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Politically Sensitive IT Practice: A case story of wireless network implementation

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31. POLITICALLY SENSITIVE IT PRACTICE:
A CASE STORY OF WIRELESS NETWORK IMPLEMENTATION

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Abstract

Drawing from social perspectives, we narrate a case story of wireless network implementation situated in a socially connected but politically segregated environment. We seek to understand how the interplay between radical IT implementation and organizational structure shapes and reshapes organisational members' perception of implementation success and how unintended consequences of popular mobile technology emerge in a politically sensitive workplace. Detailed narrative analysis reveals that many subtle conflicting issues intertwined among various stakeholder groups. Those issues not just reshape how organisational members perceive IT implementation success but also how future IT management take place. The insights gained from this case story thus suggest that a more socially and politically sensitive IT practice in general and wireless network management in particular might be essential in the contemporary service oriented IT environment.

Keywords

Politics, social perspective, wireless network, mobile technology, narrative inquiry, and case study

1. Introduction

Ever since Markus's classic study (1983), the significance of politics in influencing information technology (IT) or information systems (IS) implementation has arguably been instilled in many researchers' and practitioners' minds. While IT users might resist emerging systems for their self-interests and/or for inadequate technical deign, the interaction between systems users and the context in which the systems put into practice might be more influential than other factors involved (Markus, 1983). For poorly designed technology or inadequately customised systems that are not tailored to the users' needs, it is more understandable when the systems fail to achieve its intended results. For emerging technology or systems that could enhance users' productivity and efficiency, their implementation success or failure is often determined not by

technical design but by social and organisational issues (Myers, 1994). Often, the unintended consequences emerging from those circumstances are beyond the IT management's expectation (Orlikowski, 1991). In the contemporary IT environment, popular technology such as wireless networks and enterprise-wide information systems such as ERP (Enterprise Resource Planning) might require multi-years of implementation process and/or multi-million dollars of investment (Gargeya & Brady, 2005). Any unintended consequences, particularly negative ones, derived from systems implementation might be too complicated or costly to be overlooked.

The purpose of this research investigation thus seeks to unveil subtle issues hidden behind the economic justification of popular technologies and in turn encourages more socially and politically sensitive IT practices. More specifically, drawing from an integrative perspective that combines economics and social understanding, this paper inquires: "To what extent does the interplay between radical IT implementation and organisational structure reshape organisational members' perception of implementation success?" and "How do social perspectives help better understand unintended consequences of popular technologies in a political sensitive environment?" A in-depth case analysis reported here discusses how a widely accepted, or even embraced, technology in the contemporary business world suddenly emerged in an academic institution, how its socially connected and politically segregated organisational members came to interact with the technology and how such interaction shaped and reshaped the technology's designed results and unintended consequences.

Insights gained from this case study could reinforce the significance of politics in the IT implementation process (Markus, 1981, 1983) and in turn help IT managers to develop a more socially and politically responsive IT planning that could smooth out unintended consequences of IT practices. They could also extend the existing knowledge of IT implementation literature that is commonly dominated by economics perspectives (Smithson & Hirschheim, 1998). Several lessons could further inform IT managers situated in a radical environment and/or scholars challenged by emerging multitasking, social networking generation of students and IT professionals that demand different IT services or teaching and learning approaches.

2. Literature review

With the growing popularity of computer information systems, IT implementation research started gaining increasing attention in the late 1970s (Ginzberg, 1978; Lucas Jr, 1978) and early 1980s (Ginzberg, 1981a, 1981b; Gremillion, 1980). This line of research often focused on individual user's perspective (El Sawy, 1985; Joshi, 1991), including the impacts of users' cognition (Griffith & Northcraft, 1996) or beliefs (Karahanna et.al., 1999) on information technology. Due to its emphasis on individual users, these research endeavours were also frequently associated with, or influenced by, the prominent work of Everett Rogers's diffusion of innovation (Rogers, 1995) in that individual adoption of technology was categorized into five phases: awareness, interest, evaluation, trial, and adoption (Huff & Munro, 1985). In the late 1980s, the emergence of technology acceptance model (Davis, 1989) would also strongly shape the future IT research even to this date (Bagozzi, 2007; Hirschheim, 2007; Karahanna et. al., 2006). However, the focus of diffusion of innovation theory, technology acceptance model, and subsequent studies were primarily on individual users and they tended to simplify the complicated implementation or adoption process that an organisation faced in the real business world.

