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Evaluating the Process of Effective Business Change through e-Government: a case study

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Abstract

As with e-Business, e-Government requires major business process change and this paper examines this process in the context of an e-Government initiative utilising the Internet to provide extended services. The study looks at an online strategy project at Legal Aid in Western Australia. This paper begins with an overview of e-Government and the WA Government context, and then discusses the research model and methodology. It gives a background to the case and analyses the change management process against a comprehensive model of business process change. The paper concludes with some lessons learned and future directions for research in this area.

Keywords

e-Government, e-Business, business process change

INTRODUCTION

The Internet has become an important medium for organisations required to interact with a wide range of stakeholders. It has the potential to market products and services, communicate information to a global community, provide an electronic forum for communications and process business transactions (Fink and Laupase, 2000). A totally new environment is emerging where companies must work together to create online networks of customers, suppliers and value-added processes (Ticoll *et al.*, 1998). Government, however, with few exceptions, have arrived late on the scene. Nevertheless the drive is now on for radical government change and the re-invention of Government has been accelerated by the move towards online services (Sprecher, 2000).

As with e-Business, e-Government requires major business process change and this paper examines this process in the context of an e-Government initiative utilising the Internet to provide extended services. The study looks at an online strategy project at Legal Aid in Western Australia. This paper begins with an overview of e-Government and the WA Government context, and then discusses the research model and methodology. It gives a background to the case and analyses the change management process against a comprehensive model of business process change (Guha *et al.*, 1997). The paper concludes with some lessons learned and future directions for research in this area.

E-GOVERNMENT IN WA

Luling (2001) defines e-Government as “online government services, that is, any interaction one might have with any government body or agency, using the Internet or the World Wide Web”. It is about extending the social contract to provide better services to all citizens and businesses. E-Government is not just about putting existing forms and services online. It provides the opportunity to rethink how the government provides services and how it links them in a way that is tailored to users’ needs. The government must abandon the ‘build it and they will use it’ approach that permeates much of its online thinking. Government must develop a far more sophisticated view of the people it is there to serve and devolve real power to regions and localities as an integral part of its approach to e-Government and provide more freedom of information (Kearns, 2001).

E-Government has four guiding principles:

1. Build services around increasing choice for the citizen.
2. Make government and its services more accessible.
3. Ensure social inclusion.
4. Use information better (McCartney, 2000).

These principles have been embedded into the West Australian e-Government strategy. To better deliver public services particularly to regional centres the WA Government have developed an Online Strategy.

The major aim of this strategy is to develop a 'Technology Enriched Community' where:

- Technology is used to its full advantage to enrich the lives of its citizens.
- The 'digital divide' is replaced with 'digital inclusion'.
- Children are skilled to take charge of the future and reap its benefits.
- Daily life is made easier by the way that the citizens interact with their environment.
- The benefits of technology flow to all members of the community and are available for all to utilise if they so desire.
- Communities embrace technology to improve their ability to interact and to communicate.

The overall strategy is one where Western Australia becomes a centre for e-Commerce expertise and locally developed innovations lead the next wave of technological and scientific advances; Government is integrated and coordinated across all agencies and only interacts with the citizen as a single entity in the manner and in the form that the citizen wants; and technology is fully utilised to aid government-to-business interaction and to build, operate and integrate the transaction points (WA Government, 2001). This ambitious strategy is one that can only be implemented through radical change.

CHANGE MODEL

In the 1990s many organisations undertook major business process change (BPC) initiatives with varying degrees of success. Analysing this process Guha et al (1997) used a model that proposed various antecedents to successful BPC. The general thesis of their framework is that any significant business process change requires a strategic initiative where top managers act as leaders in defining and communicating a vision of change (Kalakota *et al.*, 1999). The organisational environment, with a ready culture, a willingness to share knowledge, balanced network relationships, and a capacity to learn, should facilitate the implementation of prescribed process management and change management practices. Process and change management practices, along with the change environment, contribute to better business processes and help in securing improved quality of work life, both of which are requisite for customer success and, ultimately, in achieving measurable and sustainable competitive performance gains (Kumar and Crook, 1999). The same model in Figure 1 guides this study in identifying facilitators and inhibitors of successful e-Government change.

