

2016-05-23

Using a Knowledge Management Approach to Support Effective Succession Planning in the Civil Service

Mary O'Donohue
Technological University Dublin

Follow this and additional works at: <https://arrow.tudublin.ie/scschcomdis>



Part of the [Computer Engineering Commons](#)

Recommended Citation

O'Donohue, M. (2016) Using a Knowledge Management Approach to Support Effective Succession Planning in the Civil Service, Masters Dissertation, Technological University Dublin.

This Theses, Masters is brought to you for free and open access by the School of Computing at ARROW@TU Dublin. It has been accepted for inclusion in Dissertations by an authorized administrator of ARROW@TU Dublin. For more information, please contact yvonne.desmond@tudublin.ie, arrow.admin@tudublin.ie, brian.widdis@tudublin.ie.



This work is licensed under a [Creative Commons Attribution-Noncommercial-Share Alike 3.0 License](#)

Using a Knowledge Management Approach to Support Effective Succession Planning in the Civil Service

An African proverb "*When an elder dies, a library burns down*"

Mary O'Donohue

A dissertation submitted in partial fulfilment of the requirements of Dublin Institute of
Technology for the degree M.Sc.in Computing (Information and Knowledge
Management)

March 2016

1 DECLARATION

I certify that this dissertation, which I now submit for examination for the award of M.Sc. in Computing (Information and Knowledge Management), is entirely my own work and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

This dissertation was prepared according to the regulations for postgraduate study of the Dublin Institute of Technology and has not been submitted in whole or part for an award in any other Institute or University.

The work reported on in this dissertation conforms to the principles and requirements of the Institute's guidelines for ethics in research.

Signed: 

Date: 21/05/2016

2 ABSTRACT

The modern workforce is highly mobile. The challenge facing organisations is how to safeguard key expertise and knowledge in the face of staff mobility and turnover. The Irish Civil Service is still recovering from the impacts of significant loss of staff, and their knowledge and expertise, as a result of cutbacks over recent years. This project will establish the potential of using a Knowledge Management approach to support effective succession planning in the Civil Service. The literature review charts the evolution of Knowledge Management from when the phrase was first coined in 1986 through to what is considered to be the latest generation of Knowledge Management enabled by Social Software. The journey has not been an easy one with challenges along the way including confusing terminology, failing initiatives, and an over-emphasis on technology not entirely suited to the human endeavour that is knowing. However, the arrival of Social Software, or Web 2.0, so heavily used by the millennial generation, has revitalised the KM field with its enhanced user experience. This project was initially informed by interviews with recent appointees to their roles and a case study on the experience of one organisation in using a wiki to support knowledge management. A OneNote wiki hosted on Microsoft SharePoint was implemented and a group of 16 middle managers participated in the experiment to assess its potential as a repository to capture and share key knowledge about the organisation. The conclusions of the experiment include that succession planning is important for organisations to protect key knowledge and expertise; it is important to strike the right balance between people, process, and technology; use of overly academic or technical language should be avoided; the technology is no longer a major inhibitor; structures and rules should be in place so that only appropriate content is posted to a corporate wiki; for a wiki to be successful it needs to be relevant, have a purpose, and the content updated on an on-going basis; people are the most important dimension to succession planning and any knowledge-based endeavour.

Keywords: Knowledge Management, knowledge retention, Social Software, Web 2.0, Wiki, succession planning.

3 ACKNOWLEDGEMENTS

I have been very lucky to have had the help and support of a number of people throughout my studies. Firstly, I wish to thank my awesome supervisor, Damian Gordon, for his enthusiasm, advice, support, calming influence, and great guidance throughout the development of this dissertation. I would also like to thank the lecturers and staff of DIT for their dedication and support throughout my MSc programme, in particular around the time of my Dad's illness and passing.

My fellow students were a great support as we compared and contrasted our progress and experiences. I would also like to thank my colleagues, present and past, who helped along the way and, in particular, those who participated in this experiment and gave so generously of their time for interviews.

Last, but by no means least, I must thank my family and friends for their unfailing support and patience over the past two and a half years. They made the challenge of returning to and completing my study so much easier, keeping me fed and sane along the way. To my sister and her husband, once they stopped laughing hysterically, and especially Rachel and David, for keeping my feet firmly on the ground. To Mum, you're the best! Thanks for all your support throughout. I'm looking forward to a return to our retail therapy sessions! And finally! To Ror, for everything! Your love, support, knowledge, patience, expert advice, and minding made this all so much easier for me. I hope I am returning the favour. Here's to the future!

4 DEDICATION

Finally, I would like to dedicate this dissertation to my father. Dad placed so much value on education and I think he was both thrilled and fascinated that I took on this endeavour. He was always curious to know more about what exactly it was I was doing, be that at work or study, challenging me to explain what this knowledge management thing is anyway! I know he would have loved to have been here to see this through with me and that he's been keeping a watchful eye on my progress from the heavens!

Contents

1	DECLARATION.....	II
2	ABSTRACT.....	III
3	ACKNOWLEDGEMENTS	IV
4	DEDICATION.....	V
1	INTRODUCTION.....	1
1.1	PROJECT BACKGROUND	1
1.2	PROJECT DESCRIPTION	2
1.3	RESEARCH AIMS AND OBJECTIVES	3
1.4	RESEARCH METHODS	3
1.5	ROADMAP OF THIS DISSERTATION	5
2	LITERATURE REVIEW	7
2.1	INTRODUCTION.....	7
2.2	THE EVOLUTION OF BUSINESS - AN INSIGHT INTO THE DAWN OF KNOWLEDGE MANAGEMENT IN ORGANISATIONS	8
2.3	WHAT IS KNOWLEDGE MANAGEMENT?	9
2.3.1	<i>So What is Knowledge Management?</i>	<i>11</i>
2.3.2	<i>A Definition for Knowledge Management</i>	<i>12</i>
2.4	WHY KNOWLEDGE MANAGEMENT?.....	13
2.5	CHALLENGES FACING KNOWLEDGE MANAGEMENT.....	16
2.5.1	<i>Language and Definitions</i>	<i>16</i>
2.5.2	<i>Perspectives on KM.....</i>	<i>18</i>
2.5.3	<i>Enablers of KM.....</i>	<i>18</i>
2.5.4	<i>Organisational Culture and KM.....</i>	<i>20</i>
2.6	THE KM LIFE CYCLE	22
2.7	DETERMINING SUCCESS	24
2.8	KNOWLEDGE MANAGEMENT IN THE PUBLIC SERVICE.....	26
2.9	KNOWLEDGE MANAGEMENT REVITALISED.....	30
2.10	CONCLUSIONS	33
3	KNOWLEDGE MANAGEMENT: THE NEXT PHASE.....	34

3.1	INTRODUCTION.....	34
3.2	STATE OF THE ART	34
3.3	LESSONS FROM THE PAST.....	36
3.4	THE CHALLENGE OF TACIT KNOWLEDGE.....	38
3.5	WEB 2.0 AND KM	40
3.5.1	<i>Wikis and KM – the Opportunity</i>	43
3.5.2	<i>The Challenges</i>	44
3.6	WHAT THE FUTURE HOLDS	46
3.7	KEY FINDINGS.....	51
3.7.1	<i>Highlights of the Literature in Chapter 2</i>	51
3.7.2	<i>Highlights of the Literature in Chapter 3</i>	52
3.7.3	<i>Key Findings from the Literature</i>	53
3.8	CONCLUSIONS	53
4	EXPERIMENT DESIGN AND EXECUTION	54
4.1	INTRODUCTION.....	54
4.2	THE DESIGN PROCESS	55
4.3	BACKGROUND CONTEXT ON THE ORGANISATIONS INVOLVED	56
4.4	AN INTERVIEW-BASED CASE STUDY OF AN EXISTING WIKI	57
4.5	DESIGN OF SCOPING INTERVIEWS.....	60
4.6	THEMES EMERGING FROM THE INTERVIEWS.....	62
4.6.1	<i>The Organisational Dimension</i>	62
4.6.2	<i>The Personal Perspective</i>	67
4.6.3	<i>The Role of Technology</i>	68
4.6.4	<i>A Summary of the Themes</i>	70
4.7	A BLUEPRINT FOR KNOWIKI.....	71
4.7.1	<i>Technology Selection</i>	72
4.8	CONCLUSIONS	77
5	IMPLEMENTATION	78
5.1	THE KNOWIKI EXPERIMENT	78
5.1.1	<i>The Guidance Wiki</i>	79
5.1.2	<i>Knowiki – Initial Structure</i>	82
5.1.3	<i>Knowiki – Content Uploads</i>	84

5.2	CONCLUSIONS	88
6	EVALUATION	89
6.1	INTRODUCTION.....	89
6.2	AN ASSESSMENT OF THE USE OF KNOWIKI	89
6.2.1	<i>Review of Contributions</i>	89
6.3	FOCUS GROUP	92
6.3.1	<i>Outcomes of Focus Group</i>	93
6.4	OVERALL PROJECT FINDINGS	97
6.4.1	<i>Table of Findings</i>	97
6.5	INTERVIEWEES REVISITED.....	102
6.5.1	<i>Structure for Follow-Up Interviews</i>	102
6.5.2	<i>Observations from Follow Up Interviews</i>	104
6.6	CONCLUSIONS	108
7	CONCLUSIONS AND FUTURE WORK.....	109
7.1	INTRODUCTION.....	109
7.2	CONCLUSIONS	110
7.2.1	<i>Start from the Beginning</i>	112
7.2.2	<i>Lead by Example</i>	112
7.2.3	<i>What's in it for Me?</i>	112
7.2.4	<i>Don't Leave it to Chance</i>	113
7.2.5	<i>Wiki-Leads</i>	113
7.2.6	<i>Old Rules are still Good Rules</i>	113
7.2.7	<i>Never Forget</i>	114
7.2.8	<i>Invest for the Future</i>	114
7.2.9	<i>People for Profit</i>	115
7.3	FUTURE WORK.....	115
7.3.1	<i>Adapting Knowiki</i>	115
7.3.2	<i>Dashboards for Knowiki</i>	116
7.3.3	<i>Knowiki Combined</i>	117
7.3.4	<i>Knowiki Realms</i>	118
7.3.5	<i>Mandating Knowiki</i>	118
7.3.6	<i>Knowiki for All</i>	119

8	BIBLIOGRAPHY	120
9	APPENDIX 1 – THE FIRST INTERVIEW.....	125
10	APPENDIX 2 – FOLLOW-UP INTERVIEWS	128
11	APPENDIX 3 THE WIKI.....	130
12	APPENDIX 4 WORD-BASED HANDOVER PROCESS	136

Table of Figures

FIGURE 1-1 KNOWLEDGE CAPTURE, RETENTION AND SHARING [MICROSOFT DEVELOPER NETWORK WEBSITE]	2
FIGURE 2-1 WHAT IS KNOWLEDGE MANAGEMENT? - A MIND MAP [AUTHOR, G THOMPSON (2014)].....	10
FIGURE 2-2 SPIRAL OF ORGANISATION KNOWLEDGE CREATION [NONAKA (1994)].....	22
FIGURE 2-3 TACIT TO EXPLICIT CONVERSION WITH A KNOWLEDGE LIFECYCLE [JACKSON (2010)].....	23
FIGURE 3-1 TRADITIONAL VS SOCIAL SOFTWARE [PAYNE (2008)].....	35
FIGURE 3-2 SECI [NONAKA, TOYAMA, KONNO (2000)].....	39
FIGURE 3-3 OVERLAPPING AREAS BETWEEN KM AND OTHER FIELDS [RAGAB AND ARISHA (2013)].....	46
FIGURE 3-4 GOOGLE TRENDS SEARCH FOR KNOWLEDGE MANAGEMENT DISCIPLINE ...	48
FIGURE 4-1 VIEWING AND EDITING CAPABILITIES OFFICE WEB APPS (MS TECHNET WEBSITE).....	73
FIGURE 4-2 ONENOTE FOR MULTI-MEDIA COLLABORATION [MS DEVELOP NETWORK WEBSITE].....	74
FIGURE 4-3 MS OFFICE WEB APPS AND SHAREPOINT [MS TECHNET WEBSITE].....	75
FIGURE 5-1 GUIDANCE WIKI – CONTEXT.....	79
FIGURE 5-2 GUIDANCE FOR THE ORGANISATION WIKI	80
FIGURE 5-3 GUIDANCE FOR THE TEAM WIKI	81
FIGURE 5-4 GUIDANCE FOR THE PERSONAL WIKI.....	81
FIGURE 5-5 GUIDANCE WIKI - HINTS AND TIPS ON USING ONENOTE.....	82
FIGURE 5-6 <i>KNOWIKI</i> HOME PAGE - ONENOTE WEB APP	83
FIGURE 5-7 <i>KNOWIKI</i> ORGANISATION SECTION - ONENOTE WEB APP.....	83
FIGURE 5-8 <i>KNOWIKI</i> – ONENOTE DESKTOP CLIENT.....	84
FIGURE 5-9 PARTICIPANT CONTENT - TEXT WITH LINKS	85
FIGURE 5-10 PARTICIPANT CONTENT - PROGRAMME EXPLANATION	85
FIGURE 5-11 PARTICIPANT CONTENT - POWERPOINT	86
FIGURE 5-12 PARTICIPANT CONTENT - PROGRAMME DETAILS WITH LINKS	87
FIGURE 5-13 PARTICIPANT CONTENT - EXPLAINING PURPOSE.....	88
FIGURE 6-1 <i>KNOWIKI</i> PAGE EDIT HISTORY	90
FIGURE 6-2 <i>KNOWIKI</i> EDIT HISTORY BY DATE.....	90

FIGURE 6-3 <i>KNOWIKI</i> PATTERN OF USE	91
FIGURE 6-4 SAMPLE OF CONTENT UPLOADED	92
FIGURE 6-5 COLLATED THEMES FROM EACH ELEMENT OF THE EXPERIMENT	100
FIGURE 6-6 SUMMARY TABLE OF RESPONSES	105
FIGURE 7-1 ADAPTING <i>KNOWIKI</i>	116
FIGURE 7-2 DASHBOARDS FOR <i>KNOWIKI</i>	117
FIGURE 7-3 <i>KNOWIKI</i> REALMS	118

1 INTRODUCTION

1.1 Project Background

Chapter One sets out the background to this dissertation, gives a description of the research question, sets out the aims and objectives, and charts the roadmap for this dissertation.

For some time it has been argued that knowledge is a key corporate asset to be managed by every organisation. Knowledge Management (KM) is considered by many to be essential to the success of any business, public and private sector (Wiig, 2002). However, research suggests that many organisations struggle with understanding how to manage knowledge and to implement effective KM strategies and systems. Notwithstanding the general challenges for organisations in doing KM, with the high age profile and high level of mobility of the modern workforce, knowledge retention is a key issue that has emerged in recent years (Trugman-Nikol, 2011).

Background data gathered for the Civil Service Renewal programme shows that 73% of staff are over 40 with 44% over 50; data on Information Technology (IT) functions shows 31% of staff are over 50 (Department of Public Expenditure and Reform, 2014)¹. Given the risk of loss of key corporate knowledge posed by the level of retirements likely in coming years, it would seem opportune to consider how a KM approach might support knowledge retention and effective succession planning for the Civil Service.

The purpose of this dissertation is to evaluate how using a KM approach can support effective knowledge retention and succession planning in the Civil Service.

¹ Department of Public Expenditure and Reform (2014). *The Civil Service Renewal Plan, Background Data*. Available at: <http://per.gov.ie/wp-content/uploads/Civil-Service-Renewal-Background-Data-October-2014.pdf> [Accessed on 31 August 2015].

1.2 Project Description

Knowledge and KM have been cited consistently as drivers of competitive advantage (Nonaka and Takeuchi, 1995 cited in Hlupic, Pouloudi and Rzevski 2002; Wiig, 1997) and, in the case of the public sector, of efficiency and effectiveness (O’Riordan, 2005). In addition to managing corporate knowledge, organisations need to recognise and address the risk associated with the loss of significant corporate knowledge through retirements and staff turnover. Joe, Yoong, and Patel (2013) suggest that a larger proportion of older workers will leave organisations than there will be younger replacements. Effective knowledge management strategies, in particular around knowledge capture, sharing, and retention, as portrayed in Figure 1-1 below, will be essential to mitigate the risk of the loss of the core knowledge and insights held by these workers.

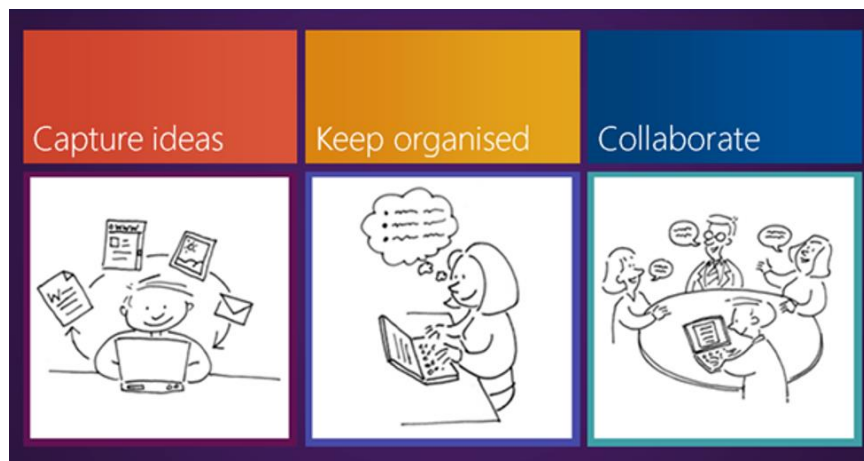


Figure 1-1 Knowledge Capture, Retention and Sharing [Microsoft Developer Network Website]

The age profile of staff across the Civil Service would suggest that it is timely to consider the question of knowledge retention to assure the effectiveness of Civil Service (CS) for the future, including its IT functions. In addition, given that the improving economic climate will allow some capacity to fill existing vacancies across the CS, there is an opportunity for knowledge management to be an enabler of effective succession planning, mitigating the risk of further loss of key corporate knowledge and ensuring recruitment of staff with appropriate skills (Hoffman, Ziebell, Fiore, and Becerra-Fernandez, 2008).

1.3 Research Aims and Objectives

The aim of this dissertation is to develop and evaluate the application of a knowledge management framework to support effective knowledge retention and succession planning in the Civil Service, in particular by IT functions. This study will begin with a literature review of appropriate research on KM, knowledge loss and knowledge retention, the impact of mobility and the trans-generational workforce, KM in the public sector, the role of organisational culture and other such factors, the KM lifecycle, lessons learned which are enabling the future of KM, and the potential of Web 2.0 and Social Software as tools to support effective KM.

Insights from the literature review will be used to identify potential approaches to the design of a KM framework for knowledge retention in particular. The framework will also be informed by preparatory elements of the experiment, i.e. interviews with a selection of senior Civil Servants who themselves are relatively recent appointees to their current roles. The study will assess and evaluate the potential effectiveness of this KM framework through its operation for a short period, including, benchmarking this approach with the participants in the experiment. Potential success factors include the ease with which useful knowledge artefacts can be created and then shared through the use of Social Software, and the level of collaboration which use of such software encourages. The experiment will also include the identification of potential barriers or challenges to the implementation of the KM framework.

1.4 Research Methods

A range of methods will be drawn on in the development of this dissertation. The first stage in the process will be a literature review which will consider the evolution of the practice of KM, KM in the public sector, assessing KM effectiveness, and the role of KM as a support for succession planning given the nature of the modern workforce. The purpose of the literature review will also be to identify potential approaches, considerations, and barriers to the development of a KM framework which can support knowledge retention and in particular for effective succession planning.

The next stage will be the design of the framework and will include inputs from the relevant organisations to identify key areas of knowledge at risk when senior and longstanding staff leave the organisation. A range of knowledge elicitation techniques, natural and contrived, will be used to assist in assessing how key knowledge to be retained can be identified. Techniques may include questionnaires, card sorts, structured interviews, focus groups, etc.

Based on the research into potential KM frameworks and the outcome of the elicitation exercises, the framework itself will be designed. This will include the development of a template to be used in the knowledge capture, retention, and succession planning process. Development of the framework will also include identifying a Social Software tool that is appropriate to supporting knowledge transfer across generations.

The framework will then be applied in one of the organisations and supported by the researcher who will provide some guidance on its use. The intended outcome of application of the framework is that it will result in key knowledge of experts being captured and codified for re-use. This could take a number of forms such as a video, wiki, blog or template knowledge-transfer documents, etc, but this will be left to the participants in the experiment to contribute as they see fit. The format(s) for any knowledge artefact will be an outcome of the initial framework design planning.

In order to assess the effectiveness of the approach, the knowledge captured will be reviewed by the participating organisation and the outcomes of this review will be discussed with the interviewees. Views sought will include observations on the potential value of implementing the KM framework on a formal basis as a tool for knowledge retention and to mitigate the risk of knowledge loss.

The approach to assess the effectiveness of the KM framework will take a number of forms. The evaluation will generally be qualitative in nature. It is intended that the literature review will identify potential evaluation frameworks and success factors for KM and KM tools used by organisations.

The evaluation will include eliciting views of key stakeholders in the experiment on the value of the knowledge identified for retention and the process by which this has been codified for re-use. The assessment will include a user-centric perspective on the potential for formal adoption of the framework as a KM tool by the organisation involved.

Findings from the surveys or elicitations of those involved in both the creation and review of knowledge artefacts will indicate the suitability of the methods used for long term application to the succession planning process. Similarly, responses will provide an evaluation as to the suitability of artefacts produced and their effectiveness as knowledge transfer and knowledge protection tools. If possible, metrics will be gathered around the use of the artefacts developed and if some formats prove more popular than others, in particular to the recipient of the knowledge being transferred.

The framework will be evaluated through the use of a range of KM techniques, which may include mind map, card sorts, triadic, and other elicitation techniques to assess views of those involved. The quality of the knowledge outcomes will be assessed through interview with senior managers using feedback from participants.

1.5 Roadmap of this Dissertation

Following this introductory chapter, which sets the scene for the work ahead, Chapters 2 and 3 will comprise the literature review elements. The focus of Chapter 2 will be on the evolution of KM, including an overview of KM in the public service; Chapter 3 will look at lessons from the past for KM and also consider the future for KM, including how modern technology, in the form of Social Software, or Web 2.0, might revitalise KM for the modern multi-generational workforce.

Chapter 4 will set out the design process behind the experiment. The design will combine learnings from the literature review, interviews with three senior Civil Servants, and a case study on an existing wiki, as well as an assessment of a potential technical solution for implementation.

Chapter 5 will go on to discuss the implementation of the KM framework implemented and will include some extracts from contributions.

Chapter 6 will be the evaluation chapter and will consider a quantitative and qualitative assessment of the artefact, including levels of participation and content created, report on the outcomes of a focus group to gather the feedback of the participants in the experiment, and, finally, conduct follow-up interviews with the three senior staff to get their observations on the feedback received and the artefact produced.

Chapter 7 is the final chapter and will draw this dissertation to a close setting out the context for this dissertation, the experiment and associated learnings, the conclusions drawn from the process and finally suggestions around potential future work.

2 LITERATURE REVIEW

2.1 *Introduction*

This chapter comprises of the first element of the Literature Review section of this dissertation. It will look at the evolution of business and the introduction of knowledge as a key competitive and sustainability factor, and consider what is knowledge management and the range of definitions that abound; why organisations undertake KM initiatives; the challenges facing KM given its multi-disciplinary nature; the impact of organisational culture on KM; the KM life cycle; determining what is successful KM; KM in the public service; and, the current potential opportunity for KM to support modern organisations and the multi-generational workplace in mitigating the risk of loss of corporate knowledge as a result of the high level of mobility and retirements.

Knowledge Management is nothing new, in fact humankind has been managing its knowledge as a means of survival since time began. Knowledge has been passed from generation to generation over the centuries both through word of mouth and through the use of 'tools' as evidenced by historic artefacts like cave drawings, hieroglyphs, etc. The concept of KM as a practice appears to have entered the corporate world in earnest during the 1980s, in parallel with the explosion of IT in business. However, despite efforts to address the challenge over recent decades, KM by organisations seems to be somewhat of an enigma in terms of understanding of what it is, where within an organisation it best fits, what is needed to make it a success, and what the outcomes from KM should be (Call, 2005). The purpose of this literature review is to understand what knowledge management is; why organisations do KM; the challenges facing KM; determining successful KM; KM and the Public Sector; the future of KM; the challenge of sharing tacit knowledge; how KM can address the risk of loss of knowledge with a specific focus on knowledge retention and transfer; and, the potential for modern tools, such as Social Software, to support KM initiatives, in particular when it comes in the elusive form that is tacit knowledge.

2.2 The Evolution of Business - An Insight into the Dawn of Knowledge Management in Organisations

This first section sets the context for the emergence of the practice of knowledge management in organisations. While humankind may be practiced at KM for survival, it was the late 1960s that saw the emergence of formal recognition for knowledge in society. The renowned management guru Peter Drucker is credited with coining the phrases ‘knowledge society’ and ‘knowledge worker’ in the late 1960s. Drucker (1988) talks about “*the coming of the new organisation*” and says that in 20 years the “*typical business will be knowledge-based.*” He also says that there will be a shift in employment from clerical to knowledge workers, a transformation which will be forced by information technology. Drucker (1985) talks about knowledge as a component of innovation and, therefore, entrepreneurship.

Discussions of the concept of knowledge in modern businesses were continued by academics through the 1990s. Nonaka (1994) talks about the ever-increasing importance of knowledge in organisations and how this calls into question how organisations use knowledge. Prusak (1996) claims that it is an organisation’s knowledge uniquely which gives it a sustainable competitive advantage. Wiig (1997) points to the mid-1980s as a time when organisations began to recognise the value of knowledge. He (p.6) refers to efforts by progressive organisations to generate value from their knowledge assets. Davenport, De Long, and Beers, (1998) claim that across many disparate disciplines, academics and practitioners recognise that knowledge is now centre-stage and that KM has recently “*blossomed.*”

Rowley (1999) claims that crucial for all types of organisations, will be the understanding of the potential of KM and how to effectively use KM within the organisation. However, Nonaka, Toyama, and Konno (2000) comment that despite the general recognition of the importance of knowledge for competitive advantage, little is understood as to how organisations actually create knowledge and manage it. The common theme in this snapshot of some early literature points to the need for organisations, regardless of sector, to recognise the value of managing knowledge as a strategic asset. Hence, Knowledge Management was born.

2.3 What is Knowledge Management?

The snapshot above sets the context for the literature review to follow and shows that even in the early days, the fields of study with an interest in knowledge and KM are very varied. It will remain to be seen if this was an advantage or a disadvantage for KM. Over recent decades, knowledge has become recognised as a key strategic asset for organisations and one from which organisations can sustain competitive advantage. In this globalised and highly connected world, it would seem important that an organisation's knowledge is managed effectively in order to ensure competitive advantage and assure the future of the organisation. In order to embark on any KM-based projects or activities, it would therefore be helpful to have a clear understanding of what KM is. However, even now, there seems to be confusion around the terminology and there does not seem to be a shared, collective understanding of what knowledge is or how best it should be managed.

As the diagram below indicates, there are many facets to knowledge, how it can be acquired and shared, and how it can be presented. This section will seek to find if there is a single shared and accepted definition of what is KM, given the multidisciplinary nature of and interest in KM.

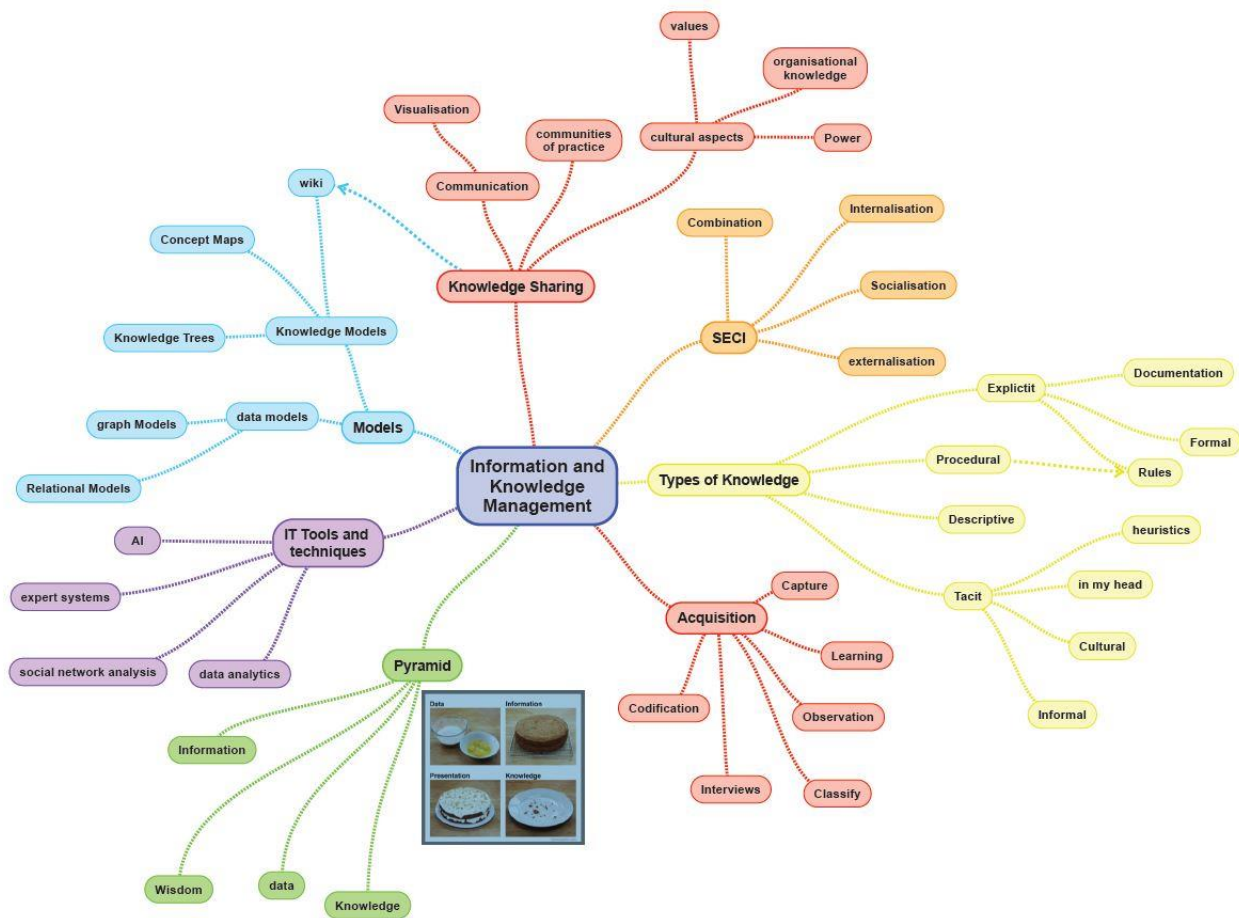


Figure 2-1 What is Knowledge Management? - A Mind Map [Author, G Thompson (2014)]

It would seem reasonable to assume that, 40 years after the concept emerged, there should be clarity around and shared definitions of KM. Serenko and Bontis (2004) point to 1975 as to when the first instances of the term “*Knowledge Management*” emerged. However, as recently as 2007, Levinson² (2007) suggests that “*there's no universal definition of knowledge management (KM), just as there's no agreement as to what constitutes knowledge in the first place.*” This must be a source of concern to those endeavouring to research and practice KM.

² Levinson, M (2007) ‘*Knowledge Management Definition and Solutions*’ Available at: http://www.cio.com/article/40343/Knowledge_Management_Definition_and_Solutions?page=1#1 [Accessed 20 December 2013].

Prusak (1996) points to one of the issues being that knowledge has no agreed unit of analysis. Davenport *et al.* (1998) seek to use the KM Project as the unit of analysis as a tangible entity to consider. McDermott (1999) identifies six ways in which knowledge differs from information, not least that “*knowing is a human act.*” He (p.133) also claims that while information technology (IT) may enable organisations see the potential of knowledge, IT systems alone cannot deliver on the promise of KM because knowledge is innately a human system. Nonaka *et al.* (2000) suggest that much of what passes for Knowledge Management is in fact information management due to a lack of understanding across academia and business. The variety of disciplines associated with knowledge and knowledge management seem to have mitigated against the development of clear, shared understandings of knowledge and approaches as to how it can be managed. Despres and Chauvel (1999) claim that the absence of clarity suggests that, as a result, KM is “*clearly on the slippery slope of being intuitively important but intellectually elusive.*”

2.3.1 *So What is Knowledge Management?*

At a somewhat early stage in the evolution of KM as a discipline, Wiig (1997, p.8) proposes that KM is “*to understand, focus on and manage systematic, explicit, and deliberate knowledge building, renewal, and applications – that is manage effective knowledge processes*”. This definition seems both complex and broad and may prove difficult to use in an organisational setting. He (p.8) suggests the objectives of KM are to enable organisations to work smarter to ensure their success and viability and to maximise the value of their knowledge assets. However, he (p.6-7) also suggests that no common approach exists to KM. He attributes this to the number of different concepts being proposed, perhaps as a result of KM being a somewhat emerging discipline led by practitioners rather than being supported by academic or management research. Even within this article Wiig, who is credited with coining the term “*Knowledge Management*” in 1986 (Singh, 2007), seems to use somewhat unclear and inconsistent language and uses terms interchangeably such as KM strategy and knowledge strategy. If the experts are unclear on what exactly is KM, what chance does it have of succeeding?

Call (2005) references a number of KM definitions from Drucker and industry including IBM, Lotus, Microsoft, American National Standards Institute. Similar to the case for knowledge, these definitions each seem to have somewhat differing perspectives on KM:

- Lotus and IBM seem quite systems focused,
- Microsoft suggests a more people-centric definition,
- while the Drucker definition cited relates to organisational competitiveness - is this perhaps a focus on process?

