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An Australian case in e-health communication and change

E-health
communication
and change

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Abstract *Australia's health industry is grasping the need to use IT and telecommunications with e-commerce strategies for improved cost-effective services to its key stakeholders. Addresses the changes occurring in Australia's healthcare industry influenced by experiments in e-commerce and focussed on the Project Electronic Commerce and Communication for Healthcare (PeCC). Initiated in 1997, as a joint activity of both government and industry, PeCC was developed to introduce e-commerce practices into the health sector with almost 700 suppliers, automating pharmaceutical and other supplies to hospitals. Supply chain communication will be facilitated by an Internet-based platform, allowing more efficient interaction between the pharmaceutical industry's outlets (retail and hospital pharmacies), wholesalers, suppliers and manufacturers. Promoting and demonstrating e-commerce for the pharmaceutical industry supply chain, the project connects manufacturers, wholesalers, suppliers and hospitals. Examines lessons in change management and communication that emanate from this health sector case, emphasising the issue of improving communication with key stakeholders about e-commerce and changes to the health system, and ensuring appropriate communication practices (including media selection) through the different phases of the project over time.*

Introduction

Change is created, sustained, and managed in and by communication (Ford and Ford, 1995, p. 560).

In a recent overview of challenges in organisational communication research, Taylor *et al.* (2001) highlight, among a number of current concerns and future challenges, two key areas. First, they focus on changes to the common vertically integrated traditional organisation and the move to new organisational forms founded on strategic alliances, collaboration, partnering, outsourcing and the like, and emphasise the pivotal role of communication. For them, "Because these organizational forms emphasize multiparty cooperative work, nonproximate work teams, and strong links between activities and individuals across organizational boundaries, communication processes assume a critical role in our attempts to understand them" (Taylor *et al.*, 2001, p. 121). Second, they highlight that "Organizational change and change-oriented persuasion represent important new topics for organizational communication scholars" (Taylor *et al.*, 2001, p. 123).

These two areas are inextricably interlinked in myriad ways, but especially so in this paper where problems in change management, including inadequate and inappropriate communication with key stakeholders, resulted in a slower than expected uptake of a major technological innovation.



Change management and communication

In a whitewater world, shooting the rapids takes planning, knowledge, ingenuity, coordination, courage, perseverance, leadership, technology, and countless other resources. But communication is the crucial element enabling these resources to be linked and magnified in their power – communication among everyone in the boat (Axley, 2000, p. 22).

While there has been a gradual growth in linking change management and communication, this has generally been in a rather narrow, micro way, and very little work has been published on communication and large-scale radical or transformative change. Somehow, there seems to have been a vacuum in the literature since the seminal work on communication and innovation by Rogers (1995).

This is true of the theoretical debates in organisation communication and at the other end, in convincing organisations that communication is indeed a crucial part of change management strategies. This, despite work such as Smeltzer's (1996) study showing clearly that the most common reason for change management failures is difficulty with communication. More recently, however, one notes a changing perspective, as evidenced by Lewis and Seibold (1998, p. 94) who claim that "Understanding just how implementation of change programs is accomplished, and how communication affects the process, appears increasingly central to our understanding of and ability to predict the outcomes of planned change efforts". They have called for a concentration on research into communication processes in change implementation activities and strategies.

DiFonzo and Bordia (1998) urge the need to consider managing uncertainty during organizational change, focussing on revealing information rather than concealing it. Clampitt *et al.* (2000) also underline the pressing need to have a comprehensive communication strategy for change management to deal with the often dysfunctional aspect of uncertainty. They outline the common problematic strategies adopted:

- "spray and pray" which adopts a shower them with information approach;
- "tell and sell" which uses a tell them the key issues and then sell them on how wonderful the approach is;
- "underscore and explore" which focuses on a number of fundamental issues linked to organisational success, plus permitting employees freedom to explore such implications in a disciplined manner;
- "identify and reply" which targets identifying employee concerns and responding; and
- "withhold and uphold" which emphasises withholding information until necessary and upholding the party line when confronted by rumors.

