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Power, Politics and Legitimacy in Information Systems Implementation: An Ethnographic Study

Konrad Peszynski
Deakin University

Dilal Saundage
Deakin University

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Konrad J. Peszynski
Dilal Saundage

School of Information Systems
Deakin University
221 Burwood Highway, Burwood,
Victoria 3125, Australia
Email: konradp@deakin.edu.au
Email: dilal@deakin.edu.au

Abstract

Systems implementation is inherently a political process. However, the majority of the literature in the area of systems implementation takes a simplistic look at factors attributed to success. These studies provide empirical evidence that "human factors" such as "top management support" contribute to a successful implementation. Rather than accept this, we challenge this view and explore two "human" issues – power and legitimacy inside systems implementation. By exploring the implementation of a learning management system at the University of New Zealand, issues such as power and legitimacy affect the way an implementation team collaborates. Systems implementation is a complex and messy process and we need to understand the implementation process, acknowledging that top management support is not always necessary to "successfully" implement a system.

Keyword

IS Implementation, Power, Politics, Legitimacy

INTRODUCTION

Systems implementation is the process of identifying the need for an information system of some kind, and the process(es) involved in getting that system installed into an organisation (Nickerson, 2001; Avison and Fitzgerald, 2003; Maddison et al., 1983; Davis, 1974; Hawryszkiewycz, 2001; Hoffer, Valacich, and George, 1998; Lauden and Lauden, 1998). Research into the area of systems implementation has provided the majority of early studies in the discipline of information systems and typically falls into two categories: process modelling and the systems development lifecycle (SDLC); and factor studies (Newman and Robey, 1992). Rather than focus on the implementation process, which has been covered extensively by various authors such as Avison and Fitzgerald (2003), Hawryszkiewycz (2001) and Hoffer, et al. (1998), we are going to focus on the factors required for implementation.

One approach to studies of implementation in information systems has focused on factor studies. The failure of information systems implementation has been linked to the absence of an IS champion or change agent, lack of management support (Ginzberg, 1981; Kydd, 1989; Corbitt, 2000), strain on already restricted managerial time (Cragg and King, 1983), poor attitudes towards Information Systems (Corbitt, 1997), absence of education and training (Cragg and King, 1983), organizational problems (Markus, 1983), technical problems (Cragg and King, 1983), and perceived gaps between expectations of IS supporters and those expected to use the system (Kydd, 1989). On the other hand, research has shown that success in implementing IS in business organisations is more common than failure (Kydd, 1989).

Success in implementing systems is attributable to a number of success factors (Rockart, 1982; Somers and Nelson, 2001; Boon, et al., 2004). These include organizational commitment, the existence of an executive sponsor within the organization (Raymond, 1985), the existence of an operating sponsor within the organization to provide quick feedback across the organization (Montazemi, 1988) and the existence of dedicated facilities within the organization. In the small business context, (Cragg and King, 1983) suggest that the successful implementation of IT occurs where there is demonstrated

relative advantage in terms of time saved, benefits accrued or discomfort decreased, and where competitive pressure could be addressed as IT was seen as an enabling technology that could make the firm flexible and profitable. A similar argument is offered by Allen and Kern (2002) in the higher education context. Finally, the central importance of the role of management is supported by Parr, et al. (1999), Duchessi, et al. (1989), Somers and Nelson (2001), Akkermans and Helden (2002), Poon and Wagner (2001), Averweg and Erwin (1999), Hartman and Ashrafi (2002), and Teo and Ang (1999).

Corbitt, et al., (1997) argue that by demonstrating the relative advantage of implementing a new system in terms of time saved, benefits accrued or discomfort decreased and where competitive pressure could be addressed by technology, enable a successful systems implementation. Current research in the systems implementation process has taken a positivist approach. According to Mitev (2001), this approach is typically taken by managers and technologists and is impractical as it views technology as unproblematic and neutral. That is, technology has little or no impact on the systems implementation success or failure. In other words, it ignores or reduces the "understanding of organisations characterised by a belief in rational management; a denial of the existence of power relations and conflicts; a tendency to see organisations as individual closed entities; and limited focus on the business environment" (Mitev, 2001, p. 85).