Based on this work each component of the framework is described below as it is applied to the subsequent case analysis.

Strategic Initiatives

Process change typically begins with strategic initiatives such as envisioning, commitment, and enabling from the senior management team (Kotter, 1995). Initiatives can be forced on the organisation through mandate (autocratic) or pushed through consensus within the structure of the organization (bureaucratic) (Shrivastava, 1994). The key constructs that can be probed are: stimuli (proactive versus reactive), formulation scope (incremental versus revolutionary), decision making (autocratic, bureaucratic, champion emergence), and whether the change process is strategy led (onset, eventually, none).

Learning Capacity

Increased efficiency in learning has been a primary focus of industrial economists who posit the notion of “learning by doing” and accumulation of knowledge through cross-functional interfaces (Adler, 1990). The key constructs are: adaptation (response to technology change, learning from others), improved efficiency (learning by doing), declarative knowledge (Research and Development, resources and technology development, knowledge base, focus on core competencies) and external information use.

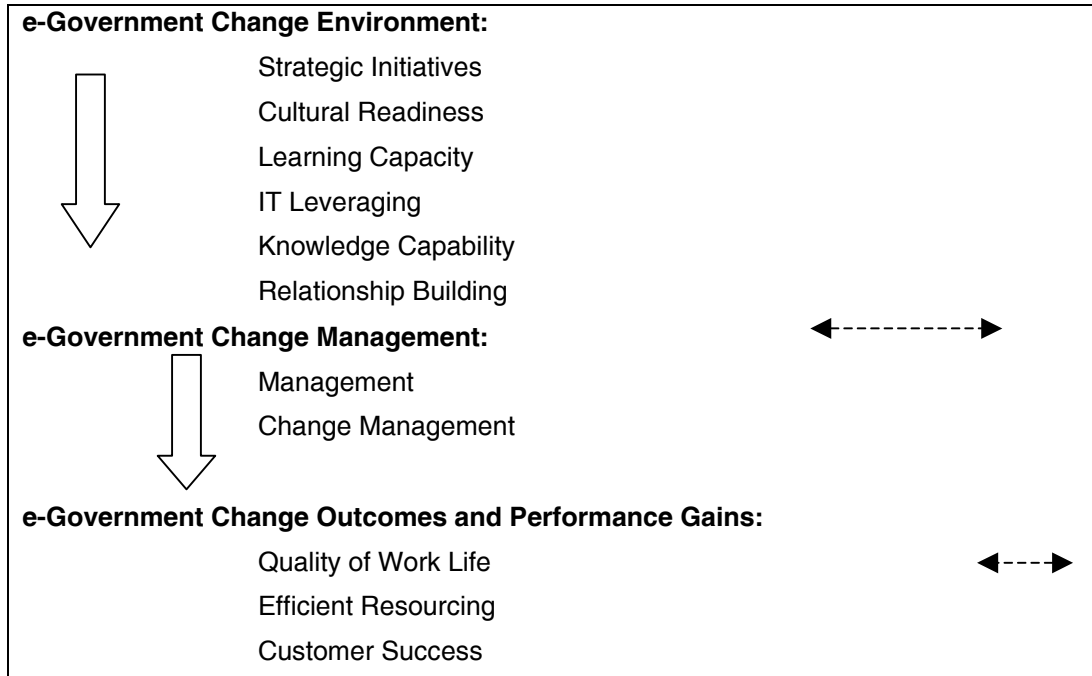


Figure 1. A Theoretical Framework of e-Government Change Management (Adapted from Guha *et al.*, 1997)

Cultural Readiness

Organisation culture is best understood in terms of cultural beliefs, values, and norms (Schein, 1990). Beliefs shape interpretations of information, while value systems relate behaviours across units and levels of the organisation (Guha *et al.*, 1997). The key constructs are: change agents and leadership, risk aversion (cautious, aggressive), and extent of open communications.

