CASE STUDY PRESENTATION STM.



Agenda;

- Introduction of the company
- Analysis of the Macro (PESTEL), Industry(Porters 5 forces), internal (RBV, VRIN) of the organisation
- Propose strategic options and recommendations for the company.

Company:

BLACKBERRY (US MARKET)

Presented by;

- Chime Tochukwu
- Folorunsho Adebayo Kabir
 - Nri Obinna
 - Nwankwo Chukwuma

MITS 2013.

Blackberry formerly known as Research in Motion (RIM) designs, develops wireless solutions for the mobile communications market worldwide. RIMs mobile devices provide access to email, voice calling, text messages, internet and various other services. Its current CEO is Thorsten Heins



Blackberry smartphone, a wireless handheld device introduced in 1999 is a product of the Blackberry company, and competes for part of the market share in the smartphone industry at present

software that creates a link between the smartphones, enterprise applications (Microsoft exchange, IBM lotus etc. email on the go) and wireless networks extending communications and corporate data to its mobile users.

A smartphone is a mobile phone offering advanced PC-like functionalities, like access the internet, email, full qwerty keyboard(mostly) etc. it consists of an operating system that provides not every ordinary mobile phone interface.

P.E.S.T.E.L ANALYSIS



Some states ban the use of mobile phone while driving; Texting while driving is banned in most states but it is only effective in 5 states; Longer time on carriers' quality test run on newiphones for conformity of standard; FIPS certification

ECONOMIC



13% increase on smart phone penetration between 2011 and 2012; Credit availability is tight due to the new regulation to curtail unnecessary spending

SOCIAL



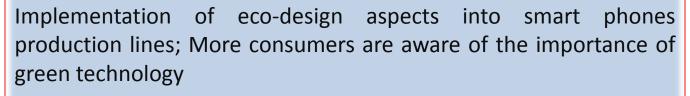
•Disposable income drop by 4%; 54.4% of the population are between the age of 15-54 years; Mostly use smart phone to pass time while waiting

TECHNOLOGICAL



Making smart phone from glass; MirrorLink technology connect car with smart phone; 4G Internet technology for mobile phone,

ENVIRONMENTAL



LEGISLATIVE

US Law has declared unlocking of phone as illegal; Abiding by US patent infringement law

New entrants: LOW

(barrier is high)

- Many big players in the industry
- Takes a while to attain economies of scale for new companies





Buyers: HIGH

Due to the less differences in the smartphone services rendered by the competing company's, buyers tend to move towards the cheaper products



Competition: HIGH

- Major players include Apple, Samsung, Sony, LG, HTC, Nokia and Motorola.
- Competitors produce similar products with high competitiveness.

Supplier: LOW

- Software providers availability (i.e. Android).
- Support from hardware suppliers are not limited, so companies would purchase based on cost and quality.

Substitute: MODERATE

- Product can be replaced with substitute like tablet, land phone, laptop(using VOIP).
- •Customers prefer to have both as they see tablet/notebook more of a laptop replacement.





Source: Yahoo finance

Industry	Analysis of Demand	Analysis of Competition	Analysis of Industry success factors
Smartphone (US Market)	Given the technological advancement, customer awareness has tripled hence demand for new innovation has tripled as well.	Very high competition with Apple and Samsung(Android) dominating. Partly illustrated in the above market share graph. The shorter product lifecycle of smartphone means that companies work twice as hard to be current in their product specifications.	Product differentiation, value derived from product from purchase of product, customer service, profit maximisation.

Internal context



TANGIBLE

- Physical: New Data centres, Acquisition of QNX Software Systems and The Astonishing Tribe
- **Financial**: Revenue of 2.7 billion, Brand value of Blackberry stands at \$3.9m, User base of 79 million users.

INTANGIBLE

- **Technology**: Blackberry Enterprise server, Blackberry Operating System (BB10), Partnership with mobile application developers, Blackberry Hub, Balance.
- Reputation: Brand, Delivery of secured voice and data transmission.
- Culture: Cost optimization and Resource efficiency.

HUMAN

- **Skills**: Research and Development, Engineering and Design.
- Collaboration: Talent management(Co-op programs with universities).
- Motivation:



VRIN ANALYSIS OF BLACKBERRY

		VALUABLE	RARE	NON-IMITABLE	NON- SUBSTITUTABLE
1.	Acquisition of QNS and The Astonishing Tribe for complementary impact on technology	YES	NO	NO	NO
2.	Talent management through strategic alliance	YES	NO	NO	YES
3.	Professional service group to assist the customer support group	YES	YES	NO	NO
4.	Enterprise security platform for Smartphones	YES	YES	NO	NO



Inbound Logistics

Raw material Purchasing, Vertical Integration and Supply chain management, Phone manufacturing plant in Malaysia, Hungary and Canada

Services

BlackBerry Enterprise service. BlackBerry Internet service, Recycling(return used phones and get points for purchase of new phones).

Operations

Research and Development in Waterloo, Canada, Customer support in Singapore, Quality control.

VALUE CHAIN ANALYSIS

Marketing and Sales

Partnership with mobile operators like AT&T and Verizon to sell the Blackberry Z10 locked with contract at \$199.99 while unlocked at \$549.99

Outbound Logistics

Globalisation and
Outsourcing, Partnership and
vendor management within
America with special focus on
the North American market

Options



	Weighted options 0 = neutral; -5 = highly								
		eraction; +5							
	= highly fa	avourable							
				Strategic C	Options				
Evaluation Factor	Weight	License OS on	Using data analytics to actively monitor	Use available consumer data to	Aggressive marketing	Fit R&D with	More research into fashionable	Strategic Alliance	Acquisiti on by
	Š	different device	market needs and trends	promote brand loyalty	campaign	marketing	design	with smartnhone	technolo gical
Drop in Brand value	1	3	2	4	4	3	2	3	1
Profit Maximisation	0.8	2	1	0	1	3	1	3	0
Drop in Market share	0.5	3	0	2	3	3	2	2	3
Focus on core competitive advan		3	3	4	1	3	0	4	3
Innovation culture sustainability	0.3	1	3	3	0	4	2	4	2
Product differentiation	0.8	0	3	3	0	3	3	5	5
Leadership style	0.7	0	0	0	3	3	3	3	0
Score		12	12	16	12	22	13	24	14
Absolute Rank		6	6	3		2	5	1	4
Weighted Score		5.2	5.9	6.7	5	11.4	6.9	13.1	8.4
Weighted Bank									

Recommendations/ Conclusion



We think a complementary *Strategic Alliance* with a smartphone manufacturing company would be essential to the blackberry company because it answers to most of the problems derived from the analysis of the industry, market and the option described as well.



property & people protection 24/7

BUSINESS IMPROVEMENT PROPOSAL

- KNOWLEDGE MANAGEMENT IMPLEMENTATION

Prepared By:

ChukwumaNwankwo

Grant Mckinstry

Sarabjeet Kaur

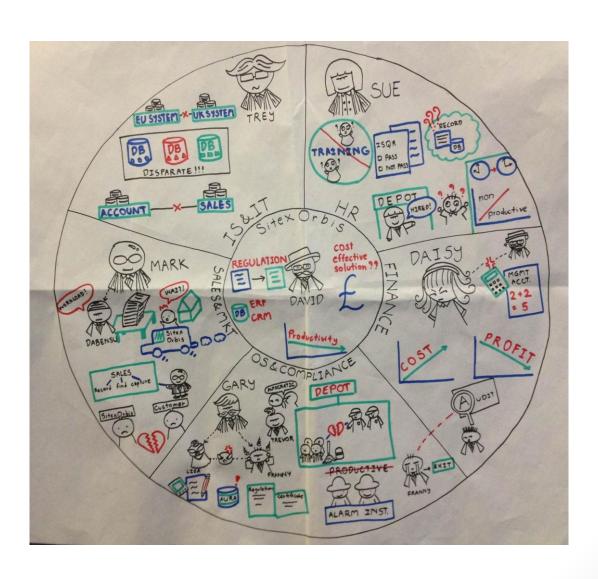
Sutida Suwanchasri

Tochukwu Chime

(Team Alan)



RICH PICTURE



KEY ISSUES



- Loss of Customers
- Satisfaction with services received dropped
 0.5% November November
- Satisfaction with Operator Professionalism
 - 13.1% were not satisfied
- Satisfaction with Issue Resolution Process
 - 22.7% were not satisfied

KEY ISSUES



Decline in Productivity

- Increase in Non Productive time
- Operational delays
- Undefined responsibilities

KEY ISSUES



Low Morale and Culture

- Understanding of the Business dropped by 3% between Q1 and Q3 of this year
- Teamwork Satisfaction levels down 9% between 09-10 and 11-12







29,000

Knowledge Management

COST Estimation (KM)

TOTAL

ONE-OFF COST	ANNUAL COSTS				
KNOWLEDGE ARCHITECT	27,000	UDATE EXPENDITURE	6,000		
LICENCE COST	30,000	SOFTWARE MAINTENANCE	23,000		
ADDITIONAL LICENCE	20,000				
DEVELOPMENT COSTS	(£1000*26)/2				
	13,000				
HR STAFF	(2294*3)*2				
	13,769.40	1			

103,769.40 TOTAL



KNOWLEDGE MANAGEMENT

- We expect this system to have a period of payback of 3 years and 2 weeks
- This method assumes a KM system will have the effect of reducing non-productive time by 5% per year
- And a reduction of 2% per year on the Materials cost





CATWOE

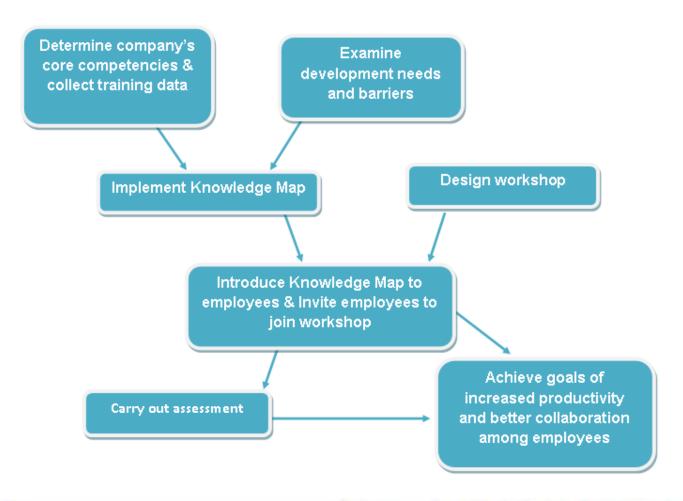
Client	Employees, Sitexorbis
Actor	KM consultants, Company area Experts
Transformation	Employees to better employees
Weltanschauung	The use of Knowledge Management will result in more productivity and better relationship among employees.
Owner	SitexOrbis
Environmental constraint	Money, Time, Employee willingness to learn

ROOT DEFINITION

It is defined as a SitexOrbis's system performed by Knowledge management consultants and sitexorbis area experts to make the employees better employees by increasing their skill and personal knowledge which would lead to more productivity and better relationship amongst themselves, by the support of employee willingness to learn and the availability of money and time.



THE TRANSFORMATION PROCESS



Efficacy	Increased productivity, Better relationship among employees
Efficiency	On time, on budget
Effectiveness	Smoother workflow, Increased income



INCOME FORECAST

PROJECTION OF INCOME UNDER KM INITIATIVE £000's	YEAR1	YEAR 2	YEAR 3
	-		
TURNOVER	29,117.20	29,513.39	29,982.35
MATERIALS	3260.1	3194.9	3131
LABOUR COST	7976.7	7976.7	7976.7
OTHER COST	2735.7	2735.7	2735.7
KM IMPLEMENTATION	103.77		
KM ANNUAL COST		29	29
GROSS PROFIT	15,040.93	15,577.00	16,109.95
OPERATIONAL LEASES AND DEPRECIATION	1757.7	1757.7	1757.7
GROSS MARGIN	13,283.23	13,819.30	14,352.90
SALES AND ADMIN EXPENSES			
SERVICE CENTRE	2982.5	2982.5	2982.5
SALES AND MARKETING	1725	1725	1725
FACILITIES	3037.8	3037.8	3037.8
ADMINISTRATION FUNCTIONS	4808	4808	4808
OPERATING PROFIT/LOSS	729.93	1,266.00	1,799.60







Case Study SitexOrbis

Adebayo Kabir Folorunsho (201289126) Arisa Niramaya (201286941) Sasi Watsaksathien (201277667) Sam Berlemann (201256686) Obinna Nri (201257536)

Alias Claude

Claude

Agenda









- Problems Addressed
- SSM
 - Root Definition
 - CATWOE
 - Conceptual Model
- Proposal Justification
 - Benefits
 - Financial Justification

Claude

Problems Addressed



1. Productivity

- Due to sickness/waiting time
- Due to rectification

2. Service Quality

- Due to partly finished jobs
- Due to sub-standard work

3. Employee Satisfaction

- Due to employees not understanding company's vision
- Due to rapid expansion



Root Definition / CATWOE



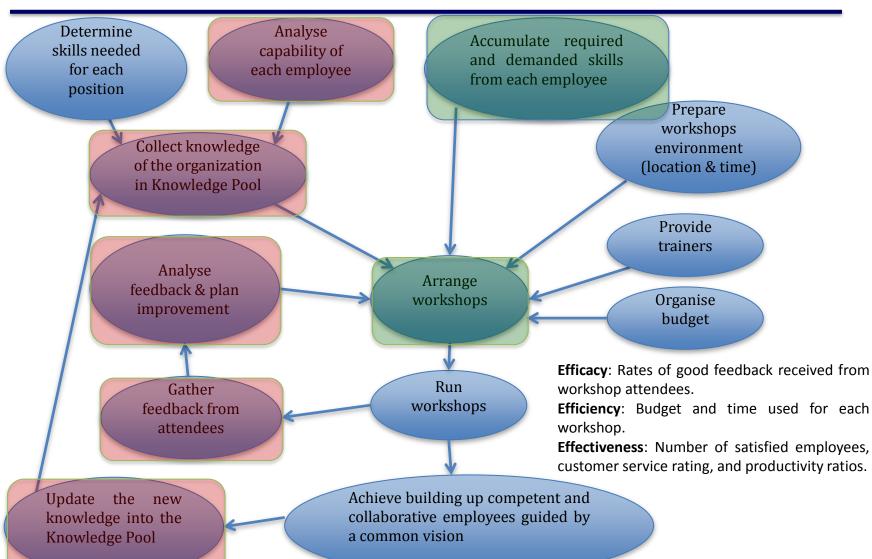
A system which builds up competent and collaborative employees guided by a common vision, by providing suitable workshops for each employee, in order to improve service quality, productivity, and employees' satisfaction