Clearly, there are many agendas for important research by communication scholars into the nexus between communication and change (Taylor *et al.*, 2001).

PeCC: Australia's first Internet trading community

The case study used for exploring such a nexus is an e-commerce one in the health sector. In this sector, Forrester Research expects that "the Internet will topple communication boundaries between consumers, providers, insurers, and health-product distribution chains" (Baker, 2000, p. 3). Complementing this view, PricewaterhouseCoopers (2000, p. 1) emphasises that, to improve the efficiency of the healthcare supply chain:

- procurement in healthcare supplies must move toward an e-business platform for data interchange; and
- buyers and suppliers must also work together toward standardisation including agreeing on a universal product numbering system.

The PeCC case touches on such crucial concerns.

Initiated in 1996, PeCC emerged from Federal Government concern over burgeoning costs in Australia's A\$50 billion health sector and involved Commonwealth organisations working with industry. PeCC was developed to introduce e-commerce practices into the health sector with almost 700 suppliers, automating pharmaceutical and other supplies to hospitals and retail pharmacies. Supply chain communication is facilitated by an Internet-based platform, allowing more efficient interaction between the pharmaceutical and healthcare products industry's outlets (retail and hospital pharmacies), wholesalers, suppliers and manufacturers. Promoting and demonstrating e-commerce for the pharmaceutical industry supply chain, the project connects manufacturers, wholesalers, suppliers and hospitals. European Article Number (EAN) numbering of every consumable is critical and streamlining the supply chain relating to pharmaceuticals and other healthcare items supplied to hospitals is the basic focus of change in the project. Modeled on modern warehousing and retail systems such as databases, bar-coding, and having suppliers and customers linked electronically, PeCC is grounded in common numbering systems for products and in electronic distribution of orders by wholesalers and acknowledgment by manufacturers, using commonly available Internet-based software.

The pharmaceutical industry is one of the first Australian industry groups to have adopted a standardised approach to e-commerce. The project's impact, however, is significant within the broader healthcare industry, given the potential for all items in hospitals to be covered. When fully implemented, the major advantages arising from PeCC will be reduced waste in the health industry through improvements to supply chain management (SCM); better cost management (conservative estimates by DIST in 1998 of savings up to A\$340 million per annum) enabling improved overall patient healthcare delivery.

The Pharmaceutical Extranet Gateway (PEG)

The most successful of the PeCC projects is the setting up of PEG, now a major component of the overall project and a building block in establishing trading

documents for the healthcare market. Figure 1 is a Netmap showing the complexity of linkages within the healthcare supply chain matrix and the positioning of PEG within the overall network.

PEG's initial focus was to link five major competitive pharmaceutical wholesalers (Australian Pharmaceutical Industries, Faulding Healthcare, Hospital Supplies of Australia, Sigma Company, and W.H. Soul Pattinson & Co.), and the 700 manufacturers from whom they purchase collaborating in developing a common Internet-based EDI/EC platform, allowing them to trade electronically with their suppliers at reduced costs. The partnership has culminated in the five wholesalers using standard electronic order forms through PEG and is being expanded to include other wholesale distributors (e.g. Clifford Hallam Pharmaceuticals P/L and LJ Cottman (WA) P/L).

As illustrated in Figure 1, PEG provides a single common electronic ordering system that allows pharmaceutical wholesalers and suppliers to transact business through the Internet with the use of a common EAN-based bar coding or standardised numbering system. It enables wholesalers and suppliers to send purchase orders and to receive responses across the Internet rather than using the more expensive EDI option. Furthermore, it offers precision in processing; advanced delivery notification; streamlined payments; and accurate and timely shared business information. It provides a network linking the major wholesalers to manufacturers and suppliers for purchase orders, acknowledgments and payments. Ensuring secure encryption, documents can be tracked through the system. Analysts estimate that the cost of placing an order through the normal manual process would be around A\$50 to A\$70, and with full implementation of PEG, this transaction cost is expected to reduce to A\$2-5 per order.