IT Leveragability and Knowledge-Sharing Capability

Davenport (1995) explains IT's process impacts in terms of organization streamlining/simplification, capturing and distributing information, coordination, monitoring, analysis and decision making. The role of IT can be described in terms of the technological, organisational, and emergent imperatives depending on the extent to which IT is the dominant factor (Markus and Robey, 1988). The key constructs are: IT role (enabling, sociotechnical, dominant factor) and use of communications technology.

Network Relationships Balancing

Prahalad and Ramaswamy (2000) suggest that organisations need to “create their future by harnessing competence in an enhanced network that includes customers”. Many companies already focus on core value adding processes, working with external partners to jointly bring forward a service. These companies believe that a more flexible organisation built around a series of alliances and business relationships, is the most effective way to respond quickly and creatively to constantly changing market conditions. The key constructs are: interorganisational linkages and cross-functional cooperation (cooperative, competitive).

Change Management Practice

Change management involves effectively balancing forces in favour of a change over forces of resistance. It is often done in a phased manner, but the tactics used could vary depending on the scope of change required. The key constructs are: pattern of change, management's readiness to change (committed, participative, resistant), scope of change (improvement, radical change), managed change (alleviation of dissatisfaction; a vision for change; and a well-managed process of change, evolutionary or revolutionary change tactics use).

Process Management Practice

Process management has been defined as a set of concepts and practices aimed at better stewardship of business processes. It combines methodological approaches with human resource management (Anderson *et al.*, 1994). Critical is the notion of process measurement and going beyond typical financial indicators to effectively collecting process information and metrics (Davenport and Beers, 1995). Further, improved feedback and auditing of the process, is critical to achieving organisational effectiveness (Teng *et al.*, 1994). The key constructs are: process measurement (use of process metrics, process information capture, improvement feedback loop, audit), use of tools and techniques, and use of team-based structures.

Outcomes and Performance Gains

Davenport (1995) suggests that performance should be measured in terms of quality, cycle time, costs, and ultimately customer satisfaction. These can be benchmarked against expectations and actual performance. Successful BPC can be characterised by process outcomes that exceed expectations, including customer satisfaction. The key constructs are: gaps between effectiveness expectations (goals) and actual performance improvements and employee satisfaction.

RESEARCH METHODOLOGY

An embedded case-study analysis was chosen. Embedded implies the use of multiple units of analysis: the Legal Aid Department, the Online Strategy team, and the Online Strategy project users. Data-collection methods included a semi-structured case protocol, multiple documents and archival records, and individual personal interviews. Such triangulation reduces bias and is recommended in case research (Yin, 1989). Literature regarding the Online Strategy project was studied prior to and after the interviews. This included an overview of the project, documents compiled by the team, systems plans, and notes compiled by the team. This approach provided richness and depth and enhanced the construct validity of the study. Interviews provided the major source for primary data. Other sources included public information such as the website, annual reports, the organisation's business plan and the Information plan.

The focal point for contact was a senior-level manager in the organisation who was directly responsible and integrally involved with the project from beginning to end. Respondents with the following profiles were sought out and interviewed:

1. Senior management, process champion, and project team leader (to discuss strategy and process implementation, corporate culture, learning and effectiveness).
2. Functional associates (to discuss culture and change process and expectation gaps).

The interviewees were either sponsors of the project or major team members who had a good, objective, and knowledgeable view of the project. Each interview was taped with the permission of the respondents. The nature and objective of the study were first explained to the respondent(s), who were also informed up front about expectations of involvement and the duration of the interview, as well as being reassured about issues of confidentiality. Each interview was conducted by using a standard case study protocol to ensure reliability (Yin, 1989). The protocol was based on the BPC management model described earlier and contained major constructs and probes. "How" and "why" questions were raised in an open-ended fashion. Responses were solicited in a semi-structured manner. Given the

exploratory nature of the research, explanation building and pattern matching were used to provide evidence of links between constructs.