Most recently, as a review of IT implementation literature by several senior researchers pointed out, three emerging factors have dramatically changed implementation practice and subsequently challenged the IT implementation research. These factors included (1) the substantial increase of IT investment on enterprise systems such as ERP (Enterprise Resource Planning), SCM (Supply Chain Management), and CRM (Customer Relationship Management), (2) the increasing demand in today's highly competitive market that required rapid development and implementation of IT, and (3) the emergence of multi-firm networks and virtual community platform (Lucas et.al., 2007). A simple focus on technological assessment would thus no longer be sufficient (McNish, 2002). The contemporary and future research would need to pay attention to various factors such as interpersonal relationship (Li, Chau, & Lou, 2005), boundary spanning situations (Levina & Vaast, 2005), industry level activities (Johnston & Gregor, 2000), and institutional pressures from the competing landscape (Lai, Wong, & Cheng, 2006). In retrospect, Lucas et.al. (2007) concluded, "Looking ahead, we see the necessity for more fully accounting for technological, institutional, and historical contexts, leading us to suggest that our research should be more oriented toward telling rich and complete stories of innovation with information technology" (Lucas et.al., 2007, p. 208).

2.1 Social perspective

In the particular domain of mobile technology chosen for our investigation, rich and complete stories would then need to incorporate alternative perspectives to better understand the complex interplay between technology and organisations situated in such a rapidly growing environment. While the most widely embraced viewpoint in the IT literature is largely derived from economics perspectives such as IT investment (Dehning, Richardson, & Zmud, 2003), productivity (Thatcher & Oliver, 2001), business profitability (Hitt & Brynjolfsson, 1996), and consumer value (Mukhopadhyay, Kekre, & Kalathur, 1995), the less favoured and often overlooked social perspective (Smithson & Hirschheim, 1998; Stone, 1990) such as politics (Markus, 1981, 1983), structural control (Orlikowski, 1991), and various external factors (King, et al., 1994; Teo et. al,, 2003) could help unveil deeper issues embedded in the organisational structure or the market landscape that would not be surfaced otherwise. Particularly in the context of uncertain IT environment (e.g. wireless industry), emerging issues such as standards (Tan, 2002), security (Ghosh & Swaminatha, 2001), applications (Tarasewich, 2003), interface design (Lee & Benbasat, 2003), among others (Jarvenpaa & Lang, 2005; Palen, 2002) often further complicated situations in relation to external uncertainty and internal tension more drastically than economic factors did (Tan, 2002).

2.1.1 External uncertainty

Externally, emerging technical challenges and related issues prohibit an organisation from fully predicting the future technological development, particularly in the U.S. where the market and political forces are complicated (Tan, 2002). The rapid evolution of mobile technology could also exceed organisations' implementation capacity—before organisations completely grasp the features of technological capability, new devices or services might have already appeared in the market. For instance, wireless network standards have evolved from 802.11b, 802.11a, to 802.11g and 802.11n since the late 1990s (standards.ieee.org). The uncertainty in such technological environment presents an enormous challenge in an organisation's implementation of wireless networks. In an institutional context where organisations often face substantial competition from other organisations, a clear understanding of how external factors play out between an organisation and its institutional landscape becomes critical (Tan, 2002). Those

factors, in addition to the emerging technological uncertainty and complexity, would include social, political, and cultural issues that every institutional member faces in its competing forum. Traditional economic perspectives in the IT implementation literatures that simply emphasise productivity, efficiency, and effectiveness, thus, could not offer sufficient understanding of subtle, authentic issues to emerge regarding how the implementation process evolves and what impacts occur.