Customer	Employees
Actor	Knowledge architect, HR staff, depot managers, area experts
Transformation	Semiskilled, non-collaborative employees without a clear vision
	→ Competent and collaborative employees guided by a common vision
Weltanschauung	Expertise and harmony leads to more reliable organization
Owner	SitexOrbis-VPS board of directors
Environment	Competitors, regulations, budget, available time

Claude

Conceptual Model





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5

Benefits



- Employees are aware of what is expected from them and all strive towards a common organisational vision
- II. Tailored trainings to individual requirements in order to improve customer satisfaction
- III. Employees are involve in in objective setting in order to increase their identity with SitexOrbis
- IV. Improved collaboration between all units in order to enhance the organisational culture

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Financial Justification



I) Inreased turnover due to increased productivity

Savings in "awaiting Orbis specialists" downtime in %	2%		
Savings in "awaiting Orbis specialists" downtime (in hours)			307
Savings in "rectification" downtime in %	2%		
Savings in "rectification" downtime (in hours)			509
Total saving in downtime (in hours)			816
Annual inrease in turnover (in £)		£	48,455

II) Decreased material costs due to less rework

Material share of COS 2011 (in £)	£	3,964,450
Savings in materials due to less rework (in %)		1%
Annual savings in materials due to less rework (in £)	£	39,645

III) Increased turnover due to cross-sold products

Turnover 2011 (in £)	£30	,106,000
Increase in turnover due to cross-sold products (in %)		0.1%
Annual rise in turnover due to cross-sold products (in £)	£	30,106

Financial Justification



IV) Payback Period

Year		0		1		2		3		4		5	Comment
	-£	27,000	-£	6,000	-£	6,000	-£	6,000	-£	6,000	-£	6,000	Knowledge architect annual update expenditure
	-£	30,000											Software including 10 liceses
	-£	40,000											20 additional licenses
			-£	6,000	-£	23,000	-£	23,000	-£	23,000	-£	23,000	Annual maintenance costs)
			-£	13,770									Recording of training data by two HR staff: £27,540,-
			-£	13,000	-£	13,000	-£	13,000	-£	13,000	-£	13,000	26 half day workshops per annum:
			£	12,114	£	48,455	£	48,455	£	48,455	£	48,455	Additional sales due to increased productivity
			£	9,911	£	39,645	£	39,645	£	39,645	£	39,645	Annual savings due to less material usage
			£	7,527	£	30,106	£	30,106	£	30,106	£	30,106	Additional sales due to cross- selling
Total	-£	97,000	-£	9,219	£	76,206	£	76,206	£	76,206	£	76,206	
Payback Period	-£	97,000	-£	106,219	-£	30,013	£	46,193	£	122,398	£	198,604]

V) NPV r = 0.10

Year	0		1		2		3		4		5	
-	-£	97,000	-£	8,381	£	62,980	£	57,254	£	52,049	£	47,318

 NPV (5 years)
 £
 114,221

 NPV (3 years)
 £
 14,854

VI) Forecasted Gross Profit

	20	11	20	16	Comment		
Turnover	£30,106,000		£30,439,885				
Cost of sales	£16,870,000		£16,701,511				
Gross profit		£13,236,000		£13,738,374	3.8% increase in gross profit		



Thank you very much for your attention!

Main points:

- Increase in productivity, service quality and employee satisfaction
- 3-year payback period
- NPV (5 years): £114,221,-
- Gross profit increase of 3.8 per cent

Claude



Leading Change, Transition & Transformation









A Guide for University Staff

Future



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PURPOSE OF THE 'HOW TO' GUIDE

The purpose of this guide and accompanying online resources is to provide University staff with an overview of 'best practice' change management methodologies, research, readings and guiding pro formas.

This guide does not attempt to reproduce the many informative texts written on change management, transition and transformation. The follow-up reading is also strongly advised as it informs much of the change management and transition processes undertaken in the University of Adelaide.

The guide identifies the differences between managing the process of change and leading people through transitions. It describes the University's preferred process model of change which is John Kotter's Eight-Stage Process for Creating Major Change. The importance of transition management is also addressed by the inclusion of William Bridges' Three Phases for Managing Transitions. The guide then goes on to explain the practical implementation of these methodologies through the project management approach and key factors for success. The guide thus provides an overview of the 'nice to know' theory and intermixes it with the 'have to know' practical tools and project management methodology in managing a complex change program.

The practical steps discussed in this guide are designed to ensure that change management is carried out in a way that actively demonstrates the University of Adelaide's values of:

- Pursuing excellence in all that we do;
- Acting with fairness, integrity and responsibility;
- Respecting the rights and responsibilities of freedom of inquiry and expression;
- Engaged with the local community; and,
- Encouraging innovation, creativity and breadth of vision.

WHO IS THE GUIDE FOR AND WHY USE IT?

This guide is intended for all staff engaged in or facing change. It is recognised that even with the best of intentions, leaders and managers of change initiatives can sometimes overlook elements of the change process. This can result in workplace dissatisfaction and industrial action which could impede the University from achieving its ultimate mission of being an internationally recognised, great research University and an Australian leader in research and teaching excellence.

This guide provides a toolkit to assist any change leader or manager to consider the necessary factors, steps and processes required to implement successful change.

UNDERSTANDING ORGANSIATIONAL CHANGE

"The rate of change is not going to slow down anytime soon. If anything, competition in most industries will probably speed up even more in the next few decades"

John P. Kotter

INTRODUCTION

Organisational change is often stimulated by a major external force, for example, substantial cuts in funding, decreased market opportunity and dramatic increases in services. Typically, organisations undertake technical, structural or strategic shifts in the organisation to evolve to a different level in their life cycle, for example changing from a highly reactive organisation to a more stable proactive environment.

Key changes the University of Adelaide is facing include those presented by the competitive positioning against the Group of Eight (Go8) as well as other national and international universities, reviews in the Tertiary Sector, the global economic outlook, increased competition for research dollars, upcoming challenges, increased competition from international markets and additional external drivers. In responding to these changes the University of Adelaide must necessarily change and improve the way we deliver educational and research services to meet the needs of our students and community.

It is not only the University of Adelaide that is facing substantial change; many organisations are undergoing a radical process of transformation. Education and the media are transforming the expectations of the workforce, so that many employees are seeking different rewards from work and different kinds of relationships from those at work.

To manage within the changing environment, the University of Adelaide must adapt, and adaptation means change. We cannot just replicate yesterday's practices and expect to achieve the success we have had in the past. Yesterday's assumptions and practices may no longer be valid and may no longer work. Consequently, if we are to maintain our competitive advantage, deliver on strategic objectives, and attract and retain the brightest minds, we must respond to new circumstances in a proactive, measured and agile manner.

"We cannot solve today's problems with the same level of thinking that created the problems in the first place."

Albert Einstein

WHAT IS CHANGE MANAGEMENT



Change management is a set of processes employed to ensure that significant changes are implemented in a controlled and systematic manner.

One of the goals of change management is the alignment of people and culture with strategic shifts in the organisation, to overcome resistance to change in order to increase engagement and the achievement of the organisation's goal for effective transformation.