The case studied Legal Aid Western Australia – a state Government organisation with the responsibility to ensure that citizens without the financial means are provided with legal advice and representation when required. Due to the funding for legal aid being capped, it cannot finance all requests for legal representation and is currently reviewing how it can better provide advice to enable some clients to represent themselves in court or to assist clients with filing the appropriate documents with the courts. It sees its online strategy as a major part of reducing its costs and extending its reach for providing legal assistance. It is a centralised organisation with numerous geographically separated branches. The organisation deals with criminal, family, and civil law, and runs a legal practice division as a separate legal firm that must apply for legal aid for its clients in the same way as private practitioners must do.

RESEARCH FINDINGS

This section covers each construct of the research model with summarised findings. The tables in each subsection summarise interpretation of the data gathered for each construct.

Construct	Evidence
Stimuli Proactive Reactive	Proactive
Formulation Scope Incremental Revolutionary	Revolutionary
Decision Making Autocratic Bureaucratic Champion Emergence	Bureaucratic → Champion Emergence
Strategy Led Onset Eventually No	Onset

Table 1: Summary of Strategic Initiative Results

Stimuli

Legal Aid was strategically proactive and wanted to change the way they approached their business. During a process of looking at why they existed they discovered that they were not meeting client demand for legal assistance and started to look at alternate ways to providing legal assistance to the clients. As one respondent put it “the organisation wanted to look for new ways to connect people with information assistance to progress legal action.” They saw the initiation of an online strategy as a mechanism to progress this and to better meet demand.

An interesting finding is that the project was initiated by a local functional team who gained the support of one of the senior executives, who would be considered second in charge within the organisation, from the beginning. This led to the executive looking at why they existed and during this process they identified the two project objectives.

1. To set the agency up for a concentrated effort to bring online access to legal knowledge resources to the forefront of service planning.
2. To address legal liability issues associated with the agency’s first website.

The senior executive became the major sponsor and undertook a hands-on role within the project from the beginning. This resulted in a high level of corporate-wide buy-in and greatly impacted on the success of the project. This is inline with Guha *et al.*'s (1997) observation that to be successful, a project aimed at changing the performance of the firm cannot be led by IT alone and that IT innovations must be backed by a sense of urgency in other business functions in the organisation.

Formulation Scope

Legal Aid formulated and maintained a strategy of revolutionary change from the start and remained with this strategy throughout. The idea was to completely develop the online strategy and to launch it as a whole rather than take the incremental approach. This decision was based on the objective of providing rich content on the web whilst guarding against legal liability by failing to provide total content from the start. As one respondent put it "richer veins of content were required that targeted support providers and to provide total legal content to assist community based legal organisations".

Decision Making

A local functional team started the effort with assistance from a senior executive who elevated it to the corporate level, and eventually received a bureaucratic consensus to proceed as a corporate-level initiative. The senior executive spearheaded the project. Having a senior executive as a champion was seen as an extremely positive influence and helped to ensure the success of the project. Guha *et al.* (1997) indicate the emergence of a champion is considered critical to the success of a business process change project.

Strategy Led

The project was led by strategy from the top down and began by reviewing why the organisation exists. A major facilitator of success as cited by interviewees, was the fact that Legal Aid made the effort part of its strategic goals at the onset.

Construct	Evidence
Adaption Response to technology change Learning from others	Response to technology change
Improved Efficiency Learning by doing	Insufficient Learning by doing
Declarative Knowledge R&D resources and technology developed Knowledge base Focus on core competencies	Knowledge base Focus on core competencies
External Information Base Boundary spanners Technology gatekeepers Customers	None

Table 2: Summary of Learning Capacity Results

Adaptation

The "response to technology change" played a role in the initial IT-focused effort. Respondents indicated that benchmarking (learning from others) did not play a role in the project but indicated that they mainly reviewed other legal organisations' websites to assist with the design of their website but did not look for best of class vendors or look for how other organisations had implemented an online strategy.

