OF IS DISCIPLINE FRAMEWORK

Based on our synthesis of the three IS discipline dimensions (periphery, perspective, and process), we suggest a set of issues and *illustrative* recommendations for the IS discipline identity, which we sum up in Table 2. At this point, we would again like to stress that the purpose of this paper is neither to provide a detailed set of key issues nor detailed recommendations to address the key issues; rather it is an effort to demonstrate a plausible framework for synthesizing and examining the key issues pertaining to IS discipline identity.

Table 2. Key Issues and Illustrative Recommendations for the IS Discipline Identity

Key Issues	Illustrative Recommendations
<p>Periphery</p> <p>What is core of IS discipline?</p> <p>If the core is defined broadly to be too inclusive, there is a risk of too much diversity and loss of identity. Conversely, if the core is defined too narrowly, there is a risk of decrease in number of IS researchers/research topics which might curb the growth of the field.</p> <p>How do we decide what should be included in the core?</p> <p>A more basic question is whether the field has evolved sufficiently for us to define the core.</p>	<p><i>'Web of IT' should be the guiding factor for deciding IS research. The IS research topics which go beyond the IT artifact to explore the enmeshed contexts, structures and tasks adds to the inimitability of the research problems explored and make IS studies non-commoditizable. An 'inclusive periphery' will ensure continuance of the current diversity in IS research. The richness of perspectives and the increasing number of IS researchers should be leveraged as a strength for the survival and growth of the field.</i></p>
<p>Perspective</p> <p>Who are the internal and external stakeholders?</p> <p>What can be done to cater to their needs?</p> <p>What is the relative importance of various internal and external stakeholders?</p>	<p><i>The IS discipline research should not only address the needs of the external stakeholders, but also all the internal stakeholders for providing socio-political as well as cognitive legitimacy. Institutions like AIS should evaluate the expectations of the external and internal stakeholders periodically and propagate among the researchers to direct their research accordingly. For example, one such effort can be to have a regular and systematic periodic assessment of the topics relevant for practitioners, something similar to the studies conducted by Society for Information Management (SIM) (Luftman and McLean, 2004), and disseminate among the members of IS community (researchers, reviewers, journal editors etc.)</i></p>
<p>Process</p>	
<p>Sub-process: Copy</p> <p>What and how much to copy from other fields?</p> <p>Would copying make us complacent in developing our own theories?</p>	<p>Traditionally IS has drawn from a host of reference disciplines like sociology, psychology, economics, computer science, management science, etc. We should continue to adopt those features from other disciplines (topics, methodologies, rigor) which enhance academic</p>

Key Issues	Illustrative Recommendations
Would continued copying make us always a follower behind other disciplines?	and philosophical significance.
<p>Sub-process: Consolidate</p> <p>How do we balance the establishment of cumulative tradition in research with the need to venture into new research areas? For example, has the abundance of research on TAM unduly diverted our attention from more interesting and relevant research areas?</p>	<p>IS researchers in the past have made efforts to carve discipline specific theories and literature based on other reference disciplines (e.g. TAM, TTF etc.). We should continue this effort for enunciating discipline specific literature, theories and also designing and using validated instruments in our research. We should continue to establish a cumulative tradition as well as encourage theory development.</p>
<p>Sub-process: Differentiate</p> <p>What are the key topics in IS that would help us to differentiate ourselves from other fields?</p> <p>How do we encourage development of our own theories?</p>	<p>There are some ongoing efforts to address the 'relevant' topics for the IS discipline e.g. there currently is an increasing interest in topics like off-shoring, m-commerce, extended enterprise etc. But we require more planned effort so that our research adds unique value proposition for all the discipline identity stakeholders which other disciplines cannot adequately provide.</p>
<p>Sub-process: Demonstrate</p> <p>How do we demonstrate and communicate our relevance to key stakeholders?</p> <p>How do we proactively develop IS into a reference discipline for other fields?</p>	<p>Though some effort has been going on in this direction e.g. through the role of AIS, practitioner focused journals like MISQE etc., more planned effort is required to demonstrate and communicate the unique value added by our research for all the discipline identity stakeholders. This will help in furthering the socio-political and cognitive legitimacy which is required to transform IS into a well established reference discipline</p>
<p><i>Overall: process dimension</i></p> <p>How do we continue to evolve our identity?</p> <p>What specific steps should we take?</p> <p>How do we move from copying theories in other disciplines to developing our own theories?</p> <p>What should be the relative emphasis on copying vis-à-vis inventing new theories?</p> <p>How do we enhance our legitimacy in the eyes of our stakeholders?</p>	<p><i>Researchers should consciously apply the principle of hermeneutics for iteratively considering each sub-process individually (in parts) and also its effect on all the four sub-processes together (as a whole). Continuing with the current trend of concentrating on individual sub-processes without understanding its impact on the overall picture of discipline identity may detract us from building a cumulative tradition and enhancing our legitimacy.</i></p>

