“For the people, by the people”
How might governments benefit from human-centred design?
by
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Abstract

This Major Research Project examined the pressures facing governments, specifically regional level governments; and outlined how human-centred design can be used to mitigate some of these issues. Research was conducted on a regional government in the Greater Toronto Area to investigate what factors need to be addressed in order for governments to embrace human-centred design as a method for addressing the mounting wicked problems facing them today.

A scalable design solution was proposed and rationale provided for the ways in which this design solution is uniquely suited for the particular situation(s) faced by the regional government studied.

Acknowledgments

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To Elizabeth, Cristian, Michael and Adam, for supporting me,

believing in me, and most of all, for inspiring me.

We are collaborating to make design our life, and life, our design.

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1.0 Introduction

Across the globe we are seeing governments face a number of urgent and growing challenges – one of which is a rising demand for services coupled with the reality of limited resources – forcing governments to do more with less. What was once a series of *complicated* issues are now increasingly converging and interconnecting, creating a much more *complex* situation, better known as "wicked problems." Popularized in the 1973 article *Dilemmas in a General Theory of Planning* by Horst Rittel and Melvin Webber, the term wicked problem refers to a complex problem for which there is no simple method of solution. A wicked problem is one for which each attempt to create a solution changes the understanding of the problem[1]. Some of the growing global concerns facing government include issues like the current world economic crisis; the increasing technological advancements, which are spawning complex communication networks that we struggle to maintain; and finally, an aging population which is putting pressures on our existing institutions.

More and more we are realizing that these global issues have direct implications for our local governments and will have profound effects on our communities. For example, the global economic crisis means that all levels of government are expected to do more with less, leaving all governments woefully ill-equipped to handle this demand. The continued and increasing technological advancements have a major impact on how we live our lives, most notably, shifting the role of the customer from a passive consumer to an active, involved participant. Our aging population is now a highly intelligent, techno-savvy group who will demand new ways of satisfying their needs as customers and will not sit back and idly observe

government affairs, but instead will speak up and demand to be included in the policy-making process.

Compounding the immense pressures of this complexity is the growing public discontent with government in general, along with a declining trust in what it provides for its citizens. More and more we are seeing governments at all levels being scrutinized on issues such as spending and budgeting misallocations, to more serious questions of fraud and financial mismanagement. With decreasing employment rates and increasing tax rates, the public at large is more attentive to the goings-on of government affairs. The growing discontent is not isolated to trust, it also extends itself into a lack of public confidence in government. There is rising concern that the "good" that government is doing is having less impact and, in some cases, having none at all.[2] As outlined below, the general cause of this failure to deliver sustainable solutions lies in the fact that governments are consistently applying outdated and ill-equipped problem-solving methods to new and increasingly complex problems.

1.1 Problem definition

We are in a time of massive change, and it is forcing us to question and rethink some fundamental concepts. The one constant in this situation, is that this turmoil is unlikely to change or go away. Instead, what we are dealing with is a "new normal." This new normal can be characterized as two separate factors that are increasingly converging upon each other, creating immense pressures and new challenges for government – citizen engagement, complexity of issues and the pervasive bureaucratic

Figure 1: Defining the problem as converging factors

mindset. The increasing role of the citizen in policy making, coupled with wickedly complex issues are placing immense pressure on government. Figure 1 presents the existing bureaucratic mindset as ill-equipped to manage these two powerful factors. To further clarify the definition of the problem stated above, we will explore each of the factors in detail.

Citizen engagement

Complex situations in the government context are usually rooted in social complexity, meaning there is a considerable stakeholder component with varying opinions and views on the pressing issue at hand, adding to the difficulty of understanding the nature of the challenges they are facing. As mentioned earlier, there is a growing demand from the public to be involved in public affairs, and technological advancements such as web 2.0 has provided the citizen with the tools and platforms for greater involvement. Citizens are now placing similar expectations that they have for private sector businesses onto the public sector, emphasizing greater customer service, better service options and delivery methods and increasingly challenging policy development processes. Including the citizen into the problem-solving process,

ensuring that their thoughts, opinions and views are not only heard but are leveraged in designing relevant solutions is a means of addressing this problem. Traditionally, governments have included the citizen in more distant ways such as public communication and public consultation. These two methods are traditionally used to inform the citizen or stakeholder of policy changes, or in the case of consultation, to find out what citizens opinions and ideas are on a particular issue. Citizen engagement is meant to, as the name suggests, include the citizen in a much more authentic way, with an objective to improve public decision-making, strengthen community life, enhance mutual support and reciprocity, increase tolerance and understanding, and improve relationships between citizens and government.[3]

There is a growing interest from government to include the citizen, but there is a gap in understanding how and in what capacity to do so. When faced with a complicated situation, teams are needed to solve problems, but when faced with a complex situation – the entire community is needed to improve the current state.[4] The following excerpt from the Canadian Policy Research's *Handbook on Citizen Engagement* offers further insight on the concept of citizen engagement:

> *The rationale for this shift lies in the understanding that better decisions are made when the affected stakeholder groups are involved and that no one group has the answers to today's "wicked" policy problems. Various models of collaboration have emerged which emphasize partnerships between government and different sectors. Within horizontal management, government is expected to take a holistic approach to policy, moving beyond departmental silos to embrace citizen-centered policy analysis and solutions. Governments are no longer expected to have all the answers internally, but rather to play the role of coordinating and facilitating a collective process of policy development.*[5]

This means a shift in the role of government, from problem solver to facilitator. With this shift, the mindsets and modes of working must also evolve with this new role.

Complex issues

Social issues, aging populations, economic crisis, technology; these problems are complex: they are shaped by many inter-dependent factors, all constantly changing. Governments are accustomed to dealing with complicated situations, where they can predict cause and effect, where they can apply analysis and where best practices can be leveraged for insight. Complex situations, on the other hand, are of an entirely different composition. Complex situations are unlike issues that have preceded them, mainly because their complexity lies in the contextual interconnectedness of the issues at hand and in the moment, so a best practices approach proves useless. Table 1 helps to describe the differences between simple, complicated and complex problems. Complex issues have always existed for governments to tackle, but the

Table 1: The differences between simple, complicated and complex

SIMPLE	COMPLICATED	COMPLEX
FOLLOWING A RECIPE	**SENDING A ROCKET TO THE MOON**	**RAISING A CHILD**
The recipe is essential	Formulae are critical and necessary	Formulae have a limited application
Recipes are tested to assure easy replication	Sending one rocket increases assurance that the next will be OK	Raising one child provides experience but no assurance of success with the next
No particular expertise is required. But cooking expertise increases success rate	High levels of expertise in a variety of fields are necessary for success	Expertise can contribute but is neither necessary nor sufficient to assure success
Recipes produce standardized products	Rockets are similar in critical ways	Every child is unique and must be understood as an individual
The best recipes give good results every time	There is a high degree of certainty of outcome	Uncertainty of outcome remains
Optimistic approach to problem possible	Optimistic approach to problem possible	Optimistic approach to problem possible

Glouberman, S. and B. Zimmerman (2002) Complicated and Complex Systems: What Would Successful Reform of Medicare Look Like? Commission on the Future of Health Care in Canada, Discussion Paper 8.

increase in the nature of complexity may be traced to the information technology revolution of the past few decades. Systems that used to be separate are now interconnected and interdependent, which means that they are, by definition, more complex.[6]

The inter-connections inherent in a complex problem demand a more collective view of the problem be taken, requiring skills of synthesis rather than analysis. This is diametrically opposed to the traditional analytical, "waterfall" methods currently being applied by government employees. The novelty that complex situations bring with them makes it difficult for government to address because there is no set rule or recipe to follow in order to resolve them, requiring new ways of looking at problems and new ways of working.

Bureaucratic mindset

German sociologist and political economist, Max Weber, is largely credited for systematically detailing the characteristics of the bureaucratic organization. He saw bureaucracy as an impersonal system that operated by routinized, well defined sets of tasks functioning within a clear hierarchical structure. The impersonality of the bureaucratic system was seen as a virtue, it allowed for rational and emotionless decisions to be made by bureaucratic employees, improving the efficiency of work completed. It is in this very "virtue" that we see a need for rethinking how bureaucracies are organized.

The term 'bureaucracy' was created from the French word bureau, meaning desk or office, and the Greek kratos, meaning rule or political power.[7] The term, literally

translates to, "ruled by the desks or offices." This definition and supporting research provided by Weber on the impersonality of the bureaucracy all contribute to the prevailing mindset found in bureaucratic systems, one of self-containment, internally focussed and fixated on the efficiency of results and less so on the effectiveness of work produced.

Weber saw the bureaucratic system as the most advanced and efficient form of organization, a solid response to the current forms of organization of his time, but he equally predicted the potential negative effects that it could create in the future, recognizing that the system left unchecked could eventually work against itself; "…Weber was not simply an advocate of bureaucracy and its efficiency, but also fundamentally critical and fearful of it. The politician and the entrepreneur, he argues, are needed as counterweights to the bureaucrats inside political and economic organizations, or these will take over and stifle them."[8]

As figure 1 depicts, the complexity of issues facing government, plus the growing demand for citizen engagement are simply too much to handle for the current mindsets dominating current government thinking alone. Shifting mindsets is an extremely important component to any major organizational transformation, it is also the most underrated and overlooked, due to its systemic and intangible nature. Governments need to focus on balancing the factors mentioned above, which means a significant change in the way they cope with complexity and ambiguity is required. The answer does not lie in abandoning the bureaucracy, but in balancing it with new mindsets and methods to address the new challenges. What is needed is an innovative way of including the citizen at the centre of government affairs, where

they are not only consulted on issues, but are included in developing and implementing solutions. The requirements of this new mindset for government runs in stark contrast to the way in which governments are structured, managed and operated. Further, as *complexity* continues to confound governments, the *complicated* things haven't gone away either, governments need to balance both complicated and complex problems.

2.0 The research question

As noted above, there has been a clear evolution of the types of issues facing governments, from simple one-answer problems, to the intricacy of complicated problems, and finally to the increasingly complex problems with high levels of uncertainty and ambiguity. Likewise, we have seen a similar evolution of public participation with respect to government affairs. Initially, contact with the public was a communicative method to inform, then came the consultative approach that sought to get citizen opinion on particular matters, and finally we are seeing the growth of citizen engagement where a greater citizen collaborative effort is being introduced. While there has been progression in both factors (complexity of issues and greater citizen engagement), there has not been equal attention to the shift in government mindset needed to appropriately address these factors.

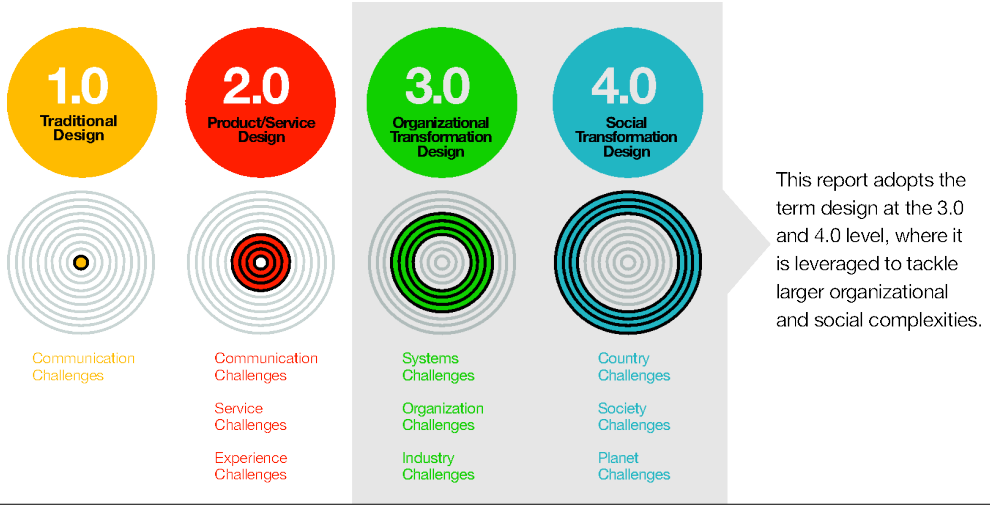
The emerging response to this problem is public sector innovation, bolstering the government's ability to innovate will help to reduce costs, increase productivity, and improve citizen trust and confidence in government. That governments need to be more innovative in order to properly address the issues of modern society is a widely accepted view. Why then have we seen very little progress in the area of public sector innovation?

The convergence of citizen engagement and the complexity of issues facing government are putting immense pressures on a system rooted in a bureaucratic mindset which is ill-equipped to manage these demands. What can be done to help governments innovate to address these pressures placed on them?

The practice of human-centred design is a growing methodology for tackling problem solving. It leverages the inherent value of end user experience and knowledge to provide the requisite diversity of views and opinions needed to address the complexity of problems that modern day governments face. This human-centred design methodology is a viable approach for government to evolve and balance the way it currently addresses complex issues. The human-centred design approach takes into account the complexity/community context of the equation and provides a framework for building new mindsets.

