

December 2005

# Evaluation of frameworks for knowledge management in the third sector

Colin Reilly  
*University of Melbourne*

Follow this and additional works at: <http://aisel.aisnet.org/acis2005>

---

## Recommended Citation

Reilly, Colin, "Evaluation of frameworks for knowledge management in the third sector" (2005). *ACIS 2005 Proceedings*. 41.  
<http://aisel.aisnet.org/acis2005/41>

This material is brought to you by the Australasian (ACIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in ACIS 2005 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).

## **Evaluation of frameworks for knowledge management in the third sector**

Colin Reilly  
The University of Melbourne

Department of Information Systems  
The University of Melbourne  
Melbourne, Victoria  
Email: [ctreilly@pgrad.dis.unimelb.edu.au](mailto:ctreilly@pgrad.dis.unimelb.edu.au)

### **Abstract**

*A research project to investigate the usefulness of the knowledge management paradigm in shaping information systems strategy for third sector organisations is described. The top down knowledge management concept may be more relevant for third sector organisations in determining their approaches to information, but existing frameworks for knowledge management adoption in the public and for profit sectors need to be evaluated to assess their suitability for the values driven third sector.*

### **Keywords**

Knowledge management, knowledge management frameworks, nonprofit organisations, third sector organisations, evaluation, case study, action research

## **INTRODUCTION**

This paper reports on a research project investigating the suitability of the knowledge management paradigm for shaping information systems strategy in third sector organisations.

The third (or nonprofit) sector completes a view of society that also includes the public (or governmental) and for profit (or commercial) sectors. Investigation of the third sector relates primarily to its functions and governance. Information systems researchers have largely neglected this sector, being preoccupied with large firms and public sector organisations and technology use at the individual level. In turn, the third sector has been a tentative and late adopter of information systems and advanced management techniques, in part because of a lack of resources or knowledge of appropriate models and technologies.

Another contributing factor to the low adoption of information systems in many third sector organisations is the absence of large scale transaction processing that was the chief precursor of information systems development and adoption in large commercial and government organisations.

The relatively new field of knowledge management presents a different, more encompassing approach to information systems as it attempts to enable organisations to both produce knowledge from their information resources and link that knowledge to the knowledge held by their staff and embedded in their processes and records so as to improve organisational performance and effectiveness. This research seeks to investigate the applicability of knowledge management concepts to the third sector.

## **THE THIRD SECTOR AND INFORMATION SYSTEMS**

### **Importance of third sector**

The third sector is made up of voluntarily formed independent private organisations providing benefits for their members or others (Lyons 2001). It includes nonprofit, mutual, and co-operative organisations operating across a range of industries (Barraket 2002; Salamon et al. 1996). Estimates of the sector's contribution to Australian GDP varies from about 5% (Lyons 2001) to an imprecise range of 5 to 10% of GDP employing about 8% of the workforce (Ferguson 2005). The third sector can also be defined negatively – it comprises the organisations that are neither private and for profit nor government or public.

Little is known about how the third sector has been affected by the information and communications technology (ICT) revolution (Stewart-Weeks et al. 2002), but anecdotal evidence suggests ICT is not as well developed in the third sector as in the for profit sector. Furthermore, the role of the third sector is under challenge with the decline in volunteerism and increasing reliance on it for the delivery of services, particularly in education and social welfare. If ICT enables more efficient and effective delivery of services in the for profit sector, it is surely

desirable that similar gains are made in the third sector. It is important then to understand the state of ICT in the third sector and the impediments to ICT adoption in order to develop strategies to overcome them.

The disparity between the value added to the economy (5%) and the labour resource used (8%) suggests the third sector is inefficient compared to the rest of the economy. Other explanations for the difference could be under or incomplete evaluation of the benefits delivered by the third sector or a greater use of part-time labour. Could better use of information systems help by either improving productivity in the sector or assisting in better measurement of it? The Communities in Control conference noted that although the technological revolution offers opportunities for community groups, it also places them under additional stress. While hardware has fallen in cost and improved communications technology presents new ways of exchanging information, the high cost of developing appropriate applications means ‘much of that knowledge has not been taken up by community groups [and those] who need the technology most are instead falling still further behind’ (Our Community 2003:16). Governance is a factor in the low adoption of appropriate technology with inadequately qualified leaders unable to see or effectively exploit the potential of new technologies (Our Community 2003; Spencer 2002).

