
THE CROWDED BOARDROOM

WHEN THE LONG TAIL COLLIDES WITH HIERARCHY: A TRUE STORY

Thom Kearney
Ottawa, Ontario, Canada
Kearnnet@gmail.com



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December 2025 Update Note:

When this paper was originally written, Web.2.0 was a term in vogue. Previously we would have said Gov 2.0 or E-gov. In 2025 we might call it digital government. In this version, I have not changed the terms; whenever you see Web 2.0 or Gov.2.0, please replace it with the most relevant term for your frame of reference. Today generative AI and the like are dominating the technology landscape and like the wiki, they are transforming the way we work in unpredictable ways. Many of the lessons from this experience are as applicable today as they were when they were first learned. In addition, the corpus held by the GCtools is a potentially powerful source of corporate memory on which to train an internal GC-LLM .

The Governance discussion would be useful for those thinking about new ways of structuring services, or clustering.

In December 2025, CIOB is investigating closing down GCpedia

Abstract

Keywords: Agile, complex adaptive system, governance, complexity, wiki, cultural change, collaboration, GCpedia, GCconnex, GCtools.

The Crowded Boardroom

Pervasive digitization and the Internet are changing the infrastructure of our social and business institutions, while governance approaches that have been successful in the past are being overwhelmed by the complexity and density of the new information environment.

Organizations seeking to take advantage of network effects have been experimenting with social technologies (Web 2.0 tools) that enable new behaviours and information sharing across traditional organizational boundaries.

This paper presents a case study of the GCpedia and GCconnex platforms for sharing and collaboration within the Canadian federal government. The paper examines the creation and evolution of the tools from the perspective of the cultural and governance challenges that a horizontal unifying technology poses for a hierarchical organization.

The author was one of the primary players in establishing the initiative and in an anthropological sense was a participant observer. The case study demonstrates the positive impact of open technologies on community development within the organization as well as the governance challenges associated with common service provision with cultural implications.

Introduction

This paper was prepared for presentation at the World Social Science Forum in Montreal, October 2013. It examines the cultural and internal governance implications of the introduction of a horizontally-enabling Web 2.0 technology (open source MediaWiki) in a large enterprise (the Public Service of Canada), in the period 2007 – 2010.

The paper is a retrospective intrinsic case study based on participant observation and publicly available data. It draws on the experience of the author leading a team to design, launch and operate a portfolio of projects that would collectively create a government-wide, open collaborative workspace.

The pathfinder project began as GCpedia, a wiki that provided the first and only means for public servants to openly work together online between departments. GCpedia is an enterprise wiki – an easily accessible workplace for the creation and sharing of new information and “records of convenience”. At the time GCpedia was the first government-wide wiki in the Commonwealth. In the period under

study the number of users grew from zero to 18,000. *As of March 2017, this number was closer to 60,000.*

The experience is unique because it is a rare example of using agile techniques in an open pilot to evolve an enterprise technology solution in a federal government. The typical approach to government-wide solutions involves lengthy requirements gathering and procurement cycles that all too often result in expensive out-of-date solutions.

Although GCpedia is often talked about as a technology project, its most significant feature is that it represents and enables new ways of working—it was, and is, a massive change initiative disguised as a simple technology pilot.

This paper is organized into three sections: The introduction sets the context and provides a high-level chronology of events over the three-year period. The results section presents data and observations collected through participant observation from hundreds of conversations and meetings, public sources as well as user registrations and activity on the tools. Finally, the discussion builds an argument for the conclusions that Web 2.0 tools within an enterprise do change culture and that the collective governance associated with Web 2.0 is incompatible with the rigid chain of command that is characteristic of Gov 1.0.

Chronology

IN THE BEGINNING (2007)

The year was 2007 and the iPhone was something new. The term Web 2.0 had been in use for a while to describe the way the internet had evolved with user-generated content and social interaction, the term Gov 2.0 was starting to be used to describe its application to government.