This major research project aims to uncover how a more innovative approach to problem solving could help relieve some of the pressures placed on governments by asking the question, *"What factors need to be addressed in order for a regional government to embrace a human-centred design approach to problem solving?"* Subsequent research questions were created to provide further insight on the topic including; *"What are the key influencers that affect how employees of a municipal government approach problem solving?"* and *"Does organizational structure determine the approach, process and outcomes of problem solving?"*

Figure 2: Levels of design



Adapted from Humantific – Visual SenseMaking framework, NextDesign Geographies

3.0 What is human-centred design?

"Everyone designs who devises courses of action aimed at changing existing situations into preferred ones." — Herbert Simon

Before getting into describing what human-centred design is, let's first define and clarify the term design. Today, the field of design is very often associated with graphics and visual aesthetics. For the purpose of this report, an important distinction must be made. Design is the ability to create, to bring something new into existence; be it a tangible product or something intangible, such as a new idea. University of Pennsylvania Professor Klaus Krippendorf examines the etymology of the term: "…design goes back to the latin, *de* + *signare*, and means making something, distinguishing it by a sign, giving it significance, designating its relation to other things, owners, users or goods. Based on this original meaning, one could say: design is making sense (of things)."[9] There are various meanings of design that have evolved

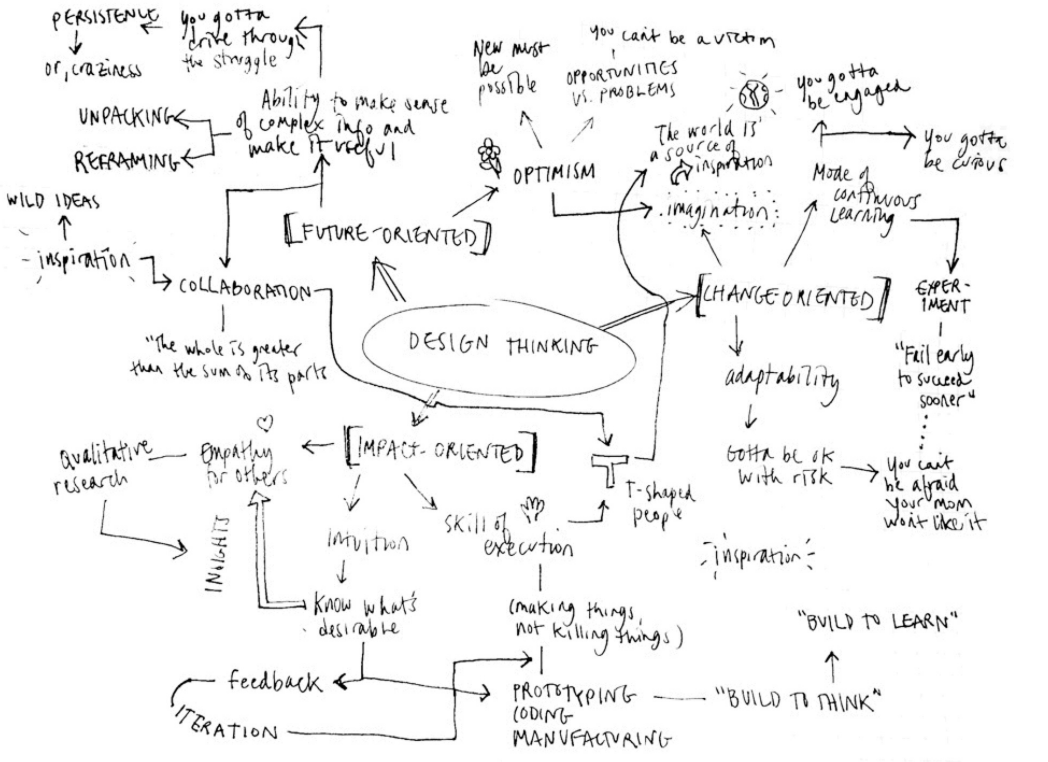
over time, and it continues to evolve. Figure 2 shows the effective transition of design to an evolved state of sense-making and catalyst for social transformation. In realizing design's value across the spectrum of levels, we can begin to understand how the *human* element comes into play.

There are many different views of the genesis of human-centred design, where it was originally developed and what exactly is meant by the term. It is generally believed that human-centred design came out of the fields of ergonomics and Human-Computer Interaction. Also coming out of these fields was another term, user-centred design coined by Donald Norman in his quintessential book, *The Design of Everyday Things*[10]. The basic premise behind both approaches is that the user is placed at the centre of the design process in the development of a product or system. Until the 1990's, human-centred design and user-centred design were considered synonymous, it was not until human-centred design began to develop methods that had less of a technology-driven focus and more of a humanized one that a real distinction was formed. Furthering the distinction was the belief that human-centred design embraced not only more humanized methods for research gathering and insight but was equally advocating the importance of a larger mindset than merely a set of tools. William B. Rouse develops the argument of the shift toward a mindset in his book, *Design for success: A human-centered approach to designing successful products and systems.* It is in this realization, mindset and toolset, that human-centred design has the ability to reach its greatest potential, for addressing wider complex social issues.[11] As mentioned, there are many definitions of what human-centred design is, but the following entry serves as a good working definition for the context of this paper, "…the discipline of generating solutions to problems

and opportunities through the act of making "something" new, where the activity is driven by the needs, desires and context of the people for whom you design."[12]

Human-centred design as a mindset has seen further refinements in recent years and has given birth to "design thinking". Design thinking is the culmination of human-centred design methods and mindsets and is merely a term used to describe the way in which a designer creates. The value of the *thinking* part of the term is to act as a reminder of the need to ensure that a mindset be attached to the toolsets, to the methods employed. The mindset of a designer comes with a certain belief system that sees extreme value in making ideas visual. The belief system is rooted in such tenets as; embracing ambiguity, clarity of problem definition, developing

Figure 3: Visual map of the term design thinking



From http://www.saine.co.za/wordpress/wp-content/uploads/2012/12/design-thinking.jpg

empathy, evidence-informed creation, first-hand observation, prototyping and iteration, building up of ideas, accepting and learning from failure and making the best use of visuals as a common language for knowledge creation and transfer. This incomplete list of the designer's belief system clearly emphasizes the importance of the mindset or *thinking* component to the design thinking practice. Figure 3 shows some of these components in a visual map. It is important to draw the distinction between the different design approaches mentioned earlier, because it is the evolution of design practices from a series of methods to a methodology and ultimately to a mindset that is the focus of this research study. In order for government to begin to tackle the bureaucratic mindset factor, it must avoid its traditional inclination to adopt routinized processes as a roadmap to success. Human-centred design and more specifically, design thinking, are, as mentioned, more focused on a mindset approach, the toolsets and mindsets must work in tandem in order to achieve real success. Design thinking has been characterized as the ability to seamlessly transition between the opposing disciplines of analysis and synthesis. Analysis requires rigour and 'algorithmic' exploitation, whereas synthesis, involves interpretation and exploration of 'mysteries'.[13] Table 2 explains the type of cultural mindset shift that

Table 2: Differences in thinking

Analysis (Splitting)	**Synthesis** (Putting together)
Rational	Emotional
Logical	Intuitive
Deductive	Inductive
Solutions	Paradigms, platforms
'Thinking it through'	Rapid prototyping (think through doing)
Single discipline	Multiple disciplines,T-shape
Elegance	Impact, value, diffusion

Adapted from Bason, C. Public Design, How do public managers use design thinking?, Paper for Work in Progress (WIP) Seminar, 2011Sources: Inspired by Bannerjee (2009), Brown (2009), Martin (2009)

is needed in order to transition from traditional modes (analysis) of thinking to design thinking (synthesis).

It has been argued that public sector innovation is the key in helping governments deal with the complex issues that they face, and that it will help improve citizen engagement and potentially increase trust and confidence with the general public. It has also been noted that in order for the public sector to embrace an innovative mindset, it must address any cultural barriers that may be getting in the way of adopting innovation. The next section of this report provides insights gained from the research conducted at a regional municipal government in the Greater Toronto Area (GTA). The research aimed to identify any factors that may need to be addressed in order for a regional government to embrace a more human-centred approach to problem solving.

4.0 Research

4.1 Methodology

The purpose of the study was to understand the conditions in which the administrative employees of a regional municipal government approach problem solving and lead strategic initiatives through project work. Three qualitative methodologies were used to uncover subtle cultural approaches and project management mindsets.

One-on-one interviews

One-on-one interviews allow researchers to explore deeply and understand the participants' perspective uncovering motivations, needs, and desires.

Participant/stakeholder sketch drawings

This projective expression technique offers participants an opportunity to communicate visually which provides alternative insights to add context to verbal accounts.

Passive observation

The researcher had the opportunity to witness participants in their natural work environment while engaged in work-related activities. This technique provides behavioural clues to systems and culture that might otherwise go unreported by the participants themselves.

4.2 Research findings

The research uncovered several themes that highlight the key barriers to embracing human-centred design at the regional government in the study.
The major factors are:

1) Risk-averse behaviour and mindset
2) Homogenous mindsets and skillsets
3) Confusion of outputs and outcomes
4) Lack of a client or human-centred focus
5) Reward of process vs. progress

These factors emerged once all research information went through a process of analysis and subsequently a stage of synthesis, allowing for an expansion and contraction of thoughts in order to develop insights into the raw data.

Factor 1 | Risk-averse behaviour and mindset:

An aversion to risk is comforting and not worth the trouble of trying something new

There is a clear hierarchical structure in place within this organization. This hierarchy is played out (and reinforced) in project management practices, where the bulk of responsibility and accountability lies with the sponsor of projects, often employees are comfortable leaving responsibility and accountability to management; "Permission has to come from top down – leadership matters"; "It's safe, it's easy to let someone else have the accountability – then you don't have to own it." Innovation requires that you take risks, to test assumptions and to try something new and uncertain and have the strength and support to stand up for the proposed idea. It is clear that the staff researched feel insecure about their permission to try something new; "Maybe it should be put in our performance appraisals – to have the permission to be more innovative and learn from failure"; "There is a fear to stand up". There is a definite trend noticed that employees find comfort in knowing the end before they embark on the project. This is not exclusive to the regional government of this study, but can be noticed in many other large organizations. What is concerning however is how pervasive (and almost considered necessary) the fear of risk is in government offices. The driver behind this fear is obvious, there is a level of accountability to the taxpayer and a reputation to uphold. "We are incredibly conservative, we don't like risk- don't like to be embarrassed"; "Mistakes can easily be seen by (the) public". Opportunity lies in finding a way to increase the appetite for risk, while, at the same time protecting their reputation. Participants noted the need to strike this balance in order to provide more innovative solutions; "We need to balance creativity of innovation with the realities of risk environment that we live in."

Factor 2 | Homogenous mindsets and skillsets:

Form is following function – when it comes to mindsets

There appears to be a lack of diversity of skillsets and mindsets in selecting teams. Innovative teams require diversity and the research is signifying that is currently not being exercised. Currently, the main criteria for selecting teams largely revolves around tactical skills, as some respondents indicated; "(Teams are selected) generally, on skills - people who are responsible for the operational – tasked with doing the work"; "Match people with competencies required for task"; "Skills/expertise in the task". The necessary tactical skills are identified in order to deliver an end result for project work and then staff that match those skill sets are selected, resulting in project teams consisting of multiple "Like-skilled" employees. This results in team dynamics where the main focus is getting along and getting it done. Homogeneity creates sameness and the lack of dimension in skills sets, and more importantly mindsets, create little opportunity for new and innovative ideas to emerge. The second most common response for team selection was availability. Often teams are selected on the sole criteria of their availability to do the work which can again create a sameness in skillsets. In order to maximize the potential for innovative ideas, team selection criteria must be revisited and have a greater priority with management.

Factor 3 | Confusion of outputs and outcomes:

Confusing outputs for outcomes is resulting in missed opportunities

Even though there is an understanding of what an outcome is – the response to working on outcome related issues is approached with an output in mind. "It is

NOT an output – it is the value to customer or organization"; "Outcomes are impacts – a move away from numbers". Outputs are generally favoured within this organization, mainly because of their immediate, "quick-win" nature. This is not entirely problematic, however it quickly becomes problematic when outputs are seen as episodic and not thematic. There is talk of systemic change, yet the ideas that are born are from the individual departments. If it were truly systemic it would view the problem from the user and see that the issue crosses many areas of business. This episodic approach with definitive start and end times may very well provide an understanding of why project management is over practiced in this organization, choosing to leverage the project management methods as the preferred way to address business problems. Applying project management methods as the dominant way of addressing problem solving is problematic if the desire to produce outputs supersedes the overall value of achieving an outcome. "Outcomes hinge on scope – they determine what the deliverables are"; "We are not great at measurement and outcomes – we are better at outputs".