Stakeholder management, mismanagement, and communication in PeCC

Despite its many successes, PeCC overall has faced numerous challenges (More and McGrath, 2000), including:

- ensuring that collaboration and e-commerce brings about an equitable reaping of rewards by the different stakeholders;
- effectively managing the complex task of appropriate change management in the health sector;
- understanding the political dimensions of moving forwards;
- appropriately handling cultural differences at the macro and micro levels;
- improving communication with key stakeholders about e-commerce and about changes to the health system;
- resolving human resources issues relating to the organisational changes that e-commerce will bring to the nature of work in the sector;
- dealing with cost concerns for the stakeholders;

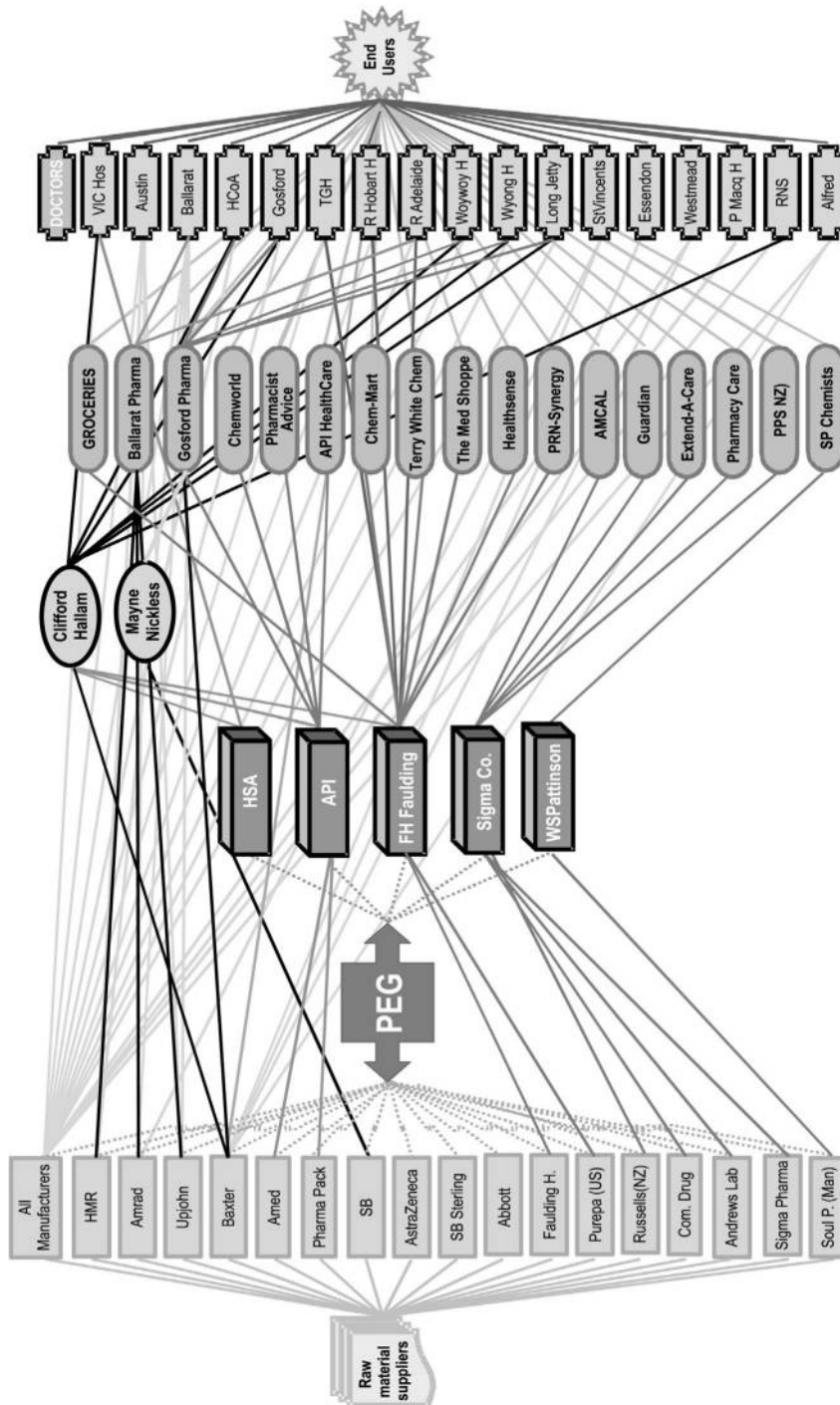


Figure 1. Healthcare supply chain

- securing appropriate funding for e-commerce innovations;
- overcoming the focus of e-commerce on IT rather than on the broader business strategy perspective;
- creating and implementing the appropriate governance structure to carry e-commerce initiatives forward; and
- creating a critical mindshift so that healthcare is seen as an industry rather than a cost.

Key problems have also resided in the poor selling of change through appropriate communication, and not dealing effectively with key stakeholder needs, expectations, and fears. These two major issues are grounded in the reality of how power and political issues come to the fore in change management, enabled and exploited through communication practices.

Already a decade ago, Frost and Egri (1991) emphasised the differing interests and viewpoints of those whom change usually engages and arouses, actors who might gain or lose in diverse ways from a particular innovation. For them, “Contests and struggles for collaboration are often part and parcel of the innovation process. It is often played out through the exercise of power” (Frost and Egri, 1991, pp. 235-6).

Effective stakeholder management in major change processes is crucial for overall success. Frooman (1999) suggests that managing stakeholders strategically involves asking who they are in terms of attributes; what they want in terms of their ends; and how they are going to attempt to gain their wants in terms of their means. He emphasises his view that “stakeholder theory is about managing potential conflict stemming from divergent interests” (Frooman, 1999, p. 193).