Call (p.20) suggests a broad definition of knowledge is needed first as a basis to understand KM and that therefore, these definitions are insufficient. Call (p.20) goes on to define successful KM as giving access to information to do a better job than in the past, enabling the learning of rather than providing the answer. This is achieved through having the right balance of people, process, and technology. However, he does not offer a definition for KM but rather explains successful KM as being able to access the information needed to do the job better than before (p.20).

2.3.2 *A Definition for Knowledge Management*

In search of a common definition, Hlupic *et al.* (2002) identify 19 definitions for KM, taken from 1996 to 2000, for “*the increasingly popular notion of knowledge management*” (p.90) which speaks to the variety of disciplines to whom KM is of interest. The consensus from the literature reviewed would seem to be that a possible reason why there is no one, clear definition of KM is that any definition will be based on the particular perspective of the writer. However, Hlupic *et al.* (p.94) do suggest that a common thread which does prevail, is that KM enables organisations to be effective and competitive, i.e. there is a shared understanding of the motivation behind KM.

Pillania (2009) attempts to explain what KM is by setting out what it is not. KM is not:

- data management,
- information management,
- information systems or IT,

- Human Resource management, or,
- intellectual property rights management.

Pillania suggests there are three elements to KM - knowledge creation, dissemination, and implementation. He (p.96) defines KM as a “*systematic, organised, explicit and deliberate ongoing process of creating, disseminating, applying, renewing and updating the knowledge for achieving organisational effectiveness*”. This definition seems to support the recurring theme that KM supports organisational effectiveness. The concept suggested by Pillania is in line with Wiig (1997, p.10) who claims that the leaders in their respective spheres of business tend to be those companies which are long-term adopters of KM and can identify the benefits.

While this section sought to find a definition for KM from the literature reviewed, what has emerged is that there are multiple possible definitions most likely influenced by the range of perspectives on KM. The perspective of the source appears to impact their definition of KM lending support to the view that KM is a complex or multidimensional issue. However, there is a general consensus that KM is an effective, strategic approach to ensuring organisational effectiveness and survival. Accordingly, one possible definition for KM might be that it is a strategic approach, comprising processes and systems supporting individuals, which supports effective management of corporate knowledge with the purpose of ensuring an organisation’s profitability and sustainability. This definition points to three potential pillars on which successful management of organisational knowledge relies – people, process, and technology. The People ↔ Process ↔ Technology trika is a recurring theme across the literature throughout the period reviewed.

2.4 Why Knowledge Management?

The outcome of the section above was a definition for KM. This section goes on to consider why organisations should engage in knowledge management. It is generally accepted that we live in a knowledge society and knowledge economy. The management of knowledge assets, therefore, would seem a natural consequence and requirement for successful business. This section will consider, at a high level, some drivers behind why

organisations embark on potentially challenging and costly KM programmes and projects.

For many organisations, the bottom line drives business strategies and if KM can improve profitability then this seems an obvious strategy to adopt. However, non-profits and public sector organisations also pursue KM as a strategic approach given the opportunities KM affords for operational effectiveness and efficiency. Does this difference in motivation have an impact on the potential for the public service to implement successful KM?

While KM was initially seen as the preserve of larger, better-off organisations, such as Rolls Royce or BP, Coakes, Amar, and Granados (2010) suggest that it is now the case that most organisations are required to implement some form of KM function regardless of the nature of the business or its size. With the arrival of Web 2.0 and Cloud Computing, more cost-effective KM tools are available to individuals, small and medium sized enterprises, and organisations of any size and purpose (Sultan, 2012). It would seem that now, more than ever before, KM is accessible to any organisation which values its knowledge assets and recognises that they should be managed. Helm-Stephens (2010) suggests that in order for an organisation's knowledge to be exploited it must first be captured.

The capabilities of modern information systems are an enabler for KM and may offer new opportunities and access methods for capturing and sharing knowledge (Singh, 2007). The influence of the internet, mobile computing, and on-line services mean that individuals are sharing information and knowledge outside of their work environment. Travel advisory websites are case-in-point and show the power of knowledge management in action. It seems inevitable that personal KM, supported by use of such tools, will spill over into how individual users manage knowledge at work (Razmerita Kirchner, and Sudzina, 2009). For larger and distributed organisations, modern IT systems provide new platforms to enable accessible knowledge, available to the right person, at the right time, and in the right place, when needed. In addition, smart phones and tablets have transformed and mainstreamed, in the consumer space, computing, and applications.

Knowledge is a corporate asset and, similar to other such assets, there is benefit to any organisation that can harness and derive maximum value from its knowledge assets. KM highlights corporate knowledge and shows the value of an organisation's human capital (Richter, Stocker, Muller, and Avram, 2013), i.e. the people. Wiig (1997) suggests there is also potential to create new value from effective management of knowledge. Sustainability, regardless of industry or focus, is a desire of all organisations. Wiig (p.10) asserts those companies who have adopted KM over long periods are able to identify benefits from their KM, including their leadership positions within their industries. Both knowledge and KM are cited consistently as drivers of competitiveness (Nonaka and Takeuchi, 1995 cited in Hlupic *et al.*, 2002; Wiig, 1997). Coakes *et al.* (2010), referencing Anantutmula (2008) suggest that better decision-making is enabled by managers, at all levels, knowing how to manage and share knowledge. Tzortzaki and Mihiotis (2014) adopt the view that “*KM facilitates the effective transformation of IC into unique capabilities.*”

Effective KM ensures efficient use of time and resources by preventing individuals and groups within organisations from reinventing the wheel, enabling people to do things better, and facilitates improved problem solving (Call, 2005). KM also enables streamlining of activities and improved responsiveness (Hlupic *et al.*, 2002). It supports innovation, better decision making and empowers individuals through the sharing of knowledge (Call, 2005; Hlupic *et al.*, 2002). KM facilitates organisational learning and can enable leaders learn more about a problem and find new ways to resolve it (Call, 2005). However, Richter *et al.* (2013) suggest that traditional KM tends to be top-down, ignores the knowledge worker, and fails to encourage them to share their knowledge.

This section has set out some of the reasons from the literature as to why organisations invest in KM. It is the essential nature and critical impact of KM that allows an organisation to remain competitive, be efficient, drive innovation, and learn from its experiences thereby constantly improving how things are done. In what is generally acknowledged to be the global knowledge economy, organisations must ensure to leverage their knowledge in order to be competitive in a potentially global marketplace (Call, 2005; Hlupic *et al.*, 2002). While Wiig focussed more at a strategy level, Call and

Hlupic *et al.* looked at the broader opportunities of KM for organisations. However, a recurring theme throughout this literature is the interdependence between people, process, and technology.

The coming years will see organisations face potentially significant loss of knowledge resulting from the volume of retirements of the ‘baby boomer’ generation (Slagter, 2007). KM can be the means by which organisations mitigate risk through effective management of the knowledge of those experts about to leave the organisation. The changing face of the modern workforce, including the higher degrees of mobility and turnover anticipated, also indicate a key role for KM in the future. The question of KM as a support for knowledge retention and succession planning will be discussed later in this chapter.

2.5 Challenges Facing Knowledge Management

If KM is so essential to organisations’ effectiveness, competitiveness, and sustainability, why, then, does it seem that it has not been widely adopted? Indeed Call (2005) wonders why so many organisations seem to fail at something as important as KM. Birkinshaw (2001) considers why it is that KM often does not deliver on what it seems to promise. KM can be a driver of change - change to processes, procedures, practices and technologies, as well as organisational culture - all of which can meet with significant resistance and challenges to overcome. This next section looks at possible reasons why KM seems not to have delivered on its ambition and potential.

2.5.1 Language and Definitions

Wiig (1997) outlined elements of an evolutionary timeline for KM, starting from 1975, and yet says that by 1997, the importance of KM has still not been recognised by many and often KM has a very narrow focus. Might this be due to the lack of clarity around a definition for KM as mentioned earlier? Indeed, Wiig himself, despite being credited with coining the term KM, might be contributing to this confusion with the seemingly interchangeable use of the terms KM strategy and knowledge strategy. Helm-Stephens (2010) suggests the definition of KM to be ambiguous and, superficially, difficult to define. Hlupic *et al.* (2002) note the interchangeable use of the terms information and knowledge. They point to a lack of consensus on what KM is and a lack of holistic

understanding of KM, despite the volume of publications, research projects, and conferences that relate to KM.

Call (2005) suggests that the absence of clarity in organisations around what is KM may be a factor and cites Bill Gates to support this view “...*knowledge management has become infused with almost any meaning somebody wants to associate with it...*” (Gates, 1999, cited in Call, 2005, p.20).

Also supporting the view that an unclear definition affects KM, Pillania (2009) suggests this confusion does more harm than good and proposes three particular implications from this lack of clear definition:

- Who owns KM? Is it IT or Human Resources, for example, and does this tension in and of itself contribute to confusion by those trying to implement KM.
- KM appears to be more complicated than it really is, potentially resulting in credibility issues.
- KM will not achieve maximum outcome for an organisation if ownership is usurped by one business area, such as IT, and it may end up being more of a tool for risk management than effectiveness.

However, while the confusion and lack of clarity around a definition for KM are generally seen as a risk to effective KM, Call (2005) also suggests perhaps it is the very fuzziness of the definition that enables KM to be very successful for some while at the same time being a failure for others. Could it be that it is the diversity of the field that is a source of confusion and lack of clarity and understanding which leads to KM underperforming? Birkinshaw (2001) comes to four observations as to why there are such mixed results from KM:

- Organisations do not adequately recognise that they are already managing knowledge;
- The human dimension, so essential to knowledge management, gets less attention than the technologies;
- There is insufficient focus on using KM to generate new knowledge and not just reuse existing knowledge;

- KM techniques themselves are not readily distinguishable from traditional ones.

2.5.2 *Perspectives on KM*

The section above pointed to the challenge posed by the lack of clarity on what is KM. While there may not be clarity around a definition, there appears to be a consensus that KM is multidisciplinary and multifaceted. However, this breadth of the concept of KM seems, itself, to present a challenge both for KM researchers and practitioners. Wiig (1997) suggests KM is broad and multi-dimensional but can suffer from association with previous management initiatives and fads which were seen to fail, including Business Process Reengineering and downsizing as examples. Similarly, Hlupic *et al.* (2002) suggest that KM is very much seen as being the latest management fascination and risks association with failed earlier management concepts. This idea that KM is no more than a management fashion or fad seems to resurface regularly albeit there is consensus that KM is here to stay (Hislop 2010; Grant 2011). Indeed, Tuzhilin (2011) suggests the “*tired*” KM field will benefit from being reinvigorated by newer technologies. Even in the face of such on-going scepticism, KM seems to live on.

2.5.3 *Enablers of KM*

This section will consider what the literature suggests as being the elements needed to support KM and on which there appears to be broad-ranging opinions over the years. Coakes *et al.* (2010) highlight the connection between people, process, and technology as supports for effective KM. From the survey they conducted, they identify a need to develop a system to capture knowledge from experience which can be transformed into “*actionable knowledge*” for others to use. Such an approach would act as a support for staff turnover and changes. Kalkan (2008) suggests that while advanced IT systems are important for KM in organisations, this is only the case where these are supported by culture, process, and strategy. Tirpak (2005) suggests that the ‘80/20 rule’ applies in finding the right balance between people, process, and technology for KM activities, with people and process being of greater importance.

KM is still considered to be an evolving concept as are the tools to support it. In the relatively early days, KM was considered to have a somewhat narrow focus, given the absence of good practices and methods, albeit there was an emphasis on building

knowledge infrastructure (Wiig, 1997). Hlupic *et al.* (2002) held the view at that time that KM systems are limited to handling data rather than knowledge. Call (2005) quotes a number of sources highlighting the incorrect, and yet quite widely held, view that IT is KM and proposes that too much IT can lead to KM failure. However, he (p.21) goes on to suggest that KM is more an issue of organisational culture and, while it can be enabled by IT, KM should more appropriately be led by a different field.

Hlupic *et al.* (2002) suggest the variety of definitions for KM reflects the numbers of disciplines working in this area although it is often the managerial perspective which prevails, thereby ignoring the possibilities of information systems. Singh (2007) suggests information professionals should evolve into a role within the KM arena given their particular skillset. Prusak (2001, cited in Richter *et al.*, 2013, p.136) suggest three domains have heavily influenced KM – information management, quality management and the people dimension. However, Richter *et al.* (p.135) suggest that traditional KM does not take account of the view of the knowledge worker. Hlupic *et al.* (2002) view the integration of the human and technical dimensions to be the most critical challenge to effective KM. While reflecting the varying perspectives, a core set of enablers do seem to be emerging, i.e. the human and technical dimensions of KM.

In the apparently recurring cycle of the emergence of KM, Dave, Dave, and Shishodia (2012) claim that KM is of “*escalating interest*” and is becoming a “*core competence*” that organisations must develop to succeed in the future. However, they (p.60) also point out that, despite knowledge being recognised as essential to competitive advantage, it is not well managed by organisations. They also suggest that the focus of KM is shifting from a technological one to being “*people-centred*.”

Tzortzaki and Mihiotis (2014) talk about three stages in the development of KM tools. First generation KM tools were information portals and sought to codify and give explicit representation to knowledge for re-use. The second generation, which they suggest began in 1995 (p.21), came about as intellectual capital (IC), i.e. what our people know, came to be recognised as an asset for organisations, and one which is relevant to their balance sheet. This is clearly borne out in acquisitions such as Facebook’s billion dollar purchase of Instagram, a relative start-up with 13 staff.

The need for a further evolution of KM emerged early in the 21st century as KM came to be viewed as a more “*social process*” and the focus turned to the challenge of harnessing and transferring tacit knowledge. This perspective is in line with the emerging transformation in KM suggested by Dave *et al.* (2012), i.e. KM is becoming people-centred.

Tirpak (2005) (p.16) reflects the viewpoint that the impacts of KM initiatives are maximised through on-going leadership and the right levels of resourcing. He also recommends that if KM is to be wholly embedded in an organisation then it must be part of the performance review process for both the individual and organisation.

These papers would all seem to suggest that the variety of perspectives on KM impact on the approaches taken by both researchers and practitioners. Considering the evolution of KM into its current third phase, one could take the view that we should now be emerging into a fourth and consolidated phase of KM, i.e. as we head towards 2020, KM is seen as the combination of the ultimate troika around which all change revolves—people, process and technology.

2.5.4 Organisational Culture and KM

In an earlier section, the review considered perspectives from the literature on the pillars needed to support effective KM. One of the consistently recurring themes is that of organisational culture. When working with organisations on change initiatives, which KM is considered to be, management consultants generally to point to the impact and influence of organisational culture. This section will look at the question of organisational culture and how it impacts on the potential of KM.

There would seem to be a consensus around the criticality of organisational culture in how KM is viewed and it’s potential to succeed. Coakes *et al.* (2010) reference the findings of a 1996 survey by Ernst and Young where senior executives highlighted organisational culture as the most significant barrier to KM. Call (2005) suggests that changing organisational culture is a prerequisite to successfully implementing KM and that organisations need to both support and facilitate learning.

Hlupic *et al.* (2002) classify culture as a ‘*soft issue*’ supporting KM and one which is an important factor for consideration as it can be the source of barriers to information flow and knowledge sharing within organisations. They (p.97) go further and say that only when everyone gains from sharing and using knowledge can the necessary culture for KM develop. This view seems to be supported by Call (2005) who says that only a culture rewarding knowledge sharing will guarantee of success. Jennex, Smolnik, and Croasdell (2009) cite both organisational culture and learning culture as requirements for KM success, while De Long and Fahey (2000) talk about designing cultures to support KM.

Military institutions are generally recognised as being leaders in knowledge management – having access to the right knowledge at the right time and in the right place can potentially mean the difference between life and death. Lausin, Desouza, and Kraft (2003) suggest that the US Army are an exemplar for the private sector on effective KM with US Army KM shaped by its culture as well as its history. However, McDermott and O’Dell (2001) claim their core finding to be that culture will always be stronger than any commitment or approach to KM. They go so far as to say that successful KM is built to fit with an organisation’s culture and not vice versa.

It is not only organisational culture that can have a bearing on KM, national cultures are relevant too. Different cultures have different understandings of knowledge and therefore KM. Pillania (2009) suggests that concepts of KM emerged from three different continents with the US model ultimately gaining pre-eminence which “*in a way has killed the very spirit of KM*” (p.97). Lausin *et al.* (p229) comment that Japanese companies seem to share an affinity for KM with the US Army and go on to wonder if certain types of organisational cultures are more suited to KM.

This section has considered the impact of culture on KM and the common perspective is that without the right culture there is no real chance of KM succeeding or becoming embedded in an organisation. If an organisation is not open to sharing knowledge and learning, what chance of success does a KM imitative have? As Peter Drucker is quoted as saying “*Culture eats strategy for breakfast*” and this certainly seems to apply to KM.

With this in mind, section 2.7 will consider how to recognise successful KM while the next section will discuss the KM lifecycle.

2.6 The KM Life Cycle

The earlier sections in the chapter illustrate the multidimensional nature of KM. As knowledge is bound to change and evolve, in particular through experience, this seems to suggest a cyclical nature to KM. However, in the headline of their article, Birkinshaw and Sheehan (2002) suggest that while knowledge is dynamic, the approach to managing knowledge is not. According to Birkinshaw and Sheehan (p83), with a better understanding of the evolution of knowledge at the various stages in the life cycle, organisations will be better equipped to customise their KM efforts so as to maximise the value of knowledge assets.

Figure 3-1 below shows how Nonaka (1994) illustrates the continuous and cyclical nature of the knowledge creation process in organisations.

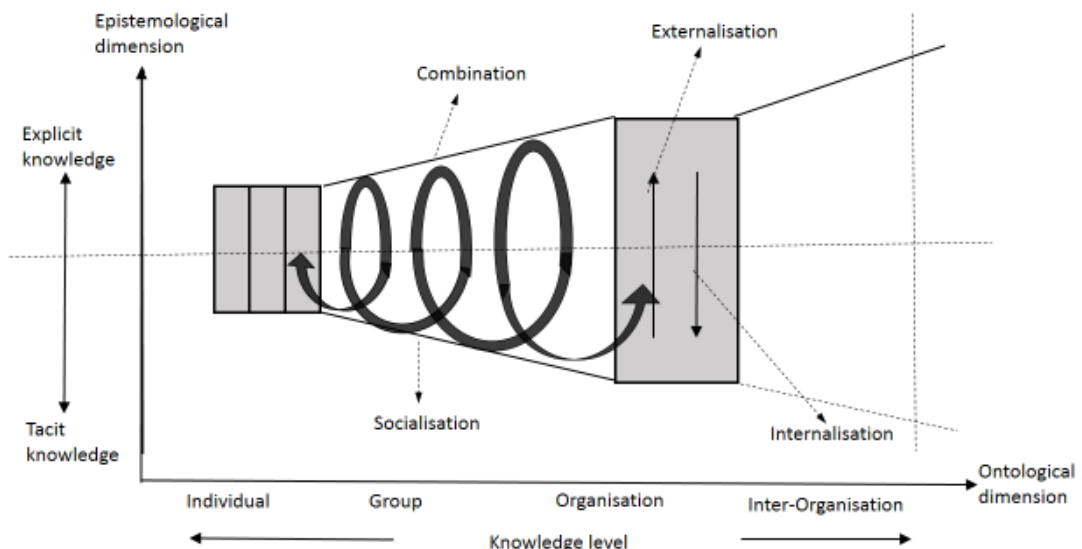


Figure 2-2 Spiral of Organisation Knowledge Creation [Nonaka (1994)]

He suggests (p.26) that not only is knowledge creation a cyclical process, but it also has no end. It seems reasonable to extrapolate that this also suggests that KM too is an unending endeavour. Could that have been what Wiig was suggesting in 1997 when he said that the need for KM would not go away, instead KM would become inherent in

how we do, what we do, supported by effective tools and process, and therefore KM as a separate and specific endeavour simply fades away?

Jackson (2010) points to a knowledge management lifecycle identified in the literature. While the models may vary in emphasis, they share a common theme of capture, store, share, and update. He, too, proposes a cyclical model for capture-share-update process:

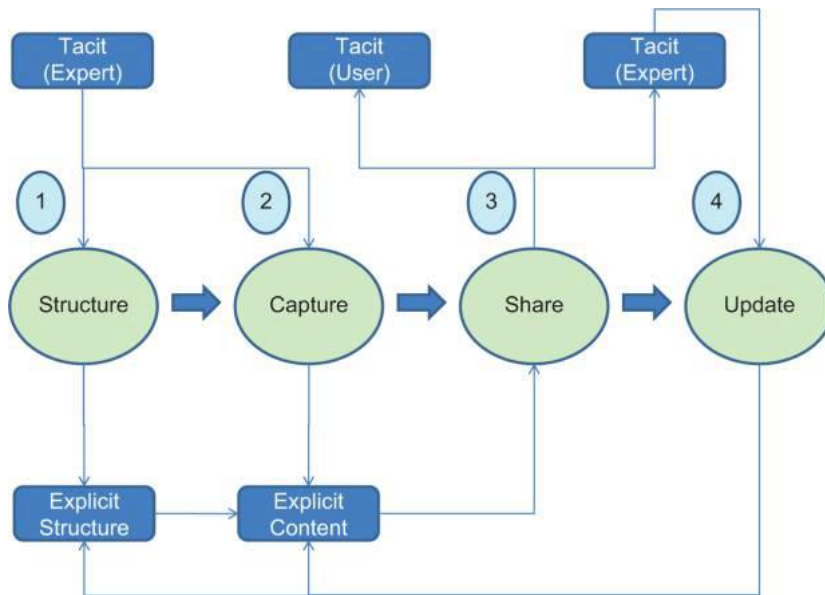


Figure 2-3 Tacit to Explicit Conversion with a Knowledge Lifecycle [Jackson (2010)]

He (p.912) observes that while this lifecycle seems to suggest a step-based routine, the reality is far more fluid, natural, and intuitive. He suggests that the key to applying tools is that they can adapt to that context and that Web 2.0 tools address some of the challenges faced with traditional systems.

This section has set out two models showing the cyclical nature of knowledge management through capture, share, and update processes and point to the dynamic nature this cycle. Later in this review will be a consideration of how modern technology, i.e. Web 2.0 tools, which are considered easy to use, adaptable, and democratic, might solve some of the traditional challenges that have hounded KM in terms of achieving success.

2.7 Determining Success

In this section, consideration is given as to how the literature suggests successful KM might be identified. With KM itself proving hard to define, this would seem to suggest that defining KM success might be a similarly difficult challenge. Call (2005) wonders how so many can fail at KM given it is an essential component to the success of any organisation and also says that the failure rate for KM projects is such that some organisations are re-branding such initiatives. Hlupic *et al.* (2002) identify the willingness to share one's own knowledge and reuse that of others as a critical success factor for effective KM. In an earlier section, the review considered the impact of culture on the potential for success. Legacy forms of KM technology were often cumbersome and inflexible when it came to suiting the needs of users, in particular those less comfortable with the use of the technology, and this could lead to avoidance lack of use of such systems.

In struggling to define KM does this also mean that establishing KM success will be difficult? Jennex *et al.* (2009) suggest that while researchers are unclear as to what is KM success, practitioners focus on organisational performance and impact. Hlupic *et al.* (2002) say that effective KM enables access to the right information at the right time. They (p.91) also suggest that the key to KM success is to learn from the failure of previous management fads by taking an integrated approach, addressing organisational culture, learning, human resource and operations management, across the hard and soft dimensions. This point echoes the recurring theme already called out, i.e. the close interrelationship between people, process, and technology. Call (2005) suggests that many organisations embark on KM programmes without clarity on what is KM or how to approach its successful implementation. While Richter *et al.* (2013) suggest lack of involvement of the knowledge worker in the development of traditional KM systems as a reason why many KM initiatives fail.

For an organisation to invest in KM, and continue to do so, it needs to be able to identify what it will consider a successful outcome to be and not just how to recognise a failed initiative. This applies in particular in the private sector where KM may be viewed as a cost to the business where the bottom line is what counts. Jennex *et al.* (2009) suggest the difficulty in coming to a consensus on KM and KM System (KMS) success is due

to the very complex and multidimensional nature of KM and KMS. Ragab and Arisha (2013), in a review of KM literature, also reflect on the lack of consensus among researchers on the potential of building frameworks to measure knowledge and also that process measures fail to link KM and corporate performance. They (p.889) also suggest that not even the Kaplan and Norton Balanced Scorecard, one of the more comprehensive performance measurement frameworks, connects explicitly with KM.

The question of KM and KMS success was explored during a KM Foundations workshop at the Hawaii International Conference on System Sciences (HICSS-39) in 2006. Jennex *et al.* (p.183-185) followed up on the work at this conference and suggest that:

- KM and KMS efficiency and effectiveness are precursors to KM success;
- culture is a critical success factor but not an output of KM success; and,
- knowledge content is both a measure and outcome of KM success, and, (p.183), suggest “*KM success is a multidimensional concept. It is defined by capturing the right knowledge, getting the right knowledge to the right user, and using this knowledge to improve organisation and/ or individual performance. KM success is measured using the dimensions of impact on business processes, strategy, leadership, efficiency, effectiveness of KM processes, efficiency, and effectiveness of the KM system, organisational culture, and knowledge content*”.

If KM is about enhancing organisational effectiveness and efficiency, and at the same time is a cost to the organisation in terms of KM systems in particular, that would seem to suggest that organisations need to measure the impact of KM initiatives in terms of overall KM performance. However, Ragab and Arisha (2013) reflect the lack of consensus among researchers, with some suggesting frameworks will enable measurement and others arguing the multidimensional nature of knowledge mitigates against measurement. Reflecting the research of Zack, McKeen, and Singh (2009), they point (p.980) to the gap between theory and empirical research as an obstacle to organisations understanding how to apply and pursue measurement frameworks.

No organisation, regardless of sector, can afford to embark on a programme, and one which impacts resources, without having some sense of how the impact and success of such a programme can be assessed. The absence of agreed frameworks make this difficult especially in terms of qualitative, rather than quantitative measures e.g. it is easy to count the number of contributions to or people accessing pages in a wiki when compared to assessing the impact of learnings from the knowledge captured in the wiki. While much of the commentary is around the need for KM to succeed to assure competitiveness and sustainability, Wiig (1997) suggests that within 25-30 years KM will simply become routine and disappear into the background. However, the literature suggests that even at this stage, almost 20 years on, successful and effective KM would still seem elusive, and that, according to Dave *et al.* (2012), KM is still considered to be a “*rapidly growing field with immense potential.*”

2.8 Knowledge Management in the Public Service

While the literature reviewed thus far relates primarily to the private sector, this section will give specific consideration to KM in the public sector including the Irish public service.

Before proceeding with this section, there is value in clarifying the terminology. The terms public sector and public service are often used interchangeably and can have a broad application whose meaning may vary depending on structures in individual countries. In Ireland the public sector encompasses both non-commercial and commercial state bodies including the health and education sectors at all levels. However, in general commentary, in the media in particular, it tends to be the public service that is the topic for discussion, i.e. the non-commercial State sector, and, in particular, central Government Departments and their agencies.

The purpose and motivations of public service bodies can broadly be described as being either policy development and /or service delivery, implementing the policy programme as mandated by the Government of the day. Unlike organisations in the private sector, the bottom-line and corporate sustainability are not key motivating factors. This different focus impacts on culture and practice and potentially allows more scope for initiatives to succeed even where there is significant cost and effort involved. Fowler

and Pryke (2003) suggest two differentiating factors with public service KM – the public service does not operate in a competitive environment, and it is subject to external political control. Therefore those who develop and implement strategies in the public service are not their owner and do not have authority or control. However, both public and private sector organisations share organisational effectiveness and efficiencies as key drivers. Choi, Jeong, and Commuri (2009) recognise the challenge that is facing public bodies adopting modern reform initiatives which expect them to do more with less. This has been particularly true of the Irish Public Service with the range of reform initiatives introduced as well as the challenges posed by the fiscal crisis of recent years, and the consequential cuts to annual budget allocations and staffing. This section will consider how the literature views KM efforts in the public service.

As in society in general, managing knowledge in the public service is not new. Riege and Lindsay (2006) claim that KM initiatives have always been an integral element of a range of government tasks. KM has been a necessary practice adopted by defence forces across the world over centuries; revenue agencies have used knowledge management to enable staff apply rules and conditions when assessing tax returns; foreign ministries use the knowledge of staff posted overseas to familiarise officers about to be sent on foreign postings. Lausin *et al.* (2003) go so far as to suggest that the US Army could teach the private sector about the value of KM done well. While this may be the case, it is reasonable to suggest that the public service faces the same types of challenges in making a success of KM as is evidenced in the privates sector.

Looking to the literature for examples of best practice in KM across the public sector / federal governments, yields relatively little documented research on the topic of KM. Riege and Lindsay (2006) suggest that little is understood about the application of KM in the public sector because so little is published in the literature. This may be that KM, in its early phases, seemed to be generally the preserve of large, financially rich organisations and consulting companies. One possible explanation for late engagement with KM by the public sector may be a perception that knowledge is component of innovation (Drucker, 1985), which is generally not considered to be a motivator for public service bodies. However, it could also simply be that the public sector tends to follow the private sector in implementing new ideas and trends in management sciences.

Evidence of this lag in getting on board the KM train, seems to be borne out in research carried out by Massaro, Dumay, and Garlatti (2015) who conducted a structured literature review of public sector KM. Of a potential pool of 3,900 articles, while 255 were considered potentially relevant, the final sample used was 180, of which 55 per cent were published after 2010. The public service is generally acknowledged to be conservative and risk averse by nature and the dearth of research may also simply reflect a desire to keep a low media profile in particular in the case of Government Department's where it is generally the Minister who is the public face of the organisation.

Wiig (2002) looks at KM in public administration in its broadest sense which includes the application of KM as a tool to enable effective running and operation of individual public service bodies. At that time KM was still considered to be an evolving practice and one of relevance to all organisations in all sectors. Indeed, he (p230) considers that private sector approaches are directly relevant to the public sector. However, Lausin *et al.* (2003) challenge this view and suggest that the private sector could learn much from the KM practices of defence forces which have been shaped over many centuries. The paper sets out what may be the "holy grail" for knowledge management, i.e. the process by which the US Army makes almost all information generally available but has processes to prevent "information overload" by optimising knowledge for use by those for whom it is directly relevant. This approach is enabled by the particular characteristics of an army in terms of the extent to which the organisation is highly standardised. While such extreme standardisation is unique, and indeed essential for survival to the defence forces, it would seem that some elements of such long held best practice should be directly transportable to other public service bodies which, by their nature, are very hierarchical. Lausin *et al.* (p228) go on to say that it is through efficiently collecting information and transforming that information into knowledge, that businesses, in any sector, can achieve their goals.

In terms of KM and the Irish public service, O'Riordan (2005), echoing Riege and Lindsay (2006), suggests that activities of governments are often knowledge-intensive. While calling out a number of specific projects across Government, much of the discussion in the paper centres on generally applicable practices for effective KM. The paper points to the broad similarities across all sectors when it comes to KM – People

↔ Process ↔ Technology – with challenges such as organisational culture, incentives for KM, communicating the benefits of KM, the critical role of senior management, etc. O’Riordan looks at a number of KM initiatives in the public service through the lens of three public service bodies. However, none of the three bodies studied can be considered as particularly representative of the public service, in particular central government departments or larger public service bodies. It is interesting to note that at least one, if not all of the other central government initiatives referred to appear to have been discontinued. It is likely that these projects may have fallen foul of the financial crisis where the incentivised early retirement scheme meant that organisations had no choice in who, or when, people could leave the organisation. O’Riordan (p59) concludes with the observation that the challenge for KM in the public service is to move beyond point-solutions and interventions to a more holistic approach in particular in response to the decentralisation programme in place at that time. As part of developing the next generation public service reform plan, the current one expires at the end of 2016, perhaps now is an ideal time to establish the current status of KM, and KM initiatives, in the Irish public service. The easing of resourcing constraints in parallel with a new reform programme may enable the more holistic approach to KM suggested by O’Riordan.

The purpose of this section was to consider KM in the public sector. The literature review has found a relative lack of evidence of KM programmes and projects in the public sector. Given the public sector has generally been considered as coming late to KM and the difficulty in identifying a clear, shared understanding of KM, it may simply be that public service KM initiatives were sacrifices of the recent global economic crisis as budgets and programmes were cut.

While the research around the public sector may be light, Lausin *et al.* (2003) proposes the US Army as an exemplar in KM from who even the private sector can learn. They contend that the US Army does not generally suffer from the risk of loss of knowledge when staff move on, regardless of their relative age or expertise. This is attributed to the fact that the challenge of capturing knowledge is addressed on an on-going basis through reporting and communications mandated by the nature of the organisation. Might it be possible for organisations in other fields to learn lessons from the approach of defence forces or is the modern workforce, in its new way of working, unlikely to be persuaded to be so fastidious in capturing and sharing knowledge and experience?

2.9 Knowledge Management Revitalised

As mentioned earlier, organisations are facing the risk of potentially losing significant corporate knowledge through the retirement of the baby-boomer generation (Slagter, 2007). The OECD (2011) highlight the ageing nature of the population, in particular in government, of all but four of its member countries. Consistent with that OECD study, the Civil Service Renewal Plan (Department of Public Expenditure and Reform, 2014) also highlights the increasing age profile of staff across the Irish Civil Service. However, Choi *et al.* (2009) suggest that the relative low rate of turnover within public administrations has operated as a quasi-substitute for KM but that in this can no longer be the case as levels of outsourcing as well as rates of mobility of staff increase.

The perspective in the literature is that effective knowledge management strategies, in particular around knowledge retention, will be essential to mitigate the risk of the loss of the core knowledge and insights held by workers coming to the end of their career. Recent surveys indicate that the workplace environment is changing and the workforce generally is more mobile with staff moving company more frequently than in the past. The fluid nature of many workplaces, in particular through the ‘retirement cliff’ period, seem to point to a real risk of organisations losing access to key expertise and legacy knowledge of the evolution of the organisation, its culture and practices. It would, therefore, seem prudent for organisations to put in place a strategy to mitigate the loss of a key corporate asset that is knowledge, e.g. if the reasoning behind why a particular process is followed is not captured for the future, and that process is changed or eliminated, could this risk fraud or failure in the organisation and threaten its future viability or reputation? This section will consider the literature from the perspective of the potential role KM might play in supporting organisations in managing the risk of knowledge loss from leaving experts. However, could it be that the essence of KM has also changed with the evolution of the tools to support it as well as the skills of those now holding the knowledge?