Don Tapscot and Anthony D. Williams were proclaiming the wonders of mass collaboration in Wikinomics. Clay Shirky had released *Here Comes Everybody* exploring the powerful results of the social web, and David Weinberger's book *Everything is Miscellaneous* was challenging the precepts of Information Management.

The author was on a three-year assignment as an executive in the Enterprise Architecture division of the Chief Information Officer Branch (CIOB), of the management board secretariat for the Government of Canada. The Branch was responsible for technology and information policy as it applied to government operations.

The Chief Information Officer for the Government of Canada recognized the importance of exploring the potential of Web 2.0 for improving internal operations. The project came about because the branch was willing to operate at the edge of its mandate—this fact makes the case an excellent example of risk management leading to wide-spread innovation.

The experiment

The business outcomes being sought were increased agility, innovation and efficiency. The questions we set out to answer included: Could Web 2.0 be an effective means of accelerating Public Service Renewal? What emergent effects might occur if we loosely connected all public servants with some simple rules?

From an experimental perspective, the apparatus was the wiki (and associated tools) while the method was essentially to create an environment where individuals could share and interact across institutional boundaries, following some simple rules. Setting up the technology was relatively easy, creating the simple rules around its use took a significant amount of time, as the numerous policy centres (official languages, information management, privacy, etc.) had to be educated and then consulted to achieve sufficient policy compliance.

Design for Complexity

The “secret plan” (which was not discussed with the governance committees because it was too complex), was to design a platform that would enable a complex adaptive system. The theory behind the strategy came from Calvin Andrus in his 2005 paper entitled “The Wiki and the Blog: Toward a Complex Adaptive Intelligence Community”. Written as a response in part to the intelligence failures that became apparent after the attacks on the World Trade Centre, the paper proposed that in order to deal with unpredictable world events, the intelligence community must transform into a complex adaptive system. The

paper provided the theoretical background for Intellipedia, the online system of collaborative data sharing between 16 US intelligence agencies, which was one of the models that the GCpedia team was learning from.

From a systems design perspective, the goal was to sow the seeds for the evolution of a complex adaptive system that would revolutionize the Public Service. The intention was to enable the six critical components of a complex adaptive system: Self-organization, Emergence, Relationships, Feedback, Adaptability and Non-Linearity (Andrus, 2005). Creating favourable conditions for these components became design goals and influenced many early decisions.

Open Pilot in Perpetual Beta

The tool was developed and launched in the spirit of “perpetual beta” using open-source software and a very small technical team to quickly introduce services and iterate based on experience and user feedback. Unlike most pilots which limit the number of users, the decision was made to conduct an open pilot, where any employee could participate. This was important because for emergent effects to occur, a certain scale and complexity is required. (Andrus, The Wiki and the Blog: Toward a Complex Adaptive Intelligence Community, 2005). Operating the project in this way ran contrary to the widespread practice of limiting the number of users in pilots and was initially resisted by decision makers.

Key management decisions were to govern lightly and manage by exception as we learned what was important to evolve. GCpedia was never heavily promoted — users were never told to use it but instead discovered it on their own. This strategy of organic growth reduced expectations and allowed the pilot to build momentum based on user adoption rather than boardroom politics. Because it was an open pilot, the platform allowed individuals who saw value to adopt the tool and form groups, demonstrating the self-organizing principle of a complex adaptive system (Andrus, The Wiki and the Blog: Toward a Complex Adaptive Intelligence Community, 2005).

From an information perspective, the project was operated in a radically transparent way. Apart from some financial and human resource documents,

everything was created and maintained on the wiki itself, which meant that anyone inside the Public Service could view and even edit any document at any time.

SERVICE ARCHITECTURE (2008)

GCpedia status: 204 users and 936 articles.

In early 2008, the enterprise architecture group undertook an analysis that led to the creation of a semantic model and a service accountability architecture. These models identified 16 individual services that made up the GCpedia platform vision. The architects then used the Program Activity Architecture (PAA), to establish which stakeholders held authority and accountability for those services. This analysis clearly indicated that a business owner was required and when no single business owner could be found, the policy centre (CIOB) agreed to operate at the edge of its mandate and take on the role.