V. CONCLUSIONS

In spite of a number of debates on the issue of IS discipline identity by a host of scholars, the literature does not offer a comprehensive theoretical conceptualization for discipline identity. Viewing from the lens of organizational and self-identity, we develop a framework for conceptualizing discipline identity and explicate its dimensions with reference to the IS discipline.

The *contextual* questions about the purpose, period, and place, provide the general backdrop for an in-depth enquiry into the *constitutive* questions which form the three dimensions of IS discipline identity: periphery, perspective, and process.

All the three discipline identity dimensions (periphery, perspective, process) have to be viewed in a holistic manner. The process dimension needs a special mention as it is essential to iteratively and hermeneutically consider all the four sub-processes: copy, consolidate, differentiate, and demonstrate (CCDD) dynamically, to ensure long-term survival and growth of the IS discipline. IS discipline identity construed as a process has concentrated on some, but not all of the four processes mentioned previously. We posit that these four processes are equally important for the health of the discipline and neglecting even one of them will lead to an imbalanced identity structure. This implies that IS researchers have to concentrate on each individual sub-process of the CCDD framework in relation to all the other IS discipline identity sub-processes. For example, the need for a core set of IS theories is acknowledged by most of the IS researchers, but this should not be looked in isolation as the *consolidate* sub-process alone, rather we should see how theories can be developed from reference disciplines (*copy*), how it is adding value to the body of knowledge in a unique way which the original theory could not provide (*differentiate*) and how we can communicate the value added to the stakeholders (*demonstrate*). Thus, we see that though forming of theories is a part of the consolidate sub-process, it has to be hermeneutically examined with reference to the other sub-processes to make the effort worthwhile.

A broader objective of this paper is to further and stimulate the debate on what constitutes the IS discipline identity. This debate will continue to infuse renewed vitality in the IS discipline, which is important for its survival and growth. Though the debate on what constitutes the IS discipline identity is still continuing and various scholars are suggesting different ways for drawing the line, there is no doubt about the fact that a well-crafted discipline identity is essential for the survival and growth of the field. It is important to realize that crafting an identity for a discipline is not a one-time effort, rather it is a protracted long drawn process of “knowledge negotiation” among the discipline stakeholders [Strauss 1978].

