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Current trends and future directions in the practice of high-level data modeling: An empirical study

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IDENTITY IN ORGANIZATIONS: A REVIEW OF INFORMATION SYSTEMS RESEARCH

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Abstract

Research into the role of identity in organizations has become increasingly popular in recent years. Scholars from different organizational and management disciplines have applied the concept to address a wide variety of issues. In light of the concept's broad applicability, we conduct a review of six prominent IS journals to examine the extent of the concept's use in our field. Our review reveals that the concept is scantly employed by IS researchers, which, we believe, constitutes a missed opportunity. In light of this finding, we outline possible directions and opportunities for using the identity concept in IS research with the aim of enriching and diversifying the conceptual discourse in our field.

Keywords: Organizational Identity, Information Systems, Literature Review.

1   INTRODUCTION

Research into the role of identity in organizations has become increasingly popular in recent years (Albert et al. 2000; Corley et al. 2006; Cornelissen et al. 2007; Gioia et al. 2000; Haslam and Ellemers 2005). The interest in identity is quite diverse, reflecting perspectives that originate in the fields of organization studies, corporate communications, social and organizational psychology, personnel and human resources, and strategy and marketing (Cornelissen et al. 2007). Furthermore, theoretical and empirical research has explored identity and identification processes as well as their organizational outcomes at various analytical levels from personal to social to organizational (Ibid.).

The growing interest in identity issues reflects the concept's centrality to the way scholars from different disciplines understand and theorize about organizations. In addition it underscores the importance and practical relevance of the concept to a variety of organizational areas including strategy (Dutton 1997), management and leadership (Gioia and Chittipeddi 1991; Pratt and Foreman 2000), inter-organizational collaboration (Beech and Huxham 2004), and corporate communication (Cheney and Christensen 2001; Schultz et al. 2000).

In light of the broad applicability and use of the concept in general management and organizational studies, its scant utilization in IS literature stands out. Accounts of the relationship between IS and identity in organizations have been sparse (e.g., Barrett and Walsham 1999; Lamb and Davidson 2005; Walsham 1998). This is surprising given the significance of identity to a variety of issues that have received considerable attention from IS researchers such as group and organizational sense-making (Weick 1995), the shaping of organizational practices and change (Corley and Gioia 2004; Gioia et al. 2000), organizational learning (Corley and Gioia 2003), and knowledge work (Nag et al. 2007).

Although identity research in management studies does not focus on technology in general or IS in particular, we believe that focusing on identity issues in organizations can help IS scholars to produce thoughtful and meaningful insights into individual and collective self-constructions in organizations and into the interactions between the implementation and use of IS, and organizational processes and outcomes. Motivated by this premise, we set out to review and characterize the use of the concept of identity in organizational settings in existing IS literature.

Based on this review we aim to point at possible directions for employing the concept in future studies and indicate how it can contribute to explanations of the organizational implications of and reactions to IS, as well as the interaction between IS and users of systems in organizational contexts.

Next we present the concept of identity, in particular with respect to its application in organizational settings. In section three we present the research methodology which is followed by the findings from the review of the use of the identity concept in IS literature. We continue by outlining possible avenues for future IS research employing the concept of identity, and conclude by emphasizing the versatility of the concept and encouraging researchers to make use of it in their future work.

2   THE CONCEPT OF IDENTITY IN ORGANIZATIONS

The increase in theoretical and empirical identity research in organizational settings can be attributed to the richness of the concept and the opportunity that it provides to explore a wealth of issues that are of interest to scholars from multiple fields. In the organizational domain, this research spans several levels of analysis, ranging from individual or personal to organizational.

Personal identity typically refers to unique individual attributes that are assumed not to be shared with other people and which do not indicate or derive from group membership (Alvesson et al. 2008). Different from personal identity, social identity refers to an individual's perception of him or herself, resulting from his or her membership in a social group (Tajfel and Turner 1979). Moving up the

analytical scale, organizational identity is generally understood to be the members of an organization's collective understanding of the features that are presumed to be central, distinctive, and relatively permanent about the organization (Albert and Whetten 1985; Dutton et al. 1994). Common to most theoretical and empirical accounts of organizational identity is the view that identity is rooted in a deep cultural level of the organization (Gioia et al. 2000), residing in interpretive schemes that organizational members collectively construct to provide meaning to their shared history, experiences, and activities (Gioia 1998; Ravasi and Schultz 2006).