In the fall of 2008, the CIO released GCpedia at a major public event. (Piliéci, Ottawa Citizen, 2008)

OPEN GOVERNMENT ARRIVES (2009)

GCpedia status: 9,000 users and 4000 articles.

By 2009 the US had a new President who immediately instituted an official open government initiative. Several Gov 2.0 summits were held in Washington DC, and there was tremendous excitement about the potential for the technology to become a platform for change. GCpedia was talked about across the Commonwealth and Washington as an example of an early success.

GCpedia operated under the motto of “Bringing People and Knowledge Together” with the official mission of enabling all public servants to connect, contribute and collaborate in support of service excellence.

A CLUSTER IS FORMED (2010)

GCpedia status: 19,000 users and 9,100 articles.

As GCpedia gained momentum, it became apparent that it was providing wide-spread value. As one senior executive remarked “if we did not have it, we would have to invent it”. By 2010, Canada’s most senior public servant, the Clerk of the Privy Council, endorsed GCpedia, calling for Public Servants to use the new tools as a platform for change.

However, the Westminster system does not provide many governance mechanisms to enable cooperative efforts like GCpedia. The team spent a great deal of time exploring what department might have the authority and accountability to provide the service. No entity was found that could support a free service delivered in an agile manner; however, a workable option was available.

In the late 1990’s the government management board had launched a Shared Systems Initiative, and associated *aide memoire* that provided a framework and authorities for horizontal sharing. The context was mostly transactional systems like Finance and Human Resources; however, as the only viable mechanism in existence, the GCpedia team set out to create a cluster around the idea of an Open Collaborative Workplace. A management board was established and 16 departments and agencies participated under the joint chairmanship of the largest of the policy and service provider organizations.

DEVELOPMENTS 2010 - 2013

September 2013 GCpedia status: 41,000 users, 22,000 articles, 1,000,000 edits.

User growth of GCpedia has followed the pattern established in the study period. For thousands of public servants, GCpedia is an everyday work tool.

The Management Board and CIOB have successfully funded the initiative at maintenance levels and in December 2012, initiated a new effort to evolve the project to an enterprise service.

The Clerk of the Privy Council has continued to support the tools as a platform for change and in the summer of 2013 initiated a vision consultation across the public service known as Blueprint 2020 that makes extensive use of GCpedia and its

companion GCconnex.

Results

This section provides a summary of observations and data collected during the study period (2007 – 2010) that pertains to the governance and cultural implications of a horizontally-enabling collaborative technology inside the enterprise.

Adoption and Activity

ADOPTION

Adoption of the platform is measured by the growth in the number of registered users and page views which has been steady since GCpedia's introduction.

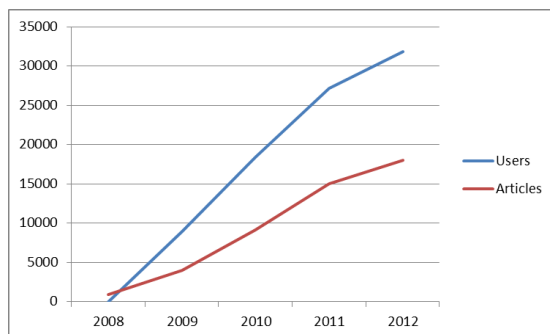


Figure 1: User Registrations and Articles

The number of articles is diverging from the number of users as would be expected as the wiki moves from being mostly a creation platform to more of a reference and working area. One interpretation is that the knowledge-base is beginning to stabilize

and instead of creating new pages, users are editing existing articles.

If the rate of growth experienced were to remain consistent, GCpedia would achieve 100% user registration (assuming a population of 250,000) somewhere around the year 2036. If articles are created at the same rate, there would be more than 200,000 content pages.