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APPENDIX 1. DIFFERENT VIEWS OF IS DISCIPLINE IDENTITY

Author(s)	Views of IS discipline identity	Quote from the abstract
Agarwal and Lucas (2005)	<i>How</i> to demonstrate what the IS discipline does and to <i>whom</i> ?	“We present an alternative set of heuristics that can be used to assess what lies within the domain of IS scholarship. We argue that the IS community has a powerful story to tell about the transformational impact of information technology. It is important for academic colleagues, deans, and managers to understand the transformational power of the technology” (p. 381).
Alter (2003a)	<i>What</i> does the IS discipline consist of?	“It suggests that their vision of tighter focus on variables intimately related to the ‘IT artifact’ creates problems and provides few of the benefits of an alternative vision centered on “systems in organizations.” This alternative vision provides an understandable umbrella for most existing IS research and treats the discipline’s diversity as a strength rather a weakness” (p. 494)
Alter (2003b)	<i>What</i> does IS discipline consist of and for whom?	“The conclusion attempts to sort out various views of the core, scope, and (possible) crisis of the IS field by identifying major products and major customers of the academic IS field and asking which customers are interested in which products” (p. 607).
Benbasat and Zmud (2003)	<i>What</i> does the IS discipline consist of?	“We are concerned that the IS research community is making the discipline’s central identity ambiguous by, all too frequently, under-investigating phenomena intimately associated with IT-based systems and over-investigating phenomena distantly associated with IT-based systems” (p. 183).
Deans (2003)	<i>How</i> is the IS discipline identity being forged in comparison to other discipline facing crisis: International Business?	“The paper investigates the ongoing debate and solutions for the IB discipline to obtain insights and lessons learned that may be helpful to IS academicians as we continue the same debate for the IS field” (p. 546)
DeSanctis (2003)	<i>Who</i> are important for IS discipline?	“An alternative analysis of the IS field can be made through the lens of community of practice. Here the indicators suggest more positive progress toward legitimacy of the IS field and a path toward improvement via boundary enhancement rather than constraint” (p. 360).
Dufner (2003)	<i>What</i> does the IS discipline consist of?	“We are a heterogeneous group looking at a wide diversity of Information Systems, some of which challenge the way we think about organizational boundaries and show that artifacts are not adequate to define IT” (p. 527).

Author(s)	Views of IS discipline identity	Quote from the abstract
Galliers, (2003)	<i>What</i> does the IS discipline consist of?	"Following this, I present an appropriate locus of study for IS, one that offers a less constricting boundary than that of the organization, including societal and cross-cultural considerations" (p. 337).
Guthrie (2003)	<i>What</i> does the IS discipline consist of?	"For Information Systems, an ongoing debate focuses on defining the field narrowly versus broadly..... However, the narrow definition excludes a large portion of the IS community and their research. Alter's [2003] Systems in Organizations proposal broadly defines the IS discipline in an inclusive way that embraces our historic diversity and makes IS distinct too" (p. 557).
Hassan and Will (2006)	<i>What</i> does the IS discipline consist of and <i>how</i> is its unique subject matter being forged?	"This essay argues for the IS field to forge its own unique disciplinary subject matter by synthesizing the diverse discourses of its "reference disciplines" and not by merely drawing from them. Using examples of other established disciplines with equally multidisciplinary origins, this paper analyzes the history of the IS field to uncover the field's subject matter. The proposed subject matter maintains the IS field's richness and diversity without losing its unique identity" (p. 152).
Hirschheim and Klein (2003)	<i>How</i> do we address the issues within IS discipline and <i>who</i> is relevant?	"One is the external view of the community (the view of IS from outside the academic field); the other is the internal view (the view from inside the IS community)..... More specifically, the paper considers various options that are available for overcoming the internal communications deficit the IS field faces" (p. 237).
Holland (2003)	<i>What</i> does the IS discipline consist of?	"It is proposed that a multidisciplinary approach to IS research is the most appropriate way of conceptualizing IS problems, academic research, and business practice, and that the integrating themes arise from the terms 'information' and 'systems' rather than from the technology" (p. 599).
Iivari (2003)	<i>What</i> does IS discipline do and how?	"The paper argues that we should emphasize more the nature of Information Systems as an applied, engineering-like discipline that develops various "meta-artifacts" to support the development of IS artifacts. Building such meta-artifacts is a complementary approach to the "theory with- practical-implications" type of research" (p. 568).
Lim, Rong and Grover (2007)	<i>What</i> is the core of IS discipline and <i>how</i> does it evolve over time?	"This article inductively examines the question of the IS field's core. We argue that as a socially constructed field, the core aspects of IS can be identified from the work conducted and published by members of the IS community..... The results show both stability and evolution of the core of IS field" (p. 665)."
Lucas (1999)	<i>Who</i> are important for IS	"To a large extent, IS faculty in business schools have failed to make faculty in other disciplines