2.1.2 Internal Tension

Internally, tension between IT departments and user groups is naturally embedded in organisational structure and IT systems (Applegate et.al., 2007). While IT functions might aggressively innovate emerging technology that intends to enhance business operations, the success of IT innovation is often determined by user involvement (Markus, 1981) and the interaction between organisational members and IT systems that intend to change users' existing business processes or IT practices (Markus, 1983). As Markus (1983) clearly pointed out, user resistance was a recurring problem in most IT implementation process, sometimes for intended users' internal factors, however informal or implicit, and for poor system design but more often for the multifaceted interaction between users, technology features, and the context in which the systems were implemented. Even when new systems implemented were a popular technology such as CASE (Computer-Aided Software Engineering), unintended consequences resulting from social relations and power control could exceed the understanding of technology determinism that often heavily simplified emerging technology's designed results (Orlikowski, 1991). At the enterprise-wide or inter-institutional level, failing to manage these social and political issues naturally intertwined with the IT implementation process could even cause devastating lose from which an organisation might not easily recover (Myers, 1994). These classic studies highlight the necessity of incorporating social perspectives in our empirical examination of wireless network implementation, also a rapidly growing and widely accepted technology.

3. Research methodology

We employ a case study research methodology to dismantle subtle issues embedded in the research context. Case study research has been the most widely adopted qualitative methodology in the IT literature (Orlikowski & Baroudi, 1991). Its data collection process normally combines various methods, including interviews, observation, and documentation, and can involve either single or multiple cases and numerous levels of analysis (Yin, 1994). As case study approaches gains considerable attention in the IT literature (Chen & Hirschheim, 2004; Lee, 1989; Walsham, 1995), their empirical practices further evolve into a variety of research endeavour that draws little distinction with theory falsification (Lee, 1989; Markus, 1983), hermeneutics (Myers, 1994), ethnography (Orlikowski, 1991), and grounded theory (Orlikowski, 1993). Interestingly, these influential works, either positivist or interpretive in origin, mostly involve in one single case organisation. While conventional wisdom tends to disfavour single case study (Eisenhardt, 1989), some argue that one deep case study with good story telling might generate better theories than a number of surface case studies (Dyer & Wilkins, 1991). The research investigation reported here is in line with such a perspective.

3.1 Study site

Metro Law Centre (MLC) at Metropolitan University (MU), a large public research university with more than 35,000 students from immensely diverse backgrounds, was chosen for our investigation. The University's IT structure is mostly decentralised due to its large physical size and student population. Metro Law Centre's IT services, as in other academic colleges, are largely provided by its own IT department supervised by Assistant Dean, Gordon, and IT director, Roger. The rationale for choosing MLC at the Metropolitan University as our study site was mostly because it was one of few, if not the only, organisations in the metropolitan area to implement wireless networks across its entire campus and most importantly a mandatory laptop program which required admitted law students to equip with a laptop computer prior to entering the program. This unique background provided an ideal research context for our investigation not just for its wireless network environment but also for the emerging issues interplayed between its newly implemented IT policy and the existing organisational structure and academic operations.

3.2 Data collection

The data collection process primarily took place in two academic semesters. During those periods research visits were conducted mostly two to three times a week during our non-teaching days. While there was no definite rule regarding the number of interviews for a case study (Gummesson, 1991), to gain a reasonable understanding that could better represent an organisation's perspective as a whole, fifteen semi-structured interviews reported in this paper were conducted consisting of IT staff members, professors, administrators, and student users. All interviews were digitally-recorded and followed the same guidelines. The average recording times of interviews were 53 minutes without students and 42 minutes with students. All interview records were transcribed and the transcription resulted in 99 single-spaced pages of data.