### **Information systems research focus**

Most research on information systems (IS) in organisations has focused on large organisations in the private for profit sector and national or state government organisations and public sector utilities (Kalms 2002). In these, IS have largely developed from transaction based accounting systems with a clear relationship to organisational performance as measured by the ‘bottom line’ or meeting the budget. Such organisations tend to be bureaucratic or otherwise hierarchical in their organisational structure. Where third sector organisations grow, they tend to use structures with dispersed authority that, while appearing monolithic to the casual observer, have in fact little centralised control (Tandukar 2005). Decentralisation is considered to increase local contact and volunteer support and these social benefits may counterbalance economic inefficiency (Ferguson 2005).

The primary focus for third sector organisations is value or outcome driven, with finances seen as a constraint rather than as an objective. Approaches such as the balanced scorecard (Kaplan et al. 1992) provide a more holistic approach to organisational evaluation and may provide a bridge for comparisons between the for profit and third sectors.

Many third sector organisations have complex structures that inhibit the adoption of off the shelf IS. Common accounting standards and financial legislation enable comparisons between for profit organisations in different industries and help the market allocate resources efficiently. The absence of such standards in the third sector has masked it from proper scrutiny (Ferguson 2005). It is difficult to imagine Australian society without such elements of the third sector as sporting clubs; professional associations and trades unions; tertiary education and research institutions, non-government schools and co-operative kindergartens and childcare; political parties and lobby groups; religious organisations; social welfare bodies and philanthropic trusts. Yet we know much less about how these components of society utilise ICT and IS than we do for the profit and public sectors.

While there is increasing interest in the use of information and communications technologies in the third sector, much of the available data is focused on the infrastructure level, with the use of e-mail and a web presence acting as proxies for ICT sophistication (Berdhal et al. 2004; Department of Communications Information Technology and the Arts [Australia] 2005).

More important than technological infrastructure, however, is the use to which technology is put. Even technology and information systems that meet their design intentions may not reach their full potential. The reduced benefit may prejudice future investment in systems or in efforts to change organisational culture and practices (Balnave et al. 2002). In arguing for a unified theory of information that takes account of both technology-based and other sources of information, Kalms (2002) suggested that a fruitful area of research might be the family. Topics such as information management practices, use of systems, information sharing, strategies adopted, and the impact of ‘information overload’ investigated at the family level might yield insights for information management at work. If family studies might be valuable in this way, so might the investigation of third sector organisations.

## **KNOWLEDGE MANAGEMENT AND THE THIRD SECTOR**

### **Knowledge management**

At the highest level, persons, and through them organisations, seek to attain wisdom. Robert Reich has said ‘Knowledge is knowing how to accomplish something. It’s called know-how. Wisdom is knowing why you should accomplish it. Know-why. Wisdom involves values, judgments about what is important or worthy for you to be doing. Wisdom involves self-knowledge’ (Markwell 2004). The common mantra data – information – knowledge can be extended to become data – information – knowledge – wisdom.

This seeking after wisdom is a driver for ‘knowledge management’. The term is imprecise, emerging relatively recently and coming into more common use in the 1990s, originally with an emphasis on the relationship of knowledge to power in organisations (Rickson 1976) or as a technology enabled concept (Webster’s New Millennium™ Dictionary of English, Preview Edition v 0.9.6). A more general view is that knowledge management (KM) activities need both ICT and non-ICT support to be effective (Edwards et al. 2003). Firestone and McElroy (2003) claim that the chief value of KM is its potential ‘to enhance *organizational intelligence*, the ability of an organization to adapt to its environment’ by finding new ideas, eliminating obstacles, and thereby creating high quality knowledge for effective decision support. From this perspective, KM can bridge the gap between an organisation’s general management strategy and its information technology strategy. In an examination of the theories, concepts, and principles underlying the idea of KM, Lehaney et al. (2004) observe that to be effective KM must engage with the organisation as a system, else it may be perceived as just another aspect of information technology. They accordingly offer a more comprehensive definition stressing the human, process, and environmental aspects that utilise technology to further organisational aims:

‘Knowledge management refers to the systematic organisation, planning, scheduling, monitoring, and deployment of people, processes, technology, and environment, with appropriate targets and feedback mechanisms, under the control of a public or private sector concern, and undertaken by such a concern, to facilitate explicitly and specifically the creation, retention, sharing, identification, acquisition, utilisation, and measurement of information and new ideas, in order to achieve strategic aims, such as improved competitiveness or improved performance, subject to financial, legal, resource, political, technical, cultural, and societal constraints.’ (Lehaney et al. 2004:3)

The twenty-first century is seen by some as heralding a new knowledge economy (Mekhilef et al. 2003). Organisations are in a state of flux, with few large organisations having any real longevity; there are probably fewer than one hundred firms more than 200 years old. In the US ‘One-third of the firms in the *Fortune* 500 in 1970 no longer existed in 1983, killed by merger, acquisition, bankruptcy or break-up’. Most very old firms are in old industries, such as agriculture, hospitality, and building. Banking is the oldest industry in the private sector that can claim to be a knowledge industry (The Economist 2004).

Predating many of these old firms are third sector service organisations such as the universities, schools, hospitals, professional associations, and religious organisations. Indeed, in the West, many of the more ancient institutions began as religious foundations. While much about them is known through explicit texts and documents, this is complemented by the implicit or tacit knowledge embedded in such artefacts as buildings, liturgical practices, musical expression, icons, and even needlework passed on from generation to generation to form the ‘tradition’. Religious organisations can be said to have always been knowledge organisations – their prime purpose has been to maintain and pass on knowledge.

In this context, KM can be seen as a paradigm, encompassing ICT and social systems. This paradigm can more readily be grasped by leaders to tackle the knowledge needs of their organisations than the traditional data driven, technology focused approach associated with the transaction processing activities of for profit firms.

In the past the Christian church in the West has been an early (if sometimes sceptical) adopter of new knowledge technologies such as the printing press (McMurtrie 1943), cinema – the Salvation Army in Australia made the world’s first feature film (Salvation Army 2005), broadcasting, and the telephone. In the present, however, there is considerable scepticism among religious leaders with regard to the claimed benefits of modern management practices (Collins 1996; Cowdell 2003). Such scepticism tends to be based on a view that good management practice does not fit the culture of values oriented third sector organisations. As organisational culture is regarded as a major variable in the adoption of KM (Cecez-Kecmanovic 2004; Davenport et al. 1997; Gupta et al. 2000; Ribière 2001), there is value in examining KM frameworks in a complex third sector organisation working within one overarching culture to see whether these objections can be overcome.

### **Knowledge management frameworks**

A framework is a frame of reference, ‘A set of standards, beliefs, or assumptions governing perceptual or logical evaluation or social behaviour’(Simpson et al. 1989). Frameworks can codify practices and enable comparisons between organisations (Perrow 1967). Thirty-five published frameworks to guide the adoption of KM were evaluated by Lehaney et al. (2004). They used a 20-cell generic review grid with Likert scores of 1 to 5 for each cell to generate total scores from 20 (lowest) to 100 (highest) with a mid-point 60. The average score was 55.5, but 80% of the frameworks had a score of 60 or less. Lehaney et al. conclude there is little that is soundly based and accessible to offer leaders seeking to introduce KM in their organisations. Many of the frameworks neglect consideration of whether organisations are ready and able to engage in KM and thus may not support a sustainable implementation. They then developed their own framework. It is proposed to assess this and the three highest scoring frameworks for their suitability in the third sector context:

Table 1: Knowledge management frameworks assessed by Lehane et al. (2004)

Framework	Lehane et al. score
Lee & Kim (2001)	100
Holsapple & Joshi (2002)	92
Achterbergh & Vriens (2002)	82

The processes and activities of the four frameworks are summarised in Table 2:

Table 2: Knowledge management framework processes and activities

Lee & Kim (2001)	Achterberg & Vriens (2002)	Holsapple & Joshi (2002)	Lehane et al. (2004)
<p>Initiation stage</p> <ul style="list-style-type: none"> <li>disseminate KM needs</li> <li>assess current KM problems</li> <li>share visions &amp; goals</li> <li>make long-term plan</li> <li>conduct pilot projects</li> </ul>	<p>Organisational primary activities</p> <ul style="list-style-type: none"> <li>core activities</li> <li>organisational goals</li> <li>ensure synergy through next four functions</li> </ul>	<p>Elemental activities</p> <ul style="list-style-type: none"> <li>acquiring knowledge <ul style="list-style-type: none"> <li>identify</li> <li>capture</li> <li>organise</li> <li>transfer</li> </ul> </li> </ul>	<p>Feasibility – senior management (KM survey)</p> <ul style="list-style-type: none"> <li>identify and select knowledge areas</li> <li>assess risks</li> <li>agree working objectives and timescales</li> </ul>
<p>Propagation stage</p> <ul style="list-style-type: none"> <li>set up KM process</li> <li>build reward system</li> <li>develop HRM programs</li> <li>develop knowledge typology</li> <li>build KM system with knowledge base</li> <li>conduct events to activate knowledge activities</li> </ul>	<p>Coordination – manage interdependencies between primary activities through:</p> <ul style="list-style-type: none"> <li>planning</li> <li>quality standards meetings</li> </ul>	<ul style="list-style-type: none"> <li>selecting knowledge <ul style="list-style-type: none"> <li>identify</li> <li>capture</li> <li>organise</li> <li>transfer</li> </ul> </li> </ul>	<p>Feasibility – cultural (knowledge mapping)</p> <ul style="list-style-type: none"> <li>assess cultural feasibility and systemic desirability</li> <li>identify key knowledge workers, groups, and communication lines</li> </ul>
<p>Integration stage</p> <ul style="list-style-type: none"> <li>evaluate effectiveness of knowledge</li> <li>scan environment for changes in needs</li> <li>monitor and control KM activities</li> <li>define and focus on core knowledge areas</li> <li>disseminate KM best practices</li> </ul>	<p>Control – monitoring through:</p> <ul style="list-style-type: none"> <li>reports from managers</li> <li>auditing</li> <li>reviewing new proposals</li> </ul>	<ul style="list-style-type: none"> <li>internalising knowledge <ul style="list-style-type: none"> <li>assess</li> <li>target</li> <li>structure</li> <li>deliver</li> </ul> </li> </ul>	<p>Development (champion)</p> <ul style="list-style-type: none"> <li>appoint senior knowledge officer</li> <li>explain potential benefits to staff</li> <li>create task force</li> <li>evaluate and select technology</li> <li>formulate project plan</li> <li>develop, test, assess, and publicise pilot application</li> </ul>
<p>Networking stage</p> <ul style="list-style-type: none"> <li>analyse internal and external KM efficiency</li> <li>make knowledge alliances with partners</li> <li>share KM visions and goals with partners</li> <li>link KM with partners</li> <li>facilitate and manage inter-organisational knowledge sharing and collaboration</li> </ul>	<p>Intelligence – ensure activities of organisation are aligned with environmental developments through knowledge of:</p> <ul style="list-style-type: none"> <li>environment</li> <li>trends, changes, or other initiatives</li> <li>new organisational goals to meet these</li> </ul>	<ul style="list-style-type: none"> <li>using knowledge <ul style="list-style-type: none"> <li>generating knowledge <ul style="list-style-type: none"> <li>monitor</li> <li>evaluate</li> <li>produce</li> <li>transfer</li> </ul> </li> <li>externalising knowledge <ul style="list-style-type: none"> <li>target</li> <li>produce</li> <li>transfer</li> </ul> </li> </ul> </li> </ul>	<p>Incentives and measures, learning and training (balanced scorecard)</p> <ul style="list-style-type: none"> <li>introduce concepts and technology</li> <li>formulate incentives</li> <li>formulate measures of achievements</li> <li>install technology</li> <li>begin conceptual modelling of organisation</li> </ul>
	<p>Policy – relates intelligence to control through:</p> <ul style="list-style-type: none"> <li>reviewing new proposals for innovation</li> <li>balancing discussion about adaptations needed to achieve results</li> </ul>	<p>Higher level activities</p> <ul style="list-style-type: none"> <li>strategic approaches</li> </ul>	<p>Implementation</p> <ul style="list-style-type: none"> <li>decide security, access levels, protocols</li> <li>build full-scale organisation domain model, enter data, and ensure retrieval links work</li> <li>implement practices and technology</li> </ul>

The low scores awarded by Lehaney et al. (2004) to so many of the evaluated frameworks may be an indicator of the concern that KM is insufficiently well defined and understood to be anything more than a management fad (Abrahamson 1991; Hibbard 1997; Kay et al. 2002).