Author(s)	Views of IS discipline identity	Quote from the abstract
	discipline? <i>What</i> does IS discipline do?	aware of our own discipline.....Information systems have brought and are bringing incredible changes to nations, governments, organizations and people” (p. 3, 4).
Lyytinen and King (2004)	<i>What</i> is the core of IS discipline and <i>how</i> does it contribute to the discipline’s success?	“Researchers in the information system (IS) field have recently called for the field to legitimate itself by erecting a strong theoretical core at its center...This analysis suggests that to remain successful, the IS field needs intellectual discipline in boundary spanning across a “market of ideas” concerning the application of information technology in human enterprise” (p.220).
Lyytinen and King (2006)	<i>What</i> is the core of IS discipline and <i>how</i> does it contribute to the discipline’s success?	“We examine the practical problems in identifying a theoretical core, clarify the ontological connection between identity and legitimacy, acknowledge mistakes in our earlier formulation criticizing the necessity of theory in legitimation, and attempt a synthesis between our views and those of Weber. The paper concludes with suggestions for improving the workability of efforts to improve the legitimacy of the IS field” (p.714).
McCubbery (2003)	<i>Who</i> are the stakeholders of IS discipline?	“Historically, the IS community found little difficulty in producing rigorous research, but its relevance for the practitioner community is frequently questioned. While agreeing with the need for a sharper focus for IS research, this paper suggests that past problems with relevance can be avoided by engaging the academic and practitioner communities in setting a research agenda using an “open source” approach” (p. 553).
Myers (2003)	<i>What</i> does the IS discipline consist of?	“I believe the attempt to narrow the field to a core is misguided, at least at this point in time. The argument of this paper is that the field of information systems is nowhere near ready to define a core in information systems” (p. 582).
Neufield, Fang, and Huff (2007)	<i>What</i> is the core of IS discipline and <i>how</i> does it evolve over time?	“This paper offers a broader review of the central identity of the IS field, using three dimensions proposed by Albert and Whetten [1985]: central character (i.e., what topics do IS scholars research?); temporal continuity (i.e., to what extent has the identity of the IS field remained static over time?); and distinctiveness (i.e., how unique is research published in IS vs. non-IS research journals?). ... Results suggest that articles published in leading IS journals do share a strong central character that is distinct from research published in non-IS journals, and yet an identity that has continually shifted over time (p. 447)”.
Orlikowski and Iacono (2001)	<i>What</i> does the IS discipline consist of?	“We propose a research direction for the IS field that begins to take technology as seriously as its effects, contexts and capabilities” (p. 121).