Such factor studies, as described above, are not reflective of the process which occurs in systems implementation. Implementation is neither driven entirely by factors of success or failure (Corbitt, 1997). Rather the implementation process in information systems is more reflective of the stakeholder relationship interactions and the impact of the context, either business, organizational, social or cultural, in which the implementation occurs. However, these conceptualisations ignore the political spectre and the element of power in systems implementation. As a result, some authors have taken a more social-technical approach to information systems implementation (Mitev, 2001; Orlikowski, 1992). In order to do this, we as researchers, must "move beyond commonsense explanations of failure and success and find more complex and richer ways of understanding the use of IS in organisations through the inclusion of broader social, economic, political, cultural and historical factors" (Mitev, 2001, p. 84). By taking this approach, we can enable a better understanding of the power and politics involved in systems implementation by focusing on social issues in the implementation process.

Rather than take the social aspect of systems implementation at face value, we need to understand and perform research that recognises the complexity and historical construction of the members of the implementation team and process (Mitev, 2001). We currently cannot describe or explain the political environment in systems implementation because politics in implementation endures influence, pressure, dogma, expediency, conflict compromise, intransigence, resistance, error, opposition and pragmatism (Ball, 1990). That is, the implementation process is complex, messy, inconsistent, ambiguous and contains dilemmas.

The result of factor studies has been to create a list of critical success factors involved in systems implementation. That is, certain objectives or factors need to be addressed in order for the project to be considered successful (Rockart, 1979; Boynton and Zmud, 1984; Martin, 1982; Zahedi, 1987; Soliman, Clegg, and Tantoush, 2001). Previous work has addressed the most common critical success factors in systems implementation (Boon, et al., 2004). The five most common factors in systems implementation are top management support, clear goals and objectives, business process reengineering (BPR), project management, and information technology. It is interesting to note that three of the five common success factors involved human factors of some kind. Emery (1971) initially discusses the human factors in systems implementation, however, there has been little added to the literature and body of knowledge in regards to human factors in systems implementation.

Human factors make up some of the more significant CSFs, such as having top management support, a project champion driving the project, as well competent project teams (Havelka and Lee, 2002; Somers and Nelson, 2001; Boynton and Zmud, 1984; Akkermans and Helden, 2002; Bergeron and Begin, 1986; Hartman and Ashrafi, 2002; Croteau and Li, 2003). Human factors also include having the appropriate IS staff, with skills for the project and an empathy for supporting of users (Teo and Ang, 1999; Pollalis and Frieze, 1993; Khandelwal and Ferguson, 1999).

There are the political issues inside systems implementation that only a qualitative study can uncover. Issues such as power occurs in the systems implementation process as it is the inherent political nature

of people. People are not comfortable with change. Change is essentially a political process requiring the capacity to mobilise power resources (Mitev, 2001).

CONCEPTUAL FRAMEWORK OF POWER, POLITICS AND LEGITIMACY

The word *politics* emanates a negative feeling to many people. Organisational politics is sometimes a misunderstood concept because there is no apparent, straightforward definition of it (Buchanan and Badham, 1999; Bacharach and Lawler, 1998). Some authors classify organisational politics as upward forms of influence or as self-serving tactics of influence such ingratiation (Mintzberg, 1983). Buchanan and Badham (1999, p. 11) state that organisational politics are "the practical domain of power in action, worked through the use of techniques of influence and other tactics." Similarly, Bacharach and Lawler (1998, p. 69) define organisational politics as "the efforts of individuals or groups in organisations to mobilise support for or opposition to organisational strategies, policies, or practices in which they have a stake or interest." Whatever the definition, there is one relationship that holds: the inextricable link between power and politics (Buchanan and Badham, 1999; Markus, 1983; Bacharach and Lawler, 1998). That is, you cannot have one without considering or discussing the other. If politics is the way that people get things done, then power is the resource used to achieve this.