Despite the apparent distinctions separating the different levels of analysis, several scholars have emphasized their similarities and called for a more holistic understanding of identities in organizational contexts. For example, Alvesson et al. (2008) maintained that "despite the appeal of persistent distinctions between personal and social identities… we also wish to resist the often arbitrary clarity of such divisions. Instead… we develop a sharper eye for the diverse and fine-tuned ways in which the personal-social relation might be configured in identity research" (p. 10). The authors observe the role that personal and social identities play in each other's construction. On the one hand, "personal identities necessarily draw on available social discourses or narratives about who one can be and how one should act" (p.11). Furthermore, self conceptions emerge and develop in reference to a range of associations, roles, and behaviors that tie the individual to his or her social surroundings. On the other hand, social identities cannot be formed without individuals that engage in action and interaction that are informed by some notions of the self. Thus, the two forms of identity are intimately intertwined in a way that makes it hard to examine or understand one in complete separation from the other.

In accordance with this line of argumentation, several researchers have attempted to highlight the common features that personal, social and organizational identities share. Some have done this by stressing the relational aspects of identity. As pointed out by symbolic interactionists, personal identity is inherently relational (Sluss and Ashforth 2007); one's self-conception as a powerful leader is difficult to achieve without the presence of followers. Social identity is similarly relational; it is through ongoing relationships, interactions, and comparisons with various out-groups that the in-group becomes a salient locus for individual identification and attachment. Organizational identities are also relational as they are constructed not only against a backdrop of members' shared histories and experiences but also in the context of multiple interactions in which the organization is involved with a variety of outsiders such as costumers, competitors, and suppliers (Ashforth and Mael 1996; Gioia et al. 2000).

Another characteristic of identity in organizations is its fluidity. Although much of the literature has played up and focused on the seemingly stable and permanent features of identity, acknowledgement of its potentially changing character can be found in recent research on the topic (Gioia et al. 2000). For instance, personal identity is seen as a social construction deriving from changing interactions with others. As Weick puts it, "identities are constituted out of the process of interaction. To shift among interactions is to shift among definitions of the self" (Weick 1995, p.20). Social identity is also flexible; an individual's representation of in-groups and out-groups is likely to change as features of the comparative and normative context undergo transformations (Cornelissen et al. 2007). Flexibility is also characteristic of organizational identity. Changes in the organization's environment and relationships with other organizations are likely to require modifications to the way members interpret what is central and distinctive about their organization. That is, organizational changes will require members to actively reinterpret and develop new representations to symbolically characterize their organization (Fiol 1991).

Two additional qualities that characterize identities in organizational contexts are the role that they play in informing individual and collective action and their embeddedness in social discourse and communication. Firstly, individual actions are performed by actors with certain dispositions and preferences that derive from their self-conception. Likewise, social identity orientates the behaviors of individuals based on inter-group comparisons and relationships and the construal of social information. Organizational action is informed by organizational identity that provides a basis for

sense-making and renders a particular repertoire of behaviors appropriate; a "green" organization is likely to take certain actions to reduce operational costs and be associated with relevant industry and environmental groups to justify its green identity.

Secondly, most researchers agree that identity in organizational settings is produced and reproduced through ongoing communicative activities that take place within and across people and organizations. For example, social construction theorists maintain that personal identities are created, negotiated, and changed through ongoing interactions among multiple actors (Alvesson et al. 2008). Organizational identity is also a product of social communication; organizational members negotiate, through continuous interactions, a shared symbolic representation of their organization that gives a sense of meaning to the organization's actions, objectives, and existence, and that distinguishes the organization from other social entities in its environment (Gioia 1998; Gioia et al. 2000).

To sum, identity issues are experienced by social actors embedded in organizational settings. The concept of identity provides a lens for studying how organizational members give meaning to their experiences as a basis for individual and collective action. Therefore, it offers an opportunity to explore the interrelationships between the symbolic and the concrete organizational domains, as well as to examine the reciprocality of micro activities and macro phenomena. The recognition that identity is a foundational notion that is essential to understand multiple organizational processes and experiences is evident in the wealth and diversity of research that has employed the concept. In what follows, we examine the utilization of the identity concept in IS research and characterize its application.