Achieving sustainable change begins with a clear understanding of the current state of the organisation, followed by the implementation of appropriate and targeted strategies. The focus of change management is on the outcome the change will produce – the NEW arrangements that must be understood. Change processes usually apply to a task and/or structural change, and can be either:

Incremental or Transformational

Situational

A comprehensive change management strategy should lead to the desired objectives and create a sense of ownership, enable sustained and measurable improvement and build capability to respond to future change.

What are the differences between change and transition?



William Bridges (2003:3) explains there are significant differences between change and transition. Change is the way things will be different, and transition is how you move people through the stages to make change work.

Change is a shift in the externals of any situation, for example, setting up a new program, restructuring a business, moving to new location, or a promotion. By contrast, transition is the mental and emotional transformation that people must undergo to relinquish old arrangements and embrace new ones¹.

There are other distinctions too. Change is made up of events, while transition is an on-going process. Change is visible and tangible, while transition is a psychological process that takes place inside of people. Change can happen quickly, but transition, like any organic process, has its own natural pace. Change is all about the outcome we are trying to achieve; transition is about how we'll get there and how we'll manage things while we are en route. Getting people through the transition is essential if the change is actually to work as planned.

It is important to ensure that change management strategies are driven by the changes that need to occur, but not to lose focus on the more personal transition activities needed to ensure the success of the program.

What is transformation?



Transformation occurs as a result of a well-orchestrated and well-led change strategy and transition plan. The result is a metamorphosis to the desired state in which there is a deep seated adoption of the changes and the associated values, principles and/or processes. This leads to an embedded, and marked, change in organisational culture and reinforces a journey of continuous improvement.

Leading and managing change

The implementation of any significant change process usually succeeds or fails because of the leadership of that change process.

Management as a discipline focuses on processes and systems that keep the operations of the University operating smoothly, while leadership engages people to create, adapt and meet the demands of the anticipated future.

Management plays an essential part in making the changes happen; it empowers the 'doing'. Leadership inspires the transition, it is what energises people and sustains a

5

change in behaviour and approach. Leadership engages the hearts and minds of staff.

Leading strategy differs from managing operations. Leadership and management are two distinct and complimentary systems of action. Each has its own function and characteristic activities (Kotter, 1999:51). The table below outlines some of the characteristics essential to driving significant change initiatives at the University of Adelaide.

Managers	Leaders
✓ Implement the vision	✓ Create the vision
✓ Plan, budget and organise the	✓ Align people and inspire them
team	✓ Create and build processes
✓ Maintain order and system	✓ Create change proactively
✓ Manage the impact of change	✓ Keep the values visible
✓ Measure day-to-day	✓ Collaborate
✓ Control and problem solve	✓ Motivate and inspire
✓ Contribute to teams	✓ Keep a helicopter view
✓ Seek step-by-step improvement	✓ Continue to challenge the status
	quo

Why is organisational change difficult to accomplish?

McKinsey & Co (2006), Shaffer & Thomson (1998), and Corporate Leadership Council (CLC, 2001) site studies of hundreds of companies that entered significant change programs. Their research indicates that 60% -70% of significant and complex change management programs grind to a halt because of their failure to produce the hoped-for results. The research identified that failure isn't necessarily due to poor technical solutions; it was the result of poor project planning and change management.

Generally speaking, organisations face strong resistance to change. People are afraid of the unknown, many think things are fine the way they are and don't understand the need for change. Recognising the need to change, and acting on it, can be difficult decisions for leaders and managers to make.

Managers are taught to manage processes and resources effectively. Change however requires the 'management' of people's anxiety and confusion, or conversely their excitement and engagement. These are emotions that most managers find difficult to deal with or address. Managing the change process and transition emotions is fundamental to the success of a change oriented project.

Many people are inherently cynical about change, many doubt there are effective means to accomplish major organisational change. Often there are conflicting goals within the organisation, for example, increasing resources to accomplish goals yet cutting costs to remain viable. Organisational change often goes against the very

values held dear by people, that is, the change may go against how they believe things should be done or diminish ownership of 'how we do things around here'.

Resistance is a natural defence mechanism for those 'losing' something. The closer we are to something or someone, the greater the grief or loss. Reasons for resisting change are varied. The reasons could include perceived loss of security, money, pride or satisfaction, friends, freedom, responsibility, authority, good working conditions, status, lack of respect, objectionable manner, negative attitude, personal criticism, not having had input, bad timing, challenge to authority or second hand information.

KOTTER'S EIGHT-STAGE PROCESS FOR CREATING MAJOR CHANGE



There are several models available to understand, frame thinking and help lead change. One of the pre-eminent thinkers in change management is John P. Kotter who teaches leadership at Harvard Business School. The University of Adelaide has adopted Kotter's Eight-Stage Process for Creating Major Change. Each step acknowledges a key principle identified by Kotter relating to people's response and approach to change, in which people see, feel and then embrace change. Kotter holds that "the methods used in successful transformations are all based on one fundamental insight: that major change will not happen for a long list of reasons" (Kotter, 1996:21). Kotter's process is designed to address this "long list of reasons" and is illustrated below. Possible tools of 'how to' work through the various aspects of Kotter's model are added for your interest.

1. Establishing a Sense of Urgency

- ✓ Help others see the need for change and the importance of acting immediately
- ✓ Examining the market and competitive realities (SWOT matrix)
- ✓ Identifying and discussing (potential) crises



2. Creating the Guiding Coalition

- Make sure there is a powerful group guiding the change, one with leadership skills, bias for action, credibility, communication skills and authority and analytical skills
- ✓ Building teams and forming influential guiding coalitions
- ✓ Assemble a group powerful enough to lead & influence the change
- ✓ Getting the group to work together like a team (5 stages in team development)



3. Developing a Vision and Strategy

- Clarify how the future will be different from the past, and how you will make the future a reality
- ✓ Creating a vision to help direct the change effort
- ✓ Getting the vision and strategy right (Vision building)
- ✓ Developing strategies to achieve the vision



4. Communicating the Change Vision

- Make sure as many others as possible understand and accept the vision and the strategy
- ✓ Using every vehicle possible to constantly communicate the new vision and strategies (Communication Strategy & Plan, Storytelling Tool)
- Have the guiding coalition role model the behaviour expected of staff



5. Empowering Broad-Based Action

- Remove as many barriers as possible so that those who want to make the vision a reality can do so
- ✓ Enabling others to act on the vision by getting rid of obstacles, encourage risk taking
- ✓ Altering systems or structures that undermine the change vision



6. Generating Short-Term Wins

- ✓ Create some visible, unambiguous successes as soon as possible
- ✓ Planning for and generating short term wins / improvements in performance
- ✓ Creating those wins
- ✓ Recognising and rewarding those people who make wins possible (<u>Reward</u> and recognition guidelines)



7. Consolidating Gains and Producing More Change

- ✓ Press harder and faster after the first success
- ✓ Not letting up, consolidating improvements and sustain the momentum for change
- ✓ Use increasing credibility to change all systems, structures and policies that don't fit together and don't fit the transformation effort
- Hiring, promoting and developing people who can implement the change vision
- Reinvigorating the process with new projects, themes and change agents



8. Anchoring New Approaches in the Culture

- ✓ Hold on to the new ways of behaving, and make sure they succeed until
 they become a part of the very culture of the group
- ✓ Creating better performance through customer and productivity oriented behaviour, more and better leadership, and more effective management
- Articulating the connections between new behaviours and organisational success
- ✓ Developing means to ensure leadership development and succession

(Kotter, 1996:21)

BRIDGE'S THREE PHASES FOR MANAGING TRANSITIONS MODEL

"It isn't the changes that do you in, it's the transitions!"