3.3 Narrative analysis

For data analysis, we rely on narrative inquiry to better make sense of issues interplayed between technology and organisations and users. According to Bruner (1996), narrative inquiry and narrative knowledge might well be "the most natural and earliest way" (Bruner, 1996, p. 121) of organising human lived experiences. It commonly results in story telling (Boje, 1991; Craig, 2003), story making (Bruner, 2002), parallel story organising (Craig, 1998, 2003), and in turn story construction of reality (Bruner, 1991). In addition, narrative inquiry often creates metaphors to help better construct stories and in turn allow authentic knowledge to surface (Craig, 2004; Lakoff & Johnson, 1980). Narrative and metaphor, thus, are sometimes addressed jointly as the same analytic mode. They are commonly found in education in general and in literacy in particular (Clandinin & Connelly, 1988; Craig & Olson, 2002; Janesick, 1994). While our research investigation does not rely on metaphorical analysis, the story telling aspect of narrative inquiry allows a more meaningful understanding of subtle issues emerged from the context in which various stakeholders are deeply situated.

4. Story of Metro Law Centre

The main stakeholders in this study included the Assistant Dean of Metro Law Centre (MLC), Gordon, who headed the IT department at MLC, the current IT director, Roger, various faculty members, administrators, and students. The radical emergence of wireless networks at MLC

began when a severe tropical storm swept across the metropolitan area and flooded a considerable section of the law centre, in particular the networking facilities and the law library located in the basement. With a large proportion of the library collections unsalvageable and the primary function of networking infrastructure destroyed, the regular academic research and relevant activities could not be performed normally. The law centre immediately fell into a dark facility with no electricity. However, the Dean at that time was determined to renovate the facility in time for the students to return in the subsequent semester, which appeared to be almost an impossible mission with urgent time constraint. Consequently, the options presented at the time would be either to re-wire the entire facility or to implement wireless networks. Gordon admitted that intuitively it appeared unwise to install two thousand network plugs throughout the facility. Roger, IT director, elaborated that the economic comparison between wired and wireless options quickly led the IT department to choose the wireless alternative.

In addition to the economic consideration of physical space and wiring costs, another strategy hidden underneath the surface manifested itself through a more subtle analysis. Accompanied with the wireless network at law centre, a mandatory laptop programme was also implemented almost simultaneously. This mandatory laptop programme required all freshman students to purchase one particular model of laptop prior to attending the school. On the one hand, it reinforced the notion of wireless campus and equipped students with necessary tool to best utilise the wireless networks. On the other hand, the ownership of computing resources had completely shifted from the IT department to the students. The IT department no longer provided computers in the laboratory; neither did they equip networking infrastructure that traditionally existed in any physical facility. The IT function no longer needed to maintain or manage those computing and technological resources. The cost of technology ownership had been shifted to the students silently. Largely driven by resource allocation, such radical evolution highlighted an emerging era of IT practice in general and network management in particular at MLC. Consequently, many subtle, unintended issues quickly emerged between various stakeholder groups.

4.1 Immediate nuisance - students vs. IT department
One immediate issue resulted from the mandatory laptop programme was that only certain models of laptop computers were recommended or no IT service would be provided. This situation created immediate nuisance between student users and the IT department, particularly those who have already equipped with their own laptop computers prior to entering the program.

> I didn't like it at first because also the school recommends a certain computer and it's a very expensive computer. I think it's about $3,000 when I first got here. If I'm not mistaken, I'm pretty sure that's what it was and I had my own laptop which was $500 and it was fine… My laptop was a gift from my parents and was only 3 months old… At first I was questioning why did we need to have all that stuff, it didn't make sense... They [IT department] told me I could use my laptop, but said they couldn't guarantee it would work with everything and said I would get no IT assistance. [Molly, Student]

4.2 Outright conflict - students vs. professors
Another tension occurred between professors and students in the classroom settings. The existence of wireless networks in the classroom has inevitably allowed students to distract themselves. Some faculty members have embarked on strict rules for forbidding laptop usages in the classroom. At the law centre where the laptop was mandated, it created unpleasant and confusing situation between professors and students.