The amount of conflict critically relates to the strategic importance of specific stakeholders, as does the nature of the stakeholder management techniques that should be used. As Harrison and St John (1996, p. 51) put it: “Specifically, stakeholders who are strategically important should be managed as partners. Having established guidelines for determining the strategic importance of stakeholders, the next step in proactive stakeholder management is to engage in effective strategic partnering”.

The complement to this is how the major change implementers deal with stakeholders in a political sense. As Lewis and Seibold (1998, p. 110) put it: “Change agents may threaten other power holders by acquiring control over new or scarce resources ... And may be perceived as critics of previous procedures or processes that are associated with powerful others”. This has clearly been an issue in the PeCC case study.

From Figure 1 it can be seen that a great many parties were involved in the PEG project. The parties most responsible for results achieved to date (and who will determine the ultimate success or failure of the project) are:

- the project champion;
- the project team (champion, Sterling Commerce and Datworks);

- the wholesalers (executive level);
- the wholesalers (PEG Steering Committee representatives);
- the wholesalers (IT implementation personnel);
- the suppliers;
- the retailers (hospitals and pharmacies);
- industry associations; and
- state and federal governments (including their agencies).

A sociogram, representing broad level relationships and communication between these major groupings, is presented in Figure 2. Essentially, lines between parties represent relationships encompassing an amalgam of inter-party communication, influence, trust and empathy (determined largely by attitudes towards the project itself). Relationship strength is represented by line width.

Savage *et al.* (1991) suggest a fourfold strategy for managing stakeholders according to type as follows:

- (1) the supportive stakeholder who supports the organisation’s goals and actions should be maximally involved to encourage cooperative potential;
- (2) the marginal stakeholder who is not overly threatening or cooperative should be monitored;
- (3) the non-supportive stakeholder who is high on potential threat but low on potential cooperation must be managed through a defensive strategy; and