Factor 4 | Lack of a client or human-centred focus:
Make the implicit, explicit – remind everyone that we are here for the people

There almost seems to be an implicit belief that the user is at the centre of all government decisions. Yet, the research points to an approach which does not convey this. During the one-on-one interviews, respondents were asked to identify key stakeholders on projects and only one respondent included the "citizen". This contrasts greatly with a human-centred design approach, where the primary stakeholder is the citizen/human. The sketch/drawing exercise that was conducted

Figure 4a: Participant sample from sketch/drawing research exercise

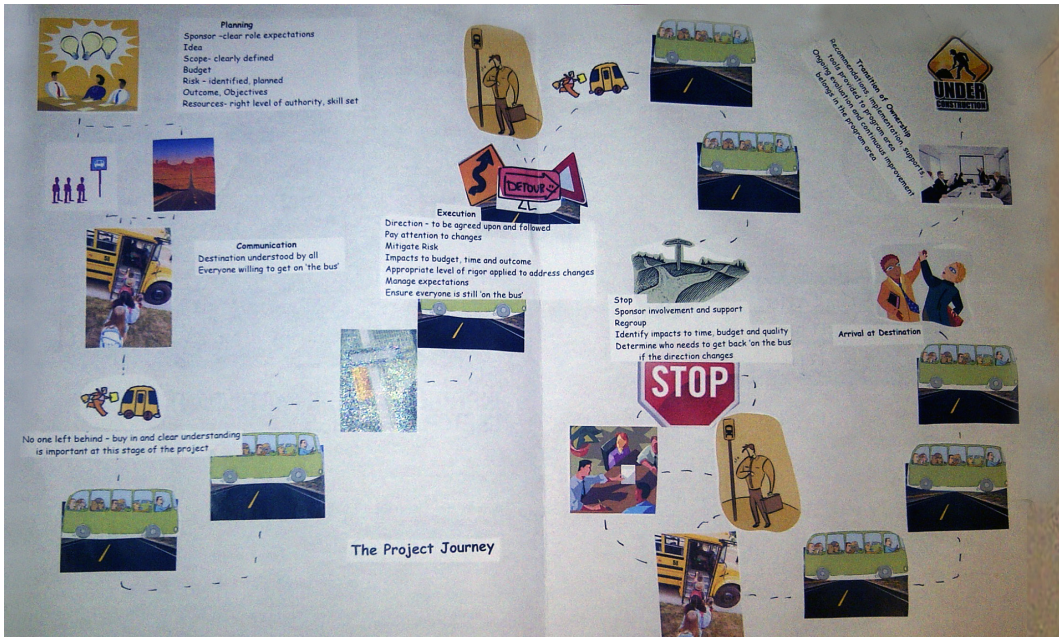
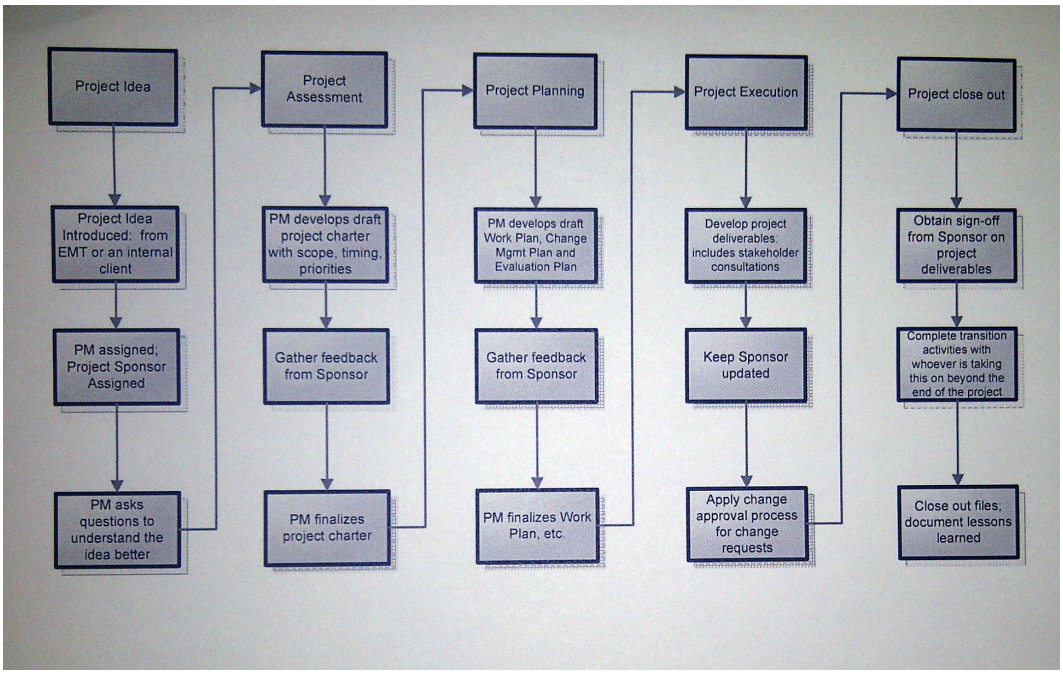


Figure 4b: Participant sample from sketch/drawing research exercise



with participants unveiled similar views. Figures 4a and 4b represent a fair range of submissions for this exercise. Creatively, the two submissions differ greatly; however, conceptually they are more similar than not. Both submissions (and the majority of all others) fail to adequately call out and identify the citizen. There is a greater emphasis on the internal process and practice of getting work done than on the impact of the work for the citizen.

Without a clear understanding of the human need within the process (what problem are we attempting to solve?, and who are we solving the problem for?), then it is questionable for whom the detailed processes being employed are working for. Instead, the emphasis is on the beauty and efficiency of the process, rather than on effectiveness or progress.

Factor 5 | Rewarding process vs. progress:
Doing things right outweighs doing the right thing

Somehow there is a sense that the process is more important than the progress (as noted in the samples above from the sketch/drawing exercise). There is a tendency to be content with doing things right rather than doing the right things. Again this may be attributed to the fear factor/public opinion mentioned earlier. There is a belief that government needs to concern itself with getting things done – to show progress, to measure actions and therefore establish its worth. This tends to lead to the confusion of outcomes vs. outputs, which determines what mindset or process to apply to the work that is being done. In many cases, respondents recognized the rigour associated with project management methods as key factors for success. It

is clear that this regional government believes that adhering to a strong project management plan, and subsequent change management plan, are key ingredients for success. A common response to the question, "what are the key steps in a successful project?" was "project management rigour," and "sponsor approval and champion buy-in." These responses provide interesting insights into what matters most to those running projects, there is a sense of the management of the project having greater importance than the outcome of the initiative, it certainly bares more attention. Among the participants, there was an over emphasis on how project work is conducted, and less concern with why projects are undertaken in the first place. An interesting strategic tool to gather insight with a client is asking, "what does success look like?" Responses usually provide insight into what really matters to the respondent. In this case, the respondents were mainly concerned with the beauty of the process over the relevance of the progress. As systems theorist, Russell Ackoff eloquently put it, "The curious thing is that the righter you do the wrong thing, the wronger you become. If you're doing the wrong thing and you make a mistake and correct it you become wronger. So its better to do the right thing wrong, than the wrong thing right."[14]

4.3 Conclusions

The complexity of issues facing governments coupled with an increasing demand by citizens for better government and more inclusive services, programs and policies has left governments searching for new answers. The research findings support that a new mindset is necessary for this regional government to adequately begin to address the issues. The answer, as anticipated, is not a quick fix, it is not a transitional or transactional one, nor can it be borrowed from a best practice.

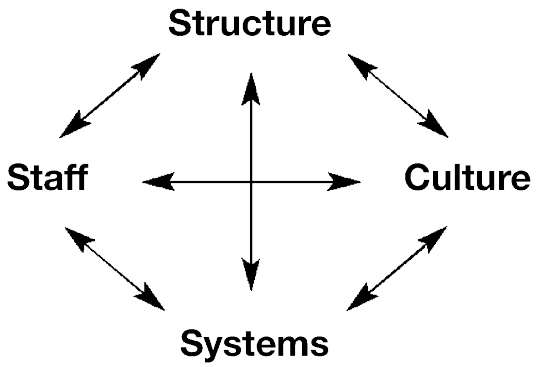
The next section will examine the specific components of the bureaucracy that needs to be addressed.

5.0 Implications of research

5.1 Finding a point of leverage

Dartmouth professors and co-authors of, *Forget, Borrow, Learn: Secrets to Building Breakthrough Businesses Within Established Organizations*, Vijay Govindarajan and Chris Trimble, explain how aspects of organizational DNA (structure, staff, systems, and culture) collectively constitute the underlying logic that determines how an organization behaves.[15] Further, an analysis of a company's DNA can help to identify causes and potential solutions to organizational dysfuntions. For the purposes of this

Figure 5: The organizational DNA matrix



Structure: Formal reporting structure, decision authority, information flows, task/process flows

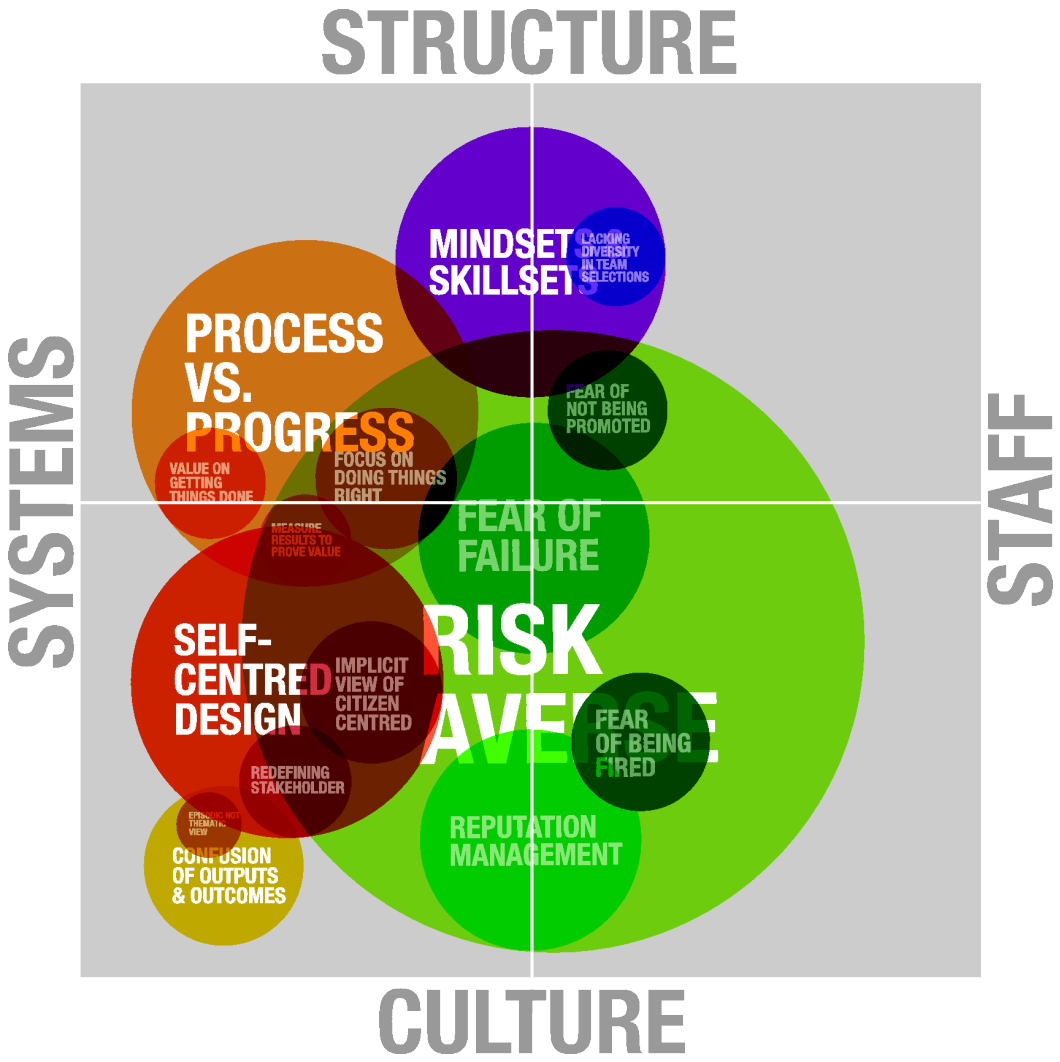
Staff: Leadership traits, staffing policies, competencies, promotion policies/career paths

Systems: Planning, budgeting and control systems; business performance evaluation criteria; incentive/compensation systems

Culture: Notions about behaviours that are valued; embedded business assumptions; decision biases

Adapted from: Govindarajan, V., & Trimble, C. (2005). *Organizational DNA for strategic innovation.* California Management Review, 47(3), 47–76.

Figure 6: Mapping the factors against the organizational DNA matrix



research, the organizational DNA concept was adapted and used as a matrix to plot the major factors of the research findings of the regional government studied. The organizational DNA matrix in figure 6 charts the research findings and provides insight into the best leverage point for a design solution. A deeper examination explains how these factors are barriers to adopting alternate modes of thinking.

Organizational DNA matrix – Systems
(Planning, budgeting and control systems, business performance evaluation criteria, incentive/compensation systems)

The biggest factor in the systems area of the matrix is the focus on its business performance evaluation criteria. Performance evaluation is an important aspect of business improvement; however, without clarity of the desired "end state" goals, it can be a futile exercise. Governments, by their very nature, are believed to have the best interests of the citizen in mind and are essentially designed to "serve the people." This is a widely accepted view of government; however, the business practices employed by government agencies can, at times, paint a different picture. Governments, consumed with the "business" of serving, tend to adopt an implicit view of the citizen; meaning, they are so sure of all the good they do, that in the end, the citizen becomes an unconscious, hidden factor. Designing, managing and delivering services to the general public is a huge task, one that requires commitment, focus and diligence. Demands of this nature have forced governments to focus less on their intended "end state" goals, and more on processes and business performance. Over time, this disconnect from the citizen can lead to a shift in what the corporation believes matters most. This shift in what is measured emphasizes internal factors such as processes and efficiencies and can lead to a focus on "doing things right" rather than "doing the right things." Additional research has shown that most modern public organization's innovation capabilities are focused on internal administrative processes, rather than on generating new services and improved results for society.[16]

A shift in the business performance evaluation criteria can have resounding effects on many areas of the organization, such as the prevailing mindsets and the desired skill sets required to achieve what the organization deems most important.

Organizational DNA matrix – Structure
(Formal reporting structure, decision authority, information flows, task/process flows)

Because the business performance evaluation criteria concentrates on "getting things done," it creates a structure fixated on completion of tasks (outputs) and less so on sustainable solutions (outcomes). Throughout the interview process, participants made noteworthy comments, such as "what gets measured gets done." This "mantra" helps to draw a connection between measurement and the accompanying mindset applied to achieve, what this organization believes to be "business excellence". The prevailing method applied to problem solving (as uncovered during the research) was project management. This seems fitting considering the characteristics of the systems and structure mentioned above, a system that emphasizes a business performance evaluation criteria of "getting things done" and a hierarchical structure designed to hold people accountable and responsible for actions. Project management is well suited to ensure people are held accountable for delivering outputs, on time, on budget and in scope. But what if the end goal was less about outputs and more about outcomes, what then would be the best method for approaching problem solving?