Author(s)	Views of IS discipline identity	Quote from the abstract
Power (2003)	<i>What</i> does the IS discipline consist of?	"This article examines the issue of information Systems (IS) core concepts; explores the content and boundaries of the Information Systems research domain" (p. 539).
Robey (2003)	<i>What</i> the IS discipline consist of? <i>How</i> should the IS discipline identity be construed? <i>Who</i> are the stakeholders of the discipline?	"I first suggest that identity should be flexible and adaptable rather than inflexible and rigid. I caution against promoting our own new identity too vigorously because self-promotion can produce the undesirable image of an insecure field concerned with its reputation. It would be better, in my opinion, to protect past accomplishments while responding to the pragmatic demands of immediate audiences through research that addresses their concerns" (p. 352).
Sawy (2003)	<i>What</i> and <i>how</i> IS discipline does and its evolving role over time?	"This paper argues that there is nothing inherently wrong with either of these two perspectives, but that they are just alternative models of reality which bring particular central features of phenomena to the foreground and hide other features. This paper contends that it may be time for a natural shift of emphasis from the connection view to the Immersion View to the Fusion view as IT continues to morph and augment its capabilities" (p. 588).
Weber (2006)	<i>What</i> is the core of IS discipline and <i>why</i> is it required?	"Papers published about the need for a theoretical core in the information systems (IS) discipline can be characterized as either nature-of-the-discipline commentaries or logic-of-the-core commentaries. The former articulate the authors' views on those phenomena that research in the IS discipline ought to investigate. The latter scrutinize some of the logic that underlies arguments made by those who either support or reject the need for a theoretical core. Unfortunately, nature-of-the-discipline commentaries are unlikely to help clarify or resolve fundamental issues that underpin the debate"(p. 703).
Westland (2004)	<i>What</i> does the IS discipline consist of?	"These principles, centered on nomological networks of IT artifacts, are offered as prescriptions which, it is argued, resolve an 'identity crisis' in IS research. The present paper concludes that, rather than resolving an identity crisis, the prescriptions are likely to confound any search for identity by biasing future IS research into directions that do not move the field forward" (p. 136).
Wu and Saunders (2003)	<i>What</i> does the IS discipline consist of?	"However, when it comes to enhancing the relevance of and guiding the diversity in IT research, Alter's boundary based approach may be less powerful than a core, IT-artifact based approach. Alter's focus on systems, nonetheless, has its merits and therefore we suggest a possible convergence of Alter and Benbasat and Zmud's constructs" (p. 562).

APPENDIX 2: MAPPING PREVIOUS RESEARCH ONTO THE IS DISCIPLINE FRAMEWORK

Reference	Key Points	Perspective	Periphery	Process(es)
Agarwal and Lucas (2005)	Exhorts researchers to focus on the transformational nature of IS rather than focusing on the errors of 'inclusion' and 'exclusion'. Lays down an alternative set of heuristics for describing the boundary and domain of IS.	Externalist	Inclusive	Consolidate Differentiate Demonstrate
Alter (2003a)	Conceptualizes IS research vision centered on 'systems in organization'. This vision provides an umbrella for most of the existing IS research and treats the discipline's diversity as strength and provides a rationale for building on current knowledge and expertise. This will defuse the IS discipline's identity crisis, and increase its long term contributions to academia, business, and society.	Internalist	Inclusive	Copy Consolidate Demonstrate
Alter (2003b)	This article synthesizes the views of some articles published on the subject and brings forth overwhelming support for the inclusive definition of the IS core. Distinguishes between the crisis in the field from the identity and talks about the needs of different customers of IS research	Externalist	Inclusive	Copy Consolidate Demonstrate
Benbasat and Zmud, (2003)	Suggest that the IS research and publications should include the IT artifact and the elements of its immediate nomological net.	<i>Internalist</i> Externalist	Restrictive	Differentiate Demonstrate
Deans (2003)	Compares the identity crisis in IS discipline with that of International Business (IB). Stresses on the 'enduring' aspect of identity and wants the members of IS discipline to identify the theoretical base, methodologies etc. as the core of IS.	Internalist Externalist	Inclusive	Copy Consolidate
DeSanctis (2003)	Regards research as an enacted process within a 'community of practice' and emphasizes social interaction as the process through which knowledge is exchanged and created. A 'community of practice' conceptualization focuses more on the internal behavioral legitimacy and regards the discipline more like a 'voluntary association'. Cautions against self promotion of identity.	Internalist	Inclusive	Copy Differentiate
Dufner (2003)	Takes an economic basis and based on the massive investment by the private sector shows that both Information Systems and Information technology are cognitively and socio-politically legitimate. Treats diversity	Externalist	Inclusive	Copy Demonstrate