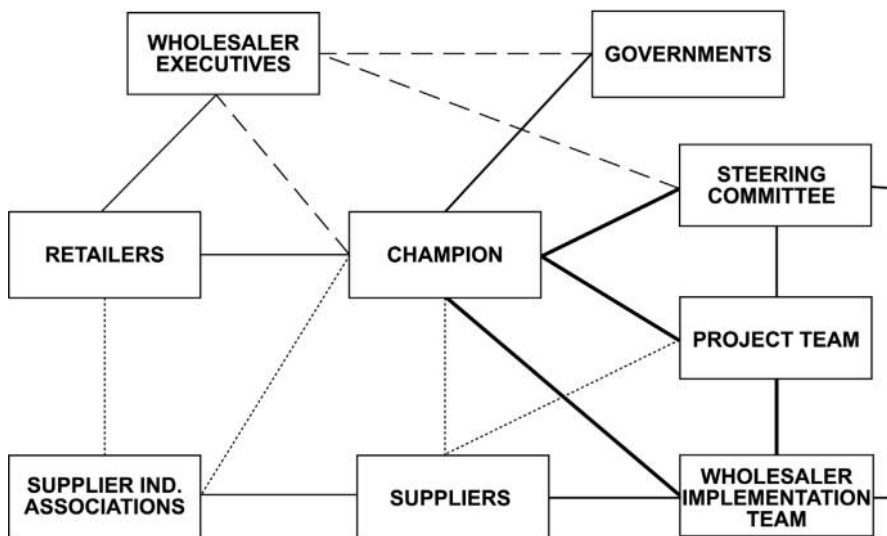


Figure 2. Map of major PEG stakeholder relationships

- (4) the mixed blessing stakeholder is critical because of the equally high potential to threaten or cooperate and is probably best managed through collaboration.

In this case, the most supportive stakeholders were NOIE (a Federal Government agency) and the project manager/champion and his team, both of whom were maximally involved to ensure the widest possible success for the competitive collaboration occurring in PEG. The difficulty here is that links between these project champions and the wholesaler executives, suppliers and (supplier) industry associations (all critical stakeholders) were quite weak, thus illustrating dangers inherent in champions operating outside the “core” of an alliance. Marginal stakeholders included local government organisations, IT and health associations. While observed, these were not monitored in any real sense due to the project manager being under-resourced. Non-supportive stakeholders included some government departments, retailers, industry associations, and some influential suppliers. Minor defensive strategy was involved here but, again, this was low level due to inadequate funding of the project overall. The mixed blessing stakeholders here were really the wholesalers themselves who were indeed engaged in a competitive collaboration venture.

Analysis of Figure 2 at a deeper level reveals additional difficulties, including:

- The centrality of the champion and the relative lack of communication linkages from the project team. In the euphoria of the decision making and early implementation this appeared unproblematic, but problems with the chosen liaison personnel surfaced once the project had gained momentum.
- The weak communication linkage from the project team to suppliers, with a failure in adequate persuasive communication, evident in current problems with signing the majority of suppliers up for the project.
- The weak communication link from the champion to industry associations created a lack of adequate understanding and support for the project and resulted in conflict and competition in many cases.

The champion remains “baffled by the investment and importance the wholesalers place on b2b from the shops . . . while not seeing the value in doing exactly the same, using a different technology, in a different partnership on a smaller scale for all the supply side participants!” (PEG Minutes, October 2000). Perhaps, however, the major problem facing the project was that, while executives had signed off on the project, there was then little in the way of follow-up support. Fundamentally, this was due to a lack of real appreciation of what the project is about, i.e. they persisted in regarding it simply as an IT-enabled cost-cutting exercise when they needed to see it as a central strategic issue for their businesses. Clearly, communication – face-to-face, mediated, and at intra and inter organisational levels, and across government policy – had not really sold the critical message.

Moreover, if we follow Bolman and Deal's (1997) four frames of managerial thought, we can observe that:

- (1) Structurally, the project is poorly designed and very under resourced. Links among the key partners are unclear, as are their responsibilities and communication relationships.
- (2) Politically, better and more comprehensive consideration of stakeholder identification, assessment of needs, interdependencies, strategic significance and management is required.
- (3) Similarly, from a human resources perspective, better communication practices in managing conflict and competition existing between governments, within and between government departments, between the public and private sectors, and within business communities and organisations themselves are critical.
- (4) In a symbolic frame, cultural differences among stakeholders at the macro level between government and private sector approaches, in terms of management styles, concerns, and processes, and, at the micro level, cultural differences often relating to professional cultures such as those of administrators, healthcare professionals, and IT personnel, need better analysis and management.