When bringing this into an Information Systems context, the following question is raised: do people take power and politics for granted when it comes to systems implementation? Do we choose to ignore it and, as raised earlier, focus on the critical success factors necessary for a "successful" implementation? Since Markus' (1983) seminal paper, there have been few studies that have continued her work in power, politics and systems implementation.

Having defined organisational politics, it is now time to define the term *power*. Again, this is a term that has different understandings (Parsons, 1963; Galbraith, 1984; Pfeffer, 1981). Perhaps the most common view of power is the structuralist view, which is systematic and almost a simplistic way of understanding power. According to Dahl (1968, p. 202) "*A* has power over *B* to the extent that he can get *B* to do something that *B* would not otherwise do." Dahl (1957) refers to power as controlling of someone else's behaviour and/or actions. Russell (1975) share Dahl's view, however, Russell (1975) describes how individuals may influence or be influenced via the use of power. These methods are:

- direct physical power over an opponent's body – which refers to physical damage via the use of a weapon to get their way;
- by rewards and punishments as inducements – the use of incentives, such as monetary reward or punishment by removing privileges; and
- by influence on opinion – the use of propaganda to modify an opponent's mindset.

Putting this into an organisation context, power can take on multiple forms (French and Raven, 1959):

- Coercive Power – a person reacts to this power out of fear of the negative ramifications that might result if they fail to comply.
- Reward Power – compliance achieved based on the ability to distribute rewards that others view as valuable.
- Legitimate Power – the power a person receives as a result of their position in the formal hierarchy of an organisation.
- Expert Power – influence based on special skills or knowledge.
- Referent Power – influence based on possession by an individual of desirable resources or personal traits.

Again, this is a simple view of power, and enables a researcher to easily categorise the type of power and role someone may have in the organisation.

The view of power adopted here is the anti-structuralist view of power, shared by authors such as Clegg (1989), Foucault (1977, 1978, 1982) and Lukes (1974). This view of power takes the view that power is fluid, non-static, that is, power is not an absolute term. This follows Foucault's (1978) notion of power relations. In one of his later works, Foucault (1982, p. 220) delves further into the concept of power relations offering "what defines a relationship of power is that it is a mode of action, or mode of conduct, which does not act immediately and directly on others. Instead it acts upon their actions: an action upon an action, on existing actions or on those which may arise in the present or future."

As mentioned earlier, power is never static, never standing still, rather, it is fluid and constantly changing. It should be noted however, that people do not 'have' power implicitly; rather, power is a technique or action that individuals can engage in. Power is not possessed, it is exercised (Foucault,

1977, 1978). A power relation only occurs where there is the potentiality for resistance, that is to say it only arises between two individuals each of whom has the potential to influence the actions of the other and to present resistance to this influence.

We are not born with power, but we may (or may not for that matter) come into power at some stage in our lives. Foucault (1978, p. 94) confirms this by stating, "power is not something that is acquired, seized or shared, something that one holds onto or allows to slip away." These power relations are not static, but dynamic, transforming and constantly changing (McNay, 1994). Foucault claims that power is transformable, that we may have power at one point in our life and then at another point in our life have no power. Foucault (1978, p. 93) states that power "is produced from one moment to the next, at every point, or rather in every relation from one point to another. Power is everywhere; not because it embraces everything, but because it comes from everywhere."

Foucault (1978, p. 100) suggests that it is in discourse that power relations can be established. And for this very reason, we must conceive discourse as a series of discontinuous segments whose tactical function is neither uniform nor stable. According to Ball (1990, p. 17), discourses are, "about what can be said, and thought, but also about who can speak, when, where and with what authority." Foucault (1977, p. 49) further elaborates, stating that discourses are "practices that systematically form the objects of which they speak…Discourses are not about objects; they do not identify objects, they constitute them in the practice of doing so conceal their own invention." Discourses represent meaning and social relationships; they form both subjectivity and power relations.