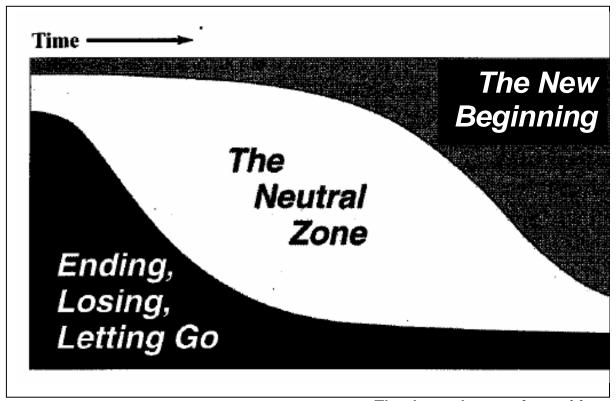
Anonymous





There are several models available to guide thinking on how people cope with the emotive cycle of change. William Bridges, PhD, was formerly a Professor of English, a consultant and lecturer; he made the shift to transition management in the mid 1970s. A review by Linkage (2009) identified that Bridges is ranked in the top 10 independent executive development specialists in the USA as observed by the Wall Street Journal.

Bridges holds that transition has three phases: an **ending/losing/letting go** of the current position, a disorienting **neutral** zone and a **new beginning**. If people do not deal with each of these phases, the change will be just a rearrangement of the current status quo...and then we wonder why it didn't work.



The three phases of transition

(Bridges 2003, p.5)

In *Managing Transitions*, Bridges offers advice in assisting employees to make the transition from one state to another and how to deal with the resistance. Bridges describes the following key points which any leader of change should heed as we should not underestimate the power of not dealing with the emotive side of change:

How to get people to let go

- ✓ Identify Who's Losing What; and discuss it openly
- ✓ Accept the Reality and Importance of Subjective Losses; acknowledge the pain people will go through openly and sympathetically
- ✓ Don't Be Surprised at Overreaction; take it in your step

- ✓ Expect and Accept the Signs of Grieving (<u>Transition/Change Cycle</u>)
- ✓ Compensate for the Losses by showing staff the benefits of the future
- ✓ Give People Information, and Do It Again and Again and Again and Again...
- ✓ Define What's Over and What Isn't
- ✓ Mark the Endings; make sure there are actions or activities that dramatize the end of processes, systems, cultures that reflected the old ways
- ✓ Treat the Past with Respect
- ✓ Let People Take a Piece of the Old Way with Them; endings occur more easily if people can take a bit of the past with them. If a ceremony can be created about moving on but holding a piece of the past, this will help people move on
- ✓ Show How Endings Ensure the Continuity of What Really Matters
- ✓ Whatever Must End, Must End.

Bridges holds that the single biggest reason organisational changes fail is that no one has thought about endings or planned to manage their impact on people. Leaders and managers of change forget that while the first task of *change management* is to understand the desired outcome, what it will look like and how to get there, the first task of *transition management* is to convince people to leave home (Bridges 2003, p.37).

William Bridges refers to the second phase of transition as the neutral zone as "it is a nowhere between two somewhere" (Bridges, 2003:40) and possibly the hardest part of managing transition. The neutral zone is a time when old clarities break down and everything is in flux. Nothing is a given anymore, and anything could happen. The neutral zone presents creative opportunities or dangers, depending on the leader. Again, Bridges holds that any leader or manager involved in change should take stock of the dangers and plan through them.

Bridges (2003:41) describes the dangers of the Neutral Zone as a time when:

- People's anxiety rises and their motivation falls;
- Sick leave increases;
- Old weaknesses, which may have been patched over or compensated for, reemerge;
- People feel overloaded, they frequently get mixed messages as systems are in flux and therefore increasingly unreliable;
- People easily become polarised: some want to rush forward others want to hold onto the old ways; and,
- People respond slowly and hence the organisation becomes more vulnerable to competitive attack

As well as a potentially dangerous time, Bridges (2003:55) describes the Neutral Zone as a potentially creative time. The key here is for the manager of the process to:

- ✓ "Normalise" the Neutral Zone by explaining that it is an uncomfortable time.
- ✓ Ensure a positive metaphor is linked to the time spent in the neutral zone
- ✓ Create temporary systems and structures for people during this time when
 they feel lost and confused. For example review values or business processes
 that used to govern the old way
- ✓ Strengthen intra-group connections by rebuilding a sense of identity and ensuring frequent, succinct communication

- ✓ Use a <u>Transition Monitoring Team</u>, its purpose is to facilitate upward communication and ensure that all stakeholders understand the stage the change and transition is at.
- ✓ Use the Neutral Zone to do things differently and creatively (provide opportunities and training, encourage experimentation, embrace losses and setbacks, look for opportunities to brainstorm answers to old problems etc)
- ✓ Above all else, support people through the Neutral Zone; spend time in staff 1 to 1 meetings, communicate to your team regularly, be perceptive and be available.

The third phase in transition according to Bridges (2003:56) is known as Launching a New Beginning. Bridges provides the following insights with respect to launching a new beginning:

- ✓ Clarify and communicate the purpose/vision
- ✓ Provide a picture of the outcome so that people can imagine it (<u>storytelling</u> tool)
- ✓ Then create the accompanying plan and publish it broadly
- ✓ Ensure all staff are involved in the plan to implement the purpose
- ✓ Finally, reinforce the new beginning by
 - Being consistent
 - Ensuring quick wins
 - Symbolizing the new identity
 - Celebrating the successes

John P Kotter's & William Bridges Checklists







THE PROJECT MANAGEMENT APPROACH TO CHANGE PROJECTS

Kotter (1996:23) holds that "successful change, of any magnitude, goes through all eight stages, usually in the sequence shown above. Although a leader of change normally operates in multiple phases at once, skipping even a single step or getting too far ahead without a solid base, almost always creates problems".

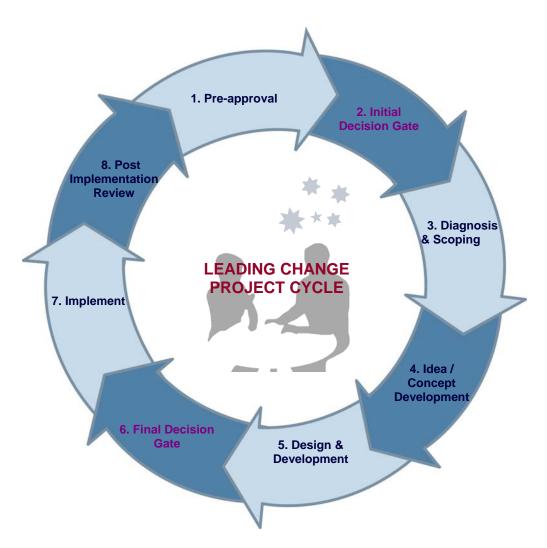
Best practise shows that projects of significant size and complexity (generally those with University wide impact) should be supported by a structured approach to project planning and implementation. At the heart of project management is the recognition that in order to succeed all projects must have a clear, consistent change vision and strong sponsorship within the University and have been prioritised to ensure they can be effectively resourced.