An emerging area of knowledge management research relates to the question of knowledge loss and knowledge retention which Levy (2011, p.582) proposes “*as a specific sub-discipline of knowledge management.*” Not only is this relevant to the address the impact of a mobile and ageing workforce but also of organisational

restructuring. Trugman-Nikol (2011) suggests the potential impact of the retirement of the ‘baby boomer’ generation to be “*catastrophic*” when considered alongside the restructuring enforced by the recent economic downturn. Hoffmann *et al.* (2003) suggest that organisations experience an “*outright panic attack*” when the realisation dawns that there is no plan to capture knowledge about to be lost. Joe *et al.* (2013) suggest that a larger proportion of older, and therefore more knowledgeable, workers will leave organisations than there will be younger replacements, i.e. the do-more-with-less philosophy. Both scenarios just described could be applied to the Irish public service over recent years. Departments had no means of controlling who or when people left under the recent incentivised scheme for early retirement (ISER) and, in parallel, were not permitted to recruit new staff. This all meant that not only was there no capacity for or chance of any succession planning, there was no certainty that there was any scope to find a replacement to fill the vacancy at all. These issues, allied to the view that longevity with organisations is a thing of the past, point to the potential for instability in organisations, and a risk to organisational effectiveness, sustainability, and ultimately the balance sheet, given the prominent role intellectual capital, i.e. what people know, plays in the current knowledge-based economy.

According to Daghfous, Belkhodja, and Angell (2013) research on knowledge loss is still at an early stage with little integration of the findings from the various fields – Human Resources, Operations Management or Knowledge Management. They conclude that the loss of knowledge can have significant implications for the performance of an organisation. Joe *et al.* (2013, p.922) conclude there are five concepts of valuable knowledge:

- “*subject matter expertise;*
- *knowledge about business relationships and social networks;*
- *organisational knowledge and institutional memory;*
- *knowledge of business systems;*
- *processes and value chains; and,*
- *knowledge of governance.”*

They also suggest that by implementing KM systems and approaches to enable transfer of essential knowledge of older workers, organisations can realise the potential from retaining that knowledge. Trugman-Nikol (2011) suggests an eight-step approach to creating a knowledge-transfer document to mitigate the risk of the loss of expertise as a result of staff turnover. Social Software, with which the new generation of workers are so familiar, may be a possible answer by providing a scaffold for knowledge capture, sharing, collaboration, and reuse.

When considering the question of knowledge retention, Hoffman *et al.* (2008) suggest any effort to preserve knowledge is likely to be of some value in the long term. Levy (2011) concludes that a three stage approach is appropriate, and which, if adopted, will lead to knowledge continuity:

- identifying knowledge to be retained and discarded,
- sharing existing documentation and documenting knowledge, and, finally,
- integrating this knowledge into the organisation's business processes, practices and systems.

Might this be a description of Next Generation KM? Will the need to preserve key knowledge of those leaving the organisation impact on the approaches taken to KM?

In addition to the challenge of managing the impact of significant levels of retirements, the modern workforce is now made up of four generations, each with their own expectations and learning styles. In the modern workplace Helm Stevens (2010) suggests that KM is the means by which knowledge transfer can be enabled between different generations. She also suggests that organisations will need to approach the design of knowledge transfer by taking into account the diversity in the age profile of the workforce. Millennials, who are the new workers and managers of the future, are digital natives (Prensky, 2001) and are very used to sharing personal knowledge with each other via the Internet. They use Social Software daily to connect, collaborate, and share knowledge and experience with others, known and unknown to them. The “*change in users’ interaction patterns is also perceived as a fundamental shift in KM and collaboration in general*” (Richter *et al.*, 2013, p.142). According to Kane,

Robinson-Combre, and Berge (2010, p.69) “*Knowledge management gets at the knowledge that is in employee’s head, and social networking tools are a way to collect it.*” Could Social Software be the tool KM has been waiting on? The potential of Social Software for KM will be explored in the next chapter.

Might the changing nature of the workforce – it is now multi-generational, job mobility levels are higher than in the past, organisations are expected to do more with less, as well as the forecasted retirement cliff – be an opportunity for KM to be reinvigorated? Could the emergence of Social Software, through which millions of people share details of their daily lives with such ease and frequency, and the relatively low cost of Social Software, mean there is now even greater potential for KM to succeed in organisations where this was previously a challenge? Is Social Software finally the tool which can enable elicitation and sharing of tacit knowledge of experts, thereby protecting key organisational assets? The next chapter will consider how technology, and Social Software in particular, can support the challenges of the evolving workforce and enable KM across a range of areas including knowledge transfer and sharing, millennial-friendly methods, etc.

2.10 Conclusions

This first chapter of the literature review has considered what is knowledge management and the range of definitions that abound; why organisations undertake KM initiatives; the challenges facing KM given its multi-disciplinary nature; the impact of organisational culture on KM; the KM life cycle; determining what is successful KM; KM in the public service; and, the current potential opportunity for KM to support modern organisations and the modern multi-generational workplace in mitigating the risk of loss of corporate knowledge as a result of the high level of mobility and retirements. A consistent theme across the literature reviewed, and indeed the perspectives of the researchers, is that effective and successful KM is enabled through the right balance of people↔ process↔ technology, encompassing in particular the culture of the organisation. The next chapter considers the potential of Social Software as a tool to support KM and if this will enable the optimum balance between the essential troika that is people, process, and technology.

3 KNOWLEDGE MANAGEMENT: THE NEXT PHASE

3.1 Introduction

The previous chapter traced the evolution of Knowledge Management (KM) through the literature. Contributions suggested there have been generations of KM, KM is still a new and expanding field with great potential, and, accordingly, one of the early recognised experts suggesting in the late 1990s, that KM will be assimilated and effectively invisible within 25-30 years. This section of the literature review will consider what potential there is, if any, for modern tools to be more effective in supporting KM initiatives, in particular when it comes in the elusive form that is tacit knowledge.

3.2 State of the Art

According to Coakes *et al.* (2010) “*KM in organisations is being redefined*” from being the preserve of larger organisations to the current position where almost all organisations deploy some form of KM, regardless of their size, and that all organisations now require a KM function. They go on to cite Kalkan (2008) who highlights, as one of the key challenges for KM, the need find an appropriate balance between tacit knowledge and use of IT. The discussions persist despite doubts pervading the literature around the general success of KM.

McDermott (1999) is clear that IT cannot deliver KM albeit that IT initially was its inspiration. Legacy KM tools were very much top-down, reinforcing hierarchies and organisational norms on how information and knowledge was shared. In contrast, Payne (2008) suggests Social Software takes a more “*bottom-up*” approach and its informal nature supports flattening of traditional hierarchies:

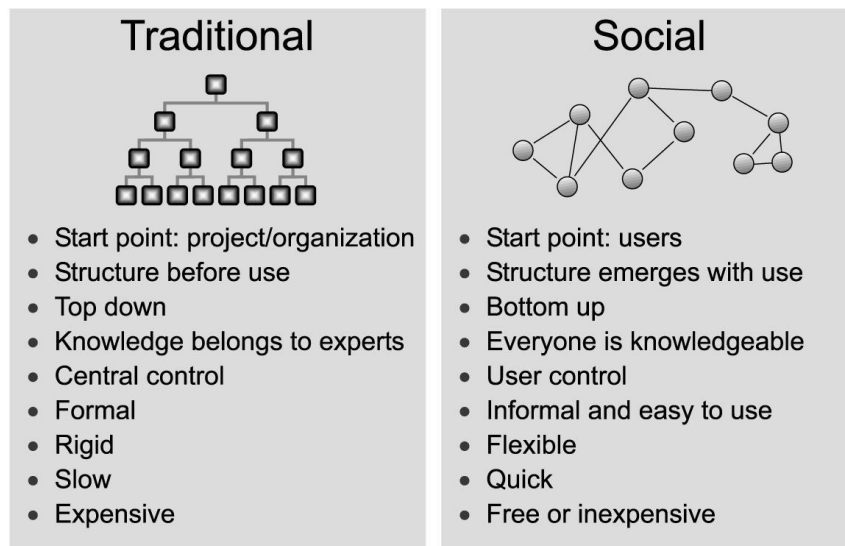


Figure 3-1 Traditional vs Social Software [Payne (2008)]

Tuzhilin (2011) suggests major recent developments in technology platforms present an opportunity to relook at the “*old topic of KM*” (p.4) to see if these developments might now enable KM to succeed. Sultan (2012) points to the cost effectiveness of cloud-based services as the means by which individuals and organisations of any size can engage in KM in, what he terms, a “*knowledge-savvy world.*”

Richter *et al.* (2013) suggest areas where Social Software improves on and enriches KM tools previously in vogue. These (p.143) include better social networks, better information-pull services, enhanced levels of engagement with and feeling of ownership by employees, flexibility to support current processes and facilitate innovation of new ones. According to Kane *et al.* (2010) “*Knowledge management gets at the knowledge that is in an employee’s head, and social networking tools are a way to collect it.*” They also suggest (p.66) that Social Software could be an ideal programme support for on-boarding new staff. Jackson (2010) finds that Social Software tools meet the needs of the incoming generation. In this section the review of the literature will try to establish if Social Software, as a pillar for two key components of KM, people and technology, can be the magic bullet on which KM has been waiting.

As stated previously, the literature points to the significant level of risk posed to organisations by the impending ‘baby boomer’ generation ‘retirement cliff’. The Irish Civil Service is no different, as evidenced in the demographic background data for the Renewal Plan 2014 (Department of Public Expenditure and Reform) which clearly

indicates a real risk to knowledge loss by the Civil Service from the high age profile of staff, i.e. 73% are over 40. As mentioned in the previous chapter, millennials are the new workers and managers of the future and they are digital natives (Prensky, 2001) who are very used to sharing personal knowledge with each other via the Internet. It is also generally recognised that there is a blurring of lines between work and private life as a result of the ‘always-on’ connectedness via smartphones, tablets, TV, etc. This “*change in users’ interaction patterns is also perceived as a fundamental shift in KM and collaboration in general*” (Richter *et al.*, 2013, p.142). Another potential challenge organisations may need to manage is the almost unique nature of the modern workforce which, for the first time ever, encompasses four generations. Does Social Software, so widely used by the newest generation of workers in their personal lives, present organisations with the ideal toolset to capture and share the knowledge of older or leaving staff?

Lausin *et al.* (2003) claim that the US Army does not generally suffer from the risk of loss of knowledge when staff move on, regardless of their relative age or expertise. This is because the challenge of capturing knowledge is addressed in an on-going fashion through reporting and communications mandated by the nature of the organisation. Might it be possible for organisations in other fields to learn lessons from the approach of defence forces or is the modern workforce, in its new way of working, unlikely to be persuaded to be so fastidious in capturing and sharing knowledge and experience? Are the younger generation, as Levy (2009) suggests, the catalysts KM has been waiting on?

3.3 Lessons From the Past

In looking to the possible future for KM, it may be worthwhile to look to past lessons learned as to why KM has proven such a difficulty for organisations. In 1999 McDermott is already discussing why IT has failed KM, despite what IT appeared to promise organisations - “*Information Technology has led many companies to imagine a new world of leveraged knowledge.*” He highlights, like many others, that IT is just one of the elements needed to achieve the ambition of effective KM.

McDermott (1999) refers to how studies have shown KM tools available at that time simply reinforce organisational hierarchies and norms around capture and sharing. He

goes on to describe the six characteristics of knowledge which differentiate it from information and therefore mean it requires different tools. The characteristics he ascribes to knowledge seem to describe the people, process, and technology trioka, indeed he says (p.105) that “*leveraging knowledge involves a unique combination of human and information systems,*” as well as the social nature of knowledge sharing and learning including that:

- “*Knowledge is a human act*”
- *Knowledge belongs to communities*
- *Knowledge circulates through communities in many ways.*”

In his description as to how knowledge sharing should be enabled (p.114), he could be describing Social Software. He suggests that, while the systems of that time are focussed on the individual, the challenge for KM is to build and equip communities across organisations, i.e. cross-functional and multi-location, to build learning capacity through the combination of human and technical solutions (p.116).

In their review, Tzortzaki and Mihiotis (2014) talk of KM, now being in its third iteration, as a “*social process.*” Similar to McDermott (1999) they suggest that sophisticated technologies were a barrier to real collaboration between individuals previously and in this, its third generation, KM is viewed as a social process with a greater focus on tacit knowledge shared on a voluntary basis in an organisation, in particular through collaboration (p39). This seems again to point to the potential for Social Software, which is more flexible and accessible at all levels in an organisation, to be used to support the capture and retention of the knowledge of experts.

In common with many researchers, Gardner (2013) raises the claim that traditional KM systems have not delivered for organisations. While such systems attempted to convert tacit into explicit knowledge, citing the Nonaka (1991) model of Socialisation, Externalisation, Combination, and Internalisation (SECI), the effort involved was generally considered to be too high. People worked around such systems to share knowledge using methods which could not readily be shared or searched by others not involved in the communication chain. In contrast, the real potential of Web 2.0 tools is their very visibility to and search-ability by users.

Kalkan (2008) reiterates the perspective that while advanced IT systems are important for KM in organisations, this is only the case where these are supported by culture, process, and strategy. It would seem that, regardless of developments in technologies, KM will only succeed where the right balance is struck between that ultimate trio – people, process, and technology.

3.4 The Challenge of Tacit Knowledge

Knowledge comes in many forms and the elicitation, capture, and sharing of knowledge too can take many forms. Different forms of knowledge may be perceived to have different values in an organisation, e.g. the explicit knowledge codified in procedures may be considered of lesser value than the knowledge of the master craftsman which has been gained through years of experience. This highly valued tacit knowledge, or know-how, can be particularly difficult to surface and according to Fowler and Pryke (2003) can also prove a major bottleneck when it comes to the knowledge sharing process. This section considers tacit knowledge and if there are tools to enable this be captured and shared.

The challenge of how to codify and share tacit knowledge is generally accepted, i.e. how do we access the knowledge in people's heads? The continually evolving nature of knowledge, as people learn and apply the knowledge they have acquired and consequently potentially generate new knowledge, also presents a challenge. The Nonaka *et al.* (2000) SECI model below, shows the spiral of knowledge, from tacit through to explicit through to tacit, as it is continually transformed and recirculated.

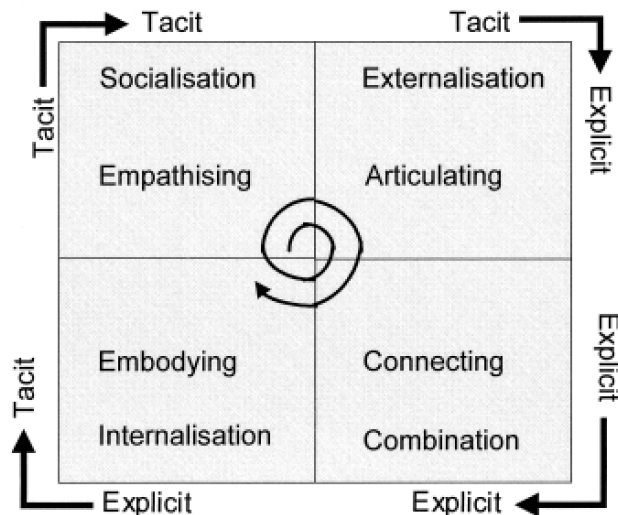


Figure 3-2 SECI [Nonaka, Toyama, Konno (2000)]

Kalkan (2008, p.394) suggests that all knowledge is either tacit or has its roots in tacit knowledge. He also contends that organisations seem to avoid dealing with tacit knowledge and, as highlighted in the literature referenced in earlier sections, he too acknowledges the need for a balance between tacit knowledge and the use of IT.

According to Richards (2009) a significant challenge facing knowledge economies is how to share the knowledge in people’s heads. While traditional expert systems have tended to codify the expertise of one individual for a particular context with a specific decision making conclusion in mind, Social Software gives the capacity to share implicit knowledge in a less formal fashion enabling groups to develop their own conclusions. However, the risk with the use of such informal solutions is the production of unstructured knowledge which then itself becomes difficult to manage and validate, presenting further challenges for KM.

Mayfield (2010) claims that organisational memory is preserved through effective management of tacit knowledge. He defines tacit knowledge as “*the expertise that exists only within an employee’s mental map*” and includes the wiki among the tools that are easy to implement and more useful.

While Mayfield (2010) suggests that the wiki is one of the more useful and easy tools to implement to support managing tacit knowledge, Panahi, Watson, and Partridge (2013)

question the viability of using Social Software for sharing tacit knowledge given that IT has traditionally ignored one of the key pillars for successful KM - people. They conclude (p.389) that while social web tools, including wikis, do appear to enable effective tacit knowledge sharing, particularly as these tools evolve and mature, the literature remains unclear on this question and further research should be undertaken. They suggest (p.393) that in the social web era there should be a reconceptualisation of tacit knowledge sharing – “*the most critical knowledge of people and organisations*” – and the effectiveness and potential of Social Software to enable sharing tacit knowledge should be reviewed.

This section has considered the relative importance of tacit knowledge, the challenge of how to access the knowledge in a person’s head and the potential of tools to enable that knowledge be shared. Razmerita *et al.* (2009) suggest that, unlike traditional KM tools, Web 2.0 enables the knowledge life cycle in a human context, i.e. strike the right balance between people ↔ process ↔ technology. The next section will consider, in more detail, potential tools that might support elicitation and sharing of such knowledge.

3.5 WEB 2.0 and KM

The purpose of this section is to consider how the literature views the potential of newer Social Software applications as tools to support KM. Tuzhilin (2011) suggests major recent developments in technology platforms present an opportunity to relook at the “*old topic of KM*” (p.4) to see if these developments might now enable KM to succeed.

Reference was made earlier to the need for organisations to capture the knowledge of ‘baby-boomers’ who are soon to retire, assuming this knowledge merits being retained. However, it would also seem essential to look to the future and support the behaviours of new and younger workers in organisations, ensuring the KM tools at their disposal are sensitive to and supportive of their needs. Millennials are the new workers and managers of the future and they are digital natives (Prensky, 2001) who are very used to sharing personal knowledge with each other via the Internet. According to Richter *et al.* (2013, p.142) this “*change in users’ interaction patterns is also perceived as a fundamental shift in KM and collaboration in general.*” However, Razmerita *et al.* (2009) suggest that Web 2.0 tools are more about enhancing knowledge work and

enabling collaboration and, despite this change in behaviour and the importance of individual knowledge management, personal KM has received little attention within the KM community.

The everyday and commonplace use of social media and Social Software for personal knowledge management seems to merit that consideration is given to the potential of these tools to support corporate KM. As highlighted in the previous section, one of the challenges of traditional KM systems is how to capture so-called tacit knowledge held by an individual. One of the strengths of Social Software is how easy it makes it for users to capture and share their own knowledge. Kane *et al.* (2010, p.69) say that “*Knowledge management gets at the knowledge that is in an employee’s head, and social networking tools are a way to collect it.*” The consumerisation of IT is playing a significant contribution to the adoption of Social Software by organisations. While in the mid-1990s affordable home computers saw many of us use tools from the workplace to support our daily lives, e.g. spreadsheets for the housekeeping and e-mail and word processors for correspondence, more recently, courtesy of the ubiquitous smartphone, that trend seems to be reversed with organisations now looking to exploit the tools people use in their personal lives to support delivering on organisational objectives.

Richter *et al.* (2013) suggest areas where Social Software improves on and enriches KM tools previously in vogue. These (p.143) include better social networks, better information-pull services, enhanced levels of engagement and feeling of ownership of employees, flexibility to support current processes and facilitates innovation of new ones. They (p.144) point to the inherent flexibility, in terms of usage of Social Software, as the key to getting individuals rather than management, as in traditional KM systems, to take over these systems and adapt them to suit their particular processes. However, there is no discussion on any potential risks to the security of an organisation’s information assets resulting from a convergence in the official use of personal and professional systems or of the challenge that may arise from too much informal content being shared. It should be possible to mitigate any such risks should with appropriate policies and practices so that a highly engaged digital native workforce, using Social Software in the enterprise, can deliver significant corporate gains from within a supportive culture of collaboration and sharing.

The key differential between legacy systems and Web 2.0 / Social Software is the extent to which users themselves are in control in terms of content creation. Mayfield (2010) suggests that the wiki is a “*significant*” method to support sharing of tacit knowledge. Levy (2009) suggests that Web 2.0 is “*bringing a new wave*” and highlights the “*active participation of users*” as one of the key elements of Web 2.0 that impacts KM. While she advocates for expanding the KM toolset in use to include wiki and blogs, she (p.132) also urges caution in terms of the potential loss of control that could result from the democratisation of KM in an organisation through the use of Web 2.0 tools where people are free to tag without guidance, i.e. folksonomy.

Hester (2010) suggests that it is the higher levels of collaboration possible with Web 2.0 and social computing, that provide individuals with a technical toolkit to contribute to and participate in a group building and sharing knowledge as one. It is that higher level of collaboration possible with a wiki that enables more effective knowledge processes such as “*the ability to create linked and categorized content.*” On foot of a user survey across a range of organisations, findings suggested (p.162) that ease of use was a key factor in the use of wikis, in particular for knowledge that is ad-hoc and needs frequent updating. However, he (p.162) also recognises the enabling role of people↔ process↔ technology for Web 2.0 social computing, and wikis too, as well as the importance of having have champions to promote adoption and usage.

Jackson (2010) reflects on the importance of capturing experts’ knowledge when it is at risk or scarce, including when experts leave the organisation. He considers how organisations can implement a cost-effective approach to capturing the knowledge of staff leaving an organisation so that it is available for re-use and to build on for incoming staff. He suggests (p.910) that the process of sharing such knowledge with new, younger staff needs to be in a form that they will consume readily and that the knowledge in specific focus is tacit knowledge. He argues (p.911) that the process of capturing this knowledge needs to be in a structured form to facilitate its reuse – could this risk engagement if any structures implemented are inflexible? He points to the value of Web 2.0 technologies as tools which are low cost and user-friendly and which are suited to

the capture and sharing of tacit knowledge, using wikis and tagging to support his experiment.

Von Krogh (2012) claims that as a result of the use of Social Software, KM is more widespread, cheaper, mobile, and standardised as well as more closely meeting the needs of individuals. This literature suggests there is particular value in investigating further the potential of the wiki to be a successful KM tool, in particular for an individual's own personal knowledge, and knowledge management process, which would be an asset to succession planning and knowledge retention.

3.5.1 Wikis and KM – the Opportunity

The previous section indicated the potential of wikis as effective KM tools. Wikis are very much of Web 2.0 which is all about engagement of the user. Grace (2009) suggests that with the arrival of Web 2.0 applications, many companies have abandoned traditional KM solutions for Web 2.0, or Social Software, applications such as wikis and blogs. She claims (p.65) that wikis are the way to address the challenge of people within organisations voluntarily collaborating to create and share knowledge. Included among the benefits of wikis are their informal and 'bottom-up' nature, as well as their ease of use in terms of saving time in contributing as well as in learning how to use the wiki.

Setting out the advantages of a wiki, Grace (p.69) suggests that effective use of a wiki by an organisation leads to the creation of a repository of corporate information which can be easily updated by anyone, anywhere, and at any level in an organisation. The potential mobile availability of the wiki application will also help facilitate adoption giving it an 'always-on' dimension of a digital notebook so that, regardless of location, if something of relevance or importance strikes, this can be captured and shared immediately. Such ease of use and democratisation of content generation should support the development the corporate memory which can protect organisations which, now more than ever, are subject to frequent staff rotation or turnover. In terms of the wiki as a Web 2.0 tool, Levy (2009, p.124) attributes its uniqueness as being its ease of participation by users.

Jackson (2010, p.922) found that not only was a wiki cost effective but it was also appropriate to the expert knowledge being captured in his experiment. The findings also included that the familiarity of wikis to the younger generation meant that the technology was readily accepted by them. One outcome from his experiment was that the informal nature of Social Software facilitates capture of knowledge, albeit with less emphasis on quality and completeness, and that perhaps it was the very requirement for completeness and quality which might have mitigated against the use of traditional, more formal and structured technologies.

Majchrzak, A., Wagner, C., and Yates, D. (2006), in a survey of corporate wiki users, found that “*corporate wikis are sustainable*” but that this depends on the longevity of the wiki allied to the number of participants, both active and “*lurkers*”, and the rate of updates. They concluded with some advice for organisations adopting wikis including that encouraging contributions will be enabled through identifying the benefits of participation, such as improving processes as well as collaboration and reuse of knowledge, and also ensuring the need for credibility of any content uploaded is understood.

3.5.2 *The Challenges*

The sense from the literature is that Web 2.0, and wikis in particular, are a real boon to KM and potentially reinvigorate and renew an old topic. However, as in all things, the use of wikis does not come without risks and challenges which should be recognised during the planning and implementation stage, as in any project. Having identified the cyclical nature for KM, Jackson (2010, p.925) identified limitations during his wiki-based experiment, in particular the risk that attention was not to be given to on-going maintenance of the content in the wiki despite its ease of use. Grace (p.71) points out that, in certain environments access to wiki content needs to be controlled / restricted where appropriate. She also points out that it is important not to assume that all users will find the wiki as easy-to-use and to ensure appropriate training is put in place to cater for differing skills levels. She highlights the importance of coherence in the development of the tagging process albeit a folksonomy, so that there is consistency in its application. Grace concludes that wikis offer huge potential as a KM tool and are “*definitely a worthwhile venture.*” Perhaps however, there is more to be gained by

organisations in allowing staff the freedom to share rather than risk participation levels as a result of some form of content moderation.

Garcia-Perez and Ayres (2010) suggest that the research into any limitations of or potential difficulties with Web 2.0 technologies is insufficient as yet. They led a study on the introduction of a wiki which initially had significant levels of engagement, and yet within twelve months had all but died away. They (p.50) call out two specific known issues – that time needs to be set aside in order to contribute to and participate in the wiki, and there is a need for the right level of content contributors and consumers. They also suggest that the literature does not widely cover a range of challenges including the gap between users claiming they are open to sharing their knowledge and the actuality of their participation in a wiki, and, the importance of planning for and communicating over the long-term, the purpose of the wiki.

On the broader theme of Web 2.0 and Social Software, Richards (2009) points to concerns that the use of informal tools risk of creation of a down-stream issue of having to work out how to manage potentially unstructured content created using these tools. Perhaps this is where guidance in how to use these tools within the organisation, can address this issue, i.e. how to get the best out of the folksonomy. Similarly there is no consideration given to any potential risk from the so-called “*me-centricity*” (Richter *et al.*, 2013, p.134) focus of Social Software when it is introduced into an organisation – can organisations manage the potential risk of enabling a ‘look-at-me’ over-sharing culture without impacting on the level of sharing? There is little discussion on any potential risks to the security of an organisation’s information assets resulting from a convergence in the official use of personal and professional systems. Any such risks could be successfully mitigated, while at the same time not constraining levels of use, with appropriate policies and practices so that a highly engaged digital native workforce, using Social Software in the enterprise, can deliver significant corporate gains. The potential impact of Social Software, or Web 2.0 for business, on KM merits further investigation, not least that organisations may need to implement such systems to support the digitally native workforce of the future. Social Software may just be the way things are done in the future and without any conscious reference to the potentially confusing terminology surrounding KM.

3.6 What the Future Holds

It is generally recognised that we live in a knowledge economy. The need to manage this knowledge would seem to assure the future of KM despite the challenges and obstacles faced in achieving success in KM. The new social tools which we are now so familiar with in our personal as well as professional lives, are built to support knowledge sharing between individuals and across communities that are truly global. Organisations are more familiar with how to ensure change initiatives succeed, in particular the importance of the impact of the culture of an organisation is well recognised. However, given that doubts still remain about the classification or definition of KM, close to 30 years after the phrase was first coined, is there really a future for KM?

In a review of literature on KM, Ragab and Arisha (2013) contend that there remains no consensus on core concepts surrounding KM albeit that KM is of interest across a range of research areas:

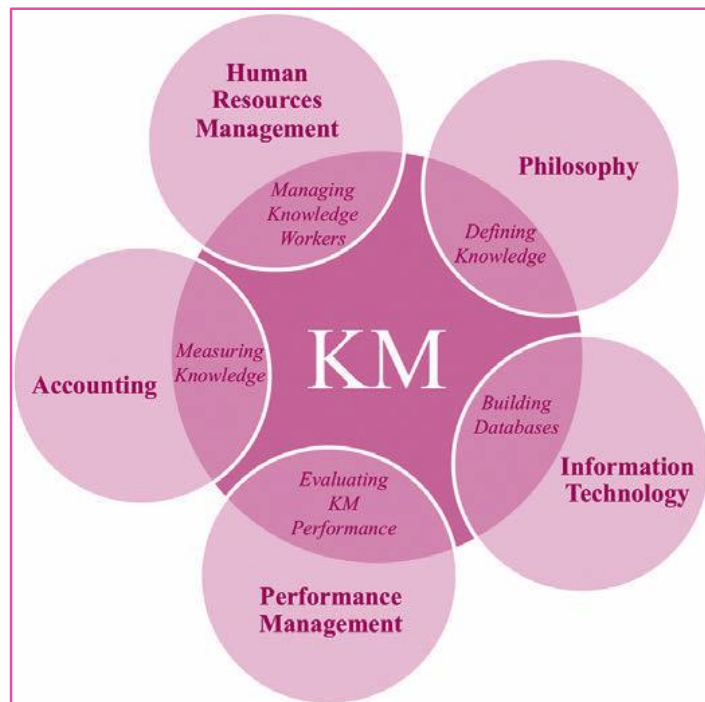


Figure 3-3 Overlapping areas between KM and other fields [Ragab and Arisha (2013)]

They point to the failure by the KM community to agree on core concepts which could enable the field to develop further. They (p.890) point to the gap between theory and

practice, in particular around the application of KM systems frameworks, and encourage (p.892) researchers to provide organisations with practical advice to address KM challenges. However, given that use of specific KM terminology seems to be fading, is the absence of such clarity, at least among practitioners, a matter for such a concern?

As referenced earlier, Wiig (1997), one of the early leading researchers on the topic, suggested that within 25-30 years KM will simply become routine and disappear into the background. And yet, the literature seems to suggest a consistent level of interest in KM persists. Serenko and Bontis (2013), in their update on academic journals, combine KM with IC suggesting that these are among the newest of management disciplines gaining acceptance in the scientific community. Their research indicates high levels of interest in KM / IC with one new journal coming on stream annually, and suggest that KM is an emerging and evolving discipline yet to gain “*external recognition*”. This echoes Dave *et al.* (2012) who claim that KM is still a growing field with potential. One wonders why, if KM emerged in the 1980s and it still considered to be a growing sphere of research with potential, it is not an established discipline by now.

A simple search using Google Trends would seem to contradict the notion that KM is expanding and developing. This search, Figure 3-4 below, was accessed on 30 January 2016 and shows a somewhat sustained and stable but low level of overall returns from when figures were first available starting 2004. This seems to support the repeated claims that KM is an emerging discipline – even Nonaka, one of the early and renowned scholars in this field, and Peltokorpi point to this in a review of literature from 2006.

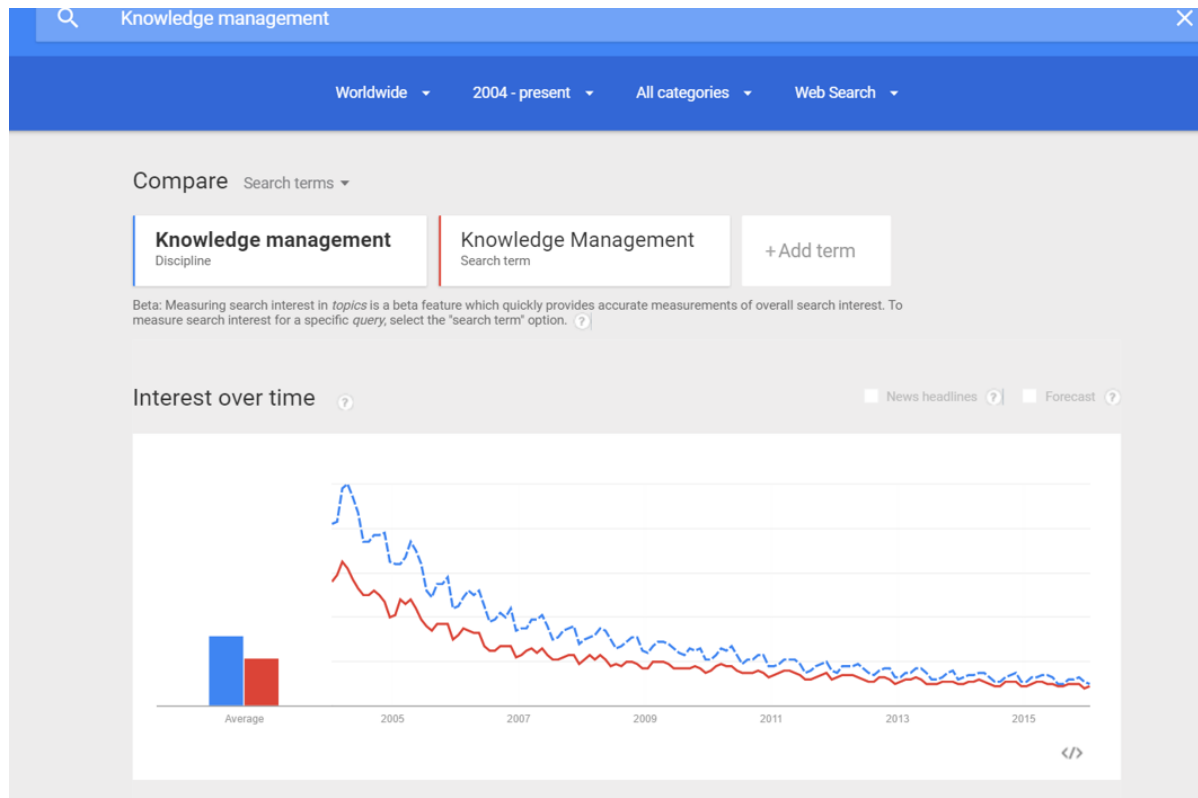


Figure 3-4 Google Trends Search for Knowledge Management Discipline

This graph lends support to comments in 2015 from one of the early leading academics in the area of KM – Thomas Davenport. In an article for the *Wall Street Journal* in 2015³ he suggests that perhaps KM is “*gasping for breath.*” On the one hand, he points to its apparent relative popularity as a topic for academic research and the continuing popularity of some KM conferences. However, he also points to a decline in the levels of engagement with him around the subject as well as it having dropped off the Bain Management Tools and Trends 2015 survey results. He suggests some ideas as to why KM has “*faded*”:

- The level of change needed proved too difficult.
- Too much knowledge was generated in KM systems.
- No one system is being sold as a KM solution.