3 RESEARCH METHODOLOGY

3.1 Defining the Scope of the Review and Searching the Journals

To examine the use of the identity concept in IS research we conducted a review of some of the primary journals in the field: MIS Quarterly (MISQ), Information Systems Research (ISR), Journal of the Association of Information Systems (JAIS), Information Systems Journal (ISJ), European Journal of Information Systems (EJIS) and Journal of Management Studies (JMIS).

In selecting journals for review we wanted to include top ranked, North American journals (MISQ, ISR, and JAIS), top ranked European journals (EJIS and ISJ), and a journal which we thought is likely to publish identity research (JMIS). As we focus the on use of the identity concept in academic research, we did not include practitioner-oriented journals in our sample.

We performed a full text search for the word "identity" in the following databases; Business Source Premier for JAIS (2003-2008), ISR (1991-2008), ISJ (2002-2008), JMIS (1990-2008), MISQ (1990-2008) and Palgrave Journals for EJIS (1991-2008).

3.2 Selecting and Examining the Articles

Our search of the databases produced a sample of 395 articles, which matched our keyword. These articles constitute our Sample A. Next, both authors read the abstracts and keywords of the papers in Sample A to determine whether the concept of identity was employed theoretically and/or to interpret empirical data. After going through a portion of the articles in the sample we compared our analyses to align our sorting criteria and establish inter-rater reliability. The result of the sorting was a reduced

Sample B of 27 articles[1]. We then read the articles carefully to assess each article's use of the identity concept. In reviewing the articles, we examined two issues: first, whether the articles' use of the identity concept was substantial and; second, whether they addressed the topic of identity in organizational settings, which is the focus of our study. In this process, we excluded articles that did not use the concept of identity in a theoretically-informed way. For example, articles that only mentioned identity in the introduction but not in other parts of the paper, or articles that used the concept as a peripheral idea. Furthermore, we excluded articles that used the word identity in a completely different connotation from our research interest of studying identity in organizations. This produced a (surprisingly) small sample of 11 articles, which we refer to as Sample C (a list of articles excluded is provided in Appendix A).

Table 1: Sample sizes and distribution of articles on journals							
	EJIS	ISJ	ISR	JAIS	JMIS	MISQ	Total
Sample A	57	2	45	63	105	123	395
Sample B	15	1	4	4	1	2	27
Sample C	5	1	3	2	0	0	11

4   FINDINGS: IDENTITY IN ORGANIZATIONAL SETTINGS IN IS RESEARCH

The remaining 11 articles were read carefully with the aim of constructing categories based on their use of identity. Using techniques from grounded theory (Glaser and Strauss 1967; Strauss and Corbin 1998), we constructed categories of the use of the identity concept based on a process of naming and comparing. We constantly alternated between reading the articles and naming first order concepts that were then compared to the text and finally combined into second order categories which formed the categories of use.

Five of the articles address the *interrelationship of technology and identity in the context of IS implementation*. Van Akkeren and Rowlands (2007) examined the assimilation of a new ICT in a radiologist practice and drew on social actor theory to analyze the relationships among the radiology practitioners, the technology, and the context. Findings from the case study showed that user-identity can both inhibit and enable IS assimilation. Gal et al. (2008) studied the implementation of 3D technologies into the architecture industry. They proposed a model to outline the relationship among IS, information infrastructures, and organizational identities and suggested that IS help to form organizational identities and enable cross-organizational change. Similar to Gal et al, Alvarez (2008) also emphasized the co-construction of identity and IS and argued that technology, structure, and identity are mutually constitutive. Critically examining the implementation of an enterprise system, Alvarez discussed users' power relations, experienced loss of autonomy, isolation, and fragmentation during the implementation process. Barrett and Walsham (1999) studied the implementation of an electronic trading system in the London Insurance Market and drew on work by Giddens to examine its impact on users' self-identity. Finally, Barrett and Scott (2004) also utilized Giddens' concept of

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[1] Most articles in Sample A used the word "identity" without actually engaging the concept as, for instance, in exploring identity-matching for crime-solving.

self-identity and examined how reflexive self-identity is impacted by increased globalization and ICT during the adoption of an e-trading system.