## **RESEARCH APPROACH**

Scoping this study has been a difficult exercise. The initial stimulus for the research was the observation that a particular third sector organisation had a rich repository of statistical data about some of its operations, but did not seem to be analysing it in such a way as to produce useful information to guide its decision making. There was also an appreciation that although technology might be used to assist in the processing of this information, an information systems approach alone would not generate the knowledge that could be derived from the data.

It seemed that this was a problem facing many third sector organisations and so for a while the focus shifted to that wider field. However, the third sector is heterogeneous and difficult to define (Australian Bureau of Statistics 2002; Lyons 2003). It may not even be sufficiently stable to warrant separate consideration. Some industries that once largely operated on a nonprofit basis (e.g. childcare, hospitals) are increasingly run as profit making ventures. Just as there are relatively few 'core' services that most would agree should be the province of government (e.g. legislation, justice, defence) so there are few, if any, activities that are necessarily nonprofit. In Victoria, for example, school education was initially provided by religious organisations, then the state became a provider alongside schools run by entrepreneurial teachers. Today there are public (government) nonprofit and private for profit and nonprofit schools – only the latter group of schools can be categorised as third sector organisations. Apart from this definitional aspect, the number of third sector organisations is so large as to defy meaningful sampling for a single person study. While there may be more than 700,000 Australian non-profit organizations (Department of Communications Information Technology and the Arts [Australia] 2005:1) many are small and may not have any or very few remunerated staff; only one in seven had a telephone listing in the Yellow Pages at the beginning of 2005.

Thus, attention reverted to the organisation that first aroused interest, a complex, long-lived, international organisation, and a qualitative rather than quantitative research approach was adopted.

### **Case studies**

The selected organisation is a religious one (denominational church), which operates internationally and with a number of functional areas of operation (worship, pastoral care and outreach through local churches; social welfare; and education). The cases will examine two of these functional areas within autonomous organisational units at a sub-national level. The third major functional area (education) will not be investigated because of the potential confusion between the focus of the study (knowledge management) and the prime purpose of that sector (education or knowledge dissemination). Several cases will be within the one political and resource level environment (Australia) and there will be a few other cases in North America, where the resources available to the organisation are significantly greater, both absolutely and on a per capita basis. Two of the Australian cases (social welfare) will be in different states to assess the effect of local environmental variation, particularly on the organisation's role as an agent of state government to deliver services.

It is proposed to interview organisational leaders with differing roles (board, executive, ICT responsibility) in each case (Yin 2003) with respect to their information and knowledge needs, current approaches to meeting these needs, organisational strategies to overcome gaps, and identifying remaining gaps for which no strategy has been formulated. Interviews will seek to discover understanding (if any) of KM, perceptions of the need for KM, characteristics of any KM strategies, and obstacles to effective implementation (Johnson 1990; Rogers 2003). Documentation of existing systems and strategies will also be examined. The lens of KM frameworks will then be applied to assess their suitability to guide the organisation and to propose framework modifications to make them fit for this purpose.

Survey instruments have been obtained or deduced for a number of KM surveys conducted over the past decade (e.g. Bock et al. 2005; Chase 1997; Chauvel et al. 2002; O'Dell et al. 1999). These will provide a basis for the case study interview questions alongside the KM frameworks.

### **Action research**

Within one of the cases, a project is under way to provide the information environment to guide the development of policy and strategy for one of the organisation's major resources (property). The researcher has been engaged as an advisory participant in the steering group for this project (which is in essence a KM project, although not formally identified as such by the organisation). Using an action research approach (Avison et al. 1999), it is proposed that the researcher will introduce KM framework concepts to the project team, record the rationale for

adoption or rejection of these concepts, observe their effectiveness in operation, and propose changes to modify or extend the frameworks. For this case, former office bearers will also be interviewed to obtain their reflections on the issues involved.