The change project cycle planning approach provided below incorporates the key considerations that Kotter's model identifies and applies those considerations at different stages of the project planning cycle and leads to some tangible outputs in terms of strategies and plans. From a change management perspective, each phase has a specific purpose, objectives and key activities, uses a range of change management tools and delivers outcomes.

The Change Project Cycle has 6 clear benefits:

1. Sets a performance goal for everyone

- 2. Enhances value for stakeholders
- 3. Accelerates the rate of improvement
- 4. Promotes learning and sharing of new ideas and best practices
- 5. Improves execution of strategic change
- 6. Sustains success



A project management approach allows the leader of the change effort to transform the work place openly and transparently. The general project planning phases focus on:

1. Pre-approval Phase

During the pre-approval phase you could consider stages one and two (establish a sense of urgency & creating guiding coalitions) of Kotter's process.

The purpose of this phase is to identify an opportunity for process improvement or selection of a problem to be resolved (<u>Fishbone Diagnostic Tool</u>).

The objectives in this phase are to prepare and agree the overall <u>Project Plan Template</u>, gain relevant approval, to define the measurable stakeholder requirements and to confirm the project should continue.

A couple of key success factors that should be addressed, as a minimum, in the pre-approval stage include:

• Define the vision and purpose of your change initiative

Why

A leader must be able to say, in as few words as possible, the reasons why change is being introduced, what it will look like, what are the benefits, and how the changes are going to be made. A picture is worth a thousand words! People have a need to understand the logic of something before they turn their minds to it.

Change starts with you!

"We must become the change we want to see"

Mahatma Gandhi

How

The online tool may provide you with some guidance in developing your change vision. <u>Vision Building Tool</u>

Prepare the Business Case for Change

Why

The business case / project brief allows the change manager to scope the change process. Good planning upfront can save a lot of time and energy further down the track as the project progresses. This is because it requires you to think through the reasons for change, why it should be important to all staff, how to make it happen and how to make it stick.

The generation of a business case/project brief is the first step on embarking on the project management change cycle. The project brief / business case involves an analysis of costs and benefits associated with a proposed change process and addresses available options for achieving the outcomes.

Business cases are required where sign-off by a sponsor is needed as the project will require considerable resourcing, time and effort. This usually involves gaining commitment to the project and approval for any funding.

How

The online tool may provide you with some guidance in developing your business case for change. <u>Business case / Project Plan template</u>

2. Diagnosis and Scoping Phase

During the diagnosis and scoping phase you could consider stages two and three (creating guiding coalitions & develop a vision and strategy) of Kotter's process.

This phase has as its purpose the establishments of measurements to highlight the performance of key business areas.

The objectives of this phase include allowing the change leader to collect all necessary data, quantify current processes and organisational performance, understand what is in scope and out of scope of the project, define the detailed measurements to be taken and to gain management acceptance of the problem. Tools available include a stakeholder analysis through the Stakeholder Management Plan and SWOT matrix.

Research suggests that key success factors that need to be addressed in the diagnosis and scoping phase include:

Conduct a stakeholder analysis

Why

The second stage of the Change Project Management Cycle includes diagnosis and scoping. Within this process, a stakeholder analysis is a vital step as individuals or groups could have a vested interest in a project. Understanding who they are and the level of interest and impact they might have on the project are important steps in any risk management process. Many change programs have become unstuck or even failed because of the lobbying of alienated stakeholders.

How

The online tool may provide you with some guidance in developing your stakeholder management plan. <u>Stakeholder Management Plan</u>

3. Idea / Concept Development Phase

During the idea / concept development phase you could apply stage four (communicate the change vision) of Kotter's process.

The purpose of this phase is to develop multiple options to address the problem or opportunity.

The objectives include prioritising performance problems, identifying the change management team roles and responsibilities, establishing the root causes of process / performance problems, to prepare the options for changes to process / organisation, to assess the organisations readiness to change (change readiness assessment tool, change impact assessment tool, identify and assess risks (risk management strategy and plan) and the development of plans for mitigating the risks, threats and opportunities and to gain management commitment to the process changes.

Research suggests that key success factors that need to be addressed in the idea / concept development phase include:

Define the role of all participants in the Change Management Project Team

Whv

To achieve the highest likelihood of success for the change project, all project team members should be identified and named. Additionally, to achieve maximum benefit from a key change initiative, the identification of a key, on-going sponsor is vital. The sponsor's role is to help remove

obstacles, provide valuable advice and support and ensure that the funding is maintained throughout the project lifecycle.

How

The online tool may provide you with some guidance in developing and implementing your Change Management Team.

The Change Management Team Roles and Responsibilities

Identify and develop plans for managing risks

Why

In the management of any project, risks or issues related to the level of political, managerial, staff and union support or resistance need to be considered. A Risk Management Strategy and Plan helps you to foresee risks; it ranks their likelihood of occurring and their priority. It identifies actions to prevent them from occurring and reduces their impact should they eventuate.

How

The online tool may provide you with some guidance in developing your Risk Management <u>Strategy</u> and <u>Plan</u>.

Acquire and develop the necessary change skills

Why

Effective leadership and team skills are critical to successful change. Change agents play a key role in gaining commitment and support among staff for business improvement activities. If the change agent and/or change team do not have the necessary skills to undertake the project then the likelihood of success is diminished and the likelihood for cynicism and discontent is increased.

Appointing people with the appropriate skills to manage change processes and providing adequate support sets the project up for success and is consistent with the University's values.

How

By demonstrating the skills for change, you will show your energy, confidence and commitment to the change. You will be a role model; a champion of change.

Consider the table below listing the skills required for the change agent and the change team and assess proposed staff against these skills.

Skill	Description
Planning	This includes systems analysis, understanding workforce change issues, risk management skills, self management and awareness
Organisational Awareness	Is understanding the culture, structure and environment in which you are managing change
Analytical Thinking	This includes assessment and diagnosis skills. It is analysing and synthesising a wide range of information to draw conclusions and make decisions.
Ability to Manage Upwards	Sound influencing and communication skills
Team Working	Is contributing positively to the team in order to achieve common objectives of change. It is working with the different skill sets of all team members.
Knowledge of Process	This includes designing, implementing and evaluating change processes
Communication Skills	This includes consultation, negotiation, mediation and influencing skills.
Facilitation Skills	Is guiding and motivating groups towards an agreed goal.
Developer skills	This includes the ability to coach, teach, facilitate and influence. It is articulating clearly and encouraging others towards a viewpoint or course of action through a persuasive approach.
Presence	This includes an understanding of systems theory and the roles required to influence the system in relation to the change process
Project Management	This includes a detailed understanding of a sound project management methodology
Consultancy Skills	Are the combined interpersonal, intellectual and organisational skills that support successful change interventions. Change agents are change consultants who rarely have direct power to individually implement change. As a consultant, you have to manage relationships in a structured way, contract with your "client", collect data, feedback options and recommendations and implement chosen solutions.
Leadership	This includes the ability to inspire others and gain commitment through collaborative working relationships
Modelling University Values	This must be consistent and constant

If there is a skill gap, develop means for dealing with the skill gap. This may include, but is not limited to:

- Buying in the appropriate skills
- Coaching and mentoring by a key person
- Developing a skills transfer program with the change team
- Training and development of staff
- Job rotations
- Reading and research etc

4. Design & Development Phase

During the design & development phase you could apply stage five (empower broad based actions) of Kotter's process.

This purpose of this phase is to prepare a solution for University wide implementation.