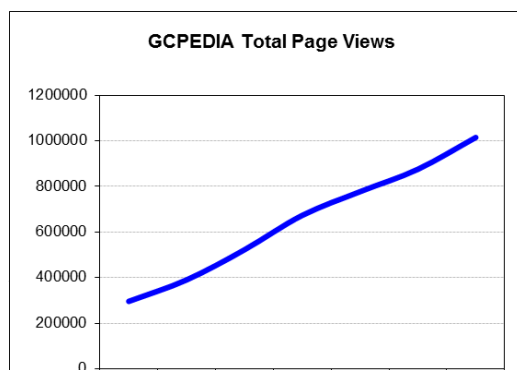


Figure 2: GCPEDIA Page Views

PAGE VIEWS

Page views follow a similar trajectory to user registrations and represent all visits to the platform. It is an impressive number of limited analytical use, because it includes both editors

and browsers. It is probably safe to assume that if page views continue to increase then people are finding value in the platform, not only as a place to create but as a quick reference and place to find “records of convenience”.

ACTIVITY

In addition to the basic user data being collected, in the summer of 2009, coop students conducted a survey of content in the wiki categorizing a sample (10%) of the pages to see how people were using the platform. This data was used to generate the pie chart that follows:

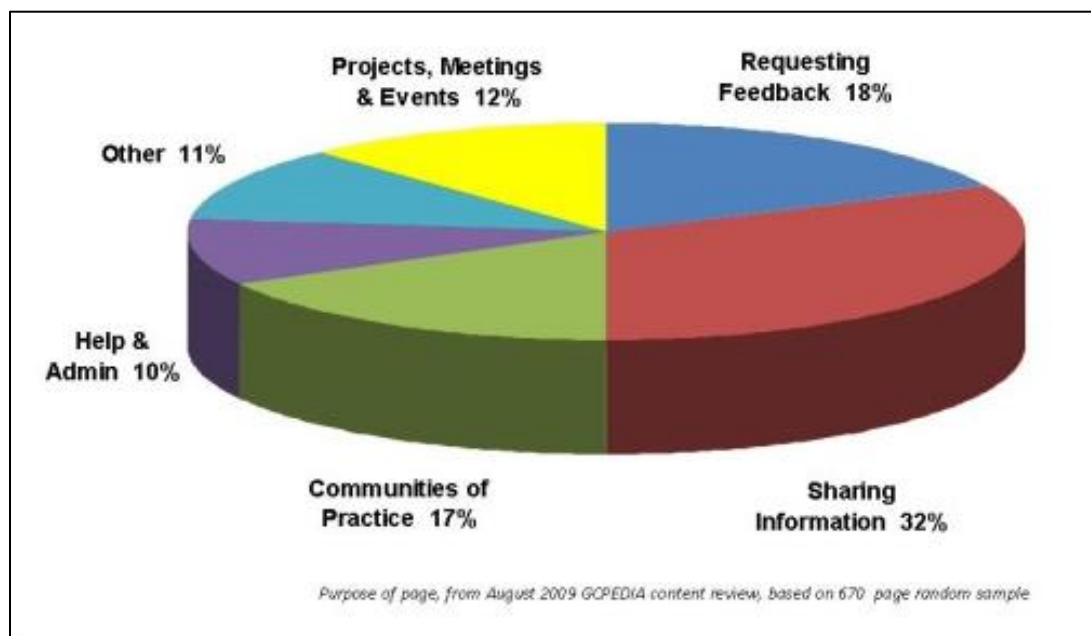


Figure 3: GCpedia Content Survey

This data looks at the information artefacts created by users after 12 months of use. What is missing is the detailed activity data that would help shed some light on what is specifically taking place. All we can see is the result.

Culture

“It’s about the culture and not the technology” this refrain is repeated regularly in the Gov 2.0 community around the world. But what exactly is culture? This section will examine some of the observable characteristics in evidence during the

study period. An enterprise as large as the Government of Canada has a wide variety of sub-cultures and this analysis is, by necessity, a generalization.