## EXPECTED CONTRIBUTION

This research should provide relevant insights (Benbasat et al. 1999) that will:

- lead to better understanding of the appropriateness of the KM paradigm for values driven third sector organisations
- provide a KM adoption framework suitable for use in the sector.

## REFERENCES

- Abrahamson, E. "Management fads and fashions: the diffusion and rejection of innovations," *Academy of Management Review* (16:3) 1991, pp 586-612.
- Achterbergh, J., and Vriens, D.J. "Managing viable knowledge," *Systems Research and Behavioral Science* (19:3), May/June 2002, pp 223-241.
- Australian Bureau of Statistics "5256.0 Australian national accounts: Non-profit institutions satellite account," Australian Bureau of Statistics, Canberra.
- Avison, D., Lau, F., Myers, M., and Nielsen, P.A. "Action research," *Communications of the ACM* (42:1), January 1999, pp 66-72.
- Balnave, P., Aisbett, J., and Gibbon, G. "Failure to use information limits return on investment in information systems: a case study," Australian Conference for Knowledge Management and Intelligent Decision Support, Australian Scholarly Publishing, Melbourne, 2002, pp. 145-154.
- Barraket, J. "Literature review," in: *Information communication technology and the third sector (CACOM Working Paper 60)*, Centre for Australian Community Organisations and Management, Sydney, 2002, pp. 6-20.
- Benbasat, I., and Zmud, R.W. "Empirical research in information systems: The practice of relevance," *MIS Quarterly* (23:1), Mar 1999, pp 3-16.
- Berdhal, L., Brock, K., Cucumel, G., Davies, I., de Wit, M.L., Evers, T., Frankel, S., Hall, M., Johnston, C., Jolin, L., Lasby, D., McAuley, J., McIvor, D., Murray, V., Nicol, R., Roach, R., Rowe, P., and Scott, K. "Cornerstones of community: Highlights of the National Survey of Nonprofit and Voluntary Organizations," Statistics Canada, Ottawa, p. 79.
- Bock, G.-W., Zmud, R.W., Kim, Y.-G., and Lee, J.-N. "Behavioral intention formation in knowledge sharing: examining the roles of extrinsic motivators, social-psychological forces, and organizational climate," *MIS Quarterly* (29:1), Mar 2005, pp 87-111.
- Cecez-Kecmanovic, D. "A sensemaking model of knowledge in organisations: a way of understanding knowledge management and the role of information technologies," *Knowledge Management Research & Practice* (2:3), Dec 2004, pp 155-.
- Chase, R.L. "The knowledge-based organization: An international survey," *Journal of Knowledge Management* (1:1), January 1997, pp 38-49.
- Chauvel, D., and Despres, C. "A review of survey research in knowledge management: 1997-2001," *Journal of Knowledge Management* (6:3) 2002, pp 207-223.
- Collins, A.W. *Making ministry work: a guide to serving together* Joint Board of Christian Education, Melbourne, 1996.
- Cowdell, S. "Woody by an infinite beloved," *Market-Place*, 10 Dec 2003, p 11.
- Davenport, T.H., and Prusak, L. *Information ecology: Mastering the information and knowledge environment* Oxford University Press, New York, 1997.
- Department of Communications Information Technology and the Arts [Australia] *Information and communications technology transforming the nonprofit sector: A discussion paper*, Canberra, 2005, pp. iv, 67.