The key objectives of this phase are to ensure the vision and planned targets continue to meet stakeholder requirements and expectations, to ensure options for process changes are defined in enough detail to satisfy the problem or opportunity identified and to develop the complete suite of plans necessary for implementation (Implementation Plan, Communication Strategy & Plan, EBA Compliant Change Checklist).

Some of the key success factors that need to be addressed in the design & development phase include:

Manage human resources and industrial relations issues

Why

All change, even change that we willingly choose, involves people losing something. More often than not, people are not able to accept the change on just an intellectual level. They need to be able to work through their emotions and internalise it before they are able to move on to new beginnings.

There are many models which discuss the natural and emotional responses to change, just as there are models that describe people's responses to grief. An understanding of the process allows you to identify the various stages and develop strategies to address staff concerns.

How

It is worthwhile familiarising yourself with the emotional responses and stages to change as per the two attached cycles. Change / Transition Cycle. Once you have an understanding of the cycle you will be able to design strategies and interventions to deal with the phases proactively.

Additionally, during the Design & Development Phase of the Change Project Management Cycle it is important to remember that there are industrial relations requirements to consider. The University encourages you to contact your HR Consultant to work through the EBA Compliant Change Checklist to ensure good practice.

• Establish Consultation & Communication Forums and Processes

Why

The Design & Development Phase of the Change Project Management Cycle lends itself to establishing clear communication and consultation forums and strategies. One of the most important rules in change management is that you can never communicate enough and those affected by change need an opportunity to participate in the decisions which affect them. Even if the change process is non-negotiable, you will not get people to embrace the change if they are not involved, informed and supported along the journey.

How

The online tool may provide you with some guidance in developing your Communication Management Plan.

Communication Strategy & Plan

Some guiding principles in developing any form of communication initiative include:

- Determine what groups and individuals need to be consulted and what needs to be communicated to whom?
- Establish a formal consultative process which involves representatives of all stakeholder groups.
- Work with the key stakeholders in developing the communication process.
- Keep people informed of ongoing progress via informal, frequent channels of communication. Use as many channels as possible.
- Emphasise verbal communication by the Change Leader.
- Support any verbal communication with written material.
- Put yourself in the shoes of the staff, consider what they would want to know and develop a frequently asked questions (FAQ) document so that these questions can be shared publicly and answered consistently.
- Address any concerns of staff early on.
- Ensure staff are provided a means for raising concerns or feedback, and that the concerns / feedback are addressed.
- Meet with the relevant unions to clarify the change process being undertaken.
- If you are unsure of something, say you are and go and find out and communicate the answer back to the person / group who asked.
- If you do not act on peoples feedback, explain the reasons why
- Deal with the past (do not ignore), acknowledge mistakes, apologise for them, make amends, model future behaviour.
- Publicise successful changes widely.

5. Implementation Phase

During the implementation phase you could apply stages six, seven and eight (generate short term wins & consolidate gains and produce more change & anchor new approaches in the culture) of Kotter's process.

The purpose of this phase is to make sustainable improvements to performance.

The key objectives are thus to prepare and agree the University wide implementation and resource plans, deliver tailored communication across the University, ensure all staff understand the need for change, to prepare and train all key staff and stakeholders for the changes in process (<u>learning and development scoping of needs</u>) and / or structures, manage concerns / conflicts as soon as they arise, and ensure planned benefits are achieved.

How

When a change process within the University includes significant changes in the profile, composition, operation or size of the area's workforce, the alteration of hours of operation, major technological change which impacts the skills staff need or changes which invoke redundancy, the change program is considered a "major change" under the University of Adelaide's Collective Agreement 2006-2008. In order to facilitate the part of the process that affects staff members best practice Iransition Guidelines have been developed in order to place continuing staff members into appropriate positions and manage individual circumstances of other staff. It is strongly advised at this stage, if you are not already, work very closely with your dedicated HR Consultant for support and guidance during change.

6. Post Implementation Review Phase

The purpose of this phase is to maintain benefits.

The objectives needed to be met in order to maintain benefits include: handing over continuous process development activities to day to day management, communicating the results to the organisation, capturing, recording and communicating lessons learnt to the broader change management team and other useful information for future change projects, capturing best practice approaches for future reference and to ensure performance objectives are maintained and the process continues to improve.

Research suggests that key success factors that need to be addressed in the post implementation review phase include:

Develop evaluation strategies

Why

The Post Implementation Review Phase of the Change Project Management Cycle allows for the development of evaluation strategies. Any sound process builds in a method of evaluating whether the outcomes originally set out to be achieved have actually been achieved, what the lessons learnt are and how to move forward for future like initiatives.

How

Evaluation processes should be factored into your project brief / business case. It should include timelines and key performance indicators. Additionally, publishing the findings to all stakeholders is a very powerful way of ensuring ongoing learning.

MANAGING PERFORMANCE DURING TIMES OF CHANGE

The role of a manager in clarifying direction is even more important during times of change. It is the role of the direct supervisor to translate the change around the team into clear identifiable outcomes and expectations for individual roles. These outcomes need to be managed and supported throughout the change process. If anything, managers need to communicate more and meet more frequently with their team members during times of change to ensure staff member's efforts stay focused and constructive towards the new change vision.

FURTHER READING

Bridges, W. Adapted from interview "Meet the Masterminds on Managing Transitions" at. www.managementconsultingnews.com

Bridges, W. 2003. *Managing Transitions: Making the Most of Change.* Nicholas Brealey Publishing, USA

Corporate Leadership Council (CLC) 2001. Change Management Models and Business Applications. Corporate Executive Board, Washington, DC, USA

Kotter, J.P, 1999. What Leaders Really Do. Harvard Business School Press, Massachusetts, USA

Kotter, J.P, 2002. *The Heart of Change.* Harvard Business School Press, Massachusetts, USA

Kotter, J.P, 2003. *Leading Change*. Harvard Business School Press, Massachusetts, USA

Kotter, J.P, and Rathgeber, H., 2006. *Our Iceberg is Melting. Changing and Succeeding Under any Conditions.* Harvard Business School Press, Massachusetts, USA

Linkage, 2009, available online at http://www.linkageinc.com/company/people/Pages/WilliamBridges.aspx

McKinsey & Company, 2006. *Organising for Successful Change Management*. The McKinsey Quarterly

Shaffer, R.H., and Thomson, H.A., 1998. Successful Change Begins with Results. In the Harvard Business Review on Change. Harvard Business School Press. Boston, MA, USA

Synnot, B, and Fitzgerald, R., 2007. *The Toolbox for Change. Practical Approach*, Danjugah Pty, Brisbane, Australia

University of Adelaide Collective Agreement 2006-2008

Human Resources Branch, Level 13, 115 Grenfell Street, The University of Adelaide, SA 5005 Australia

Telephone: +61 8313 1111 Facsimile: +61 8 8303 5790 Web: www.adelaide.edu.au CRICOS Provider Number 00123M

www.adelaide.edu.au

MITS Critical Engagement With Technology

Pam Hearne

pam.hearne@strath.ac.uk

Researching IT/S

 What do you consider being worth researching?

Why is it worth researching?

How would you go about researching it?