³ Davenport, T. (2015). Whatever happened to knowledge management? *Wall Street Journal*, Available at: <http://blogs.wsj.com/cio/2015/06/24/whatever-happened-to-knowledge-management/> [Accessed on 30 January 2016].

- Too much knowledge stored in KM systems meant too much effort to find the specific nuggets of interest.
- Google is so easy and gives access so readily to content in a structured fashion, it has generally taken over as the search engine of choice.
- KM ignored data and analytics.

Perhaps it is traditional KM that has faded? Have newer terms encapsulated the concept, as predicted by Wiig, e.g. Human Capital Management, Talent Management, Succession Planning, etc.?

Davenport remains convinced of the value of KM. He encourages those who do embark on KM programmes to avoid the issues identified and points to the recurring theme identified in the literature reviewed for this exercise, i.e. striking the right balance between people, process, and technology. His observations affirm the impact of organisational culture, as Drucker so eloquently put it “*Culture eats strategy for breakfast.*”

That IT alone cannot enable KM success was highlighted as early as McDermott (1999) and indeed this is one of “*the eleven deadliest sins*” of KM according to Fahey and Prusak (1998). KM seems to have faced credibility challenges over the years, beginning in the late 1990s, with frequent suggestions that it is simply the next management fad (Hislop, 2010). Call (2005) suggested that organisations were avoiding use of the term ‘KM’ for initiatives in an effort to assure their success. However, the on-going interest in KM as a field of academic study seems assured (Serenko and Bontis, 2013; Ragab and Arisha, 2013).

Traditional KM systems were formal and structured and not well perceived for their ease of use. However, the arrival of Web 2.0, with its ease-of-use and collaborative nature, allied to the ubiquity of the smart phone, has the potential to give KM a new lease of life, assisted by the personal use of Web 2.0 applications by younger generations in their daily lives. Web 2.0 applications are also called Social Software and it is this social dimension which seems to change the balance in terms as using IT as a tool for sharing and collaboration. Many researchers have pointed to the need to strike the right balance

between people, process, and technology and indications are that Web 2.0 tools, including wikis, may help with achieving that (Tirpak, 2005; Coakes *et al.*, 2010; Kalkan, 2008).

The face of the modern workforce and workplace is changing. There are now four generations of workers in the work force, of which the soon to retire 'baby-boomer' generation is the largest (Helm-Stevens, 2010). According to the World Bank, cited in *The Economist*⁴ (2016), one billion young people will join the labour market during the coming decade. However, only 40% will take up jobs that currently exist. Longevity with organisations is predicted to change with the modern workforce becoming more mobile. Given the impact of incentivised retirement schemes and a moratorium on recruitment, which has directly impacted the age profile of the Irish public service, the improving economic landscape will bring many young recruits into the service of the State. Government Departments will need to ensure these new recruits acquire the knowledge they need to be able to do their jobs effectively, and in the way the organisation wants them to, through effective on-boarding and induction, skills development and talent management processes.

With turnover of staff becoming a characteristic of modern organisations, this all points to the potential role for KM to support organisations in protecting themselves from the loss of key expert knowledge and using KM as an approach to equip new staff in learning about the organisation, its work, and their own role. If we look back at why organisations started on the KM road, it was generally agreed that effective KM leads to organisational sustainability and competitiveness with, as Drucker (1985) said, knowledge being a key component of innovation. Learning lessons from the past, as so clearly enunciated in the literature, could bring organisations success with KM initiatives where these have previously failed:

- Make sure there is the right balance between people, process, and technology.

⁴ *The Economist* (2016). The walled world of work. *The Economist Newspaper Ltd*, 23 January 2016. Available at: <http://www.economist.com/news/special-report/21688588-youth-unemployment-massive-waste-resources-walled-world-work> [Accessed on 31 January 2016].

- Get the culture right first with leadership and support fostered through all levels of the organisation.
- Maximise the potential of Social Software so readily used by so many in their daily, personal lives. Mentoring can be two way – older workers can share with new staff how things should be done and younger staff can share their knowledge in how to use the tools.
- Recognise that KM comes in many forms, e.g. data analytics and business intelligence.
- Remember knowledge has a life cycle and there is a need to review and revise knowledge on a continual basis, as indicated in the models by Nonaka (1994) and Jackson (2010). It's all about learning and perhaps this is lifelong learning in our work-life.
- Finally, given the confusion around the terminology that seems to have haunted KM from the outset, maybe there is an opportunity, with the introduction of new people, new tools, and inevitably new processes, to avoid the confusion of the past, at least for practitioners. Maybe it is time to let the term KM simply fade away and let other, more readily and commonly understood expressions take over?

Perhaps KM has actually already succeeded and reached its pinnacle so that, as Wiig suggested in 1997, it is now just part of what we do!

3.7 Key Findings

This section will summarise the literature and look ahead the experiment to come in the context of what has been learned from the material reviewed.

3.7.1 Highlights of the Literature in Chapter 2

Chapter 2 opened by introducing the terms ‘knowledge’ and ‘knowledge management’ and the emerging recognition of the potential of managing knowledge for competitive advantage. Section 2.3 sets out to define what is KM and finds that a common theme is that effective KM relies on getting the right balance between people, process, and technology. Section 2.4 considers why organisations engage in KM and finds that KM

is an enabler of efficiency and effectiveness and is also the means by which an organisation's intellectual capital can be transformed into unique potential. Section 2.5 considers the many challenges faced by KM and finds that while the terminology is confusing, the keys to success are having the right organisational culture and the right balance between people, process, and technology. Section 2.6 considered the dynamic nature of the KM cycle and the potential of Web 2.0 tools which appear to have the flexibility and adaptability to match this characteristic. Section 2.7 considers how to determine the success of KM initiatives and finds the literature lacking evidence of frameworks that practitioners might use to measure KM success. Section 2.8 takes a specific look at KM in the public sector, including the Irish public service, where KM is used in a different context to the private sector, with organisational efficiency and effectiveness acting as the key drivers. Section 2.9 discusses the possible revitalisation of KM as a result of the changing nature of the workforce, which now encompasses four generations, and the arrival of Social Software which has become a routine part of people's daily lives.

3.7.2 Highlights of the Literature in Chapter 3

Chapter 3 goes on to consider the potential of Social Software to support KM initiatives. Section 3.2 considers the state-of-the-art of KM, now practiced across the entire spectrum of organisations, and the potential for Social Software tools to offer a fresh start for KM, in particular to meet the challenge of large scale retirements. Section 3.3 considers the lessons learned so that future KM initiatives can avoid potential pitfalls, such as recognising that KM is a social endeavour and, most essentially, needs to be supported by the right balance across the people, process, and technology. Section 3.4 considers the challenge of how to manage tacit knowledge and the potential of Web 2.0 tools to support the knowledge lifecycle in a more human context. Section 3.5 considers the user-friendly nature of Web 2.0 tools, and how wikis, in particular, can support, and potentially reinvigorate, KM while recognising potential risks associated with the use of less structured and more informal tools by organisations. Section 3.6 considers what lies ahead for KM and whether KM has matured, either as a practice or an academic discipline, and if KM is simply the new way of working in organisations and is therefore fading away.

3.7.3 Key Findings from the Literature

The findings from the literature (both this chapter and the previous chapter) will be used to develop the experiment for this dissertation which will explore potential approaches to capturing the knowledge of knowledge workers coming to or exiting from a work place. Some key themes identified from the literature in order for KM to have the potential to succeed, and which will inform the experiment, include:

1. the need for the right balance to be struck between people, process, and technology when implementing KM initiatives.
2. The potential of the wiki as an effective tool to support the capture, storage, sharing, and reuse of key tacit knowledge – knowing why things are done this way by this organisation can be essential to an organisation's reputation or success.
3. Being conscious of the terminology used when discussing KM and the various forms of knowledge with people supporting the experiment.
4. Focussing on the deliverables from the experiment and not getting caught up in the technology as a tool.
5. Enabling those participating to express key tacit knowledge so they can write it down.
6. Using a tool which is flexible, adaptable, and easy to use to capture key points of knowledge on the fly.
7. Having options around the format of the content captured, i.e. options for multi-media.

3.8 Conclusions

This chapter concludes the literature review and highlights the areas of relevance to conducting the experiment. A number of consistent themes emerged across the literature including the importance of having a supportive organisational culture; the need for the right balance between people, process, and technology; and, the potential for Social Software to reinvigorate KM. The next chapter goes on to describe the design of the experiment.

4 EXPERIMENT DESIGN AND EXECUTION

4.1 Introduction

This chapter describes the design of the experiment, initially setting out the nature of the organisations participating, a case study of an existing wiki, the scoping of and themes emerging from the three interviews, and the blueprint for a knowledge wiki.

The literature review has identified potential approaches, considerations, and barriers to the development of a KM framework which can support effective knowledge retention and succession planning. The experiment design recognises the evolving nature of knowledge and KM, as identified by Nonaka's spiral of knowledge (1994), the Nonaka *et al.* SECI model (2000), and the KM lifecycle model set out by Jackson (2010). The design also endeavours to reflect a key common theme across much of the literature which is the interconnection and need for the right balance between people, process, and technology when it comes to enabling successful KM initiatives.

The design process will include inputs from the relevant organisations in terms of understanding existing approaches on how to identify key areas of knowledge at risk when senior and longstanding staff leave. A range of knowledge elicitation techniques, natural and contrived, will be used to assist in assessing how key knowledge to be retained can be identified.

Based on the research into potential KM frameworks and the outcome of the elicitation exercises, the framework itself will be designed for implementation among a select group as a potential approach to knowledge capture, retention, and succession planning processes. Development of the experiment will also include identifying Social Software appropriate to supporting knowledge transfer across generations.

This chapter looks at a real-world example of a wiki supporting KM in the IT function of a large organisation. The development of the framework will be influenced by interviews with three senior people who have relatively recently taken up their current roles. The next section is an outline of the stages in the experiment.

4.2 The Design Process

This experiment will evolve over a number of stages for which the process is set out below.

Stage 1

The approach to information gathering will take the form of structured interviews which are considered a natural technique used for knowledge elicitation. Interview subjects will be given an indicative set of questions in advance as preparation for the interview itself. However, these questions are simply a guide to the interview and the subjects have scope to include any additional topics they think may be relevant.

Stage 2

Taking the learnings from the literature and interview discussions, develop a template structure that can support capture of key expertise, i.e. knowledge. Before any template can be developed a choice on the most appropriate technology is necessary. A key point to note is that no costs can be incurred as a result of this experiment.

Stage 3

Following completion of Stage 2, there will be an evaluation of the potential effectiveness of this approach to capturing key expert knowledge, for the purpose of long term retention, to support staff turnover, i.e. succession planning. The evaluation will take the form of a review of activity on the wiki, a focus group discussion on the experience of the participants, and follow-up interviews with the original interview subjects. The outcome of this review will be an assessment of the potential application of a wiki, or equivalent, to support retention of key expert knowledge supporting staff mobility and rotation.

The next section sets out some background to the organisations involved with this experiment.

4.3 Background Context on the Organisations Involved

Representatives from three Irish Civil Service Departments participated in the experiment. These were at middle and senior management levels and participated in a number of ways including at interview or as participants in the experiment using the wiki and providing feedback on their experience.

The Irish Civil Service (CS) comprises in excess of 30,000 staff across more than 40 bodies all under the primary auspices of Ministerial Government Departments, of which there are sixteen. While the early-mid 2000s saw expansion in terms of numbers of staff and CS bodies, the financial crisis in 2009 resulted in the imposition of a moratorium on recruitment of new staff and filling of any vacancies and this constraint remained in place through to 2015. In addition, as mentioned earlier, 2009 also saw the introduction of an incentivised scheme for early retirement (ISER). Departments had no control over who could avail of this scheme or the timing of their departure. This measure is recognised as being a blunt instrument to cut back staffing levels which took no account of the potential impact of the loss of skills, knowledge, and expertise to the CS (Department of Finance Circular 12/09⁵). During 2015 there was an easing of the staffing situation with a change in how Departments could prioritise the filling of posts, moving from a pure numbers focus to one of a total pay bill ceiling.

The three organisations involved with the experiment each have different focus. One has a policy development focus, primarily, with little operational mandate but a significant sphere of influence and oversight; the other two are generally operational in focus and deliver a range of services to citizens and businesses. The two operational Departments are at the larger end of the scale in the CS, with the policy-focussed one being mid-sized. All three have suffered the impact of resourcing challenges over recent years, human and financial, as well as the impact of loss of key expert knowledge as a result of ISER. The engagements for this experiment were with staff from within the IT function of each of the Departments.

⁵ Available at <http://circulars.gov.ie/pdf/circular/finance/2009/12.pdf>

4.4 An Interview-based Case Study of an Existing Wiki

One of the organisations participating in this experiment already makes use of a wiki as a knowledge support for its technical division. This section describes a semi-structured interview-based case study to understand the organisation, its current practice, and context within which the wiki is used.

As one of the larger government bodies interacting with businesses and citizens daily, this organisation has extensive IT-enabled supports in order for it to operate its mandate to the State effectively. In terms of on-boarding new staff into the organisation as a whole, there is a formal induction process supported by an abundance of related content on the corporate intranet which explains the purpose of the organisation, the responsibilities of the organisation and the '*who's who*' of staff across the organisation. In addition to the overarching corporate induction process, the IT division makes additional role / function-specific induction material available for staff, including for the technical elements of their role. The purpose of this material is to ensure staff understand their own role and the broader context within which they work.

The organisation undertakes the development of extensive levels of infrastructure and bespoke applications to deliver the specific business support systems required, including significant levels of digitisation of web-based content capture from customers. It has a clearly defined and fully documented approach which is the guide for all development projects and is followed both by internal staff and external contractors working with the organisation. The methodology incorporates KM practices as part of the review processes. In addition to larger scale post-implementation reviews, which again are part of the overall methodology and structured under a range of headings, all major technology and application releases involve lessons learned, or after action reviews, immediately following the release implementation. The lessons learned are captured and published on the intranet ensuring these are retained and available to all those working in the various teams across the division. These learnings are also captured in formal post-implementation reviews and, if appropriate, are used to update the overall methodology.

The process described above is driven by a mature overarching methodology and is a structured approach to capturing and managing knowledge at the corporate level. However, in addition, the division uses wikis for less formal knowledge sharing and collaboration for content that is not part of the formal methodology, i.e. *“here’s something I found useful.”* Use of the wikis is encouraged but not prescribed. Every project team has its own wiki, accessible by internal and external team members, both of whom are encouraged to actively contribute. Use does vary between teams as does the style of the wiki, i.e. some teams nominate a moderator while others have the wiki fully open for contributions. While there is no specific ‘wiki-time’ allocation set aside, people are encouraged to contribute as they come across things that might be worth sharing with their team.

In terms of the relative success of individual wikis, those that are not moderated seem to be the more successful, and this is recognised as something worth looking into to understand why. The determination of success is very much a quantitative measure, based on relative levels of activity on individual wikis. There is no assessment of the relative value of the content on those wikis that are not moderated and this is also something that is being looked into. It could be that lower levels of participation in moderated wikis simply reflect that the moderator has to fit this role in with the rest of his / her work. This may result in a lag between when the individual uploads their content to when the moderator can find the time to review, approve, and publish, thereby potentially discouraging engagement. Another potential reason may be that more junior staff are less confident in contributing to a wiki involving senior and more experienced staff. And yet, such posts may in fact be very useful to newer staff.

In terms of succession planning the sense is that coming new into an organisation which has such a very clearly defined methodology and approach could be a real challenge, even with the extent of the content so readily available to support new people. This applies as much for internal staff as external contractors. The key challenge for people coming new to the organisation is how to acquire the ‘corporate DNA’ and get to grips with the ‘how’ and the ‘who’. Possible reasons for this are the scale and complexity of the organisation to someone coming in from outside, allied to the very specific and structured methodology in place which steers all activities. However, the fact that the

methodology is both documented and uniformly applied should be of significant assistance.

Succession planning is an active consideration given the scale of the organisation. Traditionally in the Civil Service, three from every four promotions were filled internally which supported a “*grow your own*” approach. In such a complex environment this is of real benefit, in particular if there are career paths that people can follow within the division. However, the organisation is already seeing the increased levels of mobility attributed to the modern workforce – the ‘*job for life*’ is no more. This is likely to drive a change in approach to the recruitment and retention process in that it should now be assumed that new recruits, particularly at more junior levels, will stay no longer than five years. Therefore a strategic approach to succession planning becomes even more essential to sustain the organisation and its overall performance.

The division is also now considering what more it can do from a KM perspective and the potential this may have for the organisation. Considerations cover both the process and technologies, e.g. should greater use be made of video as a means of capturing and sharing knowledge nuggets. In terms of the focus of KM initiatives already underway, the technology is simply taken as a given - there is a corporate intranet platform and that is what is used. As a result the focus is very much on the people and the process – getting the right people joined with the right knowledge via the right method.

This section set out how one organisation uses wikis as both a formal and informal knowledge capture and sharing platform. The potential value of the informal wiki is well recognised and active engagement is encouraged. The relative success of the various informal wikis is yet to be assessed, including the apparent higher participation rates with un-moderated wikis. A key challenge with both approaches is that of maintaining the currency of the content and also the need for time to be set aside to contribute content to the wiki. The next section will discuss the design for the interviews with three senior staff across three organisations, each of whom moved to their current position within the recent past.

4.5 Design of Scoping Interviews

This section describes the design of the scoping interviews to be undertaken with three senior staff in three different organisations, each of whom is relatively recently appointed to their current role. Two of the organisations are large with operational service delivery responsibilities dealing with businesses and / or citizens; the third organisation is mid-sized with little operational mandate but with significant sphere of influence and oversight. For the purposes of the experiment the interviewees each be assigned an identifier as follows:

- INT1 – holds a very senior role in the IT function of a large operational Government Department which operates significant digital and on-line services for citizens and businesses.
- INT2 – holds a very senior role in the IT function of a large operational Government Department which operates significant digital and on-line services primarily for citizens.
- INT3 – holds a senior role in the IT function of a central Department with a policy focus.

The questions for the interviews were devised based on the researcher's personal experience of working in an organisation where staff rotation was part of an annual cycle. As a result the organisation recognised the potential value from a KM perspective, of formalising the handover process. The purpose of the formal process was to assist newly assigned staff in getting "*up to speed*" quickly in their new role through having access to their predecessor's key knowledge.

The interviewees were circulated in advance with the outline questions to give some broad context for the proposed discussions. The stated purpose of the interview was to gain some understanding of the approach to and challenges faced in retaining and sharing key knowledge where there is staff turnover and mobility. The interviews were to have a particular focus on the personal experience of someone taking up a new role and how they acquired the key knowledge needed to be effective in their new role.

The interview questions were broadly broken into three areas, one relating to the overall organisational induction process, the second relating to each interviewee's personal experience in terms of acquiring the knowledge needed to carry out their new role, and finally to seek to understand their perspective on the potential of a wiki for knowledge capture and sharing.

In terms of the organisational perspective, questions centred around available induction processes, measures to support retention of knowledge and the forms of knowledge targeted, the relative success, or otherwise, of these measures, enabling or disabling factors or any other factors which might negatively impact on successful knowledge retention efforts, the role of technology in scaffolding processes and practices to gather '*Know-How*' and '*Know-Why*', and, in the opinion of the interviewees, whether the potential benefits merit greater attention be given to knowledge retention efforts by the organisation and / or the Civil Service.

On the personal perspective front, the interviewees were asked if there were things they might have done, done differently, or not done at all, had they "*known then what they know now*"; what things have they learned that would have been helpful to have known when they took up duty; the relative value of their own previous experiences and knowledge of the organisation where they took up their new role; the approach they took to figuring out what they needed to know and how they went about learning that; what they did if they came upon a situation where they did not know what to do; what additional supports, if any, would have been of benefit to them; and looking to the future and their next role, what measures would they like to have in place to ensure they have access to the additional, new knowledge needed for that role.

The final section related to the use of technology as a scaffold for capturing key expert knowledge, in particular, their views on the potential of a wiki, or variation thereof, as an effective tool for supporting knowledge capture and sharing, particularly given the wide age-span of modern organisations, and their views of potential measures to encourage participation with such collaborative tools.

The interviews took place over two days in January 2016, one in the interviewee's office, the others were outside an office environs. Each of the interviewees was given an advance copy of the questions and advised that these were for guidance only. The next section collates the interview discussions and describes the key themes emerging from the discussions.

4.6 Themes Emerging from the Interviews

This section will discuss the themes emerging from the interviews, both those held commonly by the interviewees and the variations. The general order of the themes identified follows the broad structure of the interview, i.e. the organisational perspective, the personal experience, and the role of technology and in particular the potential of the wiki.

4.6.1 The Organisational Dimension

This section will consider the organisation-related themes emerging from the interviews. The scope of the topics range from the induction process for new staff to the KM considerations and practices in the various organisations, both within the IT function and in the organisation generally.

All interviewees reflected on the impact the recent financial crisis has had on their organisation and its capacity to retain key corporate knowledge when long-standing and expert staff left without any scope for succession planning.

Each of the organisations has a formal corporate induction process for new staff. The purpose of these programmes is to introduce new staff to the organisation, its purpose, its people, and the context within which the organisation operates, in effect equipping them with the basic knowledge needed to work in any area of the organisation. While one organisation also has a well-established induction and training programme into the IT function, the low level of recruitment in recent years in another has meant there was no specific 'academy' training done within the IT function in recent years. The impact of reduced funding was a common factor. In terms of on-going initiatives, there is no evidence of any formal programmes in place to specifically support retention of knowledge as a support for staff rotation / turnover.

INT1 and INT2 made particular comment on the scale of the challenge facing new appointees at a senior level, whether that be to their role, their organisation, or the CS as generally. The challenge faced by newcomers is the extent of the contextual, managerial and specialist knowledge necessary to be effective at senior levels.

The scale of the larger organisations is considered to be a challenge in assuring key process knowledge is shared across the organisation so that rules, policies, and procedures can all be applied / delivered in a consistent fashion thereby ensuring all customers are treated the same and appropriately. INT2 pointed to the scale of the organisation leading to high level of dependency on technology, risking unique specialisms in particular in the IT function. The concept of knowledge being the sole preserve of certain individuals and the risk this poses to organisations was shared by INT3. Knowledge management should be the means by which knowledge is shared and therefore the potential risk of its loss diluted across multiple people in the organisation.

Concerns around the age profile of staff was a common theme which is consistent with the findings of the survey conducted for the Civil Service Renewal project. In one of the organisations the annual level of recruitment runs to several hundred new staff just to maintain current levels. This presents a significant challenge in terms of risk to corporate knowledge and overall corporate performance. Within the IT functions of each of these organisations, the rate of turnover is of specific concern when allied to the level of legacy applications still in use.

Each of the organisations are facing different types of challenges and are emerging from the impacts of the recent crisis in different ways. Staff mobility and turnover are common to all. One of the organisations has significant turnover rates but its role has generally remained consistent. The scope and role of the mid-sized organisation has extended and staffing levels to meet these additional service delivery requirements lag behind, albeit there has been a recent influx of new staff. The third organisation has experienced a significant change in the focus of how it delivers services to its customers, as well as the range of such services, following the assimilation of other entities into the organisation. While each interviewee comes from a different perspective, a common

theme has been the need for each of the organisations to move forward with reduced staffing levels generally meaning that efforts to retain legacy knowledge have not been a priority. Rather what has happened, and tacitly rather than explicitly, has been a focus on mission critical knowledge only.

For one of the organisations, the impact of curtailed staff numbers, in parallel with a broadened remit, has resulted in the continuing need to rely on significant levels of legacy technology to support business delivery. While there is a strategy to migrate to a new corporate application platform, the legacy solutions must still operate. Therefore, while there is no value in spending time capturing key expert knowledge of such legacy services, given the plan is to migrate services to the new corporate platform, there is still significant legacy technology in active use which needs to be maintained and managed.

Turning more to the organisational KM perspective, all interviewees pointed to the difficulty with the terminology and finding a shared and common appreciation within the organisation of what is KM. Is KM the same thing as corporate memory? Have organisations captured the deliberative and decision making process behind a policy, or process, and its implementation? If not, how will it be able to assess the impact of a change in a policy or process in the future? Is records management the same thing as KM, as is considered the case by some? The need to provide a mechanism to allow people to capture and share the explanation of “*the why*” is important. In other words, capturing the reasons behind why things are done, the way they are, will mitigate against the risk of unintended consequences such as fraud or reputational damage to the organisation.

In contrast, INT1 and INT2 expressed a view that there is a generally good approach documenting explicit knowledge and making this available as an assurance mechanism for consistent application of rules, procedures and practices and service to customers. However, this related very much to the operational areas where the generally high level of staff turnover necessitated that documentation be available to support new staff to the area.

Management buy-in, or having champions at board level, was recognised by each of the interviewees as a key enabler for any KM initiatives. All agreed that, in essence, KM is essentially about change management and comes with all the challenges of any change initiative. INT3 commented that an initiative targeted at supporting KM but which relates to records management, was enabled by a recognition across all levels of the organisation, of the need for current practices to change. However, affecting the extent of the change necessary in such practices was impacted by the complexity of the solution allied to people not using the new solution in the right way; this made active top-level sponsorship even more critical.

Again from the perspective of the more operational areas, the view expressed is that the extent of the knowledge of staff at lowest levels is not generally fully appreciated. However, it is this very knowledge that can be codified and embedded into systems thereby changing the nature of the work by those at that level and potentially freeing such staff up for other work. Codifying and embedding such knowledge into business support applications enables these organisations to cope with high levels of churn which tend to be at the lowest levels, especially given the uptake in the economy.

All three interviewees agreed that there is general recognition of the value of and potential benefit from effective KM and succession planning. However, the time, effort, and commitment needed for such efforts to be a success can be hard to attain and maintain. Similarly, all three interviewees commented on the scale of the challenge to maintain the currency of knowledge repositories that are built up. Effective KM requires a discipline in order for people to engage on regular enough basis to keep the knowledge repositories current. Even where systems are supporting formal processes, the need to keep them updated is unpopular.

The interviewees pointed to significant bodies of knowledge being built up through documenting explicit knowledge in manuals, run books, operations procedures, end user manuals, corporate methodologies, etc. However, all agreed that it is much more difficult to harness the 'softer' knowledge for sharing, such as who people are in an organisation, and who to know / not know.

However, again the view of INT1 and INT2, i.e. the interviewees from the more operational organisations, is of the need to codify and embed key knowledge into systems thereby enabling the organisation to move KM efforts more into the data and analytics realm. Efforts are ongoing in both organisations to mitigate the risk of knowledge loss, through codifying and embedding knowledge into the systems which will support automated processing or case selection. However, there is some initial push-back from users who seem reluctant to relinquish some of their autonomy to “*the computer.*”

While the previous experience of INT3 was that their organisation sought to codify personal knowledge of staff as they planned to move on to their next role, INT1 and INT2 pointed more at the personal dimension of succession planning and handover. INT2 pointed to their own personal experience – in one case they were left with a comprehensive knowledge-base by one predecessor, albeit in paper files, and on their next move they received no handover support. INT1 and INT2 pointed to the need to grow their own potential successors from within and not just at the immediate next level. While not picking any one individual, rather they suggest there is a need to identify at least three of the senior management team who have the potential to step up into the new level. Their aim with their staff is to give them the exposure and experience that will enable them present well at interview when the time comes. It was very clear that they consider succession planning to be all about the people. It is a very social process, identifying potential successors and enabling and supporting them in acquiring the skills, knowledge, exposure, and expertise so that they will present well when it comes to interviewing for a job at the next level.

This section sets out the organisation-related themes emerging from the interviews. There is a general consensus that the recent financial crisis had an impact on KM efforts around retention of key knowledge. Age profile and staff turnover is a concern. The scale and relative complexity of the CS environment is a challenge for new recruits. Efforts are underway to codify and embed key knowledge into systems to support consistency in approach and treatment of customers.

4.6.2 *The Personal Perspective*

This section will set out the themes emerging from the interviewees' own personal experiences around acquiring the knowledge to be effective following moving to a new role.

All three explained that, contrary to their own expectations, they each knew less than they realised about their new role and organisation surrounding it. Their experiences of handover and succession processes were quite different. INT3 moved into a new role with little to scaffold its establishment other than their own knowledge of the level of performance expected and being able to draw on their own previous experience. INT2 had had previous experience where their predecessor left paper copies of a range of documents which gave them an insight into how to present to the management board and various political actors, and yet, for their most recent appointment, no such background knowledge was available.

All agreed that they rely on the people around them as knowledge repositories and supports to build their own personal knowledge-base. They all see the merits in putting in place KM measures to support and enable retention and sharing of key expert knowledge. INT1 and INT2, as leaders of large divisions, place significant importance on on-the-job learning and interpersonal communications. They believe that more interpersonal approaches are more likely to be successful.

INT3 pointed to the differing levels of mobility within an organisation as a determinant of the relative perception of the need for handover and succession process. However, all agreed that mobility of people across an organisation is an enabler of KM, through knowledge acquisition and retention thereby protecting corporate memory. All agreed that the situation should no longer be the case where any one individual is the single key expert and knowledge holder. However, all also recognised that some people just do not want to share and thereby feel they have diluted their influence or lost their personal '*unique selling point*'.

The common perspective on succession planning is that it is less about using technology to capture and share key expert knowledge and more about identifying those with the

potential to be leaders of the future, and equipping those staff with the skills needed at the next level which they can demonstrate at interview. The three interviewees believe that the development of such knowledge, skills, and expertise is enabled through mobility of people across roles. It is the ambition of INT1 and INT2 that, through developing their successors and sharing their own skills, knowledge, and expertise, as INT2 put it, “*the place won’t miss me when I’m gone.*”

4.6.3 *The Role of Technology*

This section sets out the perspectives of the interviewees around Social Software, and technology generally, as a support for KM.

The shared view is that, for those working in IT functions, technology is now less intrusive than previously in terms of its relative impact – “*technology is simply our business.*” All agree that using technology to support KM can be both an enabler and a threat. Some people do not see why they should share their key learnings and knowledge because they feel that this dilutes their position and relative value. Where systems are being developed with key process knowledge built-in, such systems may not be warmly received as they are seen as encroaching on the individual’s own position and work.

The building of knowledge into system logic also makes the business even more technology-dependent and the solutions more complex. This is a risk and can also be a challenge where policy changes are sought by those, potentially from the political stream, who do not appreciate the complexity involved in developing and implementing such changes on a large, corporate platform with high volumes of transactions and customers.

All acknowledge the challenge of maintaining the currency of knowledge captured, regardless of the platform used. For an IT function the technology is simply the business at hand and so its application is not an issue. The focus should be on effective processes and engagement of people in and around those processes. Interpersonal exchanges are crucial and cannot be replaced by technology, no matter how social.

INT1 cited the role of 'search' as a challenge for KM. Google is so easily and widely used that the non-technical user expects the same quality of service from internal corporate search without realising the level of effort needed to achieve Google-like results.

In terms of Social Software as a tool for KM, all recognised the relative ease-of-use of Social Software and modern technologies, eliminating one of the traditional barriers to KM adoption. INT1 expressed the opinion that it is difficult to apply Social Software at scale and corporate levels - this organisation already uses a wiki for formal and informal sharing and collaboration. Might this view reflect the culture of the organisation? INT2 expressed the view that Social Software is so widely used in people's personal lives that organisations should implement such tools internally. However, both these interviewees commented on the informal nature of exchanges risking the sharing of some not entirely appropriate commentary.

While recognising there may be value in using a wiki or Social Software tool, INT1 was unsure of the real corporate value of such informal contributions. However, INT1 also believes a wiki has the potential to support the capture of higher quality knowledge, including through combining multimedia content, and therefore be a much richer repository of knowledge.

While not a unique factor of a wiki or Social Software, there was general recognition of the challenge of maintaining the currency of knowledge captured on any technology platform. Keeping knowledge repositories current is time consuming, can be complex and needs a certain discipline. How can contributors be encouraged to actively participate? In all cases, contributions to Social Software are encouraged but there is no compulsion on any staff to engage. Could the level of contributions be a performance metric, does that approach risk a '*quantity over quality*' dilemma? Perhaps it is more the case in a public service environment, where rewarding staff has constraints, that engagement with Social Software for KM, or other corporate processes, might be more about enabling a stronger sense of mastery, purpose and autonomy (Pink, 2011) for staff, particularly a lower levels.

While INT2 felt that Social Software should be available internally for younger staff, INT1 remains to be convinced that younger staff are any better at using Social Software than any other grouping.