Articles in the second category examined the *influence of the presentation and perception of identity on online behavior*. Winter et al. (2003) conceptualized identity as the way an organization is perceived externally by its customers and discussed how managing a website as a symbolic representation of a company influences the customers' perception of the company and thereby their purchasing behavior. Related to this is a paper by Forman et al. (2008) about online-shopping and consumers' identity. Drawing on theories of information processing and partly based on social identity theory, the paper suggests that self-disclosure of consumers' identity affects the behavior of other shoppers and is positively related to sales. Finally, Ma and Agarwal (2007) studied the impact of community infrastructure design and identity verification in computer-mediated communication. Their findings suggested that identity verification is positively impacted by IT artifacts, and leads to satisfaction and knowledge contribution in online communities.

The third category focuses on the role of identity in *enabling collaboration and coordination across groups and organizations*. Sarker and Sahay (2003) propose a theoretical model that relates the concepts of communication, virtual team development, and collaboration to understand how virtual teams develop over time. They suggest that the development of an 'integrative identity' across teams is an enabler of successful collaboration. The second paper in this category by Dickey et al. (2007) is a study of how customers and customer service representatives build a shared context in chat communication. Identity is viewed as the interpretations that customers have of the company representatives' appearance in the chat session. The paper describes how improvements in peoples' articulation of intention and creation of a shared frame of reference may be valuable in enabling coordination between customers and customer service representatives.

The fourth and final category is represented by a single paper by Merali (2002) that examined the *role of organizational identity in enabling organizations to survive*. Looking at inter-organizational relationships in managing organizational transformation, Merali views identity as the abstract characterization of the organization that persists over time. It is the embodiment of this identity through action that impacts the world and influences boundary management between organizations. The paper draws on Maturana and Varela's concept of autopoietic unity as a metaphor and provides a framework for exploring issues of organizational identity and integrity, focusing on boundary phenomena to explain organizational knowledge processes.

5   INCORPORATING IDENTITY INTO IS RESEARCH: POTENTIAL DIRECTIONS AND OPPORTUNITIES

Our review of the leading IS journals revealed that the concept of identity work in organizations is seldom used by researchers in the field. When it is employed, it is mostly done without theoretically engaging the concept or leveraging the insights that could be yielded from its application. This finding stands in stark contrast to the overall trend in other management disciplines. As noted, the concept of identity has become increasingly popular in recent years and been used to investigate a wide array of organizational and managerial issues such as workers' motivation, organizational strategic behavior, group functioning, power relations and politics, entrepreneurship, loyalty, and emotions at the workplace (Alvesson et al. 2008).

In light of the broad applicability of the concept, we believe that the lack of attention to the importance of identity in organizational settings constitutes a missed opportunity. Bringing identity issues into the fore can help develop novel theoretical accounts and produce rich empirical analyses that capture the complexity of organizational life and of the interactions between people and technology in organizational settings. In what follows we outline possible avenues for using the concept of identity in IS research.

Organizational research on identity has been previously classified according to three philosophical orientations (Alvesson et al. 2008): functional, interpretivist, and critical. We build on this classification to describe different theoretical areas in which the identity concept can be utilized to inform IS research and identify research opportunities that characterize each area.

Functional

Research in this area typically aims to find causal relationships between different organizational phenomena in order to enhance control over organizational processes and increase organizational functioning and efficiency. Identity is treated as a tangible construct that can be gauged, assessed, and intentionally manipulated through management interventions with real organizational consequences. For example, some research argues that members' level of identification with their organization impacts decision-making processes, group cohesion (Ashforth and Mael 1989), and commitment (Sass and Canaray 1991). Other research maintains that the emergence of a collective identity influences the way members interpret and react to issues facing the organization (Dutton and Dukerich 1991; Gioia and Thomas 1996) by influencing the importance that members assign to them.