Organizational DNA matrix – Culture
(Notions about behaviours that are valued, embedded business assumptions, decision biases)

The research uncovered that a major cultural anchor to adopting an innovative mindset is the fear of failure. There is a pervasive culture of risk aversion, again, this is not entirely surprising seeing as governments are very concerned with public perception and are interested in managing this. The fear of failure and the risk of

negative public perception has resulted in a very staid and conservative approach to addressing business problems. The fear of failure is closely linked to the fear of not being promoted. Most bureaucratic systems have underlying cultural anchors that dictate the way people act. There is little evidence that people in government are actually fired for failing, rather, more government employees are fired for much larger, more public debacles. Currently, at the time of this paper, significant government "gaffes" have recently taken place, with considerable financial proportions. The Ontario provincial government has seen two major issues (Ornge scandal[17] and the Mississauga/Oakville power plant cancellation) where firings (and resignations) were warranted – not for failing to do something, but rather for obvious mismanagement which leave no question of the necessity for termination. The fear of failure among government employees can be reconsidered as not a fear of being fired, but as a fear of not being promoted. As one research participant noted, "Maybe it should be put in our performance appraisals – to have the permission to be more innovative and learn from failure." Systems theorist, Russell Ackoff described a corporation's fear to act:

> *Therefore, in an organization that frowns on mistakes and in which only errors of commission are identified, a manager only has to be concerned about doing something that should not have been done. Because errors of omission are not recorded they often go unacknowledged. If acknowledged, accountability for them is seldom made explicit. In such a situation a manager who wants to invoke as little disapproval as possible must try either to minimize errors of commission or transfer to others responsibility for those he or she makes. The best way to do this is to do nothing, or as little as one can get away with. This is a major reason that organizations do not make radical changes.*[18]

6.0 Recommendations

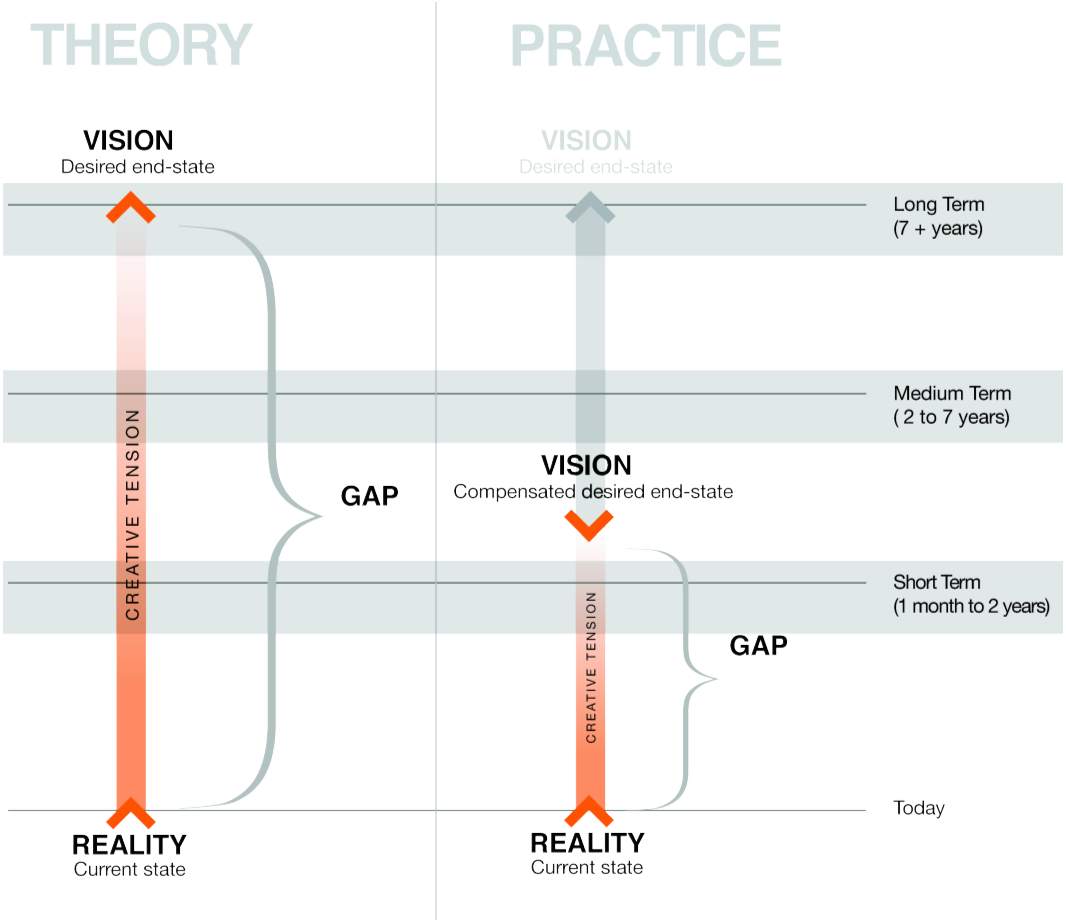
Looking at figure 6, research themes overlap within the systems/structures and systems/culture quadrants. It is here that an ideal design solution would have the most impact. Culture change is difficult and beguiling, especially considering the large, decentralized form that governments take. A design solution that can address the issues of culture, systems and structures and is scalable enough to be implemented in a fiscally responsible and risk managed way is critical. As previously mentioned, it is unrealistic to suggest that a full-on culture change and management plan be recommended as a solution to address barriers to implementing a more human-centred approach to problem solving in regional governments.

To properly address the issue presented here, a suitable design solution would need to serve the immediate concerns, as well as the longer-term, more systemic cultural changes needed for a sustainable solution. It must reject the tendency to be reduced to a mechanical toolset or a template checklist, as this would ignore the very problem being addressed – a new way of thinking about what government does – a human mindset focused on the citizen. As detailed earlier, human-centred design and the true power of design thinking lies in the ability to think differently. The *mindset* of a designer is the crucial element, paired with human-centred methods (toolsets) of design. Therefore, the solution must ensure that the mindset be included in the design in order to avoid an adoption of design thinking as merely a toolkit of tricks. Bruce Nussbaum described the danger of this approach in his 2011 Fast Company article, Design Thinking Is A Failed Experiment. So What's Next?: "There were many successes, but far too many more failures in this endeavor. Why? Companies

absorbed the process of Design Thinking all too well, turning it into a linear, gated, by-the-book methodology that delivered, at best, incremental change and innovation".[19] Design thinking is, but one, business phenomena to have suffered at the hands of the corporate mindset. Other similar failures include Total Quality Management (TQM) and Systems Thinking. These examples, like design thinking, failed because they required a longer-term appreciation of the change needed. All three business approaches require a balance between long-term goals and short-term demands, something most corporations have a major difficulty with.[20] Most organizations struggle to keep an eye on the future, they create a vision and quickly move to show progress toward closing the gap between their current state and their envisioned future, almost as soon as they have created their "future" vision. Peter Senge refers to the discrepancy of vision and reality as *creative tension*, the gap between where an organization is, and where they are planning to be in the future.[21] In theory, the general goal is to relieve the tension by closing the gap, this is done by moving from the current discontented state upward towards the intended vision or desired end-state.

The gap should be viewed as a driving force, a visual and psychological reminder that the current state needs fixing. Unfortunately, in practice, this gap is seen as being negative and the goal for most corporations is to ensure that all gaps are closed, especially those that appear to highlight any "inadequacies." In their haste to close the gap, most corporations tend to lessen the value of the vision by making concessions to their desired end-state, closing the gap by driving their vision downward, much closer to the reality of the current state. Figure 7 helps to visualize the differences between theory and practice with the concept of creative tension.

Figure 7: The concept of creative tension in theory versus in practice



The key element for a successful design solution is the ability to effectively balance the short-term demands with the longer-term goals of the corporation. Leadership expert, Bob Anderson refers to this dilemma as the balance between two contrasting "life stances." The first life stance is *problem-reacting*, used to protect ourselves from danger and threat. The second life stance is known as *outcome-creating*, which is used to bring something new into existence.[22] An ideal design intervention for this regional government, needs to hold these opposing life stances in balance. This is an essential consideration in order to adjust the bureaucratic mindset and begin to relieve the pressures brought on by the convergence of citizen

engagement and the complex issues facing government. The following section will introduce a proposed design solution and provide rationale for the recommendation.

6.1 The proposed design solution - A dual stream innovation design lab

The design solution proposed is a dual stream innovation approach in the form of a design lab. The main idea behind this proposal will provide the regional government studied in this project, the opportunity to split their focus and balance the long-term and short-term dilemma responsibly and with little risk. The majority of the corporation maintains focus on the day-to-day administration of programs and services, while the lab helps to manage the longer-term, more systemic and complex organizational issues. The lab would be recognized as a connected, yet separate, part of the organization. The design lab would precede traditional business planning and would start its thinking closer to the citizen. As Peter Ho, senior advisor for the Centre for Strategic Futures in Singapore writes;

> *This is not an argument for establishing bloated and sluggish bureaucracies. Rather, one important idea is for resilient governments to have a small but dedicated group of people to think about the future. The skill sets needed are different from those required to deal with short-term volatility and crisis. Both are important, but those charged with thinking about the future systematically should be allocated the bandwidth to focus on the long term without getting bogged down in day-to-day routine. They will become repositories of patterns that can be used to facilitate decision making, to prepare for unknown unknowns, and perhaps to conduct policy experiments through policy gaming or other simulations.*[23]

6.2 Why a design lab?

The true value that design offers is the ability to "create," and government in particular, is in need of creation – in new ways of working, new solutions and

new futures with the citizen at the centre. Consider this quote from Tim Brown, president of IDEO and author of *Change by Design*;

> *A purely technocentric view of innovation is less sustainable now than ever, and a management philosophy based only on selecting from existing strategies is likely to be overwhelmed by new developments at home or abroad. What we need are new choices – new products that balance the needs of individuals and of society as a whole; new ideas that tackle the global challenges of health, poverty, and education; new strategies that result in differences that matter and a sense of purpose that engages everyone affected by them.*[24]

As Brown's quote demonstrates, human-centred design is capable of bringing the requisite variety of options to our complex challenges, provided it is given the space and time to be effective. The approach that a design lab would take is based in complexity theory, systems theory and design thinking. Design labs are purpose-driven and operate as think and do tanks, providing a home, both physical and psychological, for a different type of thinking to emerge within the larger corporation of this regional government. The design lab would leverage the power of design thinking and implement new methods and most importantly a new mindset based on the "outcome-creating" life stance. Design labs leverage their tools and physical environment to stimulate divergent and creative thinking. They are highly collaborative and use various tools to visually display information in an effort to enable participants with a diversity of skills and knowledge to contribute to the design problem. Ethnography is used as a preferred research approach as the design lab will often work directly with people impacted by the issue being studied.[25] Table 3 highlights the differences in mindsets between traditional strategy approaches to that of strategic innovation. The table builds on the ideas expressed earlier in table 1, which showed the differences between analytical and synthetic thinking. Also, figure 8 presents a visual depicting the

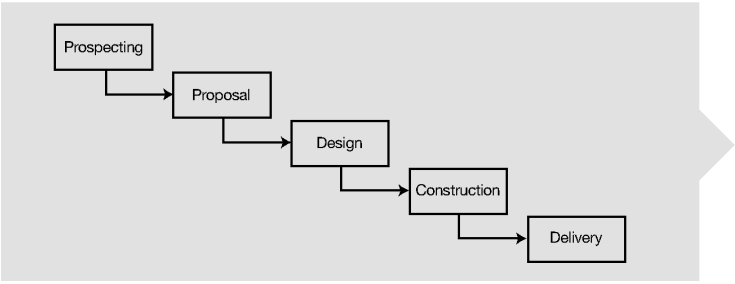
Table 3: Differences in approaches to strategy

Traditional Approaches	Strategic Innovation Approach
Adopt a "present to future" orientation – takes today as the starting point	"Starts with the end in mind" – identifies long-term opportunities and then "bridges back to the present"
Assume a rule-maker/taker (defensive/follower) posture	Assumes a rule-breaker (revolutionary) posture
Accept established business boundaries/ product categories	Seeks to create new competitive space/ playing fields
Focus on incremental innovation	Seeks breakthrough, disruptive innovation – while continuing to build the core
Follow traditional, linear business planning models	Marries process discipline with creative inspiration
Seek input from obvious, traditional sources	Seeks inspiration from unconventional sources
Seek articulated consumer needs	Seeks unarticulated consumer needs
Are technology-driven (seek consumer satisfaction)	Is consumer-inspired (seeks consumer delight)
May have a "one-size-fits-all" organizational model	May experiment with entrepreneurial "new venture" or other organizational structures

Palmer, D. & Kaplan, S., A Framework for Strategic Innovation: Blending strategy and creative exploration to discover future business opportunities, pg.5.

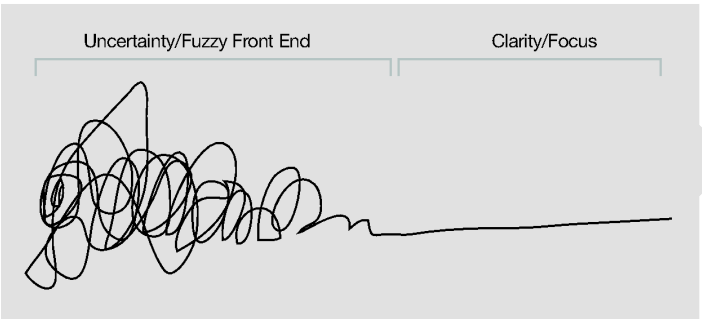
Figure 8: Differences in approaches to problem solving

TRADITIONAL WATERFALL APPROACH / ANALYTIC THINKING



A traditional waterfall approach moves sequentially from one step to the next and the steps are never revisited once complete.