4.6.4 A Summary of the Themes

To summarise the findings:

- CS organisations experienced significant knowledge-related knock-ons as a consequence the recent financial crisis and associated cutbacks.
- While there is general recognition of the potential of KM, the terminology can be an inhibitor as there is such variation in understandings.
- Age profile and staff turnover are concerns and a risk to the retention of corporate knowledge.
- Knowledge management and succession planning are supported by three key elements – people, process, and technology.
- With the ease of use of and levels of familiarity with modern technology, in particular in IT functions, the technology is no longer the barrier it may have been previously.
- The people dimension came out very strongly from all three interviewees. The need to rely on others to learn from, and the need to identify potential successors and develop those staff, is seen as the most effective approach to succession planning.
- The voluntary nature of contributions, allied to the demand on people to get the job done, present a challenge to the on-going upkeep and maintenance of knowledge repositories.

Taking these factors into account, a wiki designed to support a common induction experience for corporate and role-specific knowledge, will be applied in one organisation by staff at middle management level. In the next section, the process to develop and implement the wiki will be set out.

4.7 A Blueprint for Knowiki

The purpose of this dissertation is to assess the potential of using a KM approach to support effective succession planning. The specific dimension of succession planning within scope of this experiment is the retention of the knowledge of a person leaving their post and assessing if the capture and sharing of that knowledge will prove an effective enabler for their successor, i.e. will the right approach to KM for succession enable the new person hit the ground running.

The design of the experiment has been influenced by this researcher's personal experience of working in a distributed public service organisation which had high level of staff mobility as a characteristic of that organisation. Conscious of the impact on the individual officer taking up a new role and on the office, and staff of that office, while the new person was learning about their new role and context, the organisation began the process to introduce a structured handover process. Microsoft Word-based template documents (attached at Appendix 4) were circulated and staff were asked to complete them in the period before moving on from their current role.

The focus of these documents was on enabling the capture of explicit knowledge around procedures and practices of a particular business unit. While access to such information would be helpful to incoming new staff, the real aspiration of that initiative had been to try to capture the more contextual knowledge acquired. In effect, the ambition of the project could be considered to have been to put in place a framework by which key tacit knowledge, acquired during a specific assignment, could be captured and shared with the next person to take on that role, i.e. knowledge succession planning.

In its first year of operation the process saw limited success, despite encouragement from top management. It was not a mandatory activity that everyone who was rotating their post that year had to embrace. In addition, the structure of and approach taken with the template documents generally fell short of posing knowledge-level questions around the contextual element of each person's role. In short, some of the questions asked could readily have been answered by another member of the new business unit.

As is so clearly evidenced in the literature, successful KM initiatives need an effective balance between people, process and technology. The approach proposed for this experiment, therefore, is to utilise Web 2.0-style tools as the means of knowledge capture, using a form of template to structure the knowledge to be captured, and supporting this by leadership from senior figures in the division.

4.7.1 Technology Selection

This section will set out the decision-making process around the selection of an appropriate technology solution to support the KM framework. As outlined previously, this project is endeavouring to establish how using a KM approach can support effective succession planning from a knowledge retention perspective. The plan is for the experiment to have three phases:

- initial information gathering from senior staff across three different organisations who themselves have somewhat recently taken up their current role,
- develop a template-based approach to the capture of key personal knowledge for sharing with others, and,
- review the content shared to assess the value of the approach in terms of ease of use, the usefulness of content shared, and potential for this type of approach to be formally adopted, on a long term basis, by the division involved in the experiment.

This experiment is considering the use of Social Software to scaffold the capture and sharing of expert knowledge. The literature points to the potential of wikis as a supporting technology for such collaboration. The interviews and case study have given the context from which a design of a KM framework can be developed. The next step is to decide on the technology.

In terms of choosing a technology tool appropriate for this experiment, there appears to be two options – freeware or the use of a product for which those involved are already licenced. One potential constraint is that there is a risk that the knowledge that will be captured during this experiment could be considered to be classified. Therefore the use of public cloud services for the experiment is not appropriate.

As with all things IT, Social Software solutions continue to evolve and mature. MediaWiki was one potential application and was used by one of the organisations involved in the study by Grace (2009). However, it requires a server-based installation which would have resource implications.

Microsoft SharePoint comes with wiki capabilities and is widely adopted by enterprises as a content management and corporate intranet solution. In addition, Microsoft OneNote seems to have some potential in this area and has the advantage of being available to licensed users of Microsoft Office 2010 and above. OneNote workbooks can readily be shared within an organisation using SharePoint as the repository. OneNote supports multi-user editing of workbooks with the notes attributed to the user contributing them, which is an advantage over some wiki software where these can take an anonymous form.

As mentioned, OneNote comes bundled with versions of Microsoft Office, standard edition, since the release of Office 2010. It is marketed as an application to help users take notes and capture and share ideas. It integrates well with other Microsoft (MS) office productivity suite applications and includes a browser-based interface edition, known as a Web App, to support its use as a wiki on Microsoft's SharePoint Social Software platform. The browser-based nature of the Web App also supports its use on mobile operating systems and devices, see Figure 4-1, so the wiki can be accessible outside the corporate environment when users are on the move, assuming the technical architecture permits such remote connectivity.

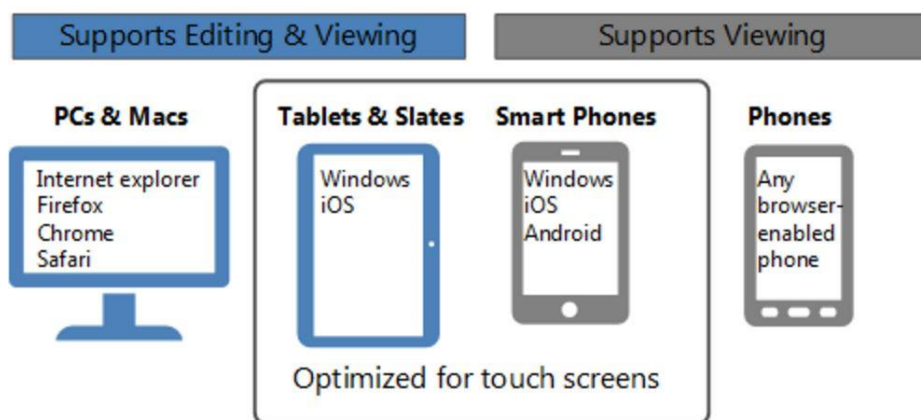


Figure 4-1 Viewing and Editing Capabilities Office Web Apps (MS TechNet Website)

Its relative familiarity, given it shares a common look and feel of the MS Office user interface presentations, and its close integration with other MS products should make it easy to adopt by end users. The notebook-like structure of OneNote is readily recognisable as a replica for a paper notebook, or folder, divided up by tabs relating to specific content.

OneNote links easily to content in any MS Office application, including Outlook, as well as to any web-based content accessed via a browser, see Figure 4-2. It can also encompass audio and video-based content, a feature which could be particularly useful if the OneNote user device has the capacity. It is possible to annotate recordings in real time and then jump to that exact position in the recording for play-back. It is an effective platform for linking notes of meetings managed via Outlook invitations.

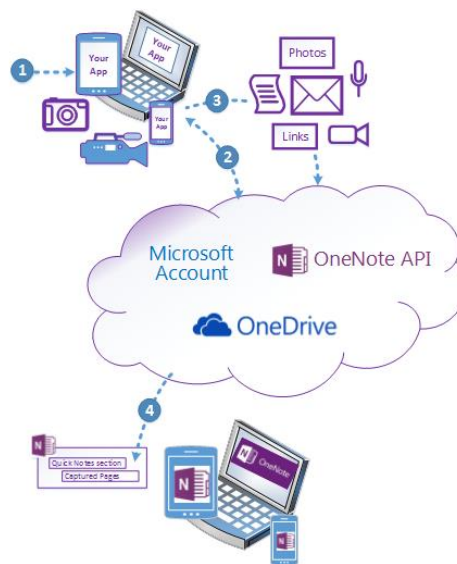


Figure 4-2 OneNote for Multi-media Collaboration [MS Develop Network Website]

OneNote is also available as a Web App on Microsoft SharePoint, see Figure 4-3 below. This allows users to access content as a wiki through the SharePoint browser interface. Users can also open a notebook in their own local device copy, i.e. full client version, of OneNote which automatically synchronises with the master SharePoint version using the Simple Object Access Protocol (SOAP). OneNote captures and identifies the contributions of various authors and there is an option to view such details available both in the full client and web application.

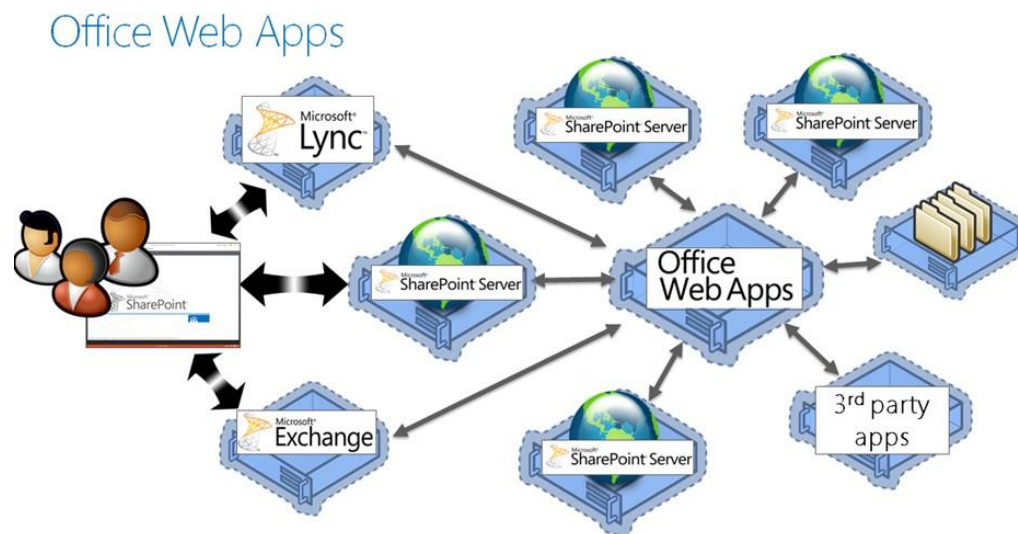


Figure 4-3 MS Office Web Apps and SharePoint [MS TechNet Website]

In terms of the find-ability of information held in notebooks, OneNote 2013 has good search capabilities, searching content in any notebook or notebooks. The search feature will find text in images using including Optical Character Recognition (OCR) or spoken words in embedded audio or video notes. In addition it is possible to tag notes in OneNote and select, sort by, or search for specific tags. There are a range of tags already pre-populated but custom tags are also supported.

OneNote enables the content captured in a wiki to be portable in that it is possible to export from OneNote to a number of formats. Individual pages and sections can be exported to MS Word, as an editable document, as well as to MS XML Paper Specification format (XPS), Portable Document Format (PDF) and web archive format (MHT). Entire notebooks can be exported to PDF and XPS potentially allowing such content be embedded in another notebook or used for a different application, such as to print the entire wiki.

The OneNote full client and the Web App are interchangeable for those end users who wish to consume content and perhaps carry out some small scale edits. However, the OneNote desktop client is more feature rich, as is often the case, including in relation to tracking authors and versions of pages, tags, recording multi-media content, and using the Linked Notes feature.

The *Send To OneNote* function is a useful feature which can be pinned to the Taskbar on a Windows operating system client. The Linked Notes functionality, available across the MS Office application suite, allows links to specific content in another Office application to be included directly in a OneNote notebook. The *Send To OneNote* pop-up can also be used with MS Internet Explorer for any web-based content.

As is common across wiki platforms, OneNote allows participants to identify who has made the various contributions and also the various versions of each of the pages, and earlier versions can be recovered.

The Microsoft⁶ Virtual Academy website publishes a range of short how to use OneNote video guides which include both demonstrations and practice sessions. However, for novice users OneNote could appear somewhat user ‘*un-friendly*’ and complex. There are benefits, in terms of ease of access to content included via the *Send to OneNote* feature, in customising the default locations and settings in the full client which would generally not be something an end user might consider. The *Send to OneNote* feature appears to work only for web pages accessed via Microsoft Internet Explorer. However, this can be readily overcome by using Microsoft’s Screen Snipping tool.

The variation in the behaviours of the user interface between the browser rendition and the full client may confuse users initially. The user interface in the Web App places the section tabs along left hand side, consistent with SharePoint’s presentation, while the full client version presents the section tabs across the top of the screen. All software applications generally suffer with some features which are less effective, however, such shortcomings do not mean that these applications should not be adopted.

A OneNote wiki available on SharePoint supports sharing, collaboration, tagging and the use of multimedia content. Given the organisation participating in the experiment currently has both MS SharePoint and OneNote implemented for its user-base, a OneNote wiki on SharePoint is the solution to be adopted for this experiment.

⁶ Available at the following link: https://mva.microsoft.com/en-us/training-courses/microsoft-onenote-2013-essentials-8686?l=mxEQ4YH1_2804984382

Accordingly, a OneNote template will be created and published on the intranet so it is available to the participants in the experiment. While it is possible to have different levels of user access to the wiki, for the purpose of this experiment, those invited to participate will have full read / write access. At the end of the pilot, participants will be asked for feedback on the process, estimated value of the knowledge captured, potential ease of use, and sustainability of the wiki as an on-going endeavour to support retention and sharing of key expert knowledge. This feedback will be captured through a short focus group discussion.

4.8 Conclusions

This chapter has described the development of the experiment from background scoping interviews, to a case study of an existing wiki, and through to the design of the wiki to be field tested. The first section set out the experience of one organisation in using a wiki as a support for technical teams. The second section discussed the three scoping interviews and considered the themes emerging from discussions on the various aspects covered in the interview, i.e. the organisation dimension, the personal perspective, and the potential of Social Software as a platform for KM. The final section describes the general outline for the experiment and the approach to selection of Microsoft OneNote hosted on Microsoft SharePoint as the wiki platform. The next chapter will discuss the operation of the wiki by the target organisation.

5 IMPLEMENTATION

5.1 *The Knowiki Experiment*

While the previous chapter described the preparatory and research stages of the experiment, this chapter describes the implementation process for the wiki, including its use by those participating in the experiment.

The intention of the wiki is that it will be a support for newly arriving staff to a division within an organisation. In this instance the division is close to 50 staff, of which six are recent new arrivals. In addition, a new head of the division will be appointed before the middle of the year and is potentially a key consumer of the wiki. As the literature suggests, wikis seem to offer huge potential to support knowledge capture, sharing, and collaboration (Grace, 2009) and behave in a more social way which is consistent with the human aspect of KM (McDermott, 1999).

To support the experiment, a potential solution was identified which would enable collaboration among the participants via a browser-based application. A Microsoft OneNote wiki, enabled via Microsoft SharePoint, was chosen for a number of reasons as set out in Chapter Four. Two OneNote notebooks were created - one to be the knowledge wiki, and called '*Knowiki*', the second notebook was designed as a training guide to set out the purpose of and use for *Knowiki*. Both wikis were hosted on the division's existing Microsoft SharePoint intranet workspace to which all staff across the division have full access. A group of 15 middle and senior managers were asked to participate in the experiment through providing content and giving their feedback on their experience. The e-mail invitation circulated by the author explained the background to the experiment and also gave a link to the both wikis. The stated aim of *Knowiki* is to try to establish the potential value to be gained from using a wiki to support the compilation of a collection of relevant and useful knowledge, which can be shared with new and existing colleagues across the organisation.

At the completion of the experiment participants will be asked for their comments and observations. While the initial structure of *Knowiki* was pre-populated, it was made

clear that this was for guidance only and that participants are free to reshape in any way they want.

5.1.1 The Guidance Wiki

The purpose of the guidance wiki was to use a wiki format to explain the purpose and ambition of this experiment. Given the staff are from a technical background, the approach to equipping them to use the application was to point them to short on-line tutorials which had already been road-tested by the author. The images below are some screenshots of the wiki presented as a guide for those adding content to the *Knowiki*.



Figure 5-1 Guidance Wiki – Context

Figure 5-1 above, shows the introductory page for the guidance wiki. The purpose of the content on this introductory page is to ensure that staff in the division will understand the goal of *Knowiki* and also to provide a brief general explanation of a wiki. The key points about this page are that participants can see the layout of the OneNote wiki, with section tabs and pages, each of which includes a header and a date and time, and also that pages can include hyperlinks to other content.

+ Add Page

The OGCIO Wiki

Organisation Wiki

Team Wiki

Personal Wiki

Organisation Wiki

27 January 2016 21:15

Purpose:

- Pointers to useful general knowledge about the OGCIO, its teams, D/PER and key stakeholders groups
- Who are we?
- What are we about?
- What do we do? Wit

OGCIO Corporate Pages

- Org Chart & link to D/PER Org Chart & D/PER About Us webpage
- Framework of Assignments 2015
- Financial Management
 - Systems details, including access & use
 - Internal Procedures & Policies including invoice handling
 - Budget Units allocations and breakdowns including profile
 - Budget Request
 - Orders & Invoice handling procedures
 - Official Travel procedures and forms
 - Petty Cash
- Risk Register
- How Do I?
 - Get a mobile phone/ tablet/ laptop
 - Taxi contract
 - Access OGCIO Service Desk
- Key Partners & Governance Framework
 - PER
 - Management Board
 - CS Renewal PMO
 - Reform Delivery Office
 - Strategic HR
 - Expenditure Divisions & CEEU
 - Finance
 - COO
 - NSSO
 - PeoplePoint
 - Payroll Shared Service
 - FMSS
 - OGP
- Key Documents
 - PS ICT Strategy
 - Circular 2/16

Figure 5-2 Guidance for the Organisation Wiki

The purpose of the Organisation wiki page, see Figure 5-2, is to set out the types of content that might be included in the *Knowiki* itself so that readers will be able to learn more about the organisation and what it does. The page has both a content and a format purpose showing the types of formatting available, including bullets and indents, as well as suggesting the type of content relevant to this page.

Team Wiki
02 February 2016 20:06

- Purpose of the Team
- Team Organisation Chart, business plans, appropriate role profile goals, skills needed
- Resources
 - Human
 - Including any vacancies, particular attendance patterns such as work-sharing/ shorter working year....
 - Financial
 - How much, what for, profile of expenditure, likely outturn, explanation of any variation
 - Technical
 - Applications/ platforms/ systems specific to this role
 - Other - useful periodicals, journals, websites
 - Risks & issues
- Current Work Programme/ Projects
 - Page per work item/ project
 - Include key contacts within OGCIO & business unit(s)
- Key Documents & Policy/ Procedures/ Guidance
 - List with links to key documents & reasons these are important e.g.
 - Statement of Strategy
 - ICT Strategy & PS ICT Strategy
 - Ditto for policy documents/ guidance notes which support your work
 - Any special vocabulary of the role
 - Key word Glossary / where to find
- Key Events
 - Travel
 - Conferences/ Working Groups/ Customers *etc*
 - Key Events
 - Annual conferences/ symposium
- Work in progress
 - List items of on-going work that need immediate attention

Figure 5-3 Guidance for the Team Wiki

The Team wiki page, Figure 5-3, is similar to the Organisation Wiki in terms of layout and format but also includes the types of content potentially relevant to a Team wiki page. It also points to the overall hierarchy that will make up *Knowiki* so that users will know the types of areas in *Knowiki* that they should edit.

Personal Wiki
25 January 2016 21:37

Purpose:
Provide useful insights and knowledge from your experience to your successor/ new colleague

Sections:

- My Role
 - Describe role in the context of the OGCIO - team/ unit/ specific job description,
 - Key areas of responsibility
 - Key deliverables for this year
 - Challenges & opportunities
 - Any specific comments around resources - human/ financial/ technical
 - Reporting/ Decision making structure
- Key Contacts - internal & external
 - List key contacts/ Who's Who & embed export of Outlook Contact list from your address book
 - List in groups by who you should meet in first week/ two weeks/month/ quarter *etc* and include brief description of why they are important
- Key Documents I've found useful
 - List of any from Team list/ others of specific relevance
- Top Tasks - Identify and Point to Process Description
 - Tasks for week1
 - Tasks for week 2
 - Tasks for first month
 - Recurring tasks such as
 - PMDS
 - Financial Management
 - Business Planning
 - Risk Management
 - Public Service Innovation & Reform Network
 - Recurring Meetings not included in description of specific projects
 - Management Board
 - Information Officers
 - FOI Coordinators/ Data Protection Coordinators
- Key Goals & Objectives for the Role
 - List those for which you are responsible, including description of why, how and by when
- Details of Travel / Events *etc*
 - Travel
 - Conferences/ Working Groups/ Customers *etc*
 - Key Events
 - Annual conferences/ symposium
- On-going Work
 - Any specific comments on work already in progress which is being handed over

Figure 5-4 Guidance for the Personal Wiki

Figure 5-4, the Personal wiki page is again a pointer to the overall hierarchy that will make up *Knowiki*. The page has two elements, a ‘*LinkedIn*’-like personal space where a user can upload content relating to their own specific skills, expertise, and areas of interest. There is also scope for specific details on the person’s own role and its key highlights, such as recurring tasks or challenges. This page in *Knowiki* gives people the opportunity to describe what it is they do and link to external content on other systems that might be relevant to explaining their role. Links can be created from the Personal wiki to the Team and Organisation wiki pages giving insights into the positioning of individual roles within the division.

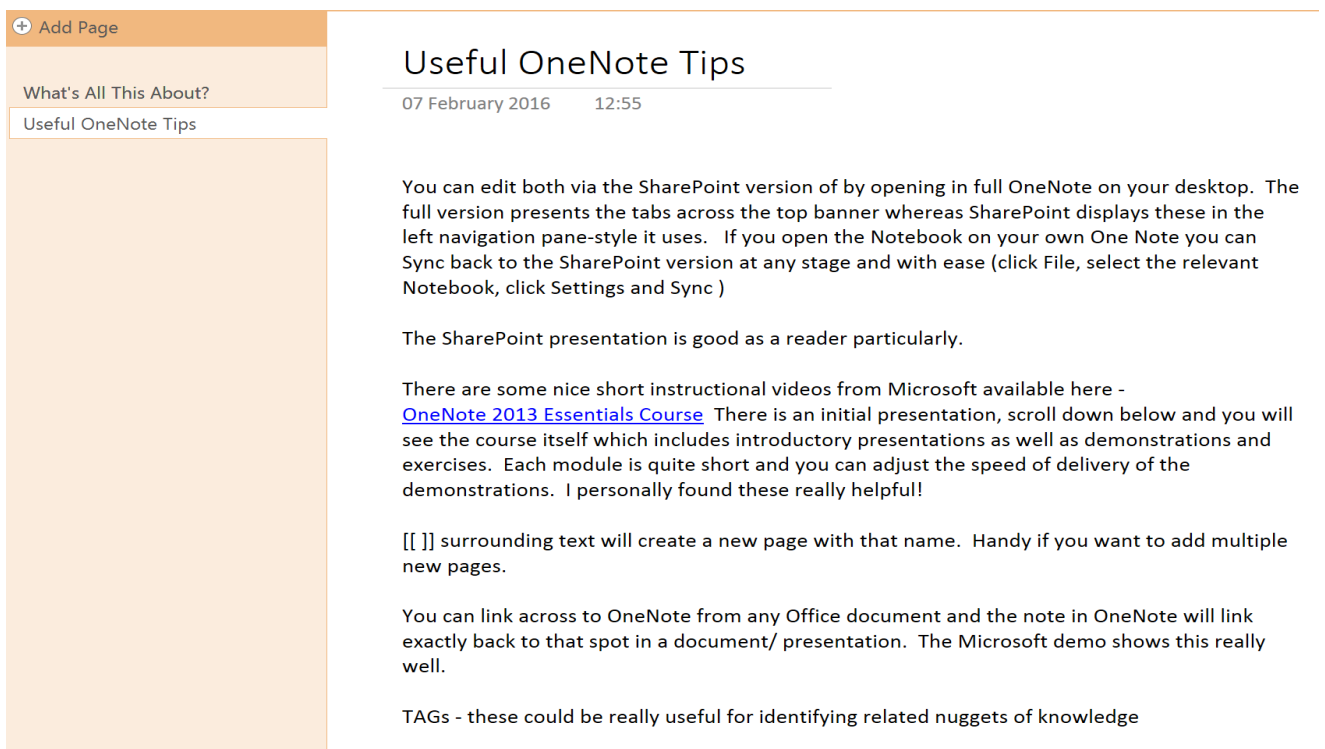


Figure 5-5 Guidance Wiki - Hints and Tips on Using OneNote

The purpose of the page in Figure 5-5 is as a hints and tips page which might be helpful for people contributing to *Knowiki*. The tip about the SharePoint reader is an example of knowledge sharing by the creator and this page should expand with contributions from others as they get to grips with the features and characteristics of OneNote.

5.1.2 *Knowiki* – Initial Structure

The images included below are some screenshots of *Knowiki* in its initial unpopulated state and these are followed by screenshots of some of the content uploaded by the

participants in the experiment. This first screen shot, Figure 5-6, is taken while using the OneNote Web App.

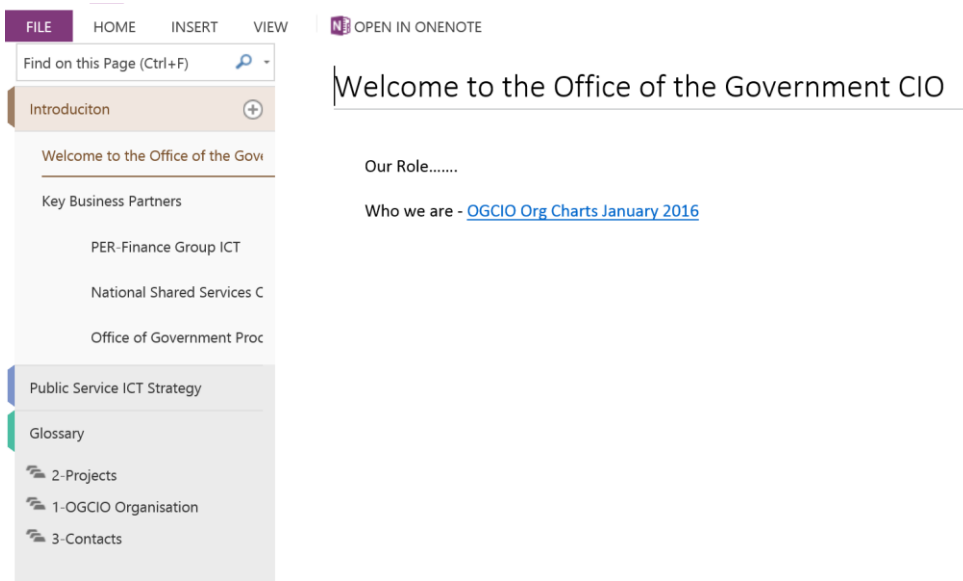


Figure 5-6 Knowiki Home Page - OneNote Web App

Figure 5-6 above shows the ‘starter’ page for *Knowiki* linking to the division’s organisation chart as a prompt to others to contribute to this page. The link to the organisation chart points to the types of corporate content relevant to this section of *Knowiki*. In this instance, *Knowiki* is accessed via the OneNote Web App which has a different presentation of the layout with the section tabs on the left navigation bar, consistent with the SharePoint standard, rather than across the top as in the full desktop client.

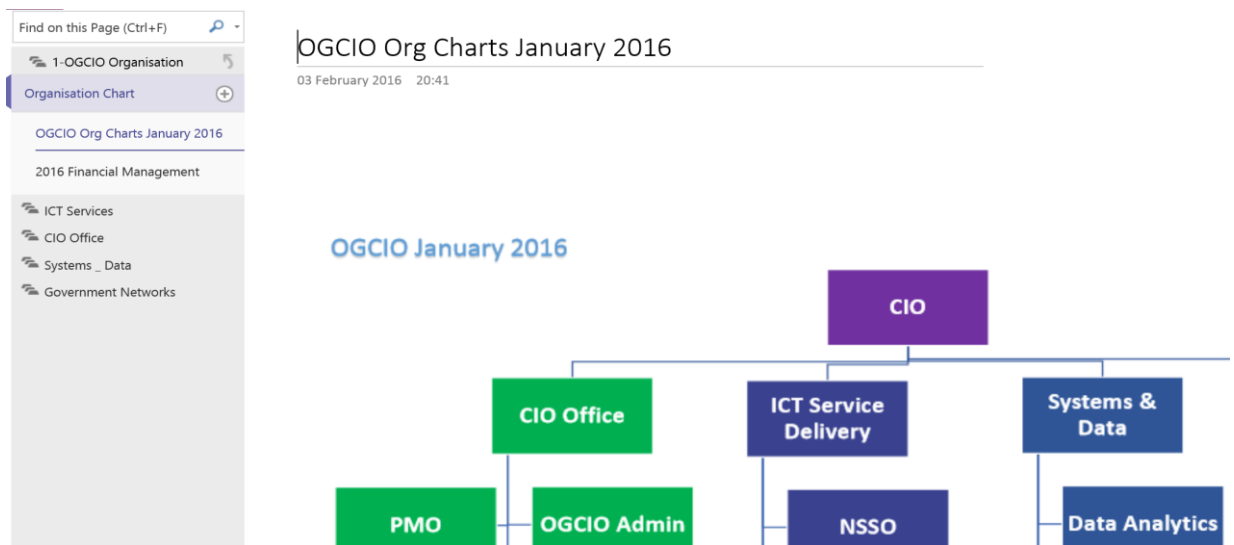


Figure 5-7 Knowiki Organisation Section - OneNote Web App

The organisation chart in Figure 5-7 is a graphical representation of the structure of the division. There is scope for the organisation chart to be enhanced with additional content accessed via ‘click-through’ or by hovering over an individual tile.

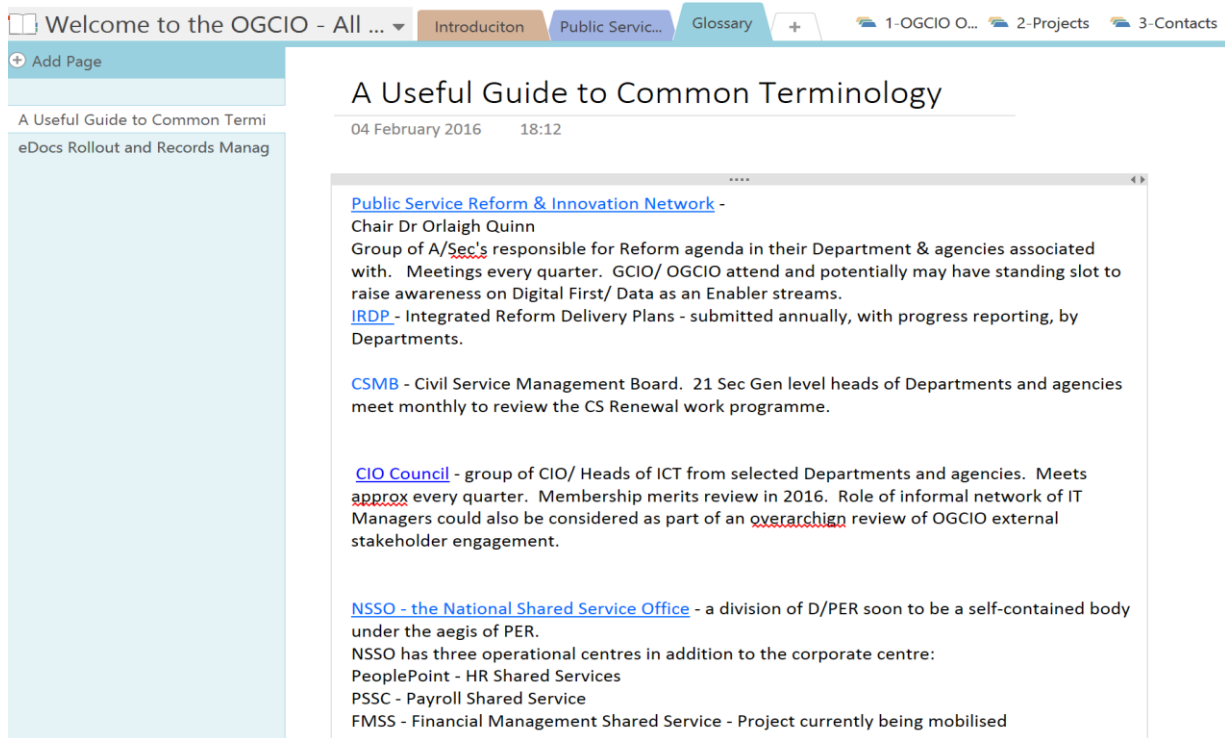


Figure 5-8 Knowiki – OneNote Desktop Client

Figure 5-8 shows the presentation of *Knowiki* in the full OneNote application on the user desktop where the section tabs are across the top and individual pages within each section are shown on the left hand side. The purpose of the terminology page is to set out key organisational terms with which staff across the division should be familiar. The page shows links to other pages within *Knowiki* relating to specific topics, be that organisations, groups, processes, etc., which should grow and evolve over time. This page should be a useful resource to all staff across the division as there are few, if any staff, who will know all the key terminology used by the division.

5.1.3 Knowiki – Content Uploads

The following section includes a range of samples of content contributed by participants during the *Knowiki* experiment. Some of the content is simply explanatory text, some links out to other pages in *Knowiki* or to external content, and some includes images.

The screenshot shows a web page with a navigation menu on the left and main content on the right. The navigation menu includes items like 'The PS ICT Strategy', 'Build to Share', 'BTS Infrastructure', 'BTS Government Networks', 'BTS Common Applications', 'Digital First', 'Data as An Enabler', 'Improve Governance', 'CIO Council & Other Groups', and 'Enhance Capability'. The main content area is titled 'BTS Common Applications' and contains text about the primary aim of the programme and links to related documents.

Figure 5-9 Participant Content - Text with Links

This BTS Common Applications page, Figure 5-9, describes one particular strand of the Public Service ICT Strategy which can be deduced from the structure of the page layout in the left navigation panel. In addition, the page has a dual purpose as it includes links to other pages in *Knowiki* as well as to external content in other areas of the corporate infrastructure. The tone of the post is quite open and informal in line with the expectation of wikis generally. This page seems to be an exemplar for a project, or committee, page in terms of balancing the sharing of tacit knowledge and also making explicit connections with external content.