… It's just a reality that we are gonna use computer and that they are very fast and very useful. I was also a little surprised though and at first it was irritating me, some professors, the first year, professors, two of my professors would not allow laptops in the class. So it was like we had a requirement and then we were told not to bring them, which felt like an irony, which was like unfair. [Michelle, Student]

Then some faculty refuse to let the students use their laptops in the classroom. Then the students get mad, why did you make me buy a laptop and I can't take it to class. [Sean, Associate Dean]

4.3 Unintended animosity - professors vs. IT staff

Another problem caused by the implementation of wireless networks took a huge twist between professors and administrators. Due to radical implementation, the administration determined to implement the wireless networks and laptop requirement without much involvement of faculty members. In the academic world, a general perception that this decision-making was a bad process became evident. It provided the underlying cause for controversy between professors and administrations.

It's related to the controversy. One, it's an academic thing; the Dean shouldn't decide this on his own, he should have consulted more with the faculty. So there are some faculty who just think this was a bad process. [Sean, Associate Dean]

From a faculty member's perspective, it was bad enough to not be consulted with certain decision making that would affect his/her major academic activities, i.e. teaching in the classroom; it was worse not to be informed after the implementation of wireless networks has completed. When a professor discovered the existence of wireless networks and the distraction that it naturally created, his anger towards administration exploded as he perceived that his academic privacy and freedom was completely violated. He has since perceived the existence of wireless networks in the classroom a simple disaster and opposed to its development in any means possible including public speech to the central IT department and the entire law faculty email list.

No faculty was made aware of this during the first 6 weeks of class. When I found out, I published it and then the Dean admitted… I was mad as hell at the administration. The administration was determined to make me conform to what she viewed as a desirable classroom asset and she wasn't at all worried about the students' attention… I don't know what other people are doing actually in those classes but in my class the computer was simply a disaster. [Jarek, Professor]

4.4 Hidden clash - professors vs. professors

As the implementation evolved over the years, conflicting viewpoints continued to battle at the law centre. The first group of professors were fully aware of negative situations in the classroom but chose to neglect the problem. Their philosophy was largely stemmed from the independence and freedom strongly rooted in the academic environment. This group of professors perceived that students should assume responsibility for their own actions and in turn that the professors should not engage in classroom control activities. Janice, for example, taught at the law centre for over thirty years and observed much negative distraction recurring in the classroom. She, however, never made attempt to instruct how students should use (or not use) their laptops in the

classrooms. As such, Janice's style was a completely independent, self-controlled approach. To her, the wireless networks might be literally nonexistent.

> It's quite clear, unless they think they need to listen because there's something they don't understand, or they are going to get called on, or there is a problem set to work through, they are off doing their own thing. But I assume if they weren't doing that they'd be daydreaming. I don't think it's particularly a good thing. It hasn't stopped me from teaching the way I teach. I'm not going to go and patrol the classroom and go up and down the rows. The students who are interested are going to get good grades and pay attention and those who don't aren't. [Janice, Professor]

The other group of professors were so frustrated with student activities in the classroom that they adopted a radical approach to terminate the network access and laptop usage altogether. Jarek, for example, made several attempts to express his concerns and frustration to the administration but there was no satisfactory result to him. Having received several teaching excellence awards over decades, Jarek considered the existence of wireless networks in the classroom a technology monster and be removed permanently at once. He even wrote an article and presented it to the central IT department and other academic units on campus. After the first year of unsuccessful attempt to discourage students using the Internet in classroom, Jarek performed a legendary action that was widely known among MLC professors.