DESIGN THINKING APPROACH / SYNTHETIC THINKING



In design thinking, considerable time is spent at the front end of defining the problem, the entire process benefits from its iterative nature, course correcting as new knowledge is gained.

difference between a traditional waterfall and design approach to strategic problem solving.

The design lab explores uncertainty and attempts to make sense of ambiguity in order to create new knowledge and new opportunities for citizens and the corporation. It challenges an organization to look beyond its established business boundaries and mental models and to participate in an open-minded, creative exploration of the realm of possibilities. The design lab would not be characterized by mundane, incremental product extensions, the "me-too" business models of close followers, or band-aids for inefficient processes. "Instead, it spans a journey of inquiry and activity – from creative inspiration at the ambiguous "fuzzy front end" through the detailed requirements of successful execution that lead to business impact."[26]

6.3 The design lab in context: Applying the concept to the regional government of this study

The design lab would enable strategic innovation for the regional government with a purpose to be, what one research participant referred to as, "the challenge function" for the organization. The lab's internal function becomes a catalyst for responsible and systemic cultural change, slowly transitioning the way people think and work through a series of direct interactions with the lab. Indirectly, the mere existence of the lab would enable cultural acceptance and greater comfort with new ways of thinking. Operating outside of the direct political sphere, the lab's human-centred approach would ensure a citizen focus, designing the best solution for all stakeholders.

What would sound like a tall order for most governments, due to incompatibility issues, such as corporate readiness or fit, is fortunately, not the case for this regional government.

To address the point of corporate readiness, the regional government researched is currently at the point of realizing that they need to change the way they are working as was observed at a corporate meeting, hosted by the Chief Administrative Officer and attended by all the Commissioners, Directors and Managers from across the organization. The focus for the meeting was "Transformation of Government," in which the discussion revolved around the need for change, its drivers and what can be done differently. The guest speaker for the day was an advocate for transforming government and supported the message of change by highlighting examples from across the globe. In every example the messages were the same, governments must get closer to the people, must be citizen-centred. This is quickly becoming the new focus for many governments, and in particular, the regional government being studied. The corporation is ready to look for new approaches, it understands the need to do things differently, as one "whole organization," but it is unsure of how and where to begin. A design lab with careful consideration of cultural fit is the ideal leverage point for this regional government.

The concept of a design lab for the regional government in this study, as a place where creative thinking and human-centred design can be nurtured and developed, is inspired, in part, by the writings of Vijay Govindarajan, Chris Trimble and Harvard Business School professor, Clayton Christensen and by the successful implementation of the public sector lab in Denmark, MindLab. As Christensen

noted in, *The Innovator's Dilemma*, "A separate organization is required when the mainstream organization's values would render it incapable of focusing resources on the innovation project."[27] As the research has shown for this regional government, the values and culture are contributing factors pointing to the need for a new unit (design lab) to be created, where it can operate under a different value system or life stance, one that is "outcome-creating" rather than "problem-reacting". The new design lab must be recognized as a distinct division but also be linked to the corporation. But how different and how similar should this separate group be, in relation to the larger corporation? Govindarajan and Trimble developed the notion of borrowing (linking) and forgetting (distinction), stating that the new unit must forget much of what has helped the corporation thrive, but at the same time, must borrow its resources.[28] The key success factor for the design lab is to maintain balance between forgetting and borrowing. Many issues uncovered in the research led to the creation of a lab concept, those factors are generally the elements that must be forgotten, mainly a culture of risk aversion and an emphasis on process (doing things right), over progress (doing the right things). Conversely, there are many components that the design lab must borrow from the regional government, particularly as mentioned earlier, resources, in the form of financial and human capital, credibility of the organization and some consistent business processes. It is important that a common understanding be created between the two sides of business in how they operate and integrate, such as at what point in a project setting would they converge and diverge. The overall goal of having two separate business units is to allow for the greatest opportunity to capture and leverage innovation within a government setting. It is extremely difficult for most large organizations operating in the competitive landscape of the private sector to balance the

short/long-term dilemma, let alone governments in the public sector. A dual stream approach allows the political environment the opportunity to be infused with the creative mindset which will lead to greater opportunity to address some of the more complex issues facing governments today. Design labs are born of the idea that the skillsets, toolsets and mindsets needed for continuous innovation are not the same as those required for stable, day-to-day operations.[29]

The true innovation of this design solution is not in the concept of the design lab alone, but in the realization of the lab within the corporate construct. As described earlier, it can be detrimental to introduce a design lab within the same structure, system and culture that it is designed to disrupt. There needs to be a level of understanding that, to some degree, the design lab is not meant to fit, it is meant to be different; in fact, it is in this very difference that the lab will provide its greatest value, as a challenging function to the bureaucratic mindset. However, if the design lab is too different and too disassociated from the larger organization than it will be isolated and have little influence in balancing how the regional government approaches problem solving. The conversation of fit may be better positioned as a conversation about space.

7.0 Implementing the design lab

7.1 Finding a place and purpose for the lab

The physical space of the design lab is a concern because the geographic location affects the psychology of participants. In this particular regional government there is a prime opportunity to position the design lab within their arts and cultural

institution. This cultural institution recently underwent a transformation of its own, fueled by a significant financial grant, the buildings were dramatically redesigned to provide increased gallery space, learning spaces and the addition of community space for rental opportunities. Along with the physical change came a renewed mandate from Regional Council to "build a cohesive community." A new brand strategy is currently repositioning this traditional cultural institution to leverage the power of creativity and creative thinking to achieve their mandate by focusing on citizen engagement. This brand purpose (building cohesive community) and physical place (cultural institution) makes this the ideal home for the design lab – for both the organization and cultural institution.

A physically different space is absolutely crucial for the success of a lab. Human-centred design requires a much more tactile, learn-by-doing approach than traditional problem-solving methods currently being employed by the rest of the organization. Differences between traditional approaches to problem solving, and that of the lab, is the lab's value in creating, prototyping, discussing, interacting and visualizing the ideas being generated, which, inturn, requires certain tools. In keeping with the design principle that 'form follows function' – it becomes evident that in order to create a new and different offering, or *function*, a new *form* is needed. Whiteboards, moveable furniture, open space and areas for dialoguing and creating, make the space a studio rather than an office space, a subtle difference in words, but a very significant difference in outcome. An equally important need for a distinguishable space is the messaging power that comes with it. It is important for all staff who collaborate in the space to feel like the rules within the lab differ from their day-to-day routine, and that the "experience" is the key ingredient in

developing different results and relationships. The surroundings, combined with cutting-edge collaborative tools, help to add to the distinction of the design lab, reinforcing the message that the lab is an experimental place where traditional thinking, fear of failure and risk are not measured, but instead, participation, collaboration and creation are encouraged so that participants can begin to look at problems in new ways.[30] Furthermore, this experience permits new *acts of comission* and fewer *acts of omission* as Ackoff endorsed.

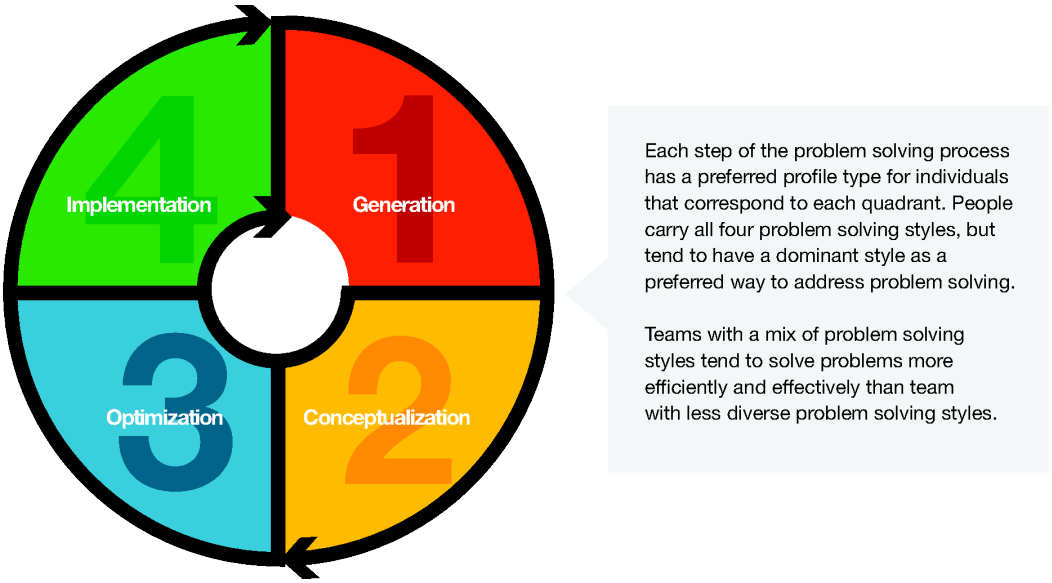
The marriage of the design lab to the cultural institution serves multiple purposes. Firstly, it is a natural brand extension for the cultural institution. The design lab, like the cultural facility, has an "outcome-creating" life stance, both are looking to leverage the power of creative thinking by including the community. Both equally see the potential in gathering the diversity of people, providing context for the sharing and expression of their thoughts and the power of bringing these elements together to deal with complex issues. At the same time, the lab in conjunction with the cultural institution, provide a bona fide arena for public involvement and citizen engagement to begin. The citizen engagement component has been an elusive concept for this regional government (and many others), not knowing where, how and when to involve the citizen, especially when you consider the role of politician in a democratic system. Under the construct of a design lab built into the programming and business offering of this cultural institution, mandated to bring community together, citizen engagement becomes feasible. This fit provides a sustainable design solution that can begin to address the complexity of public issues which this regional government is facing, while uniting the "whole organization" under a common purpose of citizen engagement. At the time of this report, some departments within

this regional government are beginning to experiment with this type of thinking. A design lab adds cohesion and brings a "whole of organization" approach to human-centred design practices and establishes a recognized point of contact for citizens.

7.2 Bridging two sides of the organization

Innovative thinking and creative problem solving requires a fulsome approach, one that recognizes the value of both convergent and divergent thinking styles. The design lab is being proposed as a new and innovative approach for the regional government of this study to tackle problem solving. This proposal is not, by any means, suggesting that the current state of operations be replaced by the design lab, but rather, that the design lab be implemented alongside the existing structure. The concept and implementation of the lab is strongest when it is understood as a complementary subunit. Throughout this paper it has been noted that the existing processes pose many obstacles to innovation, but at the same time they are capable of presenting many advantages. As Roger Martin, Dean of the Rotman school of business, notes, "Existing processes tend to ensure that the organization keeps doing the same thing it has being doing all along. This is not a bad thing: exploitation of what currently exists is what pays for what might be".[31] Finding a median between these two approaches is not only key for a successful implementation, it is actually key to effective problem solving. Dr. Min Basadur of the Basadur Applied Creativity Center for Research and Professor of Organizational Behaviour at McMaster University, developed a creative problem solving process, *Simplexity*, which leverages the power of both convergent thinking (evaluation) and divergent thinking (ideation). *Simplexity* is a method of applied creativity that interconnects a process of creative problem solving

Figure 9: The Basadur problem solving wheel



Adapted from Basadur Applied Creativity Center for Research.

with skills and tools. The creative problem solving process cycles through four stages. Stage one is generation (of new problems and opportunities) it flows into stage two – conceptualization (defining and understanding the challenges and creating new, potentially useful ideas) which flows into the third stage – optimization (of practical solutions) which flows into the fourth and last stage – implementation (of the new solutions).[32]

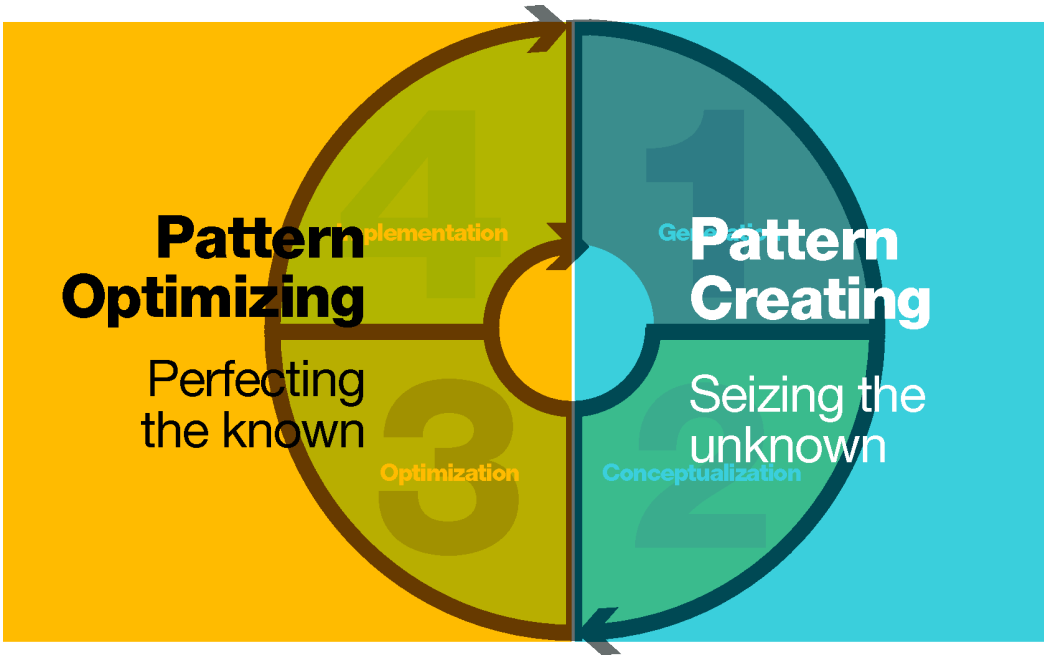
The regional government of this research project, like most large organizations, tends to lean more to the left side of the Basadur wheel, in stages three and four, essentially at the implementation of solutions. This strength, actually acts as a weakness when the right side of the wheel is not fully considered. Most organizations have been successful in their thinking and approaches to problem solving, even with an unbalanced wheel favouring implementation. However, these successes

have only been evident in dealing with simple and even complicated issues. Complex issues, require a myriad of perspectives with an emphasis on problem formulation. Problems of complexity often require that the challenge be framed and reframed until new insights and angles towards the problem become clearer. It is only in the reframing of such complex problems can you begin to see the issue in a new light and therefore open the path to new insights into an otherwise static issue.