Reference	Key Points	Perspective	Periphery	Process(es)
	as a strength and a part of the existing identity of the discipline which is not suffering from a crisis.			
Galliers (2003)	Conceptualizes IS as a trans-disciplinary with a boundary which not only includes the organization and society but also cross cultural issues.	Internalist	Inclusive	Copy Demonstrate
Guthrie (2003)	Discusses the advantages of an inclusive versus restrictive core of IS in defining the IS discipline identity. Treats identity crisis as a part of the disciplinary evolutionary process with diversity. Regards the diversity as a source of strength and construes an umbrella definition for the IS discipline identity.	Internalist	Inclusive	Copy <i>Consolidate</i>
Hassan and Will (2006)	Discusses the issues of diversity and pluralism in IS field and how IS field can forge its unique disciplinary subject matter by synthesizing the various discourses.	Externalist	Inclusive	Copy <i>Consolidate</i> <i>Differentiate</i>
Hirschheim and Klein (2003)	Explores the issue of crisis in IS field and states that the current status is that of 'fragmented adhocacy'. Recognizes the external and internal view of the IS field and exhorts the IS community to bridge the 'communication disconnects' by creating a 'body of knowledge' for the field. By addressing the internal communication deficits the field will ultimately contribute to the society.	<i>Internalist</i> Externalist	Inclusive	Copy Consolidate Differentiate Demonstrate
Holland, (2003)	Regards IS as a study of Information Systems in management context. Supports multidisciplinary, diverse research and resembles in philosophy to Alter's (2003a) systems model.	Internalist	Inclusive	Copy Consolidate
Iivari (2003)	Views IS as an applied engineering like discipline with a need to develop meta-artifacts to follow theory with practical implications approach. Argues that the focus on IS development, can help to distinguish the IS discipline from its sister and reference disciplines.	Externalist	Inclusive	Consolidate Differentiate Demonstrate
Lim, Rong and Grover (2007)	Examines the core of IS discipline by identifying the work conducted and published by members of the IS community.	Internalist	Inclusive	Consolidate

Reference	Key Points	Perspective	Periphery	Process(es)
Lucas (1999)	Describes the importance of legitimacy from external academic stakeholders for the survival of the field and exhorts IS researchers to do quality research.	Externalist	Inclusive	Copy Consolidate Demonstrate
Lyytinen and King (2004)	Distinguishes between theoretical core and academic legitimacy. Argues that for the success of discipline, academic legitimacy is required rather than a theoretical core. Academic legitimacy can be assessed on the dimensions of: the salience of the issues studied, the production of strong results, and the maintenance of disciplinary plasticity. To remain successful, the IS field needs intellectual discipline in boundary spanning across a "market of ideas" concerning the application of information technology in human enterprise.	Externalist	Inclusive	Copy Demonstrate
Lyytinen and King (2006)	Continues the earlier debate on the need for a theoretical core for the success of IS discipline. Points the difficulties in identifying the theoretical core and synthesizes some views offered by Weber (2006)	Externalist	Inclusive	Copy Consolidate Demonstrate
McCubbery (2003)	Exhorts the IS research community to focus on the issue of relevance for practitioners by following an 'open source' approach.	Externalist	Inclusive	Demonstrate
Myers (2003)	Considers that the field is not yet prepared for defining a restrictive core. Defining a core now may endanger the discipline because of the dynamism of IT and IS. The legitimacy of the IS discipline is already established and diversity should be taken as a strength.	Externalist	Inclusive	Copy Consolidate Demonstrate
Neufield, Fang, and Huff (2007)	Defines the central identity of IS discipline using the three dimensions of central character, temporal continuity, and distinctiveness. The study identifies who are we as an IS discipline, how are we different, and where IS may be going as a discipline.	Internalist	Inclusive	Consolidate Differentiate
Orlikowski and Iacono (2001)	Contends that IS research has not concentrated on the core subject matter – the IT artifact. Proposes that IS researchers study and theorize specifically about the IT artifact.	Internalist	Restrictive	Consolidate Differentiate