> After that first year, it was a disastrous year in which I tried to get students to stay off the Internet. In desperation I got a ladder and unplugged the classroom system and was told by an unsympathetic administration I couldn't do that. I did it nevertheless after a week or two trying to make a point with the class and finally after I felt I'd made my point, I went on with the semester and the year and it was a disastrous teaching year. [Jarek]

The radical approach adopted by a group of professors such as Jarek completely prohibited the usage of wireless networks and laptops in their classrooms. Their radical approach created two issues in the law centre: one with students and the other with other faculty members. With the students, their approach contradicted with the mandatory laptop requirement practiced in the law centre as described earlier. With faculty members, Jarek's persistent advocacy of removing wireless networks from classrooms continued to create conflicts between him and the administrators and the IT department. The attention was drawn to not just technology issues but also political issues among faculty members. Since faculty members at the law centre exhibited various reactions toward wireless networks and Internet activities in the classrooms, very few faculty members embraced Jarek's radical approach. Eventually, Jarek's approach and persistent arguments with the administrations created incompatible attitude from some other faculty members who would simply consider Jarek a complete distraction on his own. Janice, for example, rolled her eyes when she revealed the message below.

> In the beginning everyone accepted it and then some professors realised some students weren't paying attention. They were just doing all kinds of things so Jarek is famous for getting a ladder and unplugging things and making a huge fuss and then barraging the Dean with, "This is your fault. How could you have done such a stupid thing?" endlessly over the next 4, 5 years. He sent e-mails to all the faculty to barrage the Dean and making life difficult for everyone because he's unhappy. So we're putting switches in two rooms; I sure hope we give him one of the rooms where he can just turn the switch off so no one can use their computer. Don't talk to me about Jarek. [Janice]

5. Reflective understanding

In reflecting the first central research question, "To what extent does the interplay between radical practice of mobile technology and organisational structure shape and reshape organisational members' perception of implementation success," MLC's story of wireless network implementation has evidently demonstrated a strong and perhaps inevitable interplay between its radical implementation of wireless networks and existing organisational structure. While wireless network seemed to be a logical solution to an unexpected natural disaster, its technological functionalities and/or economics benefits were not fully understood or embraced in the implementation process over time. All these stories lived and told by participants suggested that certain aspects of the implementation process failed to achieve its intended results and might even create more issues than benefits along the way.

More specifically, the immediate nuisance between students and IT department, the outright conflict between students and professors in classrooms, the unintended animosity between professors and IT department, and most critically the hidden clash among professors manifested unintended consequences of this radical wireless network practice that might have severely undermined MLC's routine operations and in turn fundamentally shaped MLC's organisational culture. While technological functionality might be relatively easy to realise, work relations and organisational culture could take time to develop or reshape. Once compromised, they might no longer be recovered. In MLC's case, the situation has evidently created or reinforced unpleasant or even hostile work environment that could lead to further issues such as employees' dissatisfaction and departure. The intangible cost of such unintended consequences could be beyond the values created by technological functionality.

In reflecting the second research question, "How do social perspectives help better understand unintended consequences of popular technologies in a politically sensitive environment," MLC's story has evidently substantiated the necessity of integrating social understanding to IT practice in general and radical innovation of wireless networks in particular. Without social perspectives, subtle unintended consequences would not manifest themselves otherwise. More specifically, these social perspectives informed us that IT users or organisational employees are after all 'social creatures' who create complex interactions with technology and among themselves. Those interactions often shape and reshape consequences beyond the intended purposes of IT implementation in general and wireless network management in particular. Particularly in a radical situation such as the story of MLC, social perspectives helped illuminate subtle nuisances that could be influential in understanding the multifaceted meaning of information technology, even a popular one such as mobile technology, in business processes and/or organisational culture.

To practitioners, several valuable lessons could be learned from MLC's politically sensitive story. The most fundamental one reinforced that the push approach of IT implementation from top management down to the users would often lead to unintended consequences that might be more costly than the management realised. Although Markus (1983) has made it utterly clear how politics influenced IS implementation success, history seemed to repeat itself at MLC. Despite its logical solution to a natural disaster, the radical implementation of wireless networks at MLC could have been more successful if the administration have had first communicated with stakeholders, i.e. professors and students, involved. As such, even given an urgent situation similar to MLC's disaster response at that time, the administration or IT department could smooth out undesirable resistance from stakeholders through mass communication tools such as

email systems or focused group meetings to inform users the potential consequences. When the users were made aware of the situation, the degree to which they resisted the newly deployed change would be less likely as severe as in Jarek's example who was clearly shocked by sudden appearance of wireless networks in classrooms.