The role of the design lab with stakeholders across the organization, will balance the wheel for the regional government to ensure that complex problems are adequately addressed from a holistic perspective. As the research has shown, the regional government studied is very much concerned with "getting things done," concerned with efficiencies, or as business theorist, Peter Drucker stated, "doing things right." This is partly due to an imbalanced approach to problem solving, favouring convergent thinking methods such as project management that jumps to solution and implementation. It is also the result of not fully recognizing the maturity of the problems being faced and believing that more of the same will produce new results. The design lab would help the regional government in both regards by offering alternative methods and approaches to problem solving. A complementary divergent approach to the current offering would help the corporate mindset better understand how to reframe problems at what some call, the "fuzzy front end", working to make sense of the uncertainty of the problem at hand. Figure 10 shows how the two sides differ and, when balanced, complement one another. Strengthening the right side of the wheel, the pattern creating side, the regional government will be able to gain better insights to the problems they are facing and allow for a greater opportunity

to move from mainly "efficient" solutions to "effective" solutions. Peter Drucker summed it up succinctly by stating, "Efficiency is doing the thing right. Effectiveness is doing the right thing."

Figure 10: The Basadur problem solving wheel split as two complementary roles



Adapted from Humantific – Visual SenseMaking framework, NextDesign Geographies

7.3 Implementation plan

The following is a proposed plan for implementing the design lab concept for this regional government. It is recommended that the design lab be implemented in phases to increase the chances of success for adoption by the larger organization. Below is a high-level proposed plan for implementation, followed by a review of further obstacles that may need to be addressed in order to ensure the design lab is viewed as a desirable solution for the regional government.

7.3.1 Proposed (phased) implementation plan for the design lab

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[Phase 1]

Role of the design lab:

Educator + Experimenter

Focus:

The goal of this portion of the plan is to raise awareness of the lab, by educating the organization on the value that the lab can bring to their work, teach how problem solving requires a fulsome approach and finally to find ways to collaborate on work with staff. Teaching would revolve around the innovative mindset inherent in human-centred design (failure, iteration, prototyping, divergence etc.). Regional employees working with the lab would be educated on what is meant by innovation, why innovation is necessary for public sector, who is responsible for it and how it can be achieved. Learning in this phase would comprise of hands-on practice exercises where students would have an opportunity to move beyond the theory of human-centred design and design thinking, into design "doing". As well as educating, the design lab would concurrently undertake one large corporate initiative to pilot human-centred design techniques. The purpose of the pilot would be to help demonstrate the different outcomes that a human-centred design approach would bring to projects. A secondary, yet equally important role, for the education phase of implementation is branding the lab internally. The education sessions would help to distinguish the lab, create permission and acceptance throughout the organization and begin to find advocates for this type of thinking.

Outcome:

A greater appreciation from the larger organization of the role that innovation and human-centred design can play in the public sector. A deeper understanding of what is currently working and what is needed to bridge the gaps towards more holistic problem solving. And finally, a new understanding and view of the citizen, not as subjects but as the potential to be equal partners in designing and implementing public service solutions.

[Phase 2]

Role of the design lab:

Collaborator

Focus:

The design lab would begin working with staff on active projects, putting the theory of Basadur's wheel to the test and extending the design by doing notion. They would be introduced to how the methods and ideas shared in the education portion into practical examples. Students would work on small scale projects, manageable enough to provide students the opportunity to witness the process from beginning to end. Ethnographic research and other qualitative methods would be shared and sessions geared to gaining a deep understanding of the citizen would be taught and executed. This phase of the lab would begin to venture out into the community for first-hand knowledge, gaining opportunities to demonstrate how citizen engagement can feed the front end of innovation.

Outcome:

A successful transition of the theory of human-centred design to practice, resulting in project work that moves from efficient solutions to more effective and citizen-focused ones.

[Phase 3]

Role of the design lab:

Facilitator

Focus:

This is where the concept of co-design and co-production would be introduced, where the design lab's citizen engagement offer would be fully realized. The design lab would work with staff and citizens by providing the context (both space and mindset) to collaborate on projects. In this phase, there would be a greater emphasis on the fullest inclusion of the citizen, collaborative design thinking methods would be used to facilitate the work of the combined core teams consisting of design lab staff, regional government staff and citizen representatives.

Outcome:

A more collaborative, cohesive and effective approach to problem solving, ensuring a greater sense of transparency is provided to the citizen and a reciprocal trust in government is generated.

7.4 Obstacles to implementation

With the introduction of most new ideas comes an unavoidable resistance to change. The design lab would undoubtedly be met by several obstacles to implementation, most likely from within the organization. Staff may perceive the design lab as something unpleasant, fearing that it may bring about massive changes to their jobs and work leaving them under-skilled. Scenarios as these are quite common and so it is worth spending some time to discuss potential obstacles to implementation that might arise.

1. Staff do not know what innovation is, and why it is necessary for a government to be innovative.

This may be a considerable concern for many government employees who feel that their role is not to innovate but to implement. This reaction to the notion of public sector innovation is likely rooted in a narrow view of the problem at hand without a full appreciation of the shifting global and social complexities that surround government. Innovation is generally understood as a product-based thing, but as discussed in this paper, there is a definitive need for government to explore service innovation. Phase one of the implementation plan is designed to bridge the gap for regional employees, to see the value that a designer mindset can provide them in their daily work.

2. Do not know how to tackle innovation

Most government offices struggle with the task of tackling innovation, mostly because the change needed is so vast. A deeper understanding of what innovation is and more importantly, what it is not, would help this regional government gain

a clearer picture of the problem of how to address innovation. Again, phase one of the implementation plan is key to ensure that employees see a clear path to how to approach problem solving from an innovative, human-centred manner. Introducing staff with the knowledge of design thinking methods and the value of the Basadur wheel would help regional employees.

3. We are already doing it

This statement is rooted in the vision-gap dilemma discussed on page 29 (figure 7). It is normal for most organizations to stave off any opposing threat by declaring that they are already doing whatever is being proposed in order to ensure that change either doesn't happen or that the change is so incremental that it virtually did not happen anyway. Phase two of the implementation plan is integral in that it takes the conversation from talking to doing. Phase two would see active involvement of regional staff working with the methods and testing how they can be leveraged and utilized to generate unorthodox results.

4. Who will be the agent for change?

The director of the communications department is responsible for an enterprise-wide culture initiative launched by the CAO. This director also oversees the operations of the cultural institution where the design lab would live, as well as the change management function within the organization. As such, it would be sensible for this director to use the design lab as a strategic leverage point for the corporation's move to a citizen-centred focus. The director of communications is also an ideal candidate for change agent because of their knowledge and acceptance of human-centred design principles. Under this directors' leadership, the communications

department has begun to transform its role within the organization. The director has established a small, but dedicated group of strategic advisors who are currently exploring the use of human-centred design practices in solving business problems.

5. Is it wise to introduce such an initiative in a time of fiscal restraint? How much will this cost?

The initial start-up cost for the design lab concept would be minimal. Initially, the director of communications would leverage the existing strategic advisors in the division as the catalysts for the lab. Their role would be to take on the education component of phase one while simultaneously piloting a project demonstrating the value of human-centred design. The salary for the two existing employees would not present any additional costs, the space for the lab would not incur any additional costs either, since the cultural institution is a corporate asset. Main costs would be for equipment and teaching material and would not exceed a total $25,000.00 in the first two years.

6. We want to implement human-centred design in just one department of the organization.

Silos and empire building are very common traits in government organizations, there is a tendency to work vertically within departments rather than horizontally in a cross-departmental unified approach. Introducing human-centred design in separate departments or businesses poses a danger in that it could create an inconsistency across the organization. In order to properly address complex problems, governments need to realize that problems are no longer as compartmentalized and easily divided up to match their traditional corporate structures. The *complexity*

of complex problems lies in its multifaceted, interconnected messiness that cannot easily be compartmentalized and to best address these problems requires a diversity of people from across the organization. There must be a collective corporate understanding and appreciation of the human-centred approach from all staff. Phase one would help to break down silos by educating regional staff on the value of cross-disciplinary collaboration and how it plays a role in holistic problem solving. The Basadur wheel and other problem-solving theories and techniques would be introduced to staff.

7. How can we measure innovation?

As evidenced earlier, innovation is not currently featured in this regional government's business performance measurement system, and what is not measured (or measurable) is usually not seen as important. Measuring innovation may prove to be a very difficult task for measurement enthusiasts due to the less tangible and longer-termed nature of outcome-based results. In order to successfully measure innovation, there must be a considerable rethinking of how the organization measures itself. Adopting a different approach to measurement may mean looking at measurement from an outcome-based view. Innovation by definition is the "creation of value", and the organization needs to be specific about what value it intends to provide its constituents as it transforms. This regional government will need to reconceive its role within society in order to properly address the question of measurement.[33]

7.5 Alternative options for implementing the design lab

The following section will provide three alternative options for introducing the design lab concept to the regional government of this study.

Acquire the services via consultants

The concept of hiring consultants to do the work for this type of thinking is counter to the purpose of the intervention. The main goal of the intervention is to begin the long journey of a corporate mindset shift needed for governments, and at the same time, provide a tangible, implementable and scalable option for addressing the immediate demands of today. The design intervention, as mentioned above is a balance between longer-term vision and short-term demands.

Bringing an outsider into the organization to deal with the issues outlined in this paper is neither financially feasible, nor culturally sustainable. It will cost the regional government large sums of money with little sustainable results that can be built upon internally. Acquiring the services from outside the organization rather than organically building competencies from within is an example of confusing outputs and outcomes.

Creating a pilot project within the existing corporate context

The main advantage for launching the design lab concept within the existing corporate structure is ease of implementation. This option provides a quick turn around, but this can easily be viewed as a negative as well. The reason it is easily implementable is that the design lab will be an extension of the existing business model, operations and structures. Using the existing structure would expedite launching the design lab, but it would also do little to help differentiate the design lab, which is key to success. The value of the design lab lies in its ability to act as the challenge function, so having it live within the current structure positions the lab well to fulfill that role. In order for the challenge function to provide value to

the organization, the design lab would need to be recognized as different, as having the permission to step outside of existing policy and cultural norms, in order to change the mindset slowly over time.

Reporting structures may also be a concern for the design lab within the existing structure. In order to demonstrate and maintain its difference, the design lab would need to report to a fairly high level of the organization. Without a strong supporter of the design lab effort, management that have been promoted to their current position for following the rules will be less inclined to draw lines of distinction for a subunit of the business. There will be a natural tendency to side with the larger organization in times of conflict, generally believing that gaps are a negative and will do their best to resolve the creative tension as we have seen in figure 7.

Processes are another concern for the design lab's success within the existing corporate structure. It is clear that the design lab concept was born of the idea that a different approach to problem solving is needed. With the difference in approach comes a different way of applying work. Processes are an important component to business operations, one that when disrupted can have resounding effects on the entire operation. The work of the design lab is about emerging, participatory, collaborative and intuitive problem solving, there is an emphasis on appreciating the human element and understanding how to tame uncertainty. The design lab offer is a very different offer than the existing business units of the organization, meaning, it will require different processes to be successful. It is very difficult for one organization to successfully employ opposing processes simultaneously.[34]

Create a separate business unit

At first glance, the idea to isolate the design lab appears to be the most desirable option. However, upon closer examination we begin to see some cracks in the argument. The advantages of creating a distinctive and separate business unit are differentiation and impact. A separated business unit with its own set of unique processes designed to achieve different results than the larger corporation can begin to carve the necessary niche for the design lab. Creating, emphasizing and capitalizing on the differences that exist between the design lab and the corporation is an important step for success. If not managed properly, this advantage can quickly turn into a detriment, and so there needs to be a clear connection to the larger organization and a strategy that explains how the isolated design lab will create value for the larger organization. Without a strategic lens to this endeavor, there will be glaring gaps between the two business units. As Keith Sawyer outlines in his book, *Group Genius: The Creative Power of Collaboration*, "An isolated 'skunk works' [innovation lab] usually has trouble communicating with the rest of the organization because innovation requires collaboration across the company."[35] The corporation will not be able to maximize on the potential of a design lab if it operates the two business units as separate units. Doing so would emulate a version of option one, hiring consultant knowledge. If one part of the business is not sharing knowledge, expertise and insights with the rest of the organization then there is no hope for a larger systemic cultural shift that is ultimately required for sustainable change in the government context.

8.0 In closing

Government has, for a long time, struggled with social complexity and this struggle continues to perplex government as the intricacies of the issues continue to grow. There is a definite need to relook at the way government is problem solving their way through the complexity. No employee in government, or the institution as a whole, is intending to have a negative effect on the problems they are trying to resolve, but the reality is the impact that most governments are having on complex social issues is neutral, at best. What is needed is a new way to approach the new complexities of our modern day world.