Improved Efficiency

There was a tendency to improve learning efficiency through “learning by doing”. The respondents indicated that the project would have been enhanced and progressed more quickly had more reflective techniques been applied and some of the problems encountered later might have been avoided.

Declarative Knowledge

From the onset Legal Aid understood the value of developing a cumulative knowledge base. Respondents indicated that a critical success factor was involving all sections of the organisation and building up a knowledge base around the core competencies within the organisation. There was a clear pattern of efforts to enrich the knowledge base for the purpose of better understanding the business and the client requirements. As a result, the project was able to tap into this knowledge base to develop a product that crosses all boundaries of the organisation.

External Information Use

An interesting point that came through was that the respondents saw little value in the use of external information to enhance learning capacity. Minimal effort was put into scanning the environment for new developments and opportunities. There was no process put in place to survey clients or enable clients to have input into the project.

Construct	Evidence
Change agents and Leadership	Senior Executive Champion
Risk Aversion Cautious Aggressor	Cautious
Open Communications	Medium

Table 3: Summary of Cultural Readiness Results

Change Agents and Leadership

Whilst a team approach was taken to the project and the involvement of representatives from all sections of the organisation was seen as a critical success factor, the respondents indicated that the senior executive who took ownership of the project had a major influence and without this sponsorship the project may not have been as successful.

Risk Aversion

As a legal organisation Legal Aid is extremely risk averse. The organisation was very reluctant to implement on an incremental basis for fear of legal liability. The preference was to fully cover all bases within the organisation, scrutinise every component, then to go for the ‘big bang’ approach. The team achieved consensus by involving all sections of the organisation and by identifying an information officer for each section.

Open Communications

Throughout the project open meetings were held with all staff encouraged to attend, and all documents associated with the project were made available through the computer network. However it was indicated that the sessions were more of an information giving nature than enabling staff to provide input into the project. The senior executive ‘champion’ indicated that if the project was to be repeated then he would prefer to run more workshop oriented sessions where staff could actively identify issues and participate in the project.

The project team consisted of cross-functional members who openly discussed the process tasks and identified areas for improvement. There was very little attempt to communicate to the clients. Community Legal Councils were used late in the project to test the website that was developed from the online strategy. Whilst the organisation clearly encouraged open

communications and kept all staff informed throughout the project, an inhibiting factor was one of time and conflicting priorities. Some of the middle managers did not see the project as a priority, which was communicated to the staff within these sections, and at times this impeded the progress of the project.

Construct	Evidence
IT Role	
Enabling	Enabling
Sociotechnical	Sociotechnical
Dominant Factor	Support
Use of Communications technology	High

Table 4: Summary of IT Leveragability and Knowledge Sharing Capability Results

IT Role and Extent of Knowledge Sharing

Respondents all indicated a need to adopt a sociotechnical design approach. They indicated that if it had been seen as a purely IT project then it would have failed. The IT section were seen very much as providing a support role to the project and heavy reliance was placed on the IT section to provide expert advice on the underlying technology requirements, however the major focus of the project team was on the non technical information area. This can be seen through the makeup of the main team members who consisted of a senior executive, librarian and staff with legal content knowledge.

Use of Communications Technology

Communications technology was seen as a major IT enabler. The use of e-mail provided better cross-divisional communications. Also the very nature of the project demands a high use of communication technology.

Construct	Evidence
Interorganisational linkages	None
Cross-functional cooperation	
Cooperative	Cooperative and competitive
Competitive	

Table 5: Summary of Network Relationship Results

Interorganisational Linkages

There was no evidence of interorganisational process linkages. However the organisation did indicate that the next phase of the project was to look seriously at e-Business initiatives. In particular, Legal Aid intends to implement a system to provide private practitioners with the ability to lodge applications for aid electronically. Associated with electronic lodgement is providing private practitioners with the ability to self assess applications and for the form to be validated as it is being filled in. All respondents indicated that there was a requirement to look more closely at interorganisational linkages and to place more emphasis on involving external stakeholders. The indication was that this would have assisted in meeting the project objectives and may have improved the final outcome.