Another important lesson learned was that top management should not neglect or underestimate knowledge workers' professional domains. At MLC, such domains were most apparent in professors' teaching integrity in classroom settings and academic autonomy else where. When a professor perceived that his/her teaching integrity was violated, he/she could create unexpected resistance that profoundly undermined not just implementation success but also organisational culture. In the academic setting, precaution might need to be taken even more seriously from top management when emerging IT changes intersect with faculty members' autonomy because their intellectual freedom is commonly respected, informally sanctioned or even highly protected by higher educational systems. The hidden consequences caused by failing to acknowledge, if not appreciate, intellectual integrity and academic autonomy might significantly outweigh economics benefits generated by technology. As Gordon informed us, it was a history, if not a mistake, that he or his IT department would not repeat. Suggestions could thus be made that proactive planning be taken to develop user awareness of potential IT consequences and to market intended benefits into knowledge employees' professional domains. In MLC's case, strategising the notion of 'flexible and improvising teaching/learning style' and marketing 'the first institution to equip with an advanced technology' are perhaps in line with academic mentality where teaching/learning autonomy and school ranking and advancement are often embedded in the institutional competing landscape.

To researchers, MLC's story provided an interesting example of how the radical interplay between emerging technologies and organisational structure shapes and reshapes the designed results and unintended consequences of IT practice. The integration of social perspectives also helped unveil politically sensitive issues entangled in the implementation process that might not surface otherwise. Evidently, despite classic influential studies such as Markus (1983), the history continued to repeat itself, perhaps only under different circumstances. The investigation of how socially connected and politically segregated organisational members interact with emerging technology, particularly those that require substantial investment and long term implementation endeavour such as Enterprise Resource Planning (ERP), would then continue to demand the research community's attention. Those information systems' success and failure would be so multifaceted that simple economics perspectives and financial assessment might not provide a comprehensive understanding of its impacts.

One particular aspect pertaining to the academic setting such as MLC's story is that the higher education institutions in particular and the society or the business world as a whole are increasingly facing a multitasking, social networking generation who grows up online and demands constant interaction and connection with an enormous social cloud over the Internet. Enabled by mobile technology and wireless networks, such social cloud is penetrating various professional domains including traditional classroom settings where professors might inevitably experience technological challenges and cultural changes in the teaching and learning process. How this emerging generation's technological demands interact with traditionally well protected academic autonomy and how they shape and reshape the teaching and learning process and results might provide some interesting opportunities for future research endeavours.

6. Conclusion

While a single case study such as Metro Law Centre presented in this paper inevitably has certain research limitation, the in-depth narrative analysis can help unveil subtle issues hidden behind the economic justification of emerging technologies, which reflects our research purpose. Insights gained from those unintended consequences of MLC's story might be implicated differently by IT managers and researchers to better make sense of their organisational environment or research context. However, a common understanding derived from this case story is that a more socially and politically sensitive IT practice in general and wireless network management in particular might be essential in the contemporary service oriented IT environment. Top management might even need to consider that it might no longer practical to exercise the top-down implementation approach, regardless of IT environment faced. At the academic settings, questions could even be asked, "Is it even ethical for IT policy or practice to intervene with intellectual freedom and academic autonomy that largely shapes the higher education environment?" As more multitasking, social networking generation of college students and IT professionals enters higher education institutions and the business world, emerging issues would thus inevitably continue to challenge the academics and IT managers. Future investigation that helps provide insights of how to manage potential hidden clashes between different IT demands from various professional groups might prove valuable to IT practice and network management in particular.

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