The design solution, in the form of a design lab, can prove to be of great significance to the regional government in question. As mentioned previously, its "challenge" function would help to balance the bureaucracy, acting as an 'intrapreneur' for the organization, successfully counterweighting the political mindsets to ensure that efficiency is balanced by effectiveness. Additionally, the citizen would emerge from implicit acknowledgment to overt inclusion and engagement.

The design lab concept addresses the major factors that are acting as barriers to innovation and further it provides the corporation with the rigour, avenue and context to begin the process of true engagement with constituents and embark on their goal of a citizen-centred focus for the organization. What is lacking is a concrete approach to how to manage the process, facilitate discussions, gain the insights and provide "outcomes" that meet and exceed public expectations in a fiscally responsible manner. The design lab provides the regional government with a strategy to balance the short-term demands with long-term vision, and it does so in a sustainable, scalable and responsible way. The risk factor has

been mitigated to a large degree by designing the solution as part of the cultural institution, as a natural extension of their brand and positioning. Financially, the risk is minimal. The cost of offering space for the design lab is minor, the prime location is identified, and it is currently a corporate asset. Additionally, the timing is ideal considering the cultural institution has just recently expanded.

There have been past experiments with implementing public sector innovation. These have, for the most part, been unsuccessful because they were conceived and structured around the very same mindset and system that they were designed to challenge and disrupt. The major difference presented in this design solution is the recognition that innovation is rooted in diversity of thought, not homogeneity. This design solution strives to leverage both convergent and divergent thinking styles for success. Only an integrative mindset can feasibly tackle the complexity of modern issues, a mindset which is flexible and agile enough to alternate between methods and mindsets as challenges change between complicated and complex ones. Complementing both convergent and divergent thinking styles is essential, as is the recognition of when to differentiate and allow each to fulfil their role and not sacrifice one for the other.

The design solution requires consideration of at least two points, first, the proposed design solution is but one answer for the problems facing regional governments. The design lab solution put forth in this paper recognizes that the issue is a complex one, and that there is no one single response, nor a right or wrong answer, but that an intervention is needed to be put forth for discussion and development towards bettering the current state. The second point for consideration is the notion of

context. The design lab solution, as outlined in this paper, is a result of the contextual research findings, the unique corporate structure of the regional government studied and the current political environment at the time of the writing of this paper. Together, these elements make the design intervention a concept worth exploring. It is not recommended to adopt and adapt this design intervention as a templated approach for other regional governments to tackle the issue of introducing human-centred design into their organizations. In fact, the notion runs counter to the very principles of this research study. Every organization has slightly different constructs, policies, competencies and unique cultures – all producing very different actions and interactions within the business and resulting in a contextually distinctive corporation.

Government can begin the long, but achievable road to resolving the creative tension between their future vision and their current reality by balancing the short-term demands with the long-term vision and by creating new options rather than choosing between known alternatives. Government was designed *for the people*, it is only natural that we continue to evolve the concept of government, and design ways to include the citizen, enabling better solutions *by the people*.

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9.0 Appendix A: Research materials

Literature Review

In order to investigate the idea of public sector innovation I began a broad ranged literature review with a variety of perspectives. Areas of initial investigation varied from topics such as corporate coherence and brand management to social innovation and public engagement. This enabled me to gain familiarity with the state of public sector innovation as well as adjacent, influencing factors. Further refinement led me to investigate concepts around dual-purpose innovation and social innovation labs.

Limitations of the research

Although this research was carefully prepared, I am still aware of its limitations and difficulties. First off it should be recognized that the research was conducted while employed by the regional government being studied. This information was disclosed to participant and clearly outlined the dual role that I assumed during the study, the role of researcher as well as fellow employee to participants. Participants were also made aware that the research study was to be conducted as part of a Major Research Project and was in no way being commissioned by the employer and that the employer had given approval to conduct the study. As an employee and principle researcher on the study, a certain degree of subjectivity could be argued. Had the post research information been reviewed and synthesized alongside two or three other examiners, there may have been a different outcome.

The research would have benefitted from a greater scope of participants in various other regional government offices. This was not possible due to the tight timelines

for conducting research coupled with the lengthy approval processes on behalf of the legal departments of the regional government offices. Thirdly, the projective technique used in the sketch/drawing exercise may have proven to be a stronger method had I taken a slightly different approach. Rather than the projective technique of "expression" I would experiment with metaphor or association tasks. I believe that a metaphor or association task would generate interesting results as it uses a comparative lens to help see where people attitudes and beliefs lie.

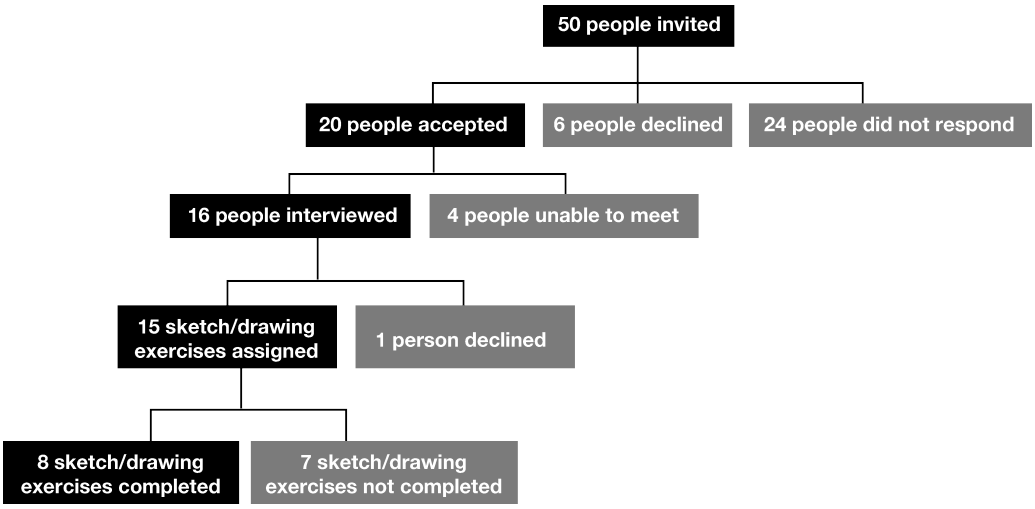
Methodology

Invitations to participate in the study were sent to 50 regional employees via email who were randomly selected. Participants' time was voluntary and occurred outside of work hours.

In total 16 employees participated in the research study. All research was conducted in the Fall of 2012. Figure A1, details the flow of the selection process.

This qualitative study focused on conducting research within a particular social and

Figure A1: Flow of research participant selection process



cultural context. The purpose of the study was to better understand the conditions in which the administrative employees of a regional municipal government approach problem solving and strategic initiatives through project work.

One-on-One interviews

The purpose of the one-on-one interview was to develop a better understanding of the participants' social reality from their perspective. The semi-structured method was used to clarify the central domains and factors of the study as well as to develop a preliminary hypothesis[1].

Research was conducted on participants who are responsible for strategic problem solving via project work, program work or policy development. A series of targeted questions were given to the participant in an informal, semi-structured format, allowing for elaboration and discussion of points. The semi-structured interview format provided the researcher the flexibility to add additional questions based on participants' responses. All interviews were one hour in length with the exception of one participant, which lasted approximately two hours. Participants came from varying levels of the organizational hierarchy and from various departments across the organization. Years of employment ranged between, less than one to more than 25 years of service.

Participant/stakeholder sketch drawings

This projective technique of "expression" via a drawing exercise was designed to offer participants another form of communication that could fill gaps in their verbal

[1] Schensul, S. L., Schensul, J. J., and Lecompte, M, D., (1999). *Essential Ethnographic Methods: Observations, Interviews, and Questionnaires*. AltaMira Press (page 150)

accounts. In keeping with the visual thinking component of design research, this technique provided alternative insights alongside verbal accounts. This exercise was assigned to participants at the end of their one-on-one interview as a take-away task. The participants were given up to 5 days to complete the task on their own. Once completed, the participants were instructed to contact the researcher via email or phone at which point the researcher would make arrangement to have them collected.

Passive Observation

The purpose of this research method is to allow the researcher an opportunity to witness the participants in the natural work environment under study. The idea was to observe participants while engaged in work-related activities, providing details of the behaviour and inner workings that could not be obtained from literature or other methods. Research was conducted on two management meetings. Both meetings were of strategic nature, meaning they were considered to be the annual progress and update meeting where major initiatives and future plans were discussed. One meeting was a corporate wide meeting, led by the Chief Administrative Officer, who brought together all the Commissioners, Directors and Managers from across the organization. Approximately 400 people were in attendance. The second meeting was a departmental level meeting, led by the Commissioner, and had Directors, Managers and Supervisors from the department present. Approximately 100 people were in attendance. Notes were taken for both meetings utilizing the AEIOU framework[2].

[2] AEIOU is a heuristic to help interpret observations gathered by ethnographic practice in industry. Its two primary functions are to code data, and to develop building blocks of models that will ultimately address the objectives and issues of a client. Retrieved from http://help.ethnohub.com/guide/aeiou-framework

Data Analysis

In true design thinking style the process of analysis was equally weighted with a stage of synthesis, allowing for an expansion and contraction of thoughts and ideas in order to develop insights into the raw data. In the analysis stage, the researched pulled apart the data and looked for key themes within that data. Once themes were identified, the researcher clustered interview responses around the themes. In the synthesizing stage of the data, information was pulled together into an understandable whole and relationships between the parts were established. This was done by writing down the individual responses from the interviews along with complementary insights from the sketch drawing and observation exercises, onto sticky notes. The notes were then visually grouped and regrouped

Figure A2: Mapping the themes as a system

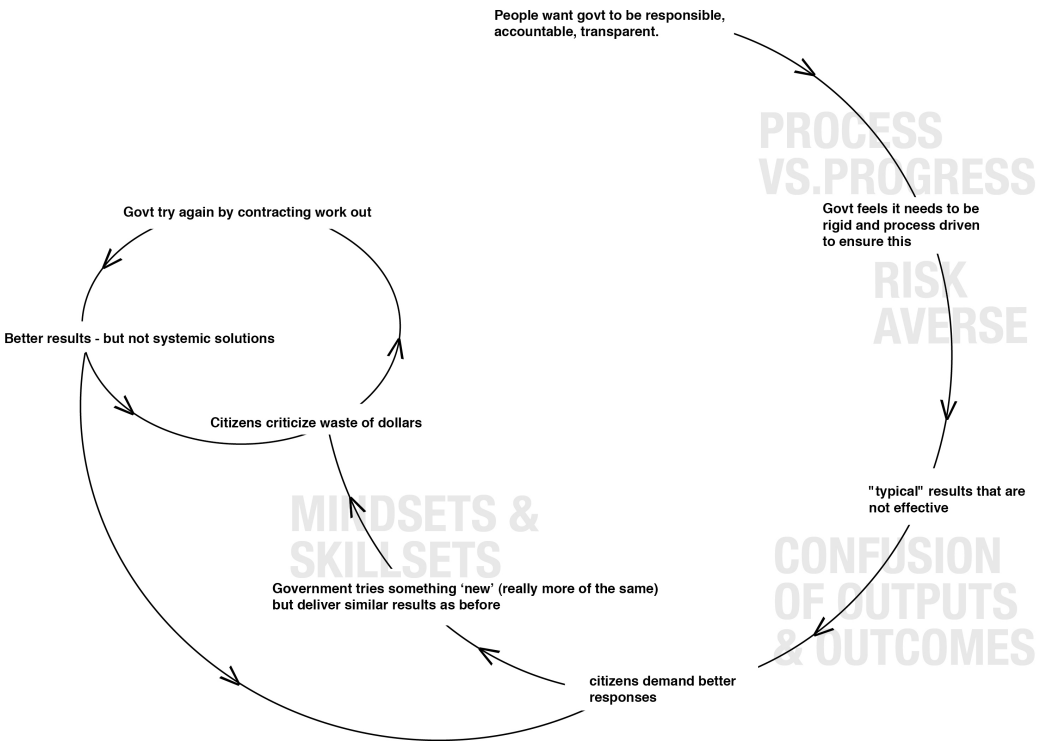
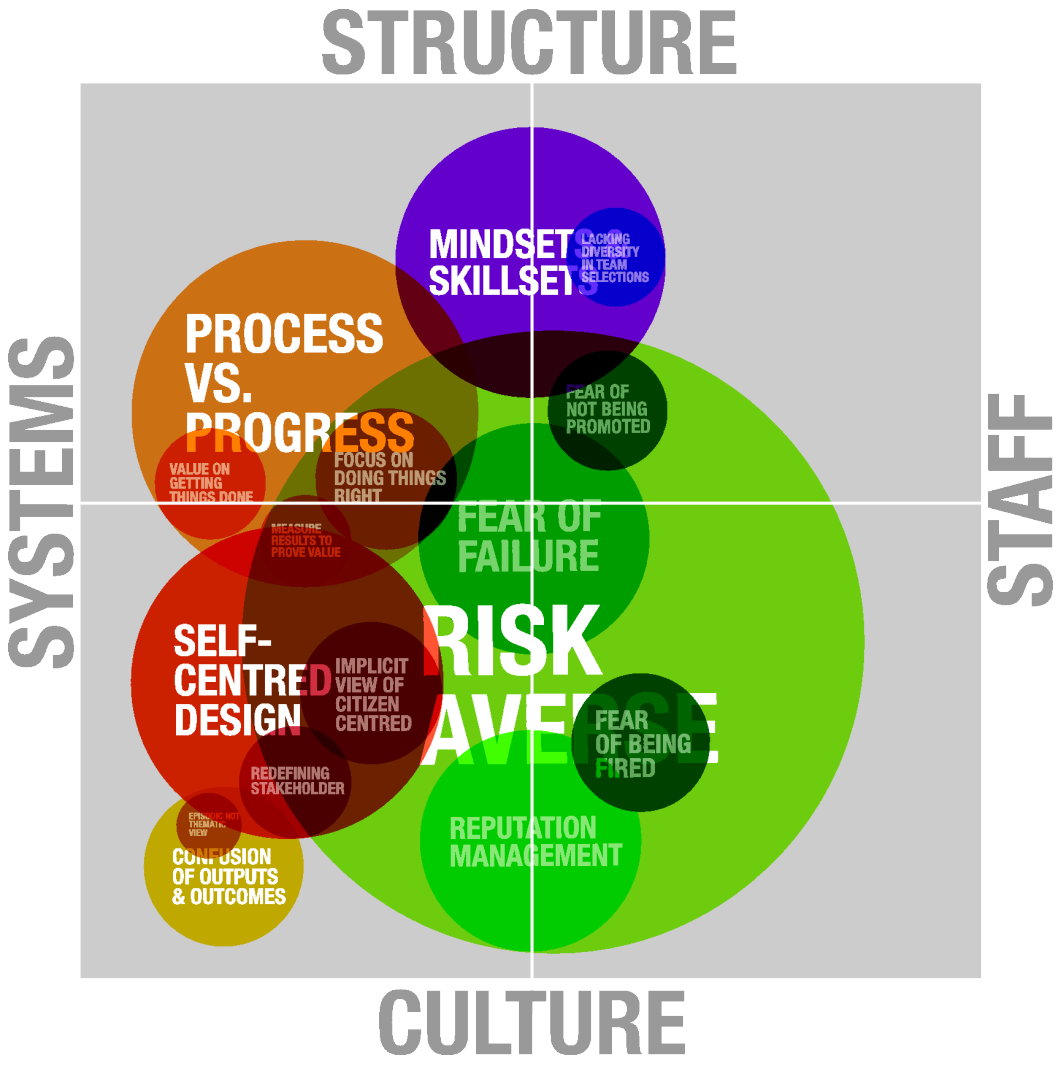