The screenshot shows a web page titled 'Data as An Enabler' with a navigation menu on the left and a detailed list of action items on the right. The navigation menu includes items like 'The PS ICT Strategy', 'Build to Share', 'BTS Infrastructure', 'BTS Government Networks', 'BTS Common Applications', 'Digital First', 'Data as An Enabler', 'Improve Governance', 'CIO Council & Other Groups', and 'Untitled page'. The main content area is titled 'Data as An Enabler' and contains a 'Work-stream Lead:' section followed by a list of action items under the heading 'Data as An Enabler: Action Plan'.

Figure 5-10 Participant Content - Programme Explanation

Figure 5-10, the Data as an Enabler page has a single purpose in its current form which is to explain the background to a particular programme. It is, in effect, contributing to the compilation of the glossary of terms and sets out, in coherent terms, how the various components of the programme are connected. This will be extremely useful to ensure staff across the entire division will be able to articulate the differences between similar terms and share an integrated understanding of these terms as well as the programme as a whole. Again, the positioning of the page indicates that this too is a strand of the Public Service ICT Strategy.

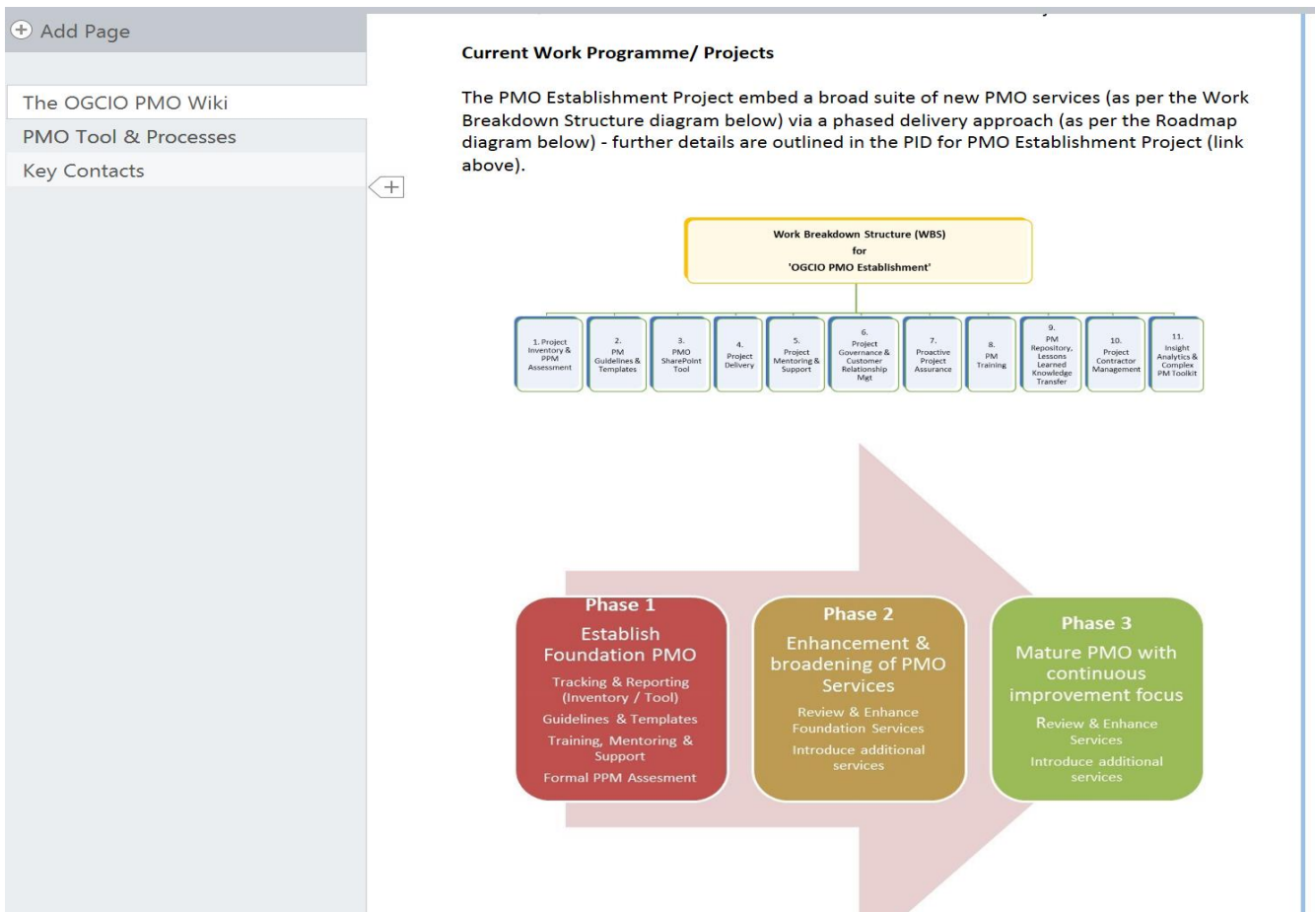


Figure 5-11 Participant Content - PowerPoint

The page extract shown in Figure 5-11 is a good example of how to combine images and text to convey meaning about a programme of work to those not directly involved. The imagery clearly points to a staged process and scaffolds the text with diagrams. As this page evolves, the writer could consider continuing the use of the ‘per phase’ colour scheme to give visual, or hierarchical, views of the various stages of the process.

+ Add Page

The OGCIO PMO Wiki

PMO Tool & Processes

Key Contacts

PMO Tool & Processes

02 February 2016 19:50

- **PMO SharePoint Portal:** <https://per.itservices.gov.ie/projects/PMO/SitePages/Home.aspx>

The PMO operates a SharePoint Portal that can be used by OGCIO staff & stakeholders to:

- Make project requests – guidelines & a template are provided for anyone interested in making a request to the OGCIO to deliver an ICT project.
- Check details & status of project requests – information on all project requests can be viewed as they proceed through the project request governance process.
- Check details & status of all projects – key information on all projects (planned, in progress & completed) can be viewed via 'Project Dashboard' views & further details on individual projects can be viewed via its 'Project Workspace'.
- Understand the OGCIO's Project Management & Governance processes – guidance documentation can be accessed as well as associated templates used on OGCIO projects.

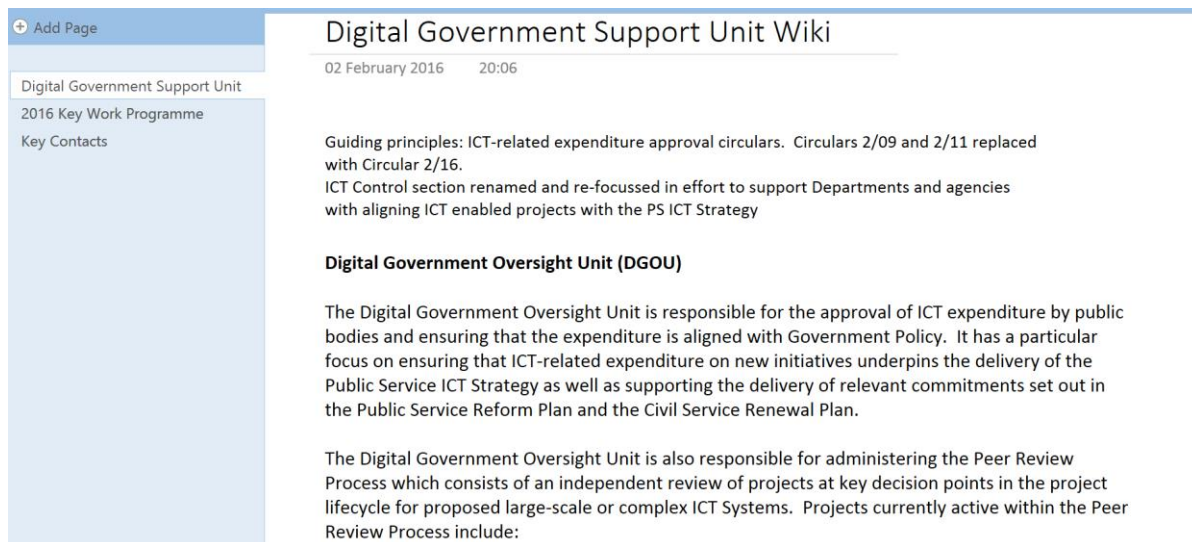
- **OGCIO Project Management Guidelines & Templates:**

The PMO is currently developing a new set of OGCIO Project Management Guidelines & Templates in order to provide clear, consistent and best practice guidelines on Project Management for all OGCIO staff. In essence these Guidelines will outline how all OGCIO projects should be delivered. The Guidelines will be finalised & communicated in due course.

Detailed information on this & the other PMO services & deliverables for 2016 are outlined in the approved Project Initiation Document (PID) for the OGCIO PMO Establishment Project: <https://edocs.itservices.gov.ie/SubSeries/DPE035/Files/DPE035-007-2015?Web=1>

Figure 5-12 Participant Content - Programme Details with Links

The title of page in Figure 5-12 is self-explanatory in terms of its purpose so readers will get a sense of the likely content. The nature of a process is clearly stepped out with relevant links to external content. The links in this post are not masked by more meaningful text and shows the differences in people's approach to presentation to hyperlinks as well as the flexibility of the wiki. This may also point to the individual's own experience, perhaps coming from a technical background, and may show a preference to see to where a hyperlink is leading. However, content is more important than style in terms of engaging with a wiki.



The screenshot shows a Wiki page for the Digital Government Support Unit. The page title is "Digital Government Support Unit Wiki" and it was last updated on 02 February 2016 at 20:06. The main content includes a section on "Guiding principles" regarding ICT-related expenditure approval circulars, and a section titled "Digital Government Oversight Unit (DGOU)" which describes its role in approving ICT expenditure and administering the Peer Review Process.

Figure 5-13 Participant Content - Explaining Purpose

Figure 5-13 is an example where content is reproduced from an existing document. It can sometimes be the case that it is more effective to reproduce content from other sources rather than simply link to that source, in order to create associations across a range of content.

Some participants reviewed and provided feedback comments on *Knowiki* but did not upload any content themselves. Their feedback will be gathered at the focus group discussion to evaluate *Knowiki* and its potential use to support succession planning and on-boarding of new staff.

5.2 Conclusions

This chapter set out the operation of the experiment to support this dissertation. A guidance wiki was published to support participants in understanding the intention with *Knowiki*. The next chapter will set out the evaluation of the experiment which includes conducting a focus group to seek feedback from participants on using *Knowiki*, as well as conducting follow-up interviews with the initial interviewees to get their perspectives on the broad findings from the experiment.

6 EVALUATION

6.1 Introduction

Chapters Four and Five set out the planning and implementation phases of the experiment and this chapter will describe the evaluation process undertaken to assess the outcome of the experiment. It will include an assessment of the interactions with *Knowiki*, the outcome of a focus group discussion with those asked to participate, as well as some observations on the findings to date from the original three interviewees.

The approach to assess the effectiveness of the experiment will take a number of forms. The literature review pointed to the challenges faced in identifying possible evaluation frameworks for KM programmes. Accordingly, the evaluation of the experiment will generally be qualitative in nature. The evaluation will include eliciting views of participants in the experiment itself by means of a focus group discussion. The purpose of the focus group is to get a user-centric perspective on the potential of *Knowiki* to be formally adopted as a KM tool for the entire division. The evaluation will also include a follow-up interview with each of the three interviewees to get their perspectives on the findings to date.

6.2 An Assessment of the Use of *Knowiki*




This section sets out an assessment of the engagement with *Knowiki* from both a quantitative and qualitative perspective.

A review of the *Knowiki* history shows that seven of the participants actively engaged with the wiki, creating new pages or adding content, samples of which are included in Section 5.1.3. The figures in section 6.3.1 below show evidence of general engagement with the wiki and, on review, much of this engagement seems to be as a content consumer rather than creator perspective.

6.2.1 Review of Contributions

In terms of a quantitative assessment of *Knowiki*, and as outlined previously, OneNote retains a log of content additions and changes – the Web App displays page versions and






shows content editors, the full client presents the history log in more detail. The history can be viewed in a number of ways using the full client, see samples below in Figures 6-1 and 6-2. The screen grabs for these examples have been taken using the *Send To OneNote* feature which includes the date and time of the screen grab in the post to OneNote.

 Key Contacts	16/02/2016
 PMO Tool & Processes	16/02/2016
 The OGCIO PMO Wiki	16/02/2016
 2016 Financial Management	08/02/2016

Screen clipping taken: 28/02/2016 11:42

Figure 6-1 Knowiki Page Edit History

Figure 6-1 shows the creation dates for a selection of pages in date order. Figure 6-2, below, presents information on page edits presented in alphabetical order.

All pages sorted by date	
Search This Notebook	
Sort by Title	
Untitled Pages	
2	
 2016 Financial Management	15/02/2016
 2016 Key Work Programme	03/02/2016
A	
 A Useful Guide to Common Terminology	16/02/2016
 Action 14 - Professionalisation	03/02/2016
 Action 19 - ICT Strategy	03/02/2016

Screen clipping taken: 28/02/2016 11:31

Figure 6-2 Knowiki Edit History by Date

The graph at Figure 6-3, below, shows the overall trend in the pattern of updates across the experiment timeline and supports the perspective, gained from all elements of the experiment, that maintaining interest and contribution levels to wikis over time is a challenge.

Knowiki Content Edit Pattern

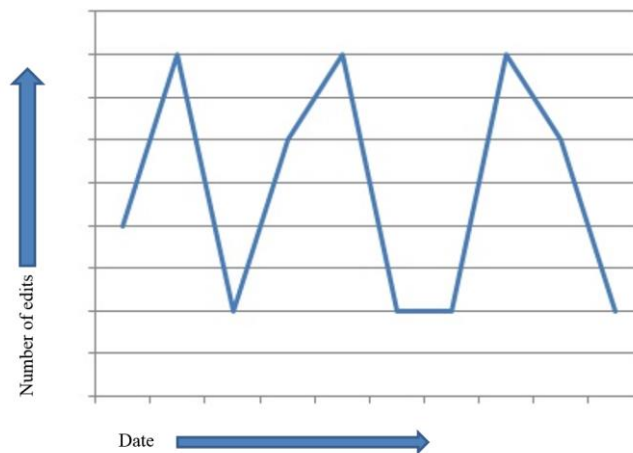
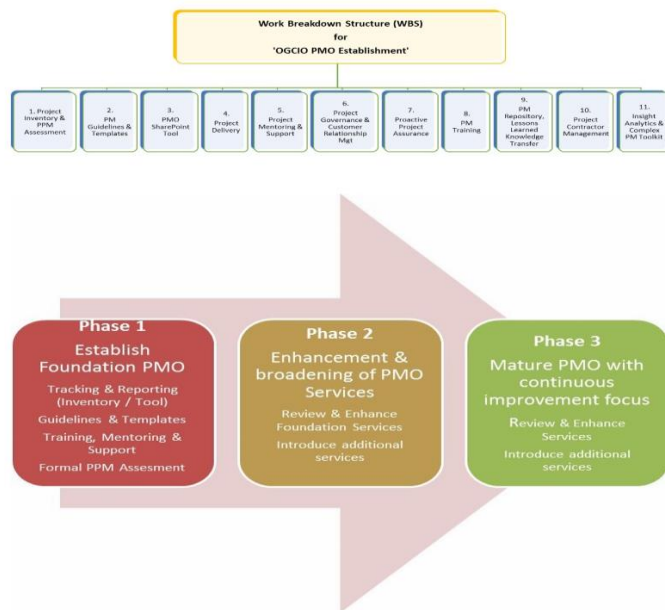
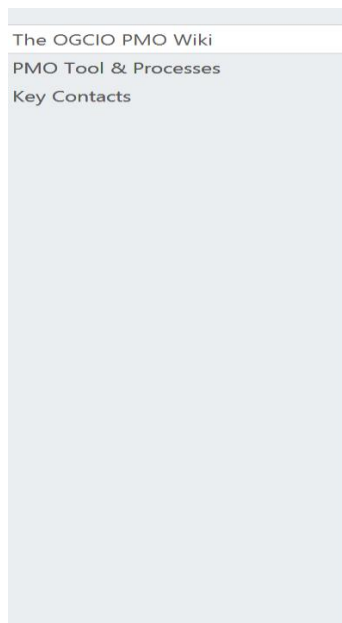


Figure 6-3 Knowiki Pattern of Use

The pattern shown above indicates peaks which coincide with the time *Knowiki* was initially created and populated by the author, the initial advertising of *Knowiki* to the participants in the experiment, the issue of a reminder and invitation to the focus group discussion.

The OneNote history points to most of the content being added during working hours, although there was some 'after-hours' activity which would have been done remotely. One of the contributors appears to have set aside a specific blocks of time to upload content relating to his particular area, sample below in Figure 6-4. This author made more extensive contributions than any other contributor perhaps due to the fact that he is in the process of establishing a new team and role within the division, and he recognised the potential of *Knowiki* to raise awareness with his colleagues of the work being done.



Screen clipping taken: 28/02/2016 11:53

Figure 6-4 Sample of Content Uploaded

Contributions to *Knowiki* were generally text-based content and no multi-media content was included during the experiment phase. The next section relates to the focus group discussions held with those participating in the experiment with *Knowiki*.

6.3 Focus Group

The previous section considered the various contributions to *Knowiki* and this section will outline the discussions with participants attending the focus group.

Before proceeding to discuss the focus group, it might be helpful to set some context around the participants. The group of 15 participants are middle and senior managers in the division and come from a range of experiences and backgrounds, public and private sector. While four of those involved are new to the division and organisation since January 2016, one joined in mid-2015 and others have been with the division, in its various guises, for more than 10 years. All participants have an IT background across the entire spectrum from infrastructure and server-side technologies, cloud, networks and security, to applications development on a number of platforms, including Microsoft SharePoint. All participants had access to *Knowiki*, which was supported by a guide wiki, both of which were available on the division's private intranet workspace.

Participants were introduced to both wiki through an e-mail sent by this researcher which included details as to their purpose. Participation was entirely voluntary.

Having had access to *Knowiki* for several weeks, those participating in the experiment to populate *Knowiki* were asked to provide feedback on their experience both informally and as part of a focus group. Active participation in the focus group session was encouraged and broadly guided by the introduction of three general topics. These included the participants' views of their own experiences with wikis, using OneNote and SharePoint as the technology platform for the wiki, and *Knowiki* itself, in terms of its potential as a tool for future use by the division both as an aid for mobility of existing staff and also to support on-boarding of new staff. Feedback was also received directly from a number of people unable to attend the focus group session and this is combined with the focus group outcomes. The focus group was held in one the of the divisions' conference rooms and discussions lasted for over an hour.

6.3.1 Outcomes of Focus Group

This section sets out the main themes emerging from the focus group discussions with those invited to participate in the *Knowiki* element of the experiment. Broadly similar themes emerged as elsewhere in this experiment, i.e. people, process, and technology.

The technology merited the least amount of discussion and so is taken first in this review. The consensus was that the technology had no particular impact on the overall perception or use of a wiki as a knowledge repository⁷. There were no particularly adverse comments on OneNote and SharePoint as the technology platform for *Knowiki*. Some liked the notebook format as it created a structure within which to work. Several of the participants pointed to their own use of OneNote as a support for note taking at meetings, being able to locate all relevant content in one place as well as for personal knowledge management. One participant expressed the view that the extent of the collaboration available via *Knowiki* is less important than that the knowledge is captured

⁷ It is worth reiterating that the majority participants in the focus group would generally be considered to have high levels of IT skills and, therefore, would be unlikely to find adapting to a new technology to be a particular challenge.

and shared. The particular format of the content captured did not register as overly important.

The next area for discussion was the use of a wiki for collaboration and sharing. A number of consistent themes emerged on foot of the varied experiences of participants, who have come from a range of different organisations, public and private sector. There was general agreement that there is recognition of the potential value of a wiki to support collaboration and knowledge sharing, in particular among communities of practice. However, such recognition does not translate into action when it comes to the level of use and success of such wikis. The common experience is that, while there may be enthusiasm to engage with such collaboration and knowledge exchange tools in their early stages, the initial novelty value soon wears off, even among a small internal team working closely together. The experience often was that there would be one, or a small group of enthusiastic content contributors only. Experiences varied from wikis which saw no use to the opposite end of the scale where there was over-use of knowledge exchange tools. The group generally agreed that to assure consistent, long term use of a wiki, the users need some motivating factor to guarantee a reasonable and sustained level of use, i.e. “*what’s in it for me?*”

While recognising the generally informal nature of a wiki, several participants pointed to there being merit in putting in place an overall structure and general framework for *Knowiki*, within which it could be operated in any fashion individual contributors decided. The combination of the *Knowiki* and the guidance wiki was considered useful for that purpose. The overall structure of *Knowiki* seemed fit for purpose, i.e. a local divisional induction and on-going know-how ‘manual’ for staff across the division, new and existing. One participant suggested that it is more important to have something ‘*written down*’ rather than having no content at all, describing such an approach as “*the armour of documentation.*”

While recognising the potential value of such collaboration, a small number of participants cited the uncertainty around the accuracy and reliability of such informally sourced content as a concern, e.g. what if the post related to a how a technical procedure should work but was, in fact, incorrect? However, that view was not generally shared.

The relative organisational perspectives of the participants may be a factor influencing opinions. While some of the participants would have been in organisations with high rates of turnover and mobility, others come from a perspective of more static organisations. The final broad theme for discussion was *Knowiki* itself, in terms of its potential as a tool for future use by the division, both to as an aid for mobility of existing staff and also to support on-boarding of new staff.

There was general agreement to the importance of having an overarching corporate induction programme in place for new arrivals to the organisation as a means of setting the general context within which the division operates. This, however, was not to suggest that there is no merit in also having a localised programme for new arrivals to the division. Some of the newer staff did suggest that such a repository of divisional knowledge would have been of real assistance to them when they first joined. Such locally-specific programmes could set out clear definitions of the role and goals of the division within the overall organisational context, as well as encompassing standard processes, practices, and policies. The view was also expressed that capturing and sharing such divisional knowledge will facilitate all staff across the division in having a shared and common understanding of the role, purpose, and motivation of the division including the relative purpose of their own role. While recognising the challenge in ensuring participation, the view was expressed that “*something is better than nothing*” and that this “*is a good place to start*” as people may not agree on what they actually know!

The potential value of *Knowiki* as a repository of the corporate memory of the division was also raised by one of the longer-standing members of the team. The role and scope of the division has morphed and been reshaped and he felt that there is value in new staff learning about its legacy history as a means of gaining a better understanding of why the role of the division is now what it is it.

One suggestion was that only staff from a particular level should have content creation rights as a means of assuring a focus on more knowledge-level content. Another was that perhaps success and longevity of use could be assured by assigning one person

overall responsibility to pre-populate the framework, allow others to contribute and then monitor contributions on an on-going basis for quality and accuracy. A view expressed was that people will use *Knowiki* if they understand its purpose, i.e. induction, and if they see that it is being kept up to date.

However, there was a general agreement that, no matter how complete or successful such a wiki might be, there is no substitute for face-to-face interpersonal exchanges, taking the focus group discussion as case in point. While not mentioned during the focus group discussions, it was obvious from comments made in passing outside this session that *Knowiki* had been a topic of discussion among some of the participants.

It was interesting to note that in the focus group discussions the participants made little, if any, use of the terms knowledge and knowledge management. Rather, the phraseology was around know-how, learning, knowing why, knowing who's who, etc.

To summarise the findings of those who engaged with *Knowiki*:

- There is recognition of the potential value of such a knowledge repository to support new joiners but it is important that this is set within an overall corporate induction process.
- Maintaining the enthusiasm to continue to engage in using a wiki is a definite challenge. There was no particular magic bullet identified which could address this challenge. A specific, recognised, and common purpose for *Knowiki* might ensure frequent use across the division and would be a positive step.
- The technology platform is not a particularly influencing factor in adoption.
- While recognising the informal nature of a wiki, putting some form of structure or framework in place, within which people have a free hand to operate, helps with shaping the content uploaded and coherence in approach.
- Contributions should not be moderated.
- Some element of concern was expressed around the potential risk of poor quality or inaccurate content being uploaded.
- No role was foreseen for the Performance Management and Development System (PMDS) process in terms of setting annual *Knowiki* goals for individuals.

- While everyone recognised the potential value of a knowledge wiki, and that having something available for people to learn from is preferable to having nothing, finding the time to make meaningful contributions was seen to be a “*nice to have.*”
- There was little use of KM terminology during the group’s discussions.

Drawing on the key themes emerging from the other areas of the experiment, the troika of people, process, and technology is also very evident in the running of the experiment. In the next section, the findings of this element of the experiment will be combined with those themes already identified and will form the basis of the follow-up interviews with the original interviewees.

6.4 Overall Project Findings

This section of the evaluation chapter will collate and assess the themes emerging from each of the different strands of this experiment.

6.4.1 Table of Findings

The table below is a composite of the findings from each element of the experiment so far, i.e. the literature review, the interviews, the operation of *Knowiki*, and the focus group. While the table below is a composite of the findings from each element of the experiment, these are not currently aligned. The process to identify commonalities across the various strands of the experiment will follow later in this chapter.

LR#	Literature Review	I#	Interviews	FG#	Focus Group
LR1	The need for the right balance to be struck between people, process, and technology when implementing KM initiatives.	I1	CS organisations experienced significant knowledge-related knock-ons as a consequence the recent financial crisis and associated cutbacks.	FG1	There is recognition of the potential value of such a knowledge repository to support new joiners but it is important this is set within an overall

LR#	Literature Review	I#	Interviews	FG#	Focus Group
					corporate induction process.
LR2	The potential of the wiki as an effective tool to support the capture, storage, sharing and reuse of key tacit knowledge – knowing why things are done this way by this organisation can be essential to an organisations reputation or success.	I2	While there is general recognition of the potential of KM, the terminology can be an inhibitor as there is such variation in understandings.	FG2	Maintaining the enthusiasm to continue to engage in using a wiki is a definite challenge. There was no particular magic bullet identified which could address this challenge but a specific, recognised, and common purpose for <i>Knowiki</i> would be a positive step.
LR3	Being conscious of the terminology used when discussing KM and the various forms of knowledge with people supporting the experiment.	I3	Age profile and staff turnover are concerns and risk the retention of corporate knowledge.	FG3	The technology platform is not a particularly influencing factor in adoption.
LR4	Focussing on the deliverables from the experiment and not getting caught up in the technology as a tool.	I4	Knowledge management and succession planning are supported by three key elements – people, process, and technology.	FG4	While recognising the informal nature of a wiki, putting some form of structure or framework in place, within which people have a free hand to operate, helps with shaping the content

LR#	Literature Review	I#	Interviews	FG#	Focus Group
					uploaded and coherence in approach.
LR5	Enabling those participating to express key tacit knowledge so they can write it down.	I5	With the ease of use of and levels of familiarity with modern technology, in particular for IT functions, the technology is no longer the barrier it may have been previously.	FG5	Contributions should not be moderated.
LR6	Using a tool which is flexible, adaptable, and easy to use to capture key points of knowledge on the fly.	I6	The people dimension came out very strongly from all three interviewees. The need to rely on others to learn from, and the need to identify potential successors and develop those staff, is seen as the most effective approach to succession planning.	FG6	Concern was expressed around the potential risk of poor quality or inaccurate content being uploaded.
LR7	Having options around the format of the content captured, i.e. options for multi-media.	I7	The voluntary nature of contributions allied to the demand on people to get the job done present a challenge to the on-going upkeep and maintenance of knowledge repositories.	FG7	No role was foreseen for the PMDS process in terms of setting annual knowledge wiki goals for individuals.
				FG8	While everyone recognised the

LR#	Literature Review	I#	Interviews	FG#	Focus Group
					potential value of a knowledge wiki, and that having something available for people to learn from is preferable to having nothing, finding the time to make meaning contributions was seen to be a ‘nice to have’.
				FG9	There was little use of KM terminology in the group’s discussions.

Figure 6-5 Collated Themes from Each Element of the Experiment

Using a “*meaning coding*” approach, per Kvale (1996), the findings from each of the elements of the experiment are considered on a thematic basis below.

People, Process, and Technology

LR1, I4, FG2, and FG4 all reference the recognised need for change initiatives, of which KM is one, to be supported by the right balance between people, process, and technology. Too much focus on any one element will jeopardise the initiative as identified in Chapters Two and Three, sections 2.4, 2.5 and 3.2 (Fahey and Prusak, 1998; McDermott, 1999; Tirpak, 2005; Kalkan, 2008; and Coakes *et al.*, 2010).

Corporate Memory and Organisational Culture

LR2, I1, I3, and FG1 all point to the importance of the organisational context and protecting the organisation from knowledge loss, as well as ensuring new staff understand the organisational purpose and culture. The enabling nature of an organisation’s culture is a prominent theme throughout sections 2.5, 2.7, 2.8, 2.9, 3.2

and 3.4 (McDermott and O'Dell, 2001; Birkenshaw, 2001; Lausin *et al.*, 2003; Jennex *et al.*, 2009; and Richter *et al.*, 2013).

Technology

LR4, LR6, LR7, I5, and FG3 share a broad technology theme regarding ease of use, multi-media capabilities and, in particular, that modern technology, in particular Web 2.0 and wikis, have removed technology solutions as an inhibitor of KM initiatives, as set out in section 3.5 (Grace, 2009; Hester, 2010; Kane *et al.*, 2010; Tuzhilin, 2011; Richter *et al.*, 2013).

KM Terminology

LR3, I2, and FG9 all make reference to the potential risk associated with the use of confusing terminology specific to the KM realm, e.g. tacit, explicit, and even KM itself. The literature is rife, in particular in section 2.5, with commentary on the challenge facing KM because of its multidisciplinary nature where a common terminology has yet to emerge (Prusak, 1996; Davenport *et al.*, 1998; Hlupic *et al.*, 2002; Call, 2005).

Maintaining Momentum

I7, FG7, and FG8 each reference challenges faced by organisations in maintaining interest in, and on-going contributions to a wiki, in particular as participation tends to be voluntary in nature. Perhaps this can only be addressed by having a supportive culture in an organisation (Kalkan, 2008; Jackson, 2010) and, as set out in section 3.5, ensuring a corporate wiki has a purpose so that can users get something from it (Majchrzak *et al.*, 2006).

Other

LR5, I6, FG5, and FG6 all broadly relate to people:

- LR5 relates to the challenge of eliciting expert knowledge by enabling others to express and capture their key tacit knowledge, as set out in section 3.4 (Nonaka *et al.*, 2000; Fowler and Pryke, 2003).

- I6 relates to the human and leadership dimension of succession planning, i.e. growing your successor through mentoring and sharing your own knowledge and insights, and as discussed in section 2.9 (Trugman-Nikol, 2011; Joe *et al.*, 2013).
- FG5 and FG6 relate to content uploading. On the one hand the focus group agreed that content should not be moderated while at the same time expressing concern at the risk of poor quality or inaccurate contributions being posted. The literature supports both perspectives, i.e. as in section 3.5, there may be situations where moderation is appropriate (Grace, 2009).

This “*meaning coding*” approach indicates the core of commonality across all three strands of this experiment. These findings will now be subject to a final pass by the original three interviewees to get their relative perspectives on these emerging themes. The next section sets out the follow-up interviews and findings.

6.5 Interviewees Revisited

Following on from the focus group session, feedback on the evaluation outcome was sought individually from the three interviewees. This was done through a short follow-up interview discussion using the outcomes of the focus group to set an outline structure for the follow-up interview.

6.5.1 Structure for Follow-Up Interviews

Follow-up interviews are planned with each of the three original interviewees as part of the triangulation approach to evaluating the findings. The themes emerging from the literature review, interviews, and the focus group feedback on the use of *Knowiki* have been summarised as follows:

- The technology is no longer an inhibitor, or indeed a major factor, in efforts to support content capture and collaboration, formal and informal.
- Success of knowledge-based initiatives depend on striking the right balance between people, process, and technology.
- When using a wiki, or similar, to capture learnings and knowledge, maintaining on-going levels of engagement are a challenge given such initiatives tend to be voluntary.

- The recording of the history or legacy within an organisation is important, in particular around the why of decisions on policy and process design and their evolution.
- There is room for both formal and informal documentation in a wiki, i.e. capturing know-how / why alongside explicit procedural knowledge.
- Contributions should be open rather than managed to encourage participation.
- Having a way to draw people into a wiki, or similar, on a frequent basis would increase its chances of success, e.g. a weekly bulletin / update from management meetings, etc.
- Capturing lessons learned, and similar such learning activities, are now a routine part of how we do what we do.
- The potential for success of knowledge initiatives will be improved through the use of everyday language rather than academic terminology, e.g. use terms like know-how and expertise rather than tacit, explicit, etc.
- While embedding knowledge in systems to drive analytics and predictive analysis is important and can drive organisational efficiency and effectiveness, analytics only shows the presence of patterns. It requires knowledge and expertise to interpret these patterns and collecting / collating informal annotations can add real value, e.g. capturing the explanation as to why the system has found a particular pattern/ case.
- Effective succession planning starts the day you take up your job. It is primarily about identifying, investing in, and enabling the right people to be leaders of the future. However, could a tool such as the *Knowiki* in this experiment be a useful support for the succession planning process?

To facilitate the thematic review, in advance of the follow-up session, the three interviewees were provided with sample extracts from *Knowiki*, and its associated guide. They were also provided with a table of all the points set out above and were asked for their perspective on these points, i.e. agree, disagree, or unsure. A final concluding summary statement was made with which they were asked to agree or disagree:

Succession planning is a multidisciplinary challenge which is supported by a range of initiatives focussing primarily on investing in individuals and

supporting them, and their organisations, through effective capture of key expertise such as know-how and know-why.

The feedback gathered during the follow-up interviews is set out in the next section.