The theoretical framework most often associated with the functional approach is social identity theory (Tajfel and Turner 1979). The theory's main contention is that people's identity derives from the groups to which they believe they belong. Because people strive to maintain a positive self-identity, they will tend to favorably compare their in-group to external out-groups along valued dimensions. Applying these ideas to the organizational domain, it has been argued that organizational identity is merely a form of social identity, one that is associated with perceived membership to an organization (Haslam 2001). Therefore, one's degree of identification with the organization provides the basis for a range of organizational behaviors such as leadership, group motivation, and the willingness to take on organizational roles and exercise collective power (Turner 2005).

Opportunities for IS researchers in this approach are varied. For example, one could look at the role of technology in facilitating the creation and maintenance of organizational identification among group members. As identification with the organization is assumed to have a decisive influence on a range of organizational actions, being able to control and manipulate the identification process becomes an important managerial issue. Therefore, research that looks at the way technology can assist in accomplishing this in different organizational situations, such as geographically distributed or virtual teams, can be particularly valuable (these ideas are reminiscent of those explored in papers in the third category we identified above). Another research possibility lies in examining the impact of members' identification levels on their willingness to accept new technologies. Technology acceptance research is one of the most substantiated in the IS field. This area can be considerably enhanced by examining how the emergence and strength of social identities influence the propensity of users to adopt and use a new technology.

Interpretivist

Whereas functional research aims to target and utilize identity to produce effective organizational behavior, interpretivist researchers are primarily interested in understanding human experience in organizational settings. Rather than directly serving organizational interests, researchers in the interpretivist tradition look to gain in-depth insights into people's subjective reflections on who they are and what they do (Alvesson et al. 2008). Interpretivist approaches focus on how people weave organizational narratives with personal experiences to construct identities that provide a sense of meaning and continuity over time and across geographical locations (Ravasi and Schultz 2006). This construction process is often referred to as 'identity work', a term that is meant to emphasize the continual and dynamic nature of identities in organizational settings and their capacity to change and adapt to accommodate transformations that take place within or outside the organization.

This idea is demonstrated in a number of studies such as Fiol's examination of an organization named Tech-Co. During the 1970's and 1980's Tech-Co had a stable organizational identity as an engineering-driven data storage company. However, during the 1990's, the computer storage industry

as a whole was undergoing significant changes from a primary hardware, engineering mindset to mindset of information management and storage solutions. Fiol followed the transformation in Tech-Co's identity as the company attempted to adapt to the changes in its environment (Fiol 2002).

Some IS research that used the concept of identity has been interpretive in nature. For instance, Lamb and Davidson (2005) described the transformations in the professional identities of groups of scientists associated with the introduction of new IT. Similarly, Gal et al. (2008) studied the transformations in the identity of an organization as it adopted new IS. Walsham (1998) and Barrett and Walsham (1999) explored the links between the introduction of new IT and changes in the identities of groups of professionals in the London insurance market.

Thus, interpretivist IS research can enrich our understanding of how individuals, groups, and organizations incorporate technology-enabled changes in their environment into ongoing identity work; how new technologies get interpreted and fed into the way people perceive themselves and their organizations; how ongoing enactments of organizational interactions, practices, and identities are influenced by the introduction of new technologies; and what role existing identities play in sense-making processes of new technologies.

Critical

The critical approach focuses on power relations and repressive discourses that exist within and across organizations. These relations and discourses impose certain normative demands, behavioral scripts, and cognitive frames that shape individual, group, and organizational identities, both explicitly and implicitly. A critical perspective challenges some of the basic assumptions that characterize the functional and interpretivist approaches, most importantly, that individuals and groups freely construct their identities and (challenging the functional approach) that these identities will have beneficial outcomes both for the individuals involved and the organization (Alvesson et al. 2008).

A prominent theme in critical identity research is managerial interest in controlling employees through the regulation of their identities. Efforts to establish a rigid organizational environment that funnels identity construction in specific ways are given prime consideration. Attention shifts to the role that organizational elites play in generating discursive regimes and material arrangements that pose strict limitations on identity construction in ways that are deemed congruent with broad managerial objectives. For example, discourses of quality management, service management, and knowledge management provide a rich vocabulary and conceptualize the organization and its relationship with its members in ways that form and define certain identities, such as 'the knowledge worker'. Identities can also be constituted by reference to their location within a broader organizational or inter-organizational scheme and in terms of their relationships to others. For instance, in a study of an advertising agency, Alvesson found that reference to other agencies as amateurish and insincere tended to be interpreted as communicating professionalism and honesty as desirable attributes to be possessed by members of the researched agency (Alvesson 1994).