In the context of systems implementation, power may affect the process of implementing the learning management system, by making it a messy, complex and convoluted process. Throughout the implementation process, power may swing from one way to another, and there may be no clear recognition of the static, categorical forms of power, as French and Raven (1959) claim. It is through the concept of power relations, as described by Foucault (1978) that we can gain a greater understanding of the power and politics involved with systems implementation.

Implementations of Information Systems are usually intended as a durable social change; they have to be legitimate (Banville, 1991). As stated by Markus and Bjørn-Andersen (1987, p. 502), "awareness and the perceived legitimacy of power exercise will affect users' responses to professionals and their acceptance of the solutions professionals' purpose." The ideal situation to observe legitimation processes is when there is a potential crisis in legitimation, that is when one can focus on critical situation (i.e. when the social routines are disrupted and the implicit becomes problematic).

RESEARCH METHOD

To enable a better understanding of the implementation process and answer the research question, what is the role of power, politics and legitimacy in systems implementation? An ethnographic approach was employed, as this enabled the researcher to get into the organisation and be a participant for part of the implementation process. This also enabled the researcher to describe the organisation from the members point-of-view, reducing the distance between the researcher and the members of the study. By immersing themselves in the organisational activities, the researcher will gain richer information as to how power relations are created and how they may transform over time for the systems implementation group. As Foucault (1978) indicated, power relations transform over time. An ethnographic study will therefore uncover these transforming power relations.

Twenty face-to-face, one-on-one interviews were held with the members of the implementation team and documents were collected to provide further information as well as written, hard facts that confirm what was said in the interviews. This approach was adopted as the researchers took the role of the "traveller" (Kvale, 1996). That is, we wanted to tell the story, through the eyes of the implementation team members, their journey, wandering through the landscapes entering into conversations with people encountered, roaming and exploring unknown territory.

Data was analysed using a combination of hermeneutics, organising systems and discourse analysis. The researcher read the complete transcript of each interview and document before analysing the transcript for the creation and transformation of power relations within the systems implementation group. Data was initially coded into as many categories as possible focusing on the "events" as the appropriate unit of analysis (Creswell, 1994; Leedy, 1997). The researcher then "organised, arranged and chronologically ordered the data searching for recurring themes or patterns that represent the members' perspective. Discourse analysis was also employed to make sense of, and analyse the collected interviews and documents. According to (Fairclough, 2001, p. 25) discourse analysis "has a common concern with how language interconnects with other elements of social life, and especially a

concern with how language figures in unequal relations of power, in processes of exploitation and domination of some people by others." That is, discourse analysis allows the researcher to understand the language and authority of members involved with the study. As a result, the researcher put forth a set of relational assertions about the culture using the language and terminology of the members" (Leedy, 1997, p. 160).

CASE STUDY

The University of New Zealand (UNZ) is an amalgamation of institutions throughout New Zealand that has five faculties: Commerce, Humanities, Arts, Law, and Science. The strategic goal of University of New Zealand is to be the best provider of distance education in New Zealand, and it is through the implementation of a learning management system that this goal will be achieved. Twenty members were involved in the study, with a representative of each Faculty and the main administrative services departments, the Information Technology Department and Teaching and Learning Department, as well as key members of the Senior Executive.

In 1998 a decision was made to implement a Learning Management System (LMS) at the University of New Zealand. This decision was made via a committee of six university members, academics and senior executive, and rumours were running that the system had actually been selected prior to the committee forming. This decision was supposed to be for the whole university with the idea that there would be one central learning management system, to enable a sense of unity across the dispersed University of New Zealand. The decision was made to use QuickLearn at the learning management system.