6.5.2 Observations from Follow Up Interviews

The section below summarises the feedback from the three interviewees on the themes put forward and Figure 6-6 below showing the summary of answers:

Theme	INT1	INT2	INT3
The technology is no longer an inhibitor, or indeed a major factor, in efforts to support content capture and collaboration, formal and informal.	✓	✓	✓
Success of knowledge-based initiatives depend on striking the right balance between people, process, and technology.	✓	✓	✓
When using a wiki, or similar, to capture learnings and knowledge, maintaining on-going levels of engagement are a challenge given such initiatives tend to be voluntary.	✓	✓	✓
The recording of the history or legacy within an organisation is important, in particular around the why of decisions on policy and process design and evolution.	✓	✓	✓
There is room for both formal and informal documentation in a wiki, i.e. capturing know-how/why alongside explicit procedural knowledge.	✓	✓	✓
Contributions should be open rather than managed to encourage participation.	✓	✓	✓
Having a way to draw people into a wiki, or similar, on a frequent basis would increase its chances of success, e.g. a weekly bulletin/ update from management meetings, etc.	✓	✓	✓
Capturing lessons learned, and similar such learning activities, are now a routine part of how we do what we do.	✗	✓	✓
The potential for success of knowledge initiatives will be improved through the use of everyday language rather than academic terminology, e.g. use terms like know-how and expertise rather than tacit, explicit, etc.	✓	✓	✓







While embedding knowledge in systems to drive analytics and predictive analysis is important and can drive organisational efficiency and effectiveness, analytics only shows the presence of patterns. It requires knowledge and expertise to interpret these patterns and collecting/ collating informal annotations can add real value, e.g. capturing the explanation as to why the system has found a particular pattern/ case.			
Effective succession planning starts the day you take up your job. It is primarily about identifying, investing in, and enabling the right people to be leaders of the future. However, could a tool like the wiki in this experiment be a useful support for the succession planning process?		 BUT!	

Figure 6-6 Summary Table of Responses

In terms of the questions posed, INT2 and INT3 generally agreed with all eleven statements, although INT2 somewhat qualified their agreement to the final statement, suggesting that induction needs to be more formal than the process set out and commented that “*we don’t do it.*”

INT1 generally agreed with the first statement, although suggested a qualifier in that technology is no longer a “*major*” inhibitor. INT1 also disagreed with two statements, that which suggests that KM is part of how things are now done in lessons learned and such activities, and also the statement on embedding knowledge to drive analytics. While recognising the extent to which organisations are engaging in lessons learning, INT1 suggests that this is valid “*up to a point*” and suggests that there is no guarantee that an organisation “*won’t learn the same lesson more than once.*” The context in which an issue arises may change and so it ultimately it depends on the knowledge and expertise of the person involved on the day as to whether they know enough to apply lessons already captured. In relation to the idea of embedding knowledge for analytics, INT1 suggests that, taking his perception of knowledge as being “*woolly*” and data as being very structured, it is about “*using knowledge to drive the analytics*” rather than the other way around.

There was broad agreement to the last statement although INT2 was somewhat unsure on the basis that succession planning is important enough to merit being a formal process which has corporate sponsorship and support.

All the three interviewees are in general agreement with the final overarching statement that succession planning is a multidisciplinary endeavour focussing on individuals and enabling them to capture and share their key knowledge and expertise with others. All agreed that succession planning is sufficiently important for organisations not to leave it to chance and that formal structures and processes should be put in place to support and enable it.

On the specific topic of a wiki, all were in broad agreement that there is merit in using a wiki to develop a repository of corporate knowledge, both formal and informal, and that the currency of content hosted on such a wiki must be maintained as a means of ensuring on-going user engagement. INT1 and INT2, in particular, expressed the view that any wiki should come with some guidance on use and with a broad structure to ensure that content is appropriate to be shared via such a medium. All agree that in order for a wiki to be successful it needs people to engage with it on an on-going basis. INT2 suggests that this can be done by ensuring “(a) it serves a purpose and (b) it eliminates some drudgery or other.” INT3 points to the challenge of people making time to participate with a wiki in the context of competing work demands, suggesting that it requires a conscious effort on the part of managers, in particular, to ensure that participation is not simply seen as a “nice to have” and indeed that senior staff should be leading by example. INT1 makes a similar point that contributing to the wiki is competing with other priorities and “we’re all just trying to get the job done.”

All interviewees see value in putting some structure and guidance in place in terms of the intended role for the wiki and also recognise the challenge of maintaining the wiki for the long term. INT2 suggests assigning an overall moderator to review the currency of content on an on-going basis. INT3 suggests there may be merit in embedding the wiki process into people’s roles, albeit that this goes against a wiki’s generally light-weight and voluntary nature, and that such an approach may enable this new way of working become part of the corporate culture.

Given the commonplace use of Social Software, including wikis, by newer entrants to the workforce, INT2 warned of the potential risk of inadvertent exposure of corporate

information through the posting of content on a cloud-based public service simply because ‘*social*’ is so much a part of people’s daily lives.

INT3 suggests that while wikis and Social Software are easy to use, there is merit in providing training for staff to ensure that everyone is exposed to the features available and how best these can be used to meet the organisation’s objectives for the wiki. Similarly in terms of terminology, INT3 suggests that while the terminology used to describe KM initiatives should not be a factor, there may be more value in having a common vocabulary which is understood in the particular organisation’s context.

INT1 agrees that wikis, and Social Software, are certainly easier to use in and of themselves. However, the process by which people tend to do their work revolves around e-mail, with documents attached, as the mechanism for working together resulting in an absence of clarity around the final or primary version of a document. Wikis and such tools are not a natural fit in that model and there needs to be a certain discipline applied to use these effectively and a “*better process*” put in place to support a new way of working. The migration to this new way of working is therefore a change management challenge to move organisations away from the traditional business operating model to one supported by such collaboration-ready tools.

INT3 wonders if there might be any unintended consequences from capturing the background as to ‘the why’ of decisions or processes, perhaps in the context of a new manager wanting to put their particular stamp on how things are done.

While more broadly in the KM space, INT2 also pointed to the use of automated tools in the application development space to capture build and testing processes to protect key knowledge, albeit lower level knowledge, and guard against the risk from “*the only living expert.*”.

In summary, the common consensus seems to recognise a potential role for a wiki in terms of supporting KM for succession planning, but that the capture and sharing of knowledge should be only one element in an overall strategic approach to succession planning by organisations. The opportunities and challenges for a corporate wiki,

discussed on foot of this experiment, echo those established from the literature with the possibilities identified by Grace (2009), Levy (2009), Jackson (2010) and Majchrzak *et al.* (2006), the challenges identified by Grace (2009), Richards (2009), Jackson (2010), Garcia-Perez and Ayres (2010), and Richter *et al.* (2013) and, even back in the early days of KM, a recognition of the need for better processes and methods (Wiig, 1997).

6.6 Conclusions

The evaluation of the outcome of the experiment is discussed in this chapter. The chapter included a review of the *Knowiki* solution used for this experiment, its positives and challenges, the outcome of the focus group discussion with those using *Knowiki* and general observations on that process, and a follow-up interview with each of the original interviewees to discuss the overall findings.

The following summary emerges when the themes from each element of the experiment are triangulated. The dominant theme is that people, process, and technology, and the right balance thereof, are the key pillars needed to scaffold effective collaboration and knowledge sharing. There was a consensus that while there is obvious merit in the proposed approach, a significant challenge is to maintain an on-going enthusiasm for the capture of knowledge in the wiki as well as maintaining the currency of knowledge stored. While organisational culture plays a key role, there is also the challenge of finding space, in already crowded schedules, to make the time to create and post valuable knowledge-level content. The technology is less of a challenge than previously, and in particular for IT functions engaging with such technologies. Within the troika of people, process, and technology, it is the people that are the overriding and most important factor. While a wiki can give staff in organisations an opportunity to demonstrate their skills, expertise, and knowledge on their own terms, given the informal nature of a wiki, this is, by no means, a guarantee of success. The generally informal and voluntary nature of contributions to wikis, or similar such templates, while potentially useful as scaffolds to enable capture and sharing of knowledge, means that engagement by contributors can be sporadic. It may also mean that the initial enthusiasm will wear off over time, particularly if the individuals themselves perceive the wiki is of no obvious benefit to them personally. The next, and final, chapter will set out the conclusions and findings from the experiment as well as areas for potential future work.

7 CONCLUSIONS AND FUTURE WORK

7.1 Introduction

This chapter will bring together the outcomes of the literature review, interviews, case study, the running of the experiment and focus group discussions, and set out the conclusions identified as a result of the process involved in undertaking this dissertation. The aim of this dissertation was to assess the potential of using a knowledge management framework to support effective knowledge retention and succession planning in the Civil Service.

Chapter Two began the literature review and initially set out the evolution of business and the introduction of knowledge as a key competitive and sustainability factor. It went on to consider what is knowledge management and the range of definitions that abound; why organisations undertake KM initiatives; the challenges facing KM given its multi-disciplinary nature; the impact of organisational culture on KM; the KM life cycle; determining what is successful KM; KM in the public sector; and, the current potential opportunity for KM to support modern organisations, and the multi-generational workplace, in mitigating the risk of loss of corporate knowledge as a result of the high levels of mobility and retirements.

Chapter Three then went on to consider what potential there is, if any, for modern tools to be more effective in supporting KM initiatives, in particular when it comes to the elusive form that is tacit knowledge. Chapter Three also considered the implications of Web 2.0, and in particular wikis, for KM given these modern tools are more user-centric, flexible, and adaptable. These tools are also very much second nature to the next generation entering the workforce, i.e. the digitally native Millennials.

Chapters Four and Five discuss the development of the experiment for this project. Three Civil Service Departments agreed to participate with this project. Interviews were held with three senior staff who themselves were relatively new appointees in their current positions. The purpose of these interviews was to understand the organisational approach to induction and succession planning, their own personal experiences of how KM supported them in acquiring the key skills and knowledge needed for their new

roles, and also to discuss their views on the potential of Social Software as a technology support for successful KM. An interview-based case study was also conducted to learn about the current use of a wiki as a KM tool by one of the organisations. Based on the literature review, case study, and interviews a template for a knowledge wiki was created and published on the intranet of one of the organisations. Middle and senior management staff were invited to participate in terms of contributing and providing feedback on the wiki. A guidance wiki was also implemented to set the context for and outline suggestions as to the purpose of the exercise.

In Chapter Six the conclusions from the experiment are set out. The process included a focus group discussion to evaluate the wiki and assess its potential future use. Three follow-up interviews were also held with the original interviewees to seek their comments on the findings from the trial. The themes from across the three strands of this experiment were collated using a “*meaning coding*” approach which highlighted five main elements. Chapter Seven will now proceed to develop the overall conclusions to be taken from the experiment and identify potential future work that could be undertaken on foot of this dissertation.

7.2 Conclusions

This section will summarise the learnings and conclusions from this experiment and suggested possible ways of ensuring success when implementing a knowledge wiki to support effective succession planning in an organisation.

Firstly, set out below are some of the key themes identified from the various strands of the experiment, i.e. the literature review, the interviews, the wiki implementation and focus group review, which indicate potential areas for consideration when looking to use a KM approach to support effective succession planning:

1. It is vital to strike the right balance between people, process, and technology when implementing KM initiatives. Over-emphasis on any one element, in particular the technology, is cited as a key reason why KM has often failed to deliver on its promise.

2. A wiki has significant potential to be an effective tool to support the capture, storage, sharing and reuse of key tacit knowledge – knowing why things are done the way they are by an organisation can be essential to an organisation’s reputation or success. However, there is merit in providing structure and guidance around the types of content appropriate to host in the wiki and how the currency of such content is managed.
3. When discussing KM, and the various forms of knowledge, it is important to use ‘plain English’ which has a shared meaning for an organisation, and to avoid the use of overly academic terms which may risk confusion and discourage engagement.
4. It is important to avoid getting overly caught up in the technology being used to support a KM initiative so as to ensure the focus is on the key knowledge outcomes and outputs – there is no point in having a fancy wiki if it stores no content of any real value.
5. Provide mechanisms and guidance for those participating in the wiki, or a KM endeavour, to enable them express key tacit knowledge so they can capture it. This may include specific elicitations supported by third parties, e.g. record a short knowledge interview which is posted to the wiki.
6. Adopt an easy to use tool which is flexible and adaptable, to capture key points of knowledge on the fly. The tool should be one which is available on any device, from any location, and at any time.
7. Consider the format of content in terms of ease of consumption rather than creation. Content should come in a range of formats including text, diagrams / images and multi-media. The target audience should be at the forefront of the content creators thinking to ensure that this content is readily consumable by others, in particular novices in the organisation.

Based on the experience with this experiment, the following learnings might help ensure the success of using a KM approach to support effective succession planning in the Civil Service:

7.2.1 *Start from the Beginning*

Succession planning should start from the day a person joins the organisation. The old adage that ‘you only get one chance to make a first impression’ is very relevant here. Ensuring all new starts in the Civil Service are exposed early to what is the culture, ethos, and values of the Civil Service, and their appointed Department, sets the tone and overall context for their engagement with the CS system into the future. This is the ideal time to set expectations around the need to collaborate and share knowledge and expertise with colleagues from the outset. A common theme across the interviews is the importance of succession planning and the need to take a more formal and strategic approach to meeting this challenge.

7.2.2 *Lead by Example*

As with any change, the relative success of KM initiatives will depend on the appropriate level of engagement and sponsorship from the top levels of the organisation. Active engagement at Principal Officer level would ensure all business units are engaged with a *Knowiki* process and that content is managed and maintained on an on-going basis. The need for leadership of change initiatives, of which KM is one form, was called out in the interviews and is also reflected in the discussions in the literature review of the importance of having leadership and the right organisation culture to support KM (McDermott and O’Dell, 2001; Call, 2005; Tirpak, 2005; Jennex *et al.*, 2009).

7.2.3 *What’s in it for Me?*

Design the wiki so that there is a reason for people to be engaged with it on an ongoing basis, both in terms of consuming and creating content, i.e. “(a) *it serves a purpose and (b) it eliminates some drudgery.*” Benefits to the individual, the team, and the organisation can be achieved through embedding corporate processes in the organisational knowledge wiki, e.g. auto-completion of administrative forms. The need for users to get something from a wiki in order for it to persist is recognised in each of the literature, the interviews, and the focus group. Majchrzak *et al.* (2006) advise organisations of the importance of ensuring there are benefits for participants in order to ensure a wiki is sustained over time.

7.2.4 *Don't Leave it to Chance*

Succession planning is too important for organisations to leave it to chance. The impacts continue to be felt across the CS from the uncontrolled loss of key knowledge as a result of the Incentivised Scheme for Early Retirement. A knowledge wiki should form part of a strategic initiative across the CS to build and grow leaders of the future and harness the contributions of current leaders. The impact of the loss of key staff is acknowledged by the literature with Hoffmann *et al.* (2008) describing the “*outright panic*” that can happen when organisations realise there is no plan to capture knowledge of people leaving the organisation. The interviews also support that perspective given the knowledge impact experienced by the Irish Civil Service as a result of the significant levels of people taking up the ISER.

7.2.5 *Wiki-Leads*

Modern tools, including wikis, with which the new generations in the workforce are so familiar in their personal lives, are accessible, adaptable, and ideally suited to KM purposes. The ease with which multi-format and multi-media content can be embedded in a wiki has the potential to transform the knowledge capture, sharing and collaboration experience. The familiarity of newer staff with such tools gives an opportunity for ‘reverse mentoring’ of more established staff which may also benefit the culture of collaboration within a team / division / Department. However, Grace (2009), while advocating the ease of use of a wiki, also suggests that there is merit in giving users training to cater for the variation in skills levels.

7.2.6 *Old Rules are still Good Rules*⁸

To mitigate the risk of unwitting exposure of corporate information on the internet, rules and best practice in how to use a corporate knowledge wiki should be considered. While the expectation with wikis can be that they are informal in nature, when implementing a knowledge wiki for a corporate purpose, there is merit in putting in place an overarching structure. The structure can be supported with some guidance on how to use the wiki so

⁸ This is the title of a document published by the Centre for Management, Organisation, and Development, Department of Finance, and related to records management practice in the electronic era.

that users understand what is expected of them. This approach will also ensure that contributors are clear as to what is appropriate for posting to the wiki and, perhaps more importantly, the types of content that is not, e.g. application source code. This perspective was very much a topic of discussion at the interviews and also the focus group. If a wiki is to be of importance organisationally, its use should be scaffolded with some structure and guidance on the approach to content expected by the organisation. Levy (2009) advocates for the use of wiki while also urging caution around the potential impact if organisations lose control.

7.2.7 Never Forget

The ambition with Knowiki is that it becomes a key pillar by which an organisation can ensure it does not risk of the loss of key expertise and knowledge. The lessons from the recent experience of the CS following the ISER should not be lost. Embedding succession planning, in all its guises, as a core element of the work of any individual, team, division, and Department should be a priority. The importance of succession planning is already highlighted in 7.2.1 and 7.2.4 and this endeavour will need a range of supports to assure its success, one of which could be a wiki. Kane *et al.* (2010) suggest that “*Knowledge management gets at the knowledge that is in employee’s head, and social networking tools are a way to collect it.*”

7.2.8 Invest for the Future

For IT functions, and applications development areas in particular, consider the automation of the build and test processes to minimise dependencies on key people’s knowledge and skills, especially given the higher levels of mobility in the modern workplace. Organisations should also be looking to data analytics and predictive analysis, embedding key organisational knowledge in systems and processes, to support more effective and consistent decision making in particular where the decisions relate to customer outcomes. In a recent article for the Wall St Journal, Davenport (2015) suggests that KM to date has failed to take account of knowledge resulting from data analytics.

7.2.9 People for Profit

Effective succession planning is fundamentally about people – enabling those who are more established in their roles to share their knowledge and experience with those who will succeed them in the future. The 360° performance review process is an ideal opportunity for managers to share their expertise with their own staff who may not fully understand what their manager does. Organisations can only benefit from investing in effective succession planning and by embedding supporting practices, such as a knowledge wiki, within the culture and ethos of the organisation. The interview discussions placed significant emphasis on the ‘people dimension’ of succession planning. The literature is also rife with the theme that the right balance needs to be struck between people, process, and technology in order for KM initiatives to succeed, (Call, 2005; Tirpak, 2005; Kalkan, 2008; Coakes *et al.*, 2010; Dave *et al.*, 2012), in particular given that “*knowing is a human act*” (McDermott, 1999).

7.3 Future Work

The perspective of those who participated in any way in this dissertation and experiment is that there is merit in KM to support retention and sharing of key knowledge and expertise so that it is available to staff in an organisation. Looking at potential future application or extension of this dissertation, a number of areas for further research might include:

7.3.1 Adapting Knowiki

Assessing how an adapted version of the wiki developed for this experiment could prove more effective in terms of engagement of participants. A focus on visual representation of content, through diagrams and images, which can click-through to more detailed content, might enable the wiki gain more traction - see Figure 7-1 below which is an example of any approach to a more feature-rich the organisation chart:

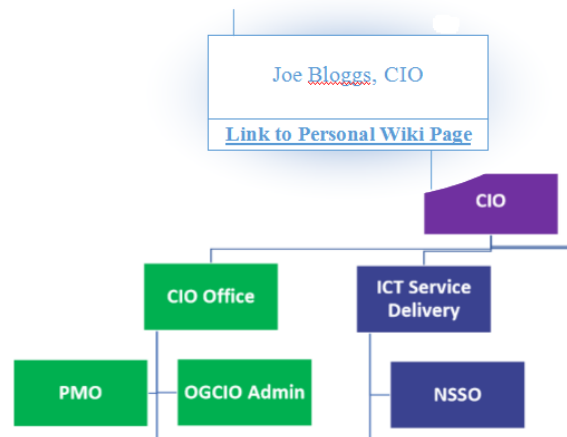


Figure 7-1 Adapting *Knowiki*

To investigate this process it would be interesting to present half the participant group with the visually-based wiki representation and half with the non-visual representation. The experiment would then look to identify if there is any difference in the overall level of recall of the content between the two groups. Another experiment involving these two groups might consider the impact of multimedia knowledge-level content on participation levels. A further experiment could be to consider the impact of developing elicitation skills within organisations to assess if that improves the quality of the knowledge captured.

7.3.2 *Dashboards for Knowiki*

Consider the impact of dashboards, showing relative levels of contributions to corporate knowledge wikis, to address the “*what’s in it for me?*” participation challenge. A dashboard is a data visualisation tool used by organisations to present content from business systems in a more user-friendly graphical format. The Knowiki dashboard could present statistics on the number of content edits, by whom, by team / section / division, the frequency of content updates and views, etc.



Figure 7-2 Dashboards for *Knowiki*⁹

This experiment would consider the impact of introducing a range of different forms of dashboard, each presenting different types of interactions, on the overall levels of engagement with *Knowiki* over a period of time.

7.3.3 *Knowiki Combined*

Given wikis tend to be generally informal in nature, what would be the impact of embedding corporate processes in a knowledge wiki, e.g. perhaps certain content uploaded automatically populates annual performance management forms as part of the performance review process. Could that discourage engagement? Might that be offset by multi-purposing content creation so that certain types of contribution to *Knowiki* also initiates an auto-completion of a corporate process thereby eliminating an administrative task for the individual? Consider embedding a process such as completing the corporate organisation chart via *Knowiki* and task all new starts with completing their own entry in the Organisation Chart which should include their photo, a short biography about themselves including their skills and experience. Might such an approach address the challenge of maintaining on-going interaction with the wiki?

To do an experiment on this concept, it would be interesting to work with two groups - one group would have access to a wiki that contains strictly corporate knowledge, the

⁹ From the US Patents Office Dashboard website available at: <http://www.uspto.gov/dashboards/patents/main.dashxml>

second engages with a wiki that includes a blend of corporate and personal content. The experiment would consider the impact of both approaches on wiki sustainability.

7.3.4 Knowiki Realms

Using Knowiki, how might a balance be achieved between knowledge that is need-to-share and knowledge that is need-to-know? The more senior the person is in an organisation, the more likely they are to acquire skills and knowledge that is not appropriate for general sharing. However, there is value in sharing such more restricted knowledge among peers. There may be value in researching how to enable such sharing on a corporate-wide wiki which can implement access restrictions on certain types of content, created within generally open areas, to certain types of users.

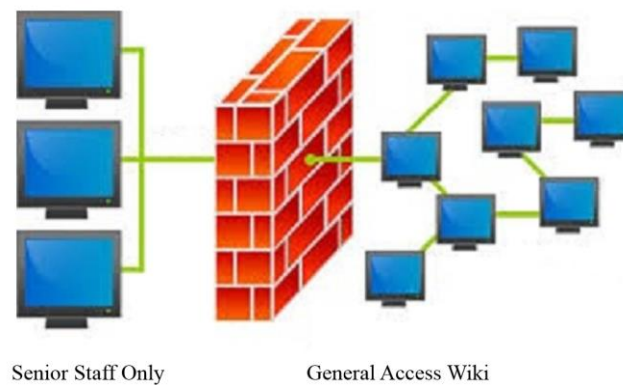


Figure 7-3 Knowiki Realms

The participant group for this experiment would be senior staff who would populate the wiki on the basis that access is available only to closed group. Then this group would be interviewed to assess how free they were with content uploads among their peers. They would then be questioned on how differently they may have contributed, including possibly adjusting their writing style, if the wiki was to be made generally available to staff at all levels across the organisation.

7.3.5 Mandating Knowiki

Is the informal nature of content posted to corporate wikis of real concern or is it of more value to accept any such risks by encouraging high levels of participation and contributions? Is there any potential for higher levels of success with a knowledge wiki if it is formally mandated with a moderator / owner who has the role of reviewing content

for currency and accuracy, or is this contrary to the user expectations of a wiki? Is there a potential security risk of unwitting exposure of sensitive corporate data and knowledge onto public cloud-based wikis as a result of the blurring of lines between personal and corporate knowledge sharing, in particular if similar tools are used for both?

This experiment would involve conducting a longitudinal study, working with a selection of recent recruits to the Civil Service, starting with a highly moderated wiki initially and over time loosening the controls and lessening the role of the moderator. At the various staging points along the way, the experiment might consider the impact on participants to see if anyone has taken over the role of the moderator or will it be that ‘*good practice*’ will become embedded as participants have learned from experience that which is considered to be acceptable and appropriate content.

7.3.6 Knowiki for All

Does the upcoming introduction of a Civil Service-wide induction process, which is emerging under the Civil Service Renewal Action for Learning and Development, present an opportunity for a wiki-based induction programme? A programme wiki could have multi-media content and run in parallel with an instructor-led programme to support new recruits as a Community of Practice learning together about the ethos, values, standards, and common procedures and practices across the CS? Could active participation in such a wiki be a mandatory element of the learning goals set for new recruits under their probation and performance management and development programmes? Would personalised organisational and divisional induction prove more effective in equipping staff with the key knowledge they need for their role? Such an approach will allow a new recruit build on their existing knowledge, skills, and experience and get at the new knowledge they need.

The experiment here could be to examine how the current induction processes work across the CS, contrast the learning goals of each, conduct a triadic elicitation to identify areas of commonality and difference, and assess the potential of a wiki to enable consistency in approach across the range of organisations in the CS, some of whom are operational, others have primarily a policy focus, and to see how such an approach might evolve.

8 BIBLIOGRAPHY

- Birkinshaw, J. (2001). Why is Knowledge Management So Difficult? *Business Strategy Review*, 12(1), 11-18.
- Birkinshaw, J. & Sheehan, T. (2002). Managing the Knowledge Life Cycle. *MIT Sloan Management Review*, 44(1), 75-83.
- Call, D. (2005). Knowledge management – not rocket science. *Journal of Knowledge Management*, 9(2), 19-30.
- Choi, Y., Jeong, S., & Commuri, C. (2009). Importance and success of knowledge management in public administration. *Review of Business Research*, 9(4), 127-134.
- Coakes, E., Amar, A.D., & Granados, M.L. (2010). Knowledge management, strategy, and technology: a global snapshot. *Journal of Enterprise Information Management*, 23(3), 282-304.
- Daghfous, A., Belkhodja, O., & Angell, L. (2013). Understanding and managing knowledge loss. *Journal of Knowledge Management*, 17(5), 639-660.
- Dave, M., Dave, M., & Shishodia, Y. (2012). Emerging Trends and Technologies in Knowledge Management: A Holistic Vision. *International Journal of Recent Research and Review*, 3(1), 60-67.
- Davenport, T., De Long, D., & Beers, C. (1998). Successful Knowledge Management Projects. *Sloan Management Review*, 39(2), 43-57.
- De Long, D. W., Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. *Academy of Management Executives*, 14(4), 113-27.
- Despres, C., & Chauvel, D. (1999). Knowledge management (s). *Journal of knowledge Management*, 3(2), 110-123.
- Drucker, P. (1985). The discipline of innovation. *Harvard Business Review*, May/Jun85, 63(3), 67-72.
- Drucker, P. (1988). The coming of the new organisation. *Harvard Business Review*, January, 45-53, Available at: <https://hbr.org/1988/01/the-coming-of-the-new-organization>. [Accessed on 30 October 2015].
- Drucker, P. (1999). Knowledge worker productivity: the biggest challenge. *California Management Review*, 41(2), 79-94.
- Fahey, L. & Prusak, L. (1998). The eleven deadliest sins of knowledge management. *California Management Review*, 40(3), 265-276.

- Fowler, A. & Pryke, J. (2003). Knowledge management in public service provision: the Child Support Agency. *International Journal of Service Industry Management*, 14(3), 254-283.
- Garcia-Perez, A & Ayres, R. (2010). Wikifailure: the Limitations of Technology for Knowledge Sharing. *Electronic Journal of Knowledge Management*, 8(1), 43 – 52.
- Gardner, B. (2013). Making sense of Enterprise 2.0. *VINE: the journal of information and knowledge management systems*, 43(2), 149-160.
- Grace, T. P. L. (2009). Wikis as a knowledge management tool,' *Journal of Knowledge Management*, 13(4), 64-74.
- Grant, K. (2011). Knowledge Management, an Enduring but Confusing Fashion. *The Electronic Journal of Knowledge Management*, 9(2), 117-131.
- Helm-Stevens, R. (2010). Managing human capital: How to use knowledge management to transfer knowledge in today's multi-generational workforce. *International Business Research*, 3(3), 77-83.
- Hester, A. J. (2010). Increasing collaborative knowledge management in your organization: characteristics of wiki technology and wiki users. In *Proceedings of the 2010 Special Interest Group on Management Information System's 48th annual conference on Computer personnel research on Computer personnel research*, 158-164.
- Hislop, D. (2010). Knowledge management as an ephemeral management fashion? *Journal of Knowledge Management*, 14(6), 779-790.
- Hlupic, V., Pouloudi, A., & Rzevski, G. (2002), Towards an Integrated Approach to Knowledge Management: 'Hard', 'Soft', and 'Abstract' Issues'. *Knowledge and Process Management*, 9(2), 90-102.
- Hoffman, R., Ziebell, D., Fiore, S., & Becerra-Fernandez, I. (2008). Knowledge Management Revisited. *IEEE Intelligent Systems*, 23(3), 84-88.
- Jackson, P. (2010). Capturing, structuring and maintaining knowledge: a Social Software approach. *Industrial Management and Data Systems*, 110(6), 908-929.
- Jennex, M. E., Smolnik, S., Croasdell, D. T. (2009). Towards a consensus knowledge management success definition. *VINE: the journal of information and knowledge management systems*, 39(2), 174-88.
- Joe, C., Yoong, P., & Patel, K. (2013). Knowledge loss when older experts leave knowledge-intensive organisations. *Journal of Knowledge Management*, 17(6), 913-927.

- Kalkan V. D. (2008). An overall view of knowledge management challenges for global business. *Business Process Management Journal*, 14(3), 390-400.
- Kane, K., Robinson-Combre, J., & Berge, Z. L. (2010). Tapping into social networking: Collaborating enhances both knowledge management and e-learning. *VINE: the journal of information and knowledge management systems*, 40(1), 62-70.
- Kvale, S. (1996). Interviews: An introduction to qualitative research interviewing. Studentlitteratur, Lund, 8.
- Lausin, A., Desouza, K. C., & Kraft, G. D. (2003). Knowledge Management in the US Army. *Knowledge and Process Management*, 10(4), 218-230.
- Levy, M. (2009). Web 2.0 implications on knowledge management. *Journal of Knowledge Management*, 13(1), 120-134.
- Levy, M. (2011). Knowledge retention: minimizing organizational business loss. *Journal of Knowledge Management*, 15(4), 582-600.
- Majchrzak, A., Wagner, C., & Yates, D. (2006). Corporate wiki users: results of a survey. In *Proceedings of the 2006 international symposium on Wikis. August*, 99-104. ACM.
- Massaro, M., Dumay, J., & Garlatti, A. (2015). Public sector knowledge management: a structured literature review. *Journal of Knowledge Management*, 19(3), 530-558.
- Mayfield, M. (2010). Tacit knowledge sharing: techniques for putting a powerful tool in practice. *Development and Learning in Organisations*, 24(1), 24-26.
- McDermott, R. (1999). Why Information Technology Inspired But Cannot Deliver Knowledge Management. *California Management Review*, 41(4), 103-117.
- McDermott, R. & O'Dell, C. (2001). Overcoming cultural barriers to sharing knowledge. *Journal of Knowledge Management*, 5(1), 76-85.
- Nonaka, I. (1994). A Dynamic Theory of Organisational Knowledge Creation. *Organization Science*, 5(1), 14-37.
- Nonaka, I. & Peltokorpi, V. (2006). Objectivity and Subjectivity in Knowledge Management: A Review of 20 Top Articles. *Knowledge Process Management*, 13(2), 73-82.
- Nonaka, I., Toyama, R., & Konno, N. (2000). SECI, Ba and Leadership: a Unified Model of Dynamic Knowledge Creation. *Long Range Planning*, 33(1), 5-34.
- O'Riordan, J. (2005). *A Review of Knowledge Management in the Irish Civil Service*. 30, Dublin: Institute of Public Administration.

- Panahi, S., Watson, J., & Partridge, H. (2013). Towards tacit knowledge sharing over social web tools. *Journal of Knowledge Management*, 17(3), 379-397.
- Payne, J. (2008). Using wikis and blogs to improve collaboration and knowledge sharing. *Strategic HR Review*, 7(3), 5-12.
- Pillania R. K. (2009). Demystifying knowledge management'. *Business Strategy Series*, 10(2), 96-99.
- Pink, D. H. (2011). *Drive: The surprising truth about what motivates us*. Penguin.
- Prensky, M. (2001). Digital natives, Digital Immigrants. *On the Horizon*, 9(5), 1-6.
- Prusak, L. (1996). The knowledge advantage. *Planning Review*, 24(2), 6-8.
- Ragab, A. & Arisha, A. (2013). Knowledge management and measurement: a critical review. *Journal of Knowledge Management*, 17(6), 873-901.
- Razmerita, L., Kirchner, K., & Sudzina, F. (2009). Personal knowledge management: The role of Web 2.0 tools for managing knowledge at individual and organisational levels. *Online Information Review*, 33(6), 1021-39.
- Richards, D. (2009). A social software/Web 2.0 approach to collaborative knowledge engineering. *Information Sciences*, 179(15), 2515-2523.
- Richter, A., Stocker, A., Muller, S., Avram, G. (2013). Knowledge management goals revisited – a cross-sectional analysis of social software adoption in corporate environments. *VINE: the journal of information and knowledge management systems*, 41(2), 132-148.
- Riege, A. & Lindsay, N. (2006). Knowledge management in the public sector: stakeholder partnerships in the public policy development. *Journal of Knowledge Management*, 10(3), 24-39.
- Rowley, J. (1999). What is knowledge management? *Library Management*, 20(8), 416-420.
- Serenko, A. & Bontis, N (2004). Meta-Review of Knowledge Management and Intellectual Capital Literature: Citation Impact and Research Productivity Rankings. *Knowledge and Process Management*, 11(3), 185-198.
- Serenko, A. & Bontis, N. (2013). Global ranking of knowledge management and intellectual capital academic journals: 2013 update. *Journal of Knowledge Management*, 17(2), 307-326.
- Singh, S. P. (2007). What are we managing – knowledge or information? *VINE: the journal of information and knowledge management systems*, 37(2), 169 – 79.