Cross-Functional Cooperation

Respondents indicated high levels of cooperation among the cross-functional members of the team. There was also an indication that cooperation between functions also existed. However there were several pockets of resistance by functional managers during the project. This was based more on competing priorities and the sections not seeing the project as their core business or primary priority.

Pattern of Change

There was no formality in their process of change. There was evidence that the project team had thought about change management from the outset and loosely applied change management techniques. In particular they put in place a communication plan to ensure that all staff were kept informed throughout and provided with some opportunities to participate.

Management's Readiness to Change

Senior management was very supportive of the project. This included participative support from senior management. The senior manager who was part of the team indicated that the senior management totally endorsed the project from an early stage, provided credibility to the project and actively provided resources.

As indicated at middle management level there was initial reluctance to be involved in the project. This resistance was overcome through the senior executive processes.

Construct	Evidence
Pattern of change No formal process Semiformal process Formal phased process	No formal process
Management's readiness to change Committed Participative Resistant	Committed Participative
Scope of Change Improvement Radical	Improvement
Managed Change Alleviate employee dissatisfaction Vision for change Well-managed process of change Evolutionary/ revolutionary change	Yes Yes Semiformal Evolutionary

Table 6: Summary of Change Management Results

Scope of Change

The organisation did not envisage radical change to business process, but saw it as a mechanism to compliment their current mechanisms of doing business and a way of extending its service to clients as well as providing legal information to citizens not considered clients.

Managed Change

The organisation did not see the project as requiring extensive change management processes. The feeling was that the change was more about providing additional information than changing business processes, and therefore little needed to be done in the area of change management, particularly in the area of alleviating staff anxieties. There was little indication that steps were taken to remove employee dissatisfaction. Senior management did provide a vision for change, but employees were generally excluded from participating in the process design.

Construct	Evidence
Process Measurement Use of Process metrics Process Information capture Improvement Feedback loop Audit	None
Tools and technique	Low
Team based	Yes

Table 7: Summary of Process Management Results

Process Measurement and Tools and Techniques

Legal Aid has little experience in process management. The project paid very little attention to this area. There was a lack of process metrics and process information capture for the business process.

Team Basis

Cross-functional teams were used extensively. Respondents indicated that this was considered vital to the project. In particular the indication was that this was essential to ensure that all areas of the Department were covered or catered for, as well as ensuring that a business unit asserting a negative influence did not derail the project.

Construct	Evidence
Process Performance improvements	Not measured
Quality of work life improvements	Not measured
Overall results	Met objectives

Table 8: Summary of Outcomes and Performance Results

To date no formal or informal assessment procedures have been implemented to evaluate the project and the success of the online strategy. The organisation has appointed a team responsible for establishing performance indicators and an evaluation strategy for the project. Legal Aid expected to see gains in customer satisfaction and expectations for service quality increase, particularly in providing more extensive legal information and self-access to community legal centres and individual citizens.

All respondents indicated that the project had achieved the two objectives that it set out to achieve. These being:

1. To set the agency up for a concentrated effort to bring online access to legal knowledge resources to the forefront of service planning; and
2. To address legal liability issues associated with the agencies first website.

Although the respondents did indicate that further work or more concentrated effort in the areas of interorganisational linkages, communication and change management would have potentially improved the final outcomes.