However, at the time QuickLearn was selected by the committee, each faculty had made a move to implement their own learning management system. Commerce had developed its own internal system, as had Humanities. The Faculty of Science were using a mixture of systems depending on the school. Some schools had adopted QuickLearn, other schools had developed their own system, and yet more schools were using either EducateMe or EasyTeach. The Faculty of Arts implemented QuickLearn and the Faculty of Law had implemented EasyTeach.

There was a lot of chaos involved with the implementation of QuickLearn and little or almost no contralisation, which was the goal of the LMS, had been achieved. At this time, it was discovered that QuickLearn reneged on most of its promises it had originally made upon confirming the contract. According to all members involved, QuickLearn was "moving away from the educational market and more towards the corporate market." Those that had been using QuickLearn had also found the system cumbersome and non user friendly. It was at one Academic Board meeting that a member of staff, and user of both QuickLearn and EasyTeach, made public the general dissatisfaction that went with QuickLearn.

As the matter was now public and the senior executive had been made aware of the dissatisfaction, moves were now made to resolve and restore satisfaction into one learning management system. At this stage however, there was a perceived weakness at the senior executive level. The Vice-Chancellor at the time was on the verge of retirement and there was a Deputy Vice-Chancellor who was criticised for their inexperience in regards to the online learning, and in particular, learning management systems. However, this inexperience was also linked to the senior executive being misinformed about the requirements of the learning management system and the way it was implemented. The Vice-Chancellor and the Deputy Vice-Chancellor had been the ones pushing for a central learning management system, without understanding what is really required from such a system.

As a result, the whole process of selecting and implementing a LMS was "painfully revisited" and the University of New Zealand went back to square one, wanting one learning management system. A new committee was established with a completely new team. The chair of this new committee saw the QuickLearn "fiasco" and knew there was a better way of selecting and implementing a learning management system. Rather than had a small selection team, as was used for the QuickLearn implementation, the chair wanted to have as many people as possible involved to increase the user buy in, and ultimately the success of the new system. As a result, members of each Faculty were selected by the chair, as well as the Dean of each faculty nominating his or her own members. Members from the two supporting service departments, the Teaching and Learning Department and the Information Technology Department were also on the selection and implementation team to input any IT requirements and teaching and learning requirements and resources.

Meetings were hostile, due to the nature of the committee. Each faculty member was pushing for their own system that they had been using inside their faculty and rejecting every other potential system. The chair of the committee decided to ignore what had been done previously and what each faculty and school had been using. Instead, the chair found all potential learning management systems that exist, producing a comprehensive list of 64 systems. A list of functionality was also generated by members of the committee. This process had a lot of involvement and was non-political. It gave everyone the opportunity to say what they though a learning management system should do. This list was then short-listed, using the requirements as the criteria list. Three major competitors were left: EducateOnline, ChalkItUpOnline and EasyTeach.

As the short-list was generated, an argument regarding pedagogy ensued. Those that were pushing for EasyTeach believed that the learning management system should revolve around communication. That is, students should be able to chat with one another, regardless of location. Other committee members believed that the learning management system should be based on technology, and its potential uses. EducateOnline offered the ability to link the database into other internal systems. The third learning management system, ChalkItUpOnline, was believed to have been the best system for teaching. Each advocate kept pushing for their own system and continually rejecting any other system, despite the capabilities of those systems.

However, the argument turned out to be pointless as it was at one significant meeting EasyTeach was eliminated from the selection. Unbeknown to the EasyTeach advocates, and many others on the committee, it turned out that EasyTeach was moving away from the tertiary sector and following QuickLearn by moving into the corporate market. The EasyTeach advocated were devastated and essentially defeated. They could no longer push for EasyTeach to be the system. Two systems were left and after more debate and presentations from both companies, EducateOnline was selected.

The decision was unanimous and went forward to the senior executive and university council. As the decision was made by such a large committee, and unanimous, the university council had little choice but to accept the decision and grant permission and provide funding to start piloting and implementation the new learning management system, EducateOnline. This process appeared to be the least political involved in the entire selection and implementation process.