- Slagter, F. (2007). Knowledge management among the older workforce. *Journal of Knowledge Management*, 11(4), 82-96.
- Sultan, N. (2012). Knowledge management in the age of cloud computing and Web 2.0: Experiencing the power of disruptive innovations. *International Journal of Information Management*, 33, 160-165.
- Tirpak, T. M. (2005). Five steps to effective knowledge management. *Research Technology Management*, 48(3), 15-16.
- Trugman-Nikol, G. L. (2011). Lost knowledge—What is the cost?. *Journal of Corporate Accounting & Finance*, 22(2), 55-60.
- Tuzhilin, A. (2011). Knowledge Management Revisited: Old Dogs, New Tricks. *ACM Transactions on Management Information Systems*, 2(3), 13:1-11.
- Tzortzaki, A. M. & Mihiotis, A. (2014). A Review of Knowledge Management Theory and Future Directions. *Knowledge and Process Management*, 21(1), 29-41.
- Von Krogh, G (2012). How does Social Software change knowledge management? Toward a strategic research agenda. *Journal of Strategic Information Systems*, 21, 154-164.
- Wiig, K. (1997). Knowledge Management: An Introduction and Perspective. *Journal of Knowledge Management*, 1(1), 6-14.
- Wiig, K. (1997). Knowledge management: Where did it come from and where will it go? *Expert Systems with Applications*, 13(1), 1-14.
- Wiig, K. (2002). Knowledge Management in public administration. *Journal of Knowledge Management*, 6(3), 224-239.
- Zack, M., McKeen, J., & Singh, S. (2009). Knowledge management and organizational performance: an exploratory analysis. *Journal of Knowledge Management*, 1(6), 392-409.

9 APPENDIX 1 – THE FIRST INTERVIEW

The following is the document sent to the three interviewees in advance of the first context interview.

Experiment – to assess how a knowledge management approach might support effective succession planning through capturing and of experts' knowledge.

Stage 1 – Context Interviews

The purpose of this interview is to gain some understanding of the approach to and challenges faced in retaining and sharing key knowledge where there is staff turnover and mobility. In particular, I am interested to learn how those taking up new roles have acquired the key knowledge necessary for them to be effective in their role.

While my interest here is on the individual dimension, and how a person can be supported, it would be helpful to have some general context around the organisation's approach to this challenge.

Any views, comments, and observations will be anonymous.

Organisational Perspective

Is there a formal organisational induction programme in place? Is there an Organisational Learning & Development initiative across the organisation? Is participation be mandatory? Across all levels?

Does your organisation have any specific measures in place to support retention of knowledge to support staff rotation/ turnover? Is there a particular focus on the type of knowledge, e.g. Know-how and Know-Why vs procedures and practices e.g. Records Management, Knowledge Base of Department Procedures/ How-Tos?

Are such measures successful? If so, how is that success measured? If not, why is that? What, if any, impact does the scale of the organisation, or your division, have on the need for / effectiveness of such measures? Does size matter?

What are the key enabling, or indeed disabling, factors for these initiatives? Can you suggest at least 3, e.g. management buy in, open and trusting culture, effective

processes, communities of practice to share and develop knowledge, Recognition that there is a problem, e.g. record keeping practices, etc?

Are there other factors which can negatively impact on successful knowledge retention efforts, e.g. too much other work to do, takes time away from doing the job, knowledge is considered to be power and may not be readily shared, not part of the organisation's culture, size matters, etc? Why and how do these impact?

What role does technology play in supporting these processes and practices to gather Know-How and Know-Why? How widely used are these systems –this question may be answered already?

Is there more that should/~~can~~ be done to ensure key personal knowledge is retained? In your view, are there sufficient potential benefits to merit greater attention be given to this topic by your organisation/ the Civil Service generally?

Your Personal Perspective

Are there things, ideally 3 or more (!!), that you would do /not do/ have done differently had you known then what you know now?

What things, ideally 5 or more, have you learned that would it have been worth knowing when you took up your new role?

How much of an enabling factor, in knowing what you need to know, was your pre-existing knowledge of the organisation, its people, culture, etc? Was one of these the stand-out advantage/ insight? How might someone from outside the organisation have addressed that challenge?

When you moved into your current role, how did you go about establishing and learning what you need to know?

Have there been any situations where you didn't know where to go for an answer? How did you resolve that challenge? What did you do then? Can you give a specific example and explain how you addressed?

Could additional supports than have been of benefit to you – particularly where you didn't know the answer? What form might these take – people/ process/ technology – and how would they have benefitted you?

In planning ahead to your next move(!), and if you were given the scope to influence the handover process, are there measures you would put in place that would ensure you would have access to the additional, new knowledge that you will need?

Approach to Knowledge Capture & Sharing

What could we put in place to support capture and sharing of key knowledge?

Let's not talk about these specifically – the technology is really no mystery at all, challenge is more people & process perhaps?? Use templates to guide people on what to write down.

What role might there be for Social Software

- Wiki – a corporate wiki, tagged, specific topics, named contributions
- Tags – Folksonomy/ Taxonomy
- Format
 - Multi-media content
 - Annotated documents/ presentations/ screen grabs etc

Will people engage with such services? *What might be the carrots to get people to use?*

Do you think there is any need for a variation in between newer recruits and more established staff? Is it more the approach to Information exchange? Relevant question??

How can we encourage participation? Might PMDS have a role here?

Is there anything further that you might like to add that could contribute to the conversation?

Thank you for your time.

10 APPENDIX 2 – FOLLOW-UP INTERVIEWS

Some General Themes Emerging from this Project

You might indicate if you agree with the perspective set out / have no particular view/ disagree.

We might have a quick chat about themes other than those with which you agree. We might also briefly discuss any stand-out themes that you think are of greater importance in the overall context of using a knowledge management approach to support succession planning.

Theme	Agree	Unsure	Disagree
The technology is no longer an inhibitor, or indeed a major factor, in efforts to support content capture and collaboration, formal and informal.			
Success of knowledge-based initiatives depend on striking the right balance between people, process, and technology.			
When using a wiki, or similar, to capture learnings and knowledge, maintaining on-going levels of engagement are a challenge given such initiatives tend to be voluntary.			
The recording of the history or legacy within an organisation is important, in particular around the why of decisions on policy and process design and evolution.			
There is room for both formal and informal documentation in a wiki, i.e. capturing know-how/why alongside explicit procedural knowledge.			
Contributions should be open rather than managed to encourage participation.			
Having a way to draw people into a wiki, or similar, on a frequent basis would increase its chances of success, e.g. a weekly bulletin/ update from management meetings, etc.			
Capturing lessons learned, and similar such learning activities, are now a routine part of how we do what we do.			
The potential for success of knowledge initiatives will be improved through the use of everyday language rather than academic terminology, e.g. use terms like know-how and expertise rather than tacit, explicit, etc.			
While embedding knowledge in systems to drive analytics and predictive analysis is important and can drive organisational efficiency and effectiveness, analytics only shows the presence of patterns. It requires knowledge and expertise to interpret these patterns and collecting/ collating informal annotations can add real value, e.g. capturing the explanation as to why the system has found a particular pattern/ case.			
Effective succession planning starts the day you take up your job. It is primarily about identifying, investing in, and enabling the right people to be leaders of the future. However, could a tool like the wiki in this experiment be a useful support for the succession planning process?			

In summary, would you generally agree with the following?

Succession planning is a multidisciplinary challenge which is supported by a range of initiatives focussing primarily on investing in individuals and supporting them, and their

organisations, through effective capture of key expertise such as know-how, and know-why.

Would you concur? Are there additional elements you feel should be highlighted?

11 APPENDIX 3 THE WIKI

The following extracts from the wikis put in place for this experiment were provided to the three interviewees as background for the follow-up interview.

Topic - Using a Knowledge Management Approach to Support Effective Succession Planning in the Civil Service

The experiment has been to establish the potential of a wiki to support succession planning within a division. Those invited to participate were APs & POs. Two wikis were provided to the group, one was simply a guide. These were stored in a common area on the SharePoint Intranet and based on OneNote, available in either full client or Web App.

The Guidance Wiki – Screen Shots



The screenshot shows a SharePoint Wiki page titled "The OGCIO Wiki". The page is part of a "Suggested Structure for OGC..." and has tabs for "Introduction" and "Structure". The main content area includes a date and time stamp "07 February 2016 14:29" and a link to "Welcome to the OGCIO - All You Need to Know 2016". The text describes the purpose of the wiki as a semi-structured collection of useful knowledge for sharing within OGCIO. The page is signed off by "CIO Office".

Suggested Structure for OGC... ▾ Introduction Structure +

+ Add Page

The OGCIO Wiki

07 February 2016 14:29

[Welcome to the OGCIO - All You Need to Know 2016](#)

The idea for the OGCIO Wiki is that it is a semi-structured collection of the useful knowledge of those working in OGCIO which we want to share with our colleagues. The knowledge spans the OGCIO as an entity itself, the teams across OGCIO as well as individual perspectives of colleagues in OGCIO. Anyone can edit any element of the Wiki and also add additional pages and content areas as they see fit.

The Wiki is a compilation of content in many forms and will hopefully act as a living reference document for everyone, including those of us who have been here longer than others.

CIO Office

+ Add Page

The OGCIO Wiki

Organisation Wiki

Team Wiki

Personal Wiki

Organisation Wiki

27 January 2016 21:15

....

Purpose:

- Pointers to useful general knowledge about the OGCIO, its teams, D/PER and key stakeholders groups
- Who are we?
- What are we about?
- What do we do? Wit

OGCIO Corporate Pages

- Org Chart & link to D/PER Org Chart & D/PER About Us webpage
- Framework of Assignments 2015
- Financial Management
 - Systems details, including access & use
 - Internal Procedures & Policies including invoice handling
 - Budget Units allocations and breakdowns including profile
 - Budget Request
 - Orders & Invoice handling procedures
 - Official Travel procedures and forms
 - Petty Cash
- Risk Register
- How Do I?
 - Get a mobile phone/ tablet/ laptop

Suggested Structure for OG... ▾ Introduction Structure +

+ Add Page

The OGCIO Wiki

Organisation Wiki

Team Wiki

Personal Wiki

Team Wiki

02 February 2016 20:06

- Purpose of the Team
- Team Organisation Chart, business plans, appropriate role profile goals, skills needed
- Resources
 - Human
 - Including any vacancies, particular attendance patterns such as work-sharing/ shorter working year....
 - Financial
 - How much, what for, profile of expenditure, likely outturn, explanation of any variation
 - Technical
 - Applications/ platforms/ systems specific to this role
 - Other - useful periodicals, journals, websites
 - Risks & issues
- Current Work Programme/ Projects
 - Page per work item/ project
 - Include key contacts within OGCIO & business unit(s)
- Key Documents & Policy/ Procedures/ Guidance
 - List with links to key documents & reasons these are important e.g.
 - Statement of Strategy
 - ICT Strategy & PS ICT Strategy
 - Ditto for policy documents/ guidance notes which support your work
 - Any special vocabulary of the role
 - Key word Glossary / where to find
- Key Events
 - Travel
 - Conferences/ Working Groups/ Customers etc
 - Key Events

+ Add Page

The OGCIO Wiki

Organisation Wiki

Team Wiki

Personal Wiki

Personal Wiki

25 January 2016 21:37

Purpose:

- Provide useful insights and knowledge from your experience to your successor/ new colleague

Sections:

- My Role
 - Describe role in the context of the OGCIO - team/ unit/ specific job description,
 - Key areas of responsibility
 - Key deliverables for this year
 - Challenges & opportunities
 - Any specific comments around resources - human/ financial/ technical
 - Reporting/ Decision making structure
- Key Contacts - internal & external
 - List key contacts/ Who's Who & embed export of Outlook Contact list from your address book
 - List in groups by who you should meet in first week/ two weeks/month/ quarter are important
- Key Documents I've found useful
 - List of any from Team list/ others of specific relevance
- Top Tasks - Identify and Point to Process Description
 - Tasks for week1
 - Tasks for week 2
 - Tasks for first month
 - Recurring tasks such as
 - PMDS
 - Financial Management
 - Business Planning
 - Risk Management

Knowiki

The images included below are some screenshots of the wiki in its initial unpopulated state followed by some of the content uploaded.

OneNote Full Client:

Welcome to the OGCIO - All ... ▾ Introduciton Public Servic... Glossary + 1-OGCIO O... 2-Projects 3-Contacts

+ Add Page

Welcome to the Office of the Gov

Key Business Partners

- PER-Finance Group ICT
- National Shared Services Off
- Office of Government Procu

Welcome to the Office of the Government CIO

Our Role.....

Who we are - [OGCIO Org Charts January 2016](#)

OneNote Web App

Find on this Page (Ctrl+F) 🔍

Introduction +

Welcome to the Office of the Gov

Key Business Partners

- PER-Finance Group ICT
- National Shared Services C
- Office of Government Proc

Public Service ICT Strategy

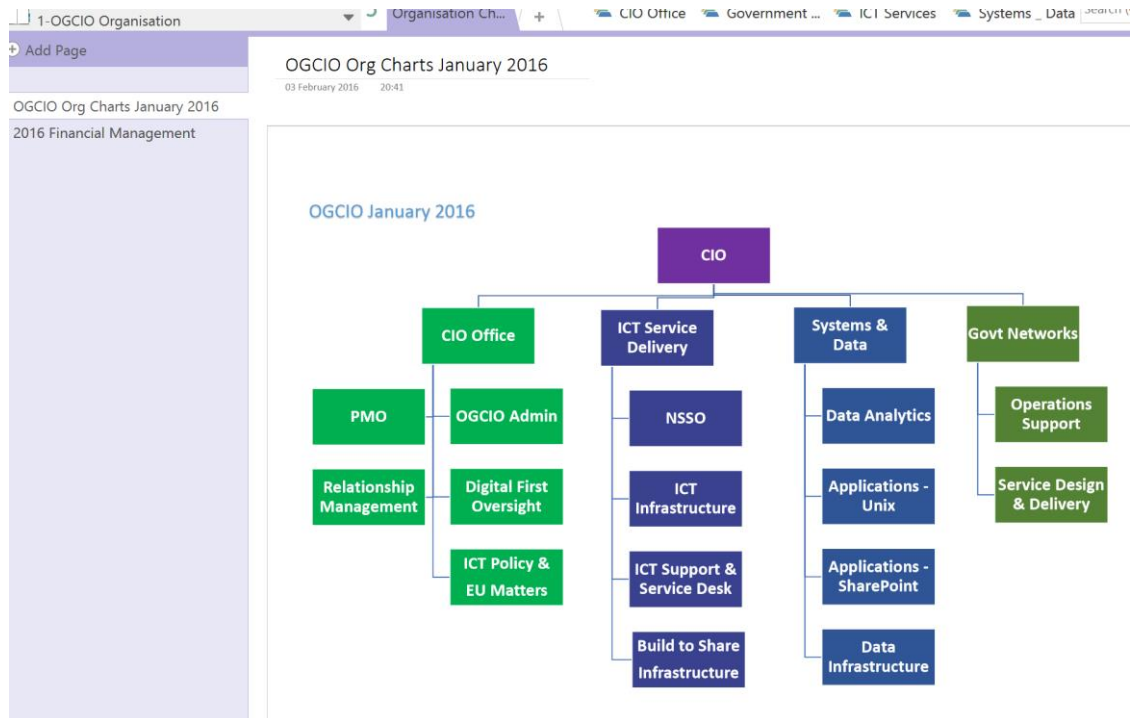
Glossary

- 2-Projects
- 1-OGCIO Organisation
- 3-Contacts

Welcome to the Office of the Government CIO

Our Role.....

Who we are - [OGCIO Org Charts January 2016](#)



+ Add Page

A Useful Guide to Common Termi
eDocs Rollout and Records Manag

A Useful Guide to Common Terminology

04 February 2016 18:12

[Public Service Reform & Innovation Network](#) -

Chair Dr Orlaigh Quinn

Group of A/Sec's responsible for Reform agenda in their Department & agencies associated with. Meetings every quarter. GCIO/ OGCIO attend and potentially may have standing slot to raise awareness on Digital First/ Data as an Enabler streams.

[IRDP](#) - Integrated Reform Delivery Plans - submitted annually, with progress reporting, by Departments.

[CSMB](#) - Civil Service Management Board. 21 Sec Gen level heads of Departments and agencies meet monthly to review the CS Renewal work programme.

[CIO Council](#) - group of CIO/ Heads of ICT from selected Departments and agencies. Meets ~~approx~~ every quarter. Membership merits review in 2016. Role of informal network of IT Managers could also be considered as part of an ~~overarchign~~ review of OGCIO external stakeholder engagement.

[NSSO - the National Shared Service Office](#) - a division of D/PER soon to be a self-contained body under the aegis of PER.

NSSO has three operational centres in addition to the corporate centre:

PeoplePoint - HR Shared Services

PSSC - Payroll Shared Service

FMS5 - Financial Management Shared Service - Project currently being mobilised

+ Add Page

The PS ICT Strategy

Build to Share

BTS Infrastructure

BTS Government Networks

BTS Common Applications

Digital First

Data as An Enabler

Improve Governance

CIO Council & Other Groups

Enhance Capability

BTS Common Applications

03 February 2016 20:35

The primary aim of the Build to Share: Common Applications programme of work is to implement a common set of applications that digitise and standardise a number of common business processes across the Civil Service.

A high level rollout plan for 2016 can be found on eDocs [here](#).

The catalogue of applications that are initially planned for rollout can be found [here](#)

You can keep up to date with the progress of the programme of work [here](#)

The File for all things related to this programme can be found [here](#), feel free to browse.

➕ Add Page

- The PS ICT Strategy
- Build to Share
 - BTS Infrastructure
 - BTS Government Networks
 - BTS Common Applications
- Digital First
- Data as An Enabler
- Improve Governance
 - CIO Council & Other Groups
- Enhance Capability

Work-stream Lead:
Data as An Enabler: Action Plan

- Data Harmonisation**
 - Support rollout of the PSC to standardise and make consistent the identification of citizens.
 - Support the lawful sharing and validation of citizen identity data via the Single Customer View to improve the citizen identity data standards across the Public Service. This is to also include dwelling identity, i.e. **Fircodes**.
 - Investigate the potential for a pan Government umbrella initiative with the NSB/CSO to focus on data harmonisation - provisionally called a National Data Infrastructure.
 - Support D/Health and the HSE in the establishment of the IHI link to the PSC to facilitate a citizen convenient link to health record lookup where appropriate.
- Data Sharing**
 - While harmonisation above is not directly sharing of data, it underpins the ability to share effectively.
 - Support the GRU in the formulation of the Data Sharing and Governance Bill.
 - Investigate the potential for a data sharing infrastructure to support lawful, auditable, authenticated, authorised, secure and targeted sharing of transactional data.
- Data Management and Governance**
 - Support Open Data through assistance of the GRU.
 - Attendance of the ID group on Data Protection to ensure output is in line with latest developments on data protection.
 - Develop and progress a Government backed Public Service Records Management Plan to improve document and record management practice for both paper and electronic data across the PS.
 - Drive data drive policy formation through the application of data analytics with existing data and putting in place the mechanisms and governance needed to extend the data analytics offering.

➕ Add Page

- The OGCIO PMO Wiki
- PMO Tool & Processes
- Key Contacts

Current Work Programme/ Projects

The PMO Establishment Project embed a broad suite of new PMO services (as per the Work Breakdown Structure diagram below) via a phased delivery approach (as per the Roadmap diagram below) - further details are outlined in the PID for PMO Establishment Project (link above).

Work Breakdown Structure (WBS) for 'OGCIO PMO Establishment'

1. Project Inventory & PPM Assessment
2. PM Guidelines & Templates
3. PMO SharePoint Tool
4. Project Delivery
5. Project Monitoring & Support
6. Project Governance & Customer Relationship Mgt
7. Proactive Project Assurance
8. PM Training
9. PM Repository, Lessons Learned Knowledge Transfer
10. Project Contractor Management
11. Insight Analytics & Contextual PM Toolset

Phase 1: Establish Foundation PMO
Tracking & Reporting (Inventory / Tool)
Guidelines & Templates
Training, Mentoring & Support
Formal PPM Assessment

Phase 2: Enhancement & broadening of PMO Services
Review & Enhance Foundation Services
Introduce additional services

Phase 3: Mature PMO with continuous improvement focus
Review & Enhance Services
Introduce additional services

12 APPENDIX 4 WORD-BASED HANDOVER PROCESS

Structured Handover Process – Guidelines and FAQs

December 2013

With effect from January 2014, a new structured handover process is being introduced within the Department.

Purpose of the process

This new process is intended to give guidance on the key aspects of roles, responsibilities, and experiences that should be covered in handover notes. As such, it provides a framework for the type of information-sharing that supports a smooth transition. The process is aimed at anyone who is expected to be vacating their current role during the coming year, including through career break, special leave, retirement, transfer, secondment, maternity leave or resignation. It is also intended to cover all grades.

Benefits of handover

Structured arrangements for handovers have a positive impact, both on individual officers and on the organisations within which they work. Colleagues are more confident in their new roles at an early stage; can quickly develop a better knowledge of the way their new Section, or Division operates; and gain an early appreciation of how their new role and responsibilities fit in to the wider organisational context.

As part of the development of this standardised process, all colleagues within the Department were invited to participate in [a comprehensive survey](#) of their views and experiences of the handover process in the Department to date. Feedback from the survey very clearly highlights the value of handover notes in reducing the time spent acclimatising to a new role.

What does the process entail?

There are two elements to the process:

- the completion of a handover note using a standardised template
- “face to face” interaction, whether in person or via videoconference

The process is essentially a formalisation of the more successful elements of the *ad hoc* process that has operated in the Department to date.

Handover note templates

The templates take into account extensive feedback provided by colleagues via the handover survey. They are intended to be as user-friendly and inclusive as possible.

The templates contain questions that are designed to prompt you into thinking holistically about their role and handover and to consider important factors that may otherwise have been overlooked.

You should fill in as much relevant detail about your role, your team, your location and your responsibilities as you can. Try to remember the challenges you yourself encountered when you took up your current role. What would have been most useful for you to know? What are the priority areas of your job? What pitfalls did you encounter?

Face-to-face interaction

Once you have completed your handover note, you can then use it as a basis for discussion in person or via videoconference with your successor. If you are both based at HQ it should be feasible for you to find opportunities to meet face-to-face. If one or both of you are abroad, then you can arrange a videoconference and/or telephone calls. You should feel free to arrange more than one such interaction, if this is possible and suits both parties.

It is important to agree with your successor how best to keep in contact once you have changed post – the handover process rarely ends with an officer's departure! Your successor is very likely to encounter issues that you may not have considered, and it is recommended that you remain available to them to answer queries and provide advice during the first few weeks or months.

Support structures

Strategy and Performance Unit will be the primary point of contact for any queries about the ongoing operation and nature of the process. If you encounter problems with completing the handover process, for whatever reason, you should approach Strategy and Performance Unit for guidance and advice.

Frequently Asked Questions

When should I start my handover?

As soon as possible after you hear that you are due to change role. Every officer should have sufficient opportunity to work on their handover well in advance of their move or departure and the Secretary General has asked line managers to encourage and support those reporting to them in finding adequate time to

devote to their handovers in the weeks/months leading up to departure. It is very important that handovers are not left until the last minute as pressures of work and the practicalities of moving job invariably lead to much less time being available.

You could perhaps allocate a short period of time weekly to your handover so that it is less of a burden to you the closer you get to your move. Ideally, by the time you get to your last week in the job, the only part of your handover that should be left to complete is to outline any issues left outstanding at the time of your departure.

The template looks very long – will it take a long time to complete?

It is not necessary to answer every single question – colleagues can use their discretion when filling in the form. Some questions may not be directly relevant to your job. The primary aim is to get people thinking holistically about their roles, the challenges they faced when they were new to the job, and what information they themselves would have found helpful during their first few months in the job. Feedback from the survey of colleagues on handovers indicates that most people would prefer to be given too much information than too little.

What about face-to-face handovers?

Many colleagues have indicated the desirability of having an “overlap” with their predecessor or of having the opportunity for an advance visit to the post in question. Unfortunately, neither option is feasible at present given the current resource constraints in the Department. However, colleagues changing jobs at HQ can usually find opportunities for informal meetings with each other, and those abroad can use videoconference facilities to “meet” and discuss their roles informally.

It’s important to remember that the handover process does not end with the provision of a template or other information in advance. Colleagues new to a role should feel comfortable in contacting their predecessor to ask questions and seek clarification on any issues arising and you should agree with your successor how best this can be done.

Why can’t we make this process part of PMDS?

Feedback from the handover survey indicated the desirability of linking the handover process to PMDS, for example through making it a requirement for line managers and jobholders to certify that the handover process has been completed. However, as PMDS is being standardised electronically across the Civil Service, there is no scope for tailoring the PMDS forms or procedures locally to accommodate this. However, you are of course free to include an effective handover as one of your PMDS goals for the coming year if you are due to change

posts. You can then discuss your handover within the PMDS framework with your line manager in the context of your reviews (whether interim or annual) before you depart your post.

Why is there such a focus on management and administration in the templates?

Management forms a crucial part of every officer's role – all of us have to manage our work in some way, regardless of grade, and we have to be able to demonstrate to our successors how this has been done. An increased focus on management deliverables has also been incorporated into the new PMDS system. It is important that your successor is fully aware of all relevant management issues in advance of their taking up the new role. If day-to-day administration of your office is not part of your role, simply skip the relevant sections in the form.

What should I do about questions that are not relevant to me or my current role?

Some of the questions may not be relevant to you, in which case you can simply skip the question. Similarly, you may notice that an aspect of your role has not been covered - you can of course append additional information as required. You might wish, for example, to include step-by-step instructions for particular tasks. Equally, you may wish to supplement your form with more detailed narrative on some issue(s).

Why do the templates include items that should be dealt with in a Mission post report?

While many post reports are comprehensive and relatively up-to-date, it is sometimes the case that recent post reports for particular locations are not available. If it is not possible for an updated post report to be provided in advance of your departure, it may be useful for your successor if key information about your post is included. You may also wish to supplement any current post reports with your own observations.

Why can't we do this over the Intranet?

The templates and associated information are being made available to you via a dedicated Intranet page, which also links to useful documents, policies and webpages that are relevant to colleagues who are changing jobs. Options for integrating the handover process further into the Intranet will be explored during the coming months.

Structured Handover Process

Checklist

- Have you completed your [annual PMDS review](#), and undertaken the relevant reviews for all those reporting to you?
- If colleagues reporting to you are also due to leave their posts, have they completed their handovers?
- Are any outstanding HR-related issues being dealt with appropriately in accordance with [Performance Management Guidelines](#)?
- Have you ensured that any bank account passwords, logins or authorisations are amended before your departure?
- Have you made your successor aware of any relevant security arrangements in place (e.g. alarm codes, location of keys etc)?
- Where relevant, have you given your successor clear details regarding the secure location of leases and title documents to official premises?
- Have you left details of all relevant passwords/logins for software that you use?
- Have you left instructions for any specialised equipment that you use?
- Have you updated your details on the [Who's Who](#) page?
- Have you updated the [Staff Moves](#) page with your new details?
- Have you completed all [training](#) relevant to your new role?
- Have you reviewed and updated your [library and press subscriptions](#)?
- If you are currently a [mentor](#) to another colleague, have you discussed future contact options with your mentee?
- If at HQ, have you returned your leave sheet to [HR1](#) for updating before departure?
- If at a Mission, have you ensured that your [leave returns](#) are up to date?
- Have you ordered new business cards, if you use same?

- Have you finalised your handover note [[link to the template here](#)] and passed it on to your successor?
- Have you agreed with your successor how best to keep in touch if any queries or issues arise?
- If your business unit has an emergency or contingency plan in place, have you appended it to your handover ensuring that relevant emergency contact points are included.

Structured Handover Process

Template Handover Note

Colleagues are requested to fill out the relevant sections of the handover template. Please be as comprehensive as possible when completing the form as it will benefit you and your successor in the period leading up to, and following your reassignment

Section 1: Your details

Name	
Grade	
Title (if any) – e.g. PA, Personnel Officer, PSSG	
Name and location of your Section/Unit	
Has your role involved work-sharing or working to a pattern other than full-time? If so, give details.	
Outline any additional entitlements associated with your current post (e.g. allowances, time off in lieu, overtime)	
If you are moving to a different post, please give details.	

Section 2: Your Business Unit

If your business unit has an organigram, please append it to this note. Please also append a copy of the relevant Business Plan.

Name and grade of your Head of Division, Unit and/or Section	
Name and grade of your direct line manager (if different to above)	
Names and grades of colleagues who report directly to you (if any)	
List any particular Department colleagues that your successor should meet/get to know before they take up their new post.	
Outline the decision-making and reporting structures in your business unit. You may wish to append separately an explanation/description of decision-making processes in specific areas of work.	

Section 3: What does your job involve?

Please append a copy of your PMDS Goal Setting section / role profile to this note. You can use this section to supplement your role profile with any additional information you deem relevant.

Describe the key priorities and responsibilities involved in your job	
What are the priority tasks that need action during the first few days/weeks in the role? What should your successor aim to achieve within (e.g.) the first three months?	
Give details of any specific goals or tasks that you are individually responsible for delivering and the dates by which these are required.	
If your role involves programme management, please outline here the	

main issues arising in this area and, where relevant, append a detailed description of this aspect of your job and what it entails.	
Does your role involve regular attendance at events? If yes, please give details.	
Give details of any important events (e.g. conferences, incoming visits, chairmanships) coming up in the short to medium term.	
Does your role involve travel and/or attendance at meetings off site? If so, please give details.	
Does your role or grade involve an on-call or on-duty element (whether compulsory or optional)? If so, please give details.	
If your role involves work on top-level strategic or policy issues, please frame your description in this context. If you are a senior manager, you may also wish to outline the most important strategic issues facing you at present.	

Section 4: Management of your Office (including HR, Accounting, ICT and Records Management)

Complete this section if:

- you have colleagues reporting to you or your role involves HR management in any form
- there are any particular administrative or management issues currently impacting on your work
- you are involved with the day-to-day administration of your Section, Unit, Division.

Are any of the colleagues reporting directly to you due to depart their posts in the near future? Are they being replaced?	
--	--

Is your business unit currently carrying any vacancies? If so, please give details.	
Do any of your team (including managers) work-share or work to a pattern other than full-time? If so, give details.	
How is annual leave managed within your business unit? Who signs off on staff leave? How is cover arranged for those on leave, official travel or training?	
Please give details of any specific leave arrangements that are made for summer/Christmas.	
Please indicate the frequency and nature of staff coordination meetings	
Please indicate where the most up-to-date information can be found in relation to any outstanding HR issues.	
If relevant, what is your annual budget? Is expenditure from the budget in line with projections and expectations, or are there any budgetary subheads under pressure?	
Outline opposite any issues relating to payments, accounts or budgets that may not have been resolved by the time you depart your post.	
Does your role involve ICT management or technical work in any way? If so, please detail this opposite. Is specific training needed or recommended in advance?	
Do you use any unusual ICT applications or programmes (e.g. Lotus Notes)? Are you required to use a shared Outlook calendar or email account? If so, give details.	
How are records managed in your office? Is there an electronic filing system (such as an I: drive) and a hard	<i>(For further information in relation to records management policy, please refer to the Archives Intranet site)</i>

copy filing system? Please append any file lists or catalogues.	
---	--

Section 5: Useful Information

Use the table below to detail any other information not already covered.

<p>Give details of practical issues such as:</p> <ul style="list-style-type: none"> • Access to your office outside of normal working hours • Transportation • Facilities available to you (e.g. parking, childcare, education) • Health and safety considerations in your current post 	
<p>Explain any acronyms, abbreviation or other jargon that your successor may not have encountered before (this may be particularly useful for those working with multilateral organisations).</p>	
<p>Give details of the primary (library) resources that are most useful to you, and to which your successor should subscribe – e.g. journals, newsletters, and websites. Include details of passwords/logins where relevant.</p>	
<p>Give details of any security issues of which your successor should be aware.</p>	
<p>Any other relevant information?</p>	

Appendix 1: Useful Contacts

List here any of your contacts whom you think may be particularly useful to your successor, both in the field and on post. Consider prioritising those whom it would be important for your successor to meet early. You may also wish to categorise or group your contacts (e.g. Government; Diplomatic; Political; Economic; Media; Irish Community; Administration; ICT). You may also wish to list them in order of importance/usefulness.

Microsoft Outlook can be used to help facilitate the transfer of contacts to your successor – you could set up a shared address book for your business unit and

transfer the relevant details thereto. ICT Unit can advise you of the options available.

Please note that a contacts management project is currently underway as part of the overall Knowledge Management initiative within the Department; this section of the handover process will eventually be superseded by same.

Name	Position/Title	Type of Contact	Contact Details	Notes

Appendix 2: Business Plan

Please append your business unit's most recent Business Plan (and mid-year / 9-month reviews thereof where relevant). Current business plans may be located/linked to via the [Strategy and Business Planning Process intranet page](#).

Appendix 3: Organigram

HQ organigrams can be located/linked to via the [Who's Who Intranet page](#).

Appendix 4 (optional): Annual Task List

List here any regular deadlines, events or tasks that your position requires you to act upon regularly (for example: budget/accounting deadlines; St. Patrick's Day requirements; PMDS-related targets; progress reports)

Month	Item
January	
February	
March	
April	
May	
June	
July	

August	
September	
October	
November	
December	

Appendix 5: Records Management lists

For helpful information in relation to records management policy, please refer to the [Archives Intranet site](#).

Appendix 6: Background notes on any other areas of work where specific information would be useful

You can use this area to expand on any information given earlier in this template or to capture any specific areas of work which do not fit into any of the categories covered. For example, you may wish to cover specific procedural issues, give step-by-step instructions for the use of equipment or systems, or describe particular situations.