CONCLUSION

Whilst this is a single case study and there are no comparative results the study appears to indicate that the Guha *et al.* (1997) model does provide an appropriate analysis tool for e-Government projects. In addition, this research indicates that certain constructs in the model

had more impact on the outcome of the project than others. Several important themes emerged which could have implications for both research and practice in the e-Government area:

- There was a strategic “stimulus” that triggered undertaking the business process change. The stimulus itself was not necessarily a determinant of success.
- Incremental process change did work but appeared to be appropriate due to the organisation being risk averse.
- The establishment of a cross functional team assisted in ensuring success. The changes needed to be implemented without barriers from functional managers.
- An important ingredient in the right cultural mix for a successful project is leadership from the top, together with an atmosphere of open communication and participation.
- IT playing a supportive, but not always commanding role. Balanced consideration of the social, technical, and business value elements should be maintained throughout the project.
- To quell likely pockets of resistance, an organisation’s “vision” for change must be embraced throughout all levels of the organisation, especially by those functional and middle-level managers affected by the process change. To achieve this requires continuous articulation and communication of the value of reporting results and how each individual is contributing and accountable to the overall company’s change effort.

The model provided a good structure for the case study and further research into other similar case studies should assist in determining if the model is effective in analysing e-Government projects and enable the continued refinement the model. Further research may provide insight into which situational conditions best predict the strength that particular facilitators or inhibitors will have on e-Government projects success.

REFERENCES

- Adler P. (1990). “Shared learning.” Management Science **36**(8): 938-957.
- Davenport T.H. (1995). Business process reengineering: where it’s been, where it’s going. In V. Grover and W.J. Kettinger (eds.), Business Process Change: Reengineering Concepts, Methods and Technologies. Harrisburg, PA, Idea Group Publishing.
- Davenport T.H. and M.C. Beers (1995). “Managing information about processes.” Journal of Management Information Systems **12**(Summer): 57-60.
- Fink D and Laupase R (2000). “Perceptions of Web Site Design Characteristics: a Malaysian/Australian Comparison.” Internet Research: Electronic Networking Applications and Policy Vol 10(1): 44-55.
- Guha Subo, Varun Grover, William J. Kettinger and James T.C. Teng (1997). “Business Process Change and Organizational Performance: Exploring an Antecedent Model.” Journal of Management Information Systems **14**(1): 119-154.
- Kalakota R., R.A.; Oliva and B. Donath (1999). “Move Over, E-Commerce.” Marketing Management **8**(3): 22-32.
- Kearns Ian (2001). “Wising up about wiring up.” Public Finance(Apr 27-May 3): 26.
- Kotter J. P. (1995). “Leading change: why transformation efforts fail.” Harvard Business Review **73**,2 (March-April 1995): 59-67.
- Kumar R. L. and C. W. A Crook (1999). “Multi-Disciplinary Framework for the Management of Interorganisational Systems.” The Data Base for Advances in Information Systems **30**(1).
- Luling Debra (2001). “Taking it online: Anyway, anyplace, anytime...Tennessee anytime.” The Journal of Government Financial Management **50**(Summer): 42-49.

- Markus M. and D. Robey (1988). "Information Technology and Organizational Change: Causal Structure in Theory and Research." *Management Science* **34**(5): 583-598.
- McCartney Ian (2000). "E-government is for everyone." *Public Finance*(Apr 28-May 4).
- Prahalad C. K. and V. Ramaswamy (2000). "Co-opting customer competence." *Harvard Business Review*(78(1)): 79-87.
- Schein E. (1990). "Organisational Culture." *American Psychologist* **45**(2): 109-119.
- Shrivastava P. (1994). *Strategic Management: Concepts and Practices*. Cincinnati, South-Western Publishing.
- Sprecher M. H. (2000). "Racing to e-government: Using the Internet for citizen service delivery." *Government Finance Review* **16**(5): 21-22.
- Teng J.T.C., V. Grover and K.D. Fiedler (1996). "Developing strategic perspectives on business process reengineering: from process reconfiguration to organizational change." *Omega* **24**(3): 271-294.
- Ticoll, D., Lowy, A. and Kalakota, R (1998). Joined at the Bit: The Emergence of the e-Business Community. In Tapscott, D., Lowy, A. and Ticoll, Blueprint for the Digital Economy, McGraw Hill, pp 19-34. Western Australian Government (2001). *Online WA Status Report February 2001*. Perth, Western Australian Government.
- Yin R.K. (1989). *Case Study Research: Design and Methods*. Newbury Park, Ca., Sage Publications.

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