IS identity research that adopts a critical stance can build on existing work in the field that has examined the repressive impact of IS on people's privacy (Zuboff 1988), capacity to exercise their agency (Kallinikos 2004), and on the way organizational action and discourse are induced through the implementation of new technologies (Doolin 2002; Doolin 2003). Future research can examine how IS are used to impose certain discourses that facilitate the construction of particular identities; the role that IS play in the distribution of material and symbolic resources within and between organizations and the way these resources are used to construct different identities; and the mechanisms through which IS structure communicative activities within and between organizations and how these communicative activities (that may be power-laden, asymmetrical, or exploitive) are incorporated into identity construction processes.

6   CONCLUSION

Our review of the use of the identity concept in IS research has shown that term 'identity' has been cited substantively in the dominating IS journals to date (395 times, to be exact). At face value, this would seem to indicate a significant level of interest in the concept in the IS field and point to the existence of a high number of IS researchers seeking to engage seriously and constructively with the identity concept.

From an IS perspective, it would seem that the notion of identity work in organizations offers a number of distinctive concepts and perspectives that are appealing to researchers in the field. Among these are the possibility of using IS to develop members' collective identities and enhance organizational performance; and developing an identity-based view of organizations which can open a conceptual platform to address IS implementation challenges, IS-induced organizational change processes, and the ongoing adaptation of IS to users' practices.

While 395 articles in the sampled journals used the term 'identity', only 11 of them had examined the concept in organizational settings to develop or expand theoretical insights, interpret empirical data, or both. The vast majority of IS researchers have adopted the identity concept in a non-theoretical fashion. Nonetheless, the IS researchers that used the identity concept substantively, have done so in a wide variety of ways, demonstrating its broad applicability. A number of them focused on the relationship between technology and identity and examined how this relationship plays out during the implementation of IS. Another group of researchers have investigated the formulation, perception, and presentation of identity to enrich current understandings of online behavior. Others have looked at the role of identity in facilitating collaboration and coordination within or across organizational boundaries.

In light of the concept's versatility, we would encourage future IS identity-researchers to follow suit and seek to explore the full scope of identity theory by borrowing from other disciplines rather than restricting themselves to building on the limited understanding of the concept that is apparently most directly applicable to their work. Based on Alvesson et al.'s classification, we outlined possible directions for such research, which fall into the functional, interpretivist, or the critical perspectives.

From a functional standpoint, identity is a tangible mechanism that can be utilized and leveraged to solve organizational problems, impact a range of organizational behaviors, and promote organizational effectiveness, e.g., through the timely implementation and adoption of technology. An interpretivist understanding of identity in IS research views IS users as social actors whose actions are underlined by their self and group conceptions. Therefore, in order to understand how and why people respond to and interact with technology in certain ways, we necessarily need to understand their identities. An in-depth examination of the communicative and symbolic activities that underscore identity construction can therefore provide a better understanding of a range of organizational events, e.g., why a particular technology is rejected by its intended users, or why users have difficulties integrating a technology into their everyday practice. From a critical point of view, the understanding of identity can produce important insights into the power structures and opposing interests often involved in the interaction between technology, social institutions, and actors in organizations.

Finally, the IS field has a lot of catching up to do with other management disciplines in terms of addressing identity work in organizations. As we noted in the beginning of the paper, in recent years identity research has flourished in most management disciplines to address numerous issues and enrich the discourse around a variety of managerial and organizational topics. IS researchers, for the most part, have yet to capitalize on this opportunity to further develop and diversify their conceptual playing field. This paper is meant to provide an initial exploration into some of the opportunities and possibilities for carrying this out.

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8 APPENDIX A

The following papers were excluded from sample B to form sample C: Erat et al. (2006); Hanish and Corbitt (2007); Huang et al. (2001); Hwang (2005); Jensen and Aanestad (2007); Koufaris (2002); McCoy et al. (2007); McGrath (2002); Adam et al. (2006); Gregg and Walczak (2008); Levina and Vaast (2005); Light (2007); Maes and Huizing (2005); Otjacques et al.(2007); Robey (2003); and Xu et al. (2007).