Shortly after the decision had been made, there were a few changes at the senior executive level. The Vice-Chancellor retired and a new Vice-Chancellor was appointed. This Vice-Chancellor had a greater understanding on online teaching and learning and wanted to speed up the implementation process, by decreasing the implementation time from 18 months to six months. At approximately the same time, the Deputy Vice-Chancellor resigned and a new Deputy Vice-Chancellor was appointed, with a greater knowledge of online teaching and learning and learning management systems. In conjunction with these new appointments, a new position, Pro Vice-Chancellor for online teaching and learning was pushed for by the outgoing Deputy Vice-Chancellor and embraced by both the new Vice-Chancellor and Deputy Vice-Chancellor. The responsibility for the Pro Vice-Chancellor was solely in regards to the University of New Zealand's online system, particularly the new learning management system. The Pro Vice-Chancellor had to encourage the adoption of the learning management system across the university and deal with all dissatisfaction and general complaints of the new system.

In late 2002, piloting of the new system started, and with this started the politicking. The nay-sayers and supporters of EasyTeach spoke out again, slamming the decision and the system. Those that were not involved in the selection process now had no choice but to use this one system. The senior executive made the decision to decommission all other learning management systems operating in the university. Ultimately the academic population felt that this system was "imposed" on them. The union was brought in with claims that learning how to use the system was infringing on workloads and being overloaded and over-stressed by having to learn how to use a completely new system in a short space of time.

Since the pilot and implementation, the system has been operating across the entire university for seven months. There have been technical difficulties along the way. Users, both academic and student, continually complained about the slow speed of the system, and the fact that it was not as good as previous systems they had used in various faculties and schools. However, the system has survived a summer semester and one full semester with over 33,600 total users logging on during the first half of the semester.

Implementation of the Learning Management System

Although the story was simplified and shortened, the political processes and power struggles are strongly apparent. This story is not so much a story about the implementation of a central learning management system, but more a struggle of control. Discourses were initially set by the weak senior executive of 1998, whereby an online learning management system was required, however, there was little understanding of what the system should be capable of doing, and its impact on the university. Because of the weak understanding and lack of leadership, a vacuum was created, where various senior members of the faculties and managers of the Teaching and Learning Department and the Information Technology Department, exerted their power and created their own discourse.

There was a realisation that various schools and faculties had been using their own systems and running them off their own servers. However, it wasn't until the new Vice-Chancellor, Deputy Vice-Chancellor and Pro Vice-Chancellor appointments that control was ultimately put back into the hands of the senior executive. These members could stand up at any meeting and essentially say "this is the way we are going to do it." They ultimately had the power and wiped out any prior stations of control. Rather than challenge any existing discourses, the senior executive decided to create their own and have all members of the university, departments and faculties alike, abide and adhere to the new discourse, power and ultimately, control.

What are the lessons that can be learned from this implementation? This paper has argued, and made explicitly clear that power and politics are apparent and run rampant throughout the system implementation process. The literature on critical success factors is inadequate as it takes a structured view of the world. That is, we can easily categorise various aspects of the implementation process, and, if we have adopted these factors, then we can successfully implement a system. This is essentially a simplistic approach to systems implementation and critical success factors. This is further evidenced by the framework of bases of power as proposed by French and Raven (1959). Instead, we have argued that power is transferable and constantly moving, adopting the concept of power relations as established by Foucault (1977, 1979, 1982).

CONCLUSION

The literature on critical success factors is limited as it suggests that there is a factor called "human factors," which includes components such as top management support and project leadership. This paper has uncovered and discussed in-depth, the inherent human factors, and essentially political nature of systems implementation. We acknowledge that the systems implementation process is complex and messy and the previous literature does not refer to this.

We have contributed to the systems implementation and associated factor studies, by gaining a greater understanding of the human factors, or more specifically, the political nature of the implementation process. By understanding the true needs of the system, in this case control, it indicates that project leadership and top management support is not always necessary to "successfully" implement a system.

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