- Edwards, J.S., Handzic, M., Carlsson, S., and Nissen, M. " Knowledge management research & practice: visions and directions," *Knowledge Management Research & Practice* (1:1), Jul 2003, pp 49-60.
- Ferguson, A. "Charity cases," in: *Business Review Weekly*, 2005, pp. 44-50.
- Firestone, J.M., and McElroy, M.W. *Key issues in the new knowledge management* Butterworth-Heinemann, Boston, MA, 2003.
- Gupta, B., Iyer, L.S., and Aronson, J.E. "Knowledge management: practices and challenges," *Industrial Management + Data Systems* (100:1) 2000, pp 17-21.
- Hibbard, J. "Knowing what we know," in: *Information Week*, 1997, pp. 46-54.
- Holsapple, C.W., and Joshi, K.D. "Knowledge manipulation activities: results of a Delphi study," *Information & Management* (39:6) 2002, pp 477-490.
- Johnson, J.C. *Selecting ethnographic informants* Sage Publications, Newbury Park, Calif., 1990.
- Kalms, B. "Putting 'information' into 'Information Systems'," in: *Information systems foundations: building the theoretical base*, S.D. Gregor and D.N. Hart (eds.), Australian National University, Canberra, 2002, pp. 31-46.
- Kaplan, R.S., and Norton, D.P. "The balanced scorecard - measures that drive performance," *Harvard Business Review* (70:1), Jan/Feb 1992, pp 71-79.
- Kay, R., and Cecez-Kecmanovic, D. "Towards an autopoietic perspective on knowledge management," Australasian Conference on Information Systems, Melbourne, 2002, pp. 1-13.
- Lee, J.-H., and Kim, Y.-G. "A stage model of organizational knowledge management: a latent content analysis," *Expert Systems with Applications* (20:4), May 2001, pp 299-311.
- Lehaney, B., Clarke, S., Coakes, E., and Gillian, J. *Beyond knowledge management* Idea Group Publishing, Hershey, PA, 2004.
- Lyons, M. *Third sector: the contribution of nonprofit and cooperative enterprise in Australia* Allen & Unwin, St Leonards, NSW, 2001.
- Lyons, M. "Mapping the dimensions of Australia's third sector: The Australian Nonprofit Data Project 1995-2000," *Third Sector Review* (9:2) 2003.
- Markwell, D. "Occasional address at a graduation ceremony of the University of Melbourne," Melbourne, 2004, p. 10.
- McMurtrie, D.C. *The book: the story of printing & bookmaking* Oxford University Press, New York, 1943.
- Mekhilef, M., Kelleher, D., and Olesen, A. "Terminology," in: *European Guide to Good Practice in Knowledge Management*, CEN, 2003, pp. 1-16.
- O'Dell, C., Wiig, K.M., and Odem, P. "Benchmarking unveils emerging knowledge management strategies," *Benchmarking: An International Journal* (6:3) 1999, pp 202-211.
- Our Community "The community manifesto: valuing Australia's community groups," Melbourne, 2003.
- Perrow, C. "A framework for the comparative analysis of organizations," *American Sociological Review* (32:2), Apr 1967, pp 194-208.
- Rivière, V. "Assessing knowledge management initiative successes as a function of organizational culture," 2001.
- Rickson, R.E. "Knowledge management in industrial society and environmental quality," *Human Organization* (35:3), Fall 1976, pp 239-251.
- Rogers, E.M. *Diffusion of innovations*, (5th ed.) Free Press, New York, 2003.
- Salamon, L.M., and Anheier, H.K. "The International Classification of Nonprofit Organizations: ICNPO-Revision 1," Working Papers of the John Hopkins Comparative Nonprofit Sector Project No. 19, The John Hopkins Institute for Policy Studies, Baltimore, p. 24.
- Salvation Army "The Salvation Army in Australia: 125-year history," 2005.
- Simpson, J.A., and Weiner, E.S.C. (eds.) *The Oxford English dictionary*. Clarendon Press; Oxford University Press, Oxford ; New York, 1989.
- Spencer, T. "The potential of the Internet for non-profit organizations," *First Monday* (7:8), August 2002.



Stewart-Weeks, M., and Barraket, J. "Information communication technology and the third sector," 60, Centre for Australian Community Organisations and Management, Sydney, pp. v, 20.

Tandukar, A. "Parochialism rules," in: *Business Review Weekly*, 2005, pp. 62-63.

The Economist "The world's oldest companies: The business of survival," in: *The Economist*, 2004.

Yin, R.K. *Case study research: Design and methods* Sage Publications, Thousand Oaks, Calif, 2003.

## **COPYRIGHT**

Colin Reilly © 2005. The author assigns to ACIS and educational and non-profit institutions a non-exclusive licence to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The author also grants a non-exclusive licence to ACIS to publish this document in full in the Conference Papers and Proceedings. Those documents may be published on the World Wide Web, CD-ROM, in printed form, and on mirror sites on the World Wide Web. Any other usage is prohibited without the express permission of the author.