Figure A3: Mapping the themes against the organizational DNA matrix



until clarity began to materialize. Clarity came in the form of patterns emerging by looking at the interplay between the parts and the whole. Visual maps aided in the formulation of insights allowing for a rational concept to surface. Figures A2 and A3 show how the themes (and subthemes) were mapped.

Research Findings

Theme: Risk averse

Interview Responses

- Sponsor approval and buy-in/Champion x 6
- (Scope) Inherited by management/ or by Sponsor x 3
- We need all people to lead in our leadership team not just (Executive Management Team) EMT
- It's safe, it's easy to let someone else have the accountability – then you don't have to own it.
- Maybe it should be put in our performance appraisals – to have the permission to be more innovative and learn from failure
- Permission has to come from top down – leadership matters
- We need to embrace a culture of failure
- We need to respond to the public and they expect we take ownership
- We need to be willing to take more risks
- There is a fear to stand up
- Fear – Economic climate affects how and what we do – Also fear of bad decisions, what will happen to me?
- We need to balance creativity of innovation with the realities of risk environment that we live in
- We are incredibly conservative, we don't like risk- don't like to be embarrassed.
- Mistakes can easily be seen by public
- Like to stand on 20 feet of concrete before making a decision

Theme: Mindsets and skillsets

Picking teams – there is a lack of diversity of skillsets and mindsets in selecting teams. Innovative teams require diversity and the research is signifying that is currently not being exercised. Currently, the main criteria for selecting teams largely revolves around tactical skills. The necessary tactical skills are identified in order to deliver an end result for project work and then staff that match those skill sets are selected, resulting in project teams consisting of multiple "Like-skilled" employees. The second most common response for team selection was availability. Often teams are selected by on the sole criteria of their availability to do the work. The two main criteria that the research uncovered are not the most effective methods for fostering innovation – definite opportunity for improvement/suggestions in this area.

Interview Responses

- Generally, on skills - People who are responsible for the operational – tasked with doing the work
- Specialized skill sets x 3
- Availability x 3
- People who possess skills not just for the immediate issue at hand but also the complementary issues
- SMEs (Subject Matter Experts)
- Match people with competencies required for task
- Skills/expertise in the task x 9
- Effectiveness to do and deliver work x 2
- Too often we choose based on availability x 3

Theme: Confusion of outputs and outcomes

Things are often seen as episodic and not thematic – there is talk of systemic change, yet the ideas that are born are from the individual departments. If it were truly systemic it would view the problem from the user and see that the issue crosses many areas of business. This episodic approach with definitive start and end times may very well provide an understanding of why project management is over practiced in this organization, choosing to leverage the PM methods as a way to address problem solving.

Even though there is an understanding of what an outcome is – the response to working on outcome related issues is approached with an output in mind.

<u>Data from observation exercise</u>

An internal service provider at a departmental level held a bi-annual management meeting of the Commissioner, Directors, Managers and Supervisors. A new vision for the department was discussed – and in it is a desire to shift from outputs to outcomes.

> Part of the day was to have Directors (divisional leads) share their thoughts on outcome-focused work. Every Director that spoke shared an experience of the work they are currently doing and most of the examples were output related.
>
> > -Ex. How work was managed for a physical office move for the entire Executive Management Team (EMT) – was done on time, budget and was received favourably by EMT and the Regional Chair.

Interview Responses

- Outcomes are impacts – a move away from numbers
- Evaluations upfront and responding back
- We are not great at measurement and outcomes – we are better at outputs
- It is NOT an output – it is the value to customer or organization
- By what is achievable within financial constraints
- Early on in project we identify it – hearing what the community needs are
- Develop an evaluation plan as part of the project charter – what criteria is included in it – that is what we deliver. Short-term deliverables – coming in on time, scope, budget. Long term – program plans are being developed and adding value to the Strategic Plan.
- We have a hard time articulating outcomes – we need to do better at outlining and end state vision that articulates what will be different in the end for the people we serve.
- IDEALLY – working with the business partner to understand their outcome
- Client approaches with the outcomes and we embrace
- It is a larger social good and or deliverable
- Outcomes vs Outputs – can easily be confused
- Outcomes hinge on scope – they determine what the deliverables are
- We as a project team determine the outcome – PM is assigned to the outputs – CM for the outcome
- Working with the stakeholders – what are they trying to see? At the end of this what are we going to have? How are we going to measure what are trying to achieve? Must be measurable

Theme: Self-centred design, where is the citizen?

There almost seems to be an implicit belief that the user is at the centre of all government decisions. Yet the research point to an approach doesn't convey this.

In the list of stakeholders the term citizen rarely appeared (one response). The main view is that the stakeholder is usually an internal client, partner or an external partnering community agency. Most of the responses saw the value of the stakeholder as a partner for information, creating and implementing solutions. However, the list of stakeholders were a list of like-minded agencies. In a human-centred design approach, the list of stakeholders would be similar however there would be an overt focus on the human element, something that the research identified as missing.

Interview Responses

- They are clients, impacted parties, sponsors – they are to be brought in where process it makes sense – they critical for understanding scope, outcomes, objectives
- Gathering feedback – they are key to understanding the impact of work on the stakeholders
- As partners for implementing solutions
- Stakeholders can represent the voice of the SME in the PM process
- Like-minded organizations/groups that we can partner with – as long as we have the same goals – they are a good way to get work done when we are underfunded

- Manager – Will be able to provide me with the resources, time and freedom to provide solutions of the most value
- Internal departments
- SME's across the organization
- Decision makers, authority
- Sponsor – they are not all set up for success – as a PM I need to set them up for it
- Sponsor – PM and CM perspective – they provide budget, and champion
- Key to get more done with less – leverage our partner's expertise

Theme: Process vs. Progress

Somehow there is a sense that the process is more important than the progress. There is a tendency to be content with doing things right rather than doing the right things. Again this may be attributed to the fear factor/public opinion mentioned earlier. There is a belief that government needs to concern themself with getting things done - to show progress, to measure actions and therefore establish their worth. This tends to lead to the confusion of outcomes vs outputs, which determines what mindset or process to deploy on the work that is being done. Innovation and human-centred design require that you challenge the status quo, prototype, course correct and stay in the problem. The research in this area uncovered interesting "conflicts" in the theory of approach versus the practice of approach.

Theory: How do you approach problem solving?

- Start with bigger picture/root cause x 6

- Variety of perspectives x 2
- Consensus around problem x 3
- Identify options and understanding of their pros/cons x 3
- Solving the right problem? X 4
- Understanding players involved x 3
- Identify stakeholders with common x 3
- People perspective
- Break down the problem – then look at resolution opportunities x 4
- Understand current state x 2
- Understanding scope and complexity x 4
- Clarity of what we are trying to achieve x 2

Practice: What are the key steps to a successful project?

- Project Management rigour x 5
- Clarity of outcomes/purpose x 7
- Understanding scope/Clear scope/Clarity of problem x 6
- Sponsor approval and buy-in/Champion x 6
- Preplanning x 5

Practice: When you are assigned a project does it begin as a question or a solution? If they begin as solutions, how do you manage the process if you have a different idea for the solution?

- In the PM world – you can express concerns and ideas but the bottom line is to deliver outcomes wanted by the sponsors/stakeholders
- PM role is to deliver – not my place to question

- I am an advisor – not a decision maker
- We need to get better at the "challenge function" – questioning why.

Practice: How are you sure that a project is on track? What factors are you looking for to reaffirm your direction?

- Re-scoping – once measured against the outcome/goal of project. Currently this is seen as a bad thing for PM – could be seen as a failure

Analysis and Interpretation of Sketch/Drawing Exercise

Below is a list of points for interpreting the research gathered in the sketch/drawing exercise was created.

1. Was the task completed and submitted?
2. How was the task completed? (drawing, printout, collage)
3. The degree of detail included in the drawing. The use of expression (words, images, metaphors)

In total the task was assigned to all interview participants at the end of the one-on-one session. They were given 5 days to complete the drawing task on their own time. A follow up email was sent to the participants, thanking them for their involvement and acting as a reminder/guilt to complete their drawing assignment.

Response Rate:

Of the 16 people interviewed all but 1 participant willingly accepted the task.
Of the 15 who accepted the task, 8 people completed the task.

1. Was the task completed and submitted?

The number of submitted drawings was interesting. The projective research method of expression (in this case drawing) was not as well received as the call to participate in an one-on-one discussion. In most cases when participants became aware of the drawing exercise there was an overwhelming hesitancy, accompanied with various comments such as "I hope you don't judge me on my drawing" , "I doubt my stick man figures will help you much" or "I hope I don't fail you". This might suggest that a few things. The first is that there is an obvious level of discomfort with visual expression and a preference to discuss thoughts. This may stem from their approach to the way that they currently work/approach problem solving, where the emphasis is on formal meetings.

The second thing that the responses might suggest is that there is a discomfort to try something new and a fear to disappoint and fail. There is an expectation/ reputation of professionalism that may have felt could be at risk if they submitted less than professional work. This is interesting considering each participant was informed that the emphasis on analysis would be more on the concepts and not of the abilities as an "artist". This was expressed to the participants when assigning the task in person as well as re-enforcing the message on the task sheet itself as a reminder to feel free to express ideas and not to be concerned with their artistic abilities.

2. How was the task completed? (drawing, printout, collage)

Of the 8 completed and submitted documents, 6 were drawings, 1 was a printed flow chart diagram and 1 was a cut and paste collage of computer generated images.

3. The degree of detail included in the drawing. The use of expression (words, images, metaphors)

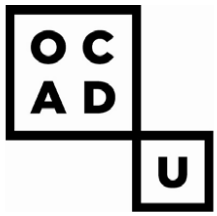
Depictions range from very formal and structured approaches to problem solving with clear titles and phases to untitled and more expressive depictions.

Interesting to note the cyclical nature of some of the drawings – tracing the system of how a project happens – the project lifecycle.

Most (if not all) drawings depicted the value of the process. There is little to no reference to the citizen, there is mention of stakeholder and stakeholder consultation but can not be certain that the citizen's human needs are fully covered in that description (based on the data gathered from the one-on-one interviews). Without a clear understanding of the human need in the process (what problem are we attempting to solve? and who are we solving this problem for?) then it is questionable for who the detailed processes being employed are working for. Meaning is the emphasis on the beauty, efficiency and effectiveness of the process or is it on the progress of fixing the problem at hand?

The drawings that were more expressive had a sense of hope, positive quality to them, using words like "start with an awesome idea".

10.0 Appendix B: Research Ethics Board approval letter



Research Ethics Board

October 23, 2012

Dear Marco Romano,

RE: OCADU 70, "For the People, By the People: How might municipal governments benefit from Human Centred Design?"

The OCAD University Research Ethics Board has reviewed the above-named submission. The protocol dated October 23, 2012 and the consent forms dated October 23, 2012 are approved for use for the next 12 months. If the study is expected to continue beyond the expiry date (October 22, 2013) you are responsible for ensuring the study receives re-approval. Your final approval number is **2012-33.**

Before proceeding with your project, compliance with other required University approvals/certifications, institutional requirements, or governmental authorizations may be required. It is your responsibility to ensure that the ethical guidelines and approvals of those facilities or institutions are obtained and filed with the OCAD U REB prior to the initiation of any research.

If, during the course of the research, there are any serious adverse events, changes in the approved protocol or consent form or any new information that must be considered with respect to the study, these should be brought to the immediate attention of the Board.

The REB must also be notified of the completion or termination of this study and a final report provided. Attached is the reporting template.

Best wishes for the successful completion of your project.

Yours sincerely,

Tony Kerr

Chair, OCAD U Research Ethics Board

OCAD U Research Ethics Board: rm 7520c, 205 Richmond Street W, Toronto, ON M5V 1V3
416.977.6000 x474

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