Reference	Key Points	Perspective	Periphery	Process(es)
Power (2003)	Contends that no static core set of properties or constructs can be defined for the IS discipline as it is inherently amorphous and abstract. Views IS as an institutionalized discipline with no identity crisis.	Internalist	Inclusive	Copy Demonstrate
Robey (2003)	Conceptualizes a flexible identity which can be changed easily when circumstances require. To consolidate past achievements and to regard the reference disciplines. Calls for pragmatic legitimacy by adding value to the discipline's most important immediate external audiences and not to indulge in blatant over promotion.	Externalist	Inclusive	Copy Consolidate Demonstrate
Sawy (2003)	Views IS discipline identity from three perspectives connection, immersion and fusion view. This can also be considered as a natural progression based for different situations as evident from the field of Organization Science.	Internalist Externalist	Inclusive	Differentiate Demonstrate
Weber (2006)	Classifies papers on the topic of 'core of IS' into two categories: nature-of-the-discipline (<i>what</i>) commentaries and logic-of-the-core (<i>why</i>) commentaries. Lays down the importance of 'core of IS' for 'academic legitimacy' of the discipline. Rebuts some of the remarks of Lyytinen and King (2004) so as to extend the debate on this important topic.	Internalist Externalist	Inclusive	Copy Consolidate Differentiate Demonstrate
Westland (2004)	Regards the process of putting forth 'organizing principles' for the IS discipline as a constraint on future fruitful and creative research. Recommends a positive theory which embraces inference and experimentation, and on which normative-regulative opinions may be based. These methodologies do not constrain a priori, the topics which researchers may investigate but do assure that the conclusions drawn meet specific measures of quality, accuracy, and external validity. It allows disciplines to remain dynamic and open to new insights.	Internalist	Inclusive	Copy Demonstrate
Wu and Saunders (2003)	Argues that there is no substantial difference between Alter's work system construct and IT artifact (Benbasat and Zmud, 2003). For enhancing the relevance of and guiding the diversity in IT research, Alter's boundary based approach may be less powerful than a core, IT-artifact based approach. Proposes 'IT systems in organization' as the core following the principle of disciplined diversity.	Internalist Externalist	Restrictive	Consolidate Differentiate Demonstrate

* *Italics* indicates dominant perspective, periphery or process

ABOUT THE AUTHORS

Thompson S. H. Teo is an associate professor in the Department of Decision Sciences at the School of Business, National University of Singapore. His research interests include strategic use of IT, e-commerce, adoption and diffusion of IT, strategic IT management and planning, and offshoring. He has published more than 80 papers in international refereed journals such as *Communications of the ACM*, *Communications of the AIS*, *Decision Support Systems*, *European Journal of Information Systems*, *IEEE Transactions on Engineering Management*, *Journal of the AIS*, *Journal of Management Information Systems*, *MISQ Executive*, and *Omega*. He has also co-edited four books on IT and e-commerce, and is on the editorial board of several international refereed journals. He is also a two-time winner of the SIM Paper Competition Award (2002 and 2007).

Shirish C. Srivastava is a doctoral candidate at the School of Business, National University of Singapore. He has done his MBA from Management Development Institute (MDI), Gurgaon, India, where he was awarded the Prime Minister's Medal. His research has either been published or accepted for publication in several international refereed journals and books such as *MISQ Executive*, *Journal of Information Technology*, *Journal of Global Information Management*, *Information Resources Management Journal*, *Electronic Government: An International Journal*, *IIMB Management Review*, *International Journal of Information & Communication Technology Education*, *Encyclopedia of Information Science and Technology*, and *Vikapla: The Journal of Decision Makers*. He has also presented his research in key international refereed conferences like Academy of Management (AOM), Academy of International Business (AIB), International Conference on Information Systems (ICIS), Institute for Operations Research and the Management Sciences (INFORMS), Americas Conference on Information Systems (AMCIS), and Pacific Asia Conference on Information Systems (PACIS). His research interests include IT-enabled offshore sourcing, e-government, and IS & e-business strategy.

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