Consequently, improving communication with all key stakeholders about e-commerce and changes to the health system is the crucial key.

Communication, change, and case study issues

Lewis and Seibold (1998, pp. 127-8) provide a useful range of variables to consider as the communication agenda in organisational change. This is as follows:

- (1) *Interaction surrounding implementation:*
 - information sharing (communication channels used, types of information about change, sources, credibility, etc.);
 - vision and motivation (formal campaign to motivate users, how vision is communicated, etc.);
 - social support (how fear is assuaged, how implementers monitor reactions to change, whether supportive communication is evident during change, etc.); and
 - evaluation/feedback (whether users are able to provide feedback, how problems are tackled in the change rollout, how implementers deal with negative feedback on change, etc.).
- (2) *Communication related structures:*
 - rewards structures (what is the reward system for encouraging participation and disincentives, what communication channels make these clear, informal punishment and rewards, etc.);

- participatory structures (variations in participation structures over time, how representative of organisational levels are those involved, how non-implementation stakeholders affect change decision making, role of informal “champions” and “assassins”, etc.); and
- role structures (what the role status of change agents is, how implementers are chosen, how critical are informal status and influence, etc.).

Only broad consideration was given to the broad variables of information sharing, vision and motivation, and participation in the project. The PeCC team did, nevertheless, actually initially follow what Axley (2000) outlines as key issues in effective communication management of the change process, outlining:

- why the change is needed;
- what will change;
- who will be affected – key stakeholders, who can have input to the change process, who should communicate about the change, and who should receive specific messages about the change;
- how the change will proceed and how we can best communicate about the change; and
- when major changes will occur, in what timeframe, and when messages about the change should be communicated.

The change champion, however, focussed on the first two of these at the expense of the others. The last point became a problem, as envisaged major changes failed to occur in the time frame anticipated. For example, only 100 instead of the forecast 500 suppliers have so far signed up. Moreover, what is clear is that essentially the same communication tactics, media releases, face-to-face meetings, the “spray and pray” approaches initially adopted have been maintained. Unfortunately, communication strategies have not been modified effectively in relation to the different life cycle phases of the change (Harvey *et al.*, 2000).

This is partly explained by the inadequate power and resources given to the key change agents.

Conclusion

Axley (2000, pp. 18, 19) has recently emphasised that in meeting the many challenges of change management, “Communication can enable or disable the adaptiveness needed to navigate change successfully”. While this may be an easy maxim to adopt overall, when major change challenges organisations, individuals, and political processes, we tread a far thornier path. As Buchanan and Badham (1999, p. 189) point out:

Change is untidy, and major change can be particularly messy . . . communication is easier when goals and visions have been articulated precisely and without ambiguity. But . . .

planning and decision making and communicating in the real world are socio-political processes, not rational-empirical. It is not “the information” that reaches decisions but the players with their competing interpretations, and different values, interests and preferences.

So PeCC continues, amazingly achieving some measure of ongoing success and launching an ambitious workplan for 2001. How far it can sustain its bold initiatives, in the light of ongoing funding constraints and lack of appropriate political support, is unclear. Of PeCC’s flagship, PEG, its champion notes (PEG Minutes, August, 2000):

PEG has delivered all PeCC could want – standards, awareness, acceptance and, generally speaking, all the foundation we need to build online trading in healthcare. PEG is robust and the technology works. The failure is not to be investing collectively and working seriously towards critical mass.

Nevertheless, with assistance from Satyam Infoway and Sterling Commerce in getting phase 2 of PEG up and running, the future is far from bleak. Over this year they will work with one or two wholesalers in establishing a hospital b2b e-commerce demonstration site, concentrate on recruiting more suppliers to join PEG and include all existing EDI partners into PEG at much lower transaction rates. They expect to have 500 companies trading by December 2001 (PEG Minutes, November, 2000).

Should, however, the communication issues raised in this paper not be addressed head on, then successful accomplishment of major goals will remain a fond hope rather than a reality and the innovation assassins will have won out in the end.

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