Today's Agenda

- Orlikowski and Iacono's 2001 paper on theorising IT in IT research
- Papers on IS research:
 - Pluralist methodologies (Mingers, 2001)
 - Generalising generalizability (Lee and Baskerville, 2003)
 - Participant observation (Nandhakumar and Jones, 2002)
 - Narratives and storytelling (Orr,)

Theorizing the IT Artifact

Orlikowski and Iacono (2001)

- Argued that IT artifacts i.e. "those bundles of material and cultural properties packaged in some socially recognizable form such as hardware and/or software" are under theorized
- Took all the papers published in *Information* Systems Research for the first 10 years (188
 but excluding 11 which were concerned with
 literature (meta research) so 177 in total)

Previous Work

- Prior to the Orlikowski and Iacono study there had been some alternative conceptualizations of technology:
 - "Web models" rather than "discrete entity". Kling and Scacchi (1982) believed that IT is more that just tools it is the "web of equipment, techniques, applications, and people that define a social context, including the history of commitments in making up that web, the infrastructure that supports its development and use, and the social relations and processes that make up the terrain in which people use it".

More Previous Work

- Markus and Robey (1988) had a number of different ways of understanding and studying the relationship between technology and organizational change.
- Suggested that technology can be theorized as playing a number of different roles:
 - As a independent variable
 - As a dependent variable
 - As one of a number of players in an emergent process of change

What did they identify from the literature?

- 14 conceptualizations of information technology which they clustered into five broad meta-categories:
 - The tool view
 - The proxy view
 - The ensemble view
 - The computational view
 - The nominal view

The Tool View: Labour Substitution

- Technology as a labour substitution tool (1):
 - Fewer people to do more (reliable) work
 - Machines replace workers
 - Mass unemployment
 - Replacing scores of analysts and middle managers and enable organizations to work more cheaply and efficiently

"tool(s) for downsizing and restructuring"

Applegate et al (1988, p.129)

The Tool View: Productivity

- Technology as productivity tool (12):
 - Not labour substitution but augmentation
 - Describing the technical features of a new technology is to understand what that technology might do as its performance capabilities are assumed to be designed in the technical features
 - Performance outcomes are assumed to be positive and to result from replacing older (slower, less efficient, less accurate, more cumbersome, more time consuming) ways of working with new technology-enabled ways of working

The Tool View: Information Processing (15)

- Argued what technology does best is to alter and enhance the ways that humans and organizations process information
- Also conceptualized individuals and small groups as information processing entities and have focused on the ways in which new technologies can alter information flows and enhance feedback and learning or, more negatively, result in information overload for example:
 - e-mail,
 - spread sheets,
 - electronic brainstorming applications,
 - executive support systems)

The Tool View: Social Relations (8)

- In addition to substituting for labour, enhancing performance, and processing information, technologies can and do alter social relations
- Following the introduction of new technologies, social roles may change, hierarchies may become more or less salient, business processes may be modified, and communication may require choices among different media and tasks
- Shifts in social networks, communication patterns, and work activities are associated with the introduction of new technologies that offer different capabilities
- New electronic media have been portrayed as providing different opportunities to convey social presence, social context, and information richness, and such differences have been hypothesized to alter communication behaviour and effectiveness

Proxy Views of Technology

- Have a focus on one or a few key elements in common that are understood to represent or stand for the essential aspect, property, or value of the information technology
- Assume that the critical aspects of information technology can be captured through some set of surrogate (usually quantitative) measures such as individual perceptions, diffusion rates, or dollars spent

Proxy Views Outlined

- The first proxy view (8) focuses on technology as perception ie as viewed by individual users - perceptual, cognitive, and attitudinal responses to computers become the critical variables in explaining technology and its effects in the world
- The second proxy view (8) concentrates on the diffusion and penetration of technologies within firms, industries, and economies
 - critical aspect of technology is the rate with which particular IT artifacts (hardware, software, techniques) become spread across social systems and the extent to which they become integrated into operational activities
- The third proxy view (16) is constituted by the capital or monetary measures of technology, the premise being that a useful indicator of the value of technology to a firm or economy is the amount of money spent on it - amounts of technological investments and changes in them are tracked over time to understand the essential role of technology in organizations and economies

Ensemble Veiw of Technology

- Follows on from the Kling and Scacchi (1982) "web of computing" as the technical artifact is only one component in the package
- Also links with Latour's (1987) work concernign social scientests making new technologies into "black boxes" in which he argues for them to unpack the black box
- Four variants of the "ensemble" view with all variants focusing on the dynamic interactions between people and technology:
 - during construction, implementation, or use in organizations or
 - during the deployment of technology in society at large

Ensemble Veiw of Technology: Development Project

• 7 articles:

- Focuses on artifact in formation a work in progress
- Most articles had a socio-technical perspective
- Most were field studies examining one or more particular information systems development projects
- Deepened understanding of information systems development as a complex socio-political process and the way in which these processes play out over time

Ensemble Veiw of Technology: Procuction Netowrk (2 papers)

- Focus is on the supply side of technology technology development is viewed at the levels of industry and nation-state,
- Like Latour's view the focus is on the building of "systems of alliances", which tie together inventors, research and development organizations, corporations, and governments who work together to develop new technologies and maintain their competitiveness
- Unlike Latour not focused on understanding how a particular "machine" emerged into its current form

Ensemble Veiw of Technology: Procuction Netowrk Questions

- The questions include:
 - How did this (part of the) computer industry evolve into its present global structure?
 - Why have some (particular) countries succeeded more than others?
- To answer these questions researchers examined national and international IT policies and the market forces operating within specific countries and regions

Technology as Embedded System (7 papers)

- Considers technology as an evolving system embedded in a complex and dynamic social context
- Technology is neither an independent nor dependent variable but instead is seen to be enmeshed with the conditions of its use
- Similar to the "web model" articulated by Kling and Scacchi with a focus on better understanding how technologies come to be used in particular ways

Technology as Structure (6 papers)

- Focused on the ways in which technology is enmeshed in the conditions of its use
- Technology is seen to embody social structures (conceptualized in terms of Giddens' (1984) notion of structure as sets of rules and resources), which presumably have been built into the technology by designers during its development and which are then appropriated by users as they interact with the technology

Technology as Structure Questions

- Typical questions addressed by this literature include:
 - How do users appropriate the social structures embodied in a given technology and with what outcomes?
 - What are the intended and unintended consequences of using a given technology?

References

- Applegate et al (1988)
- Kling, R. and Scacchi, W. (1982), The Web of Computing: Computer Technology as Social Organization, *Advanced Computing*, 21, pp. 1 90
- Latour (1987)
- Lee, A.S. and Baskerville, R. L. (2003), Generalizing Generalizability in Information Systems Research, Information Systems Research, 14 (3), pp. 221 243
- Markus, M.L. and Robey, D. (1988), Information Technology and Organizational Change: Causal Structure in Theory and Research, *Management Science*, 34 (5), pp. 583 - 598
- Mingers, J. (2001), Combining IS Research Methods: Towards a Pluralist Methodology, *Information Systems Research*, 12 (3), pp. 240 259
- Nandhakumar, J. and Jones, M. (2002), Development Gain? Participant Observation in Interpretive Management Information Systems Research, Qualitative Research, 2 (3), pp. 323 - 341
- Orlikowski, W.J. and Iacono, C.S. (2001), Research Commentary: Desperately Seeking the "IT" in IT Research A Call to Theorising the IT Artifact, *information Systems Research*, 12 (2), pp. 121-134
- Orr, J.E. (), Narratives at Work: Storytelling as Cooperative Diagnostic Activity, , pp. 62 72