The following table is an attempt to summarize the differences between the Government 2.0 culture that GCpedia represented and the existing culture (Gov 1.0) as observed in 2008. For the purposes of categorization, the table uses Edgar Schein's three layers of Artefacts; Espoused Beliefs & Values, and, Basic Underlying Assumptions (Shein, 2010). Data is drawn from the Government 2.0 literature of the day, conversations with Gov 2.0 leaders, Policy Documents and participant observation.

Table 1: Gov 1.0 and Gov 2.0 cultural attributes

Levels of Culture (Shein, 2010)	Gov 1.0 (2007-2010)	Gov2.0
Artefacts Visible structures and processes Observed Behaviour	Prescriptive policy and web of rules Departmental, Westminster system with legislated silos Vertical communication patterns Some cooperation amongst the willing Territoriality Established methods that have worked for decades Respect shown by unquestioning agreement Generic Job Descriptions	Principle based guidelines Loosely coupled networks Communication based on need and interest (not hierarchy) Collective learning Constructive debate Habitual knowledge sharing Respect shown in disagreement Roles and Histories
Espoused Beliefs and Values Ideas, Goals, Values Aspirations Ideologies Rationalizations	Values and Ethics Code: (2003) <ul style="list-style-type: none"> • Democratic values • Professional values • Ethical values • People values Share when ready Non-partisan truth to power Stay off the front page of the news Design for "fail safe" Need to know	Values and Ethics Code (2012) <ul style="list-style-type: none"> • Respect for democracy • Respect for people • Integrity • Stewardship • Excellence Open by default Trust and respect Wisdom of the crowd Experiment and learn We is stronger than me Authenticity Design to "Fail fast" and learn quickly Need to share

Levels of Culture (Shein, 2010)	Gov 1.0 (2007-2010)	Gov2.0
Basic Underlying Assumptions Unconscious beliefs and values that determine behaviour, perception thought and feeling	Hierarchy is best Deference to authority of the position Entitlement to my job and benefits What the boss wants Information Is power Mistakes are career limiting moves (that end up in the news) Ask permission Working for Canadians (it's a calling not a job) Follow the rules	Responsible autonomy is best Deference to the most respected Shared sense of purpose Free information is powerful Mistakes are learning opportunities Beg forgiveness Working for Citizens (it's a way of life) Challenge the rules

PUBLIC SERVICE EMPLOYMENT SURVEY

The Public Service Employment Survey (Treasury Board of Canada Secretariat, 2011) is conducted every three years and is designed to solicit opinions from employees on issues pertaining to leadership, workforce and work environment. One relevant question that could have been influenced by GCpedia is #16 which reads “I am encouraged to be innovative or to take initiative in my work”, in 2008 24% of employees answered almost always while in 2011 28% answered almost always. Amongst other influences, it may be reasonable to assume that the existence of GCpedia and GCconnex contributed to this 4% rise.

MEASURING PROGRESS

Language is clearly a part of culture and as the project progressed, an informal metric of success was to count how many times the word GCpedia appeared in conversations that were not about the wiki. For instance, the phrases “I’ll put that on GCpedia” or “we’ll work on that on “GCpedia” or “look on GCEPDIA”. In 2010, the Author counted 38 instances of the word in a 45-minute meeting of 30-40 executives from across government that had nothing to do with GCpedia, GCconnex, or collaboration.

Governance

Like culture, the discussion of governance requires a frame of reference, and the next few paragraphs describe the governance and stakeholder model being applied.

GOVERNANCE & STAKEHOLDER MODEL

Figure 4 provides a useful framework for examining the internal challenges of governing an enterprise-wide knowledge and collaboration service.



Figure 4: Governance & Stakeholder Model

The figure depicts an idealized view of the identified stakeholders that have a reason to be interested in the initiative. The large circle represents the entire civil service which is divided into three principal groups. The smaller circles represent the primary ways that civil service interacts with the outside world. On the left are all the inputs to the system whereas on the right are outputs.

The focus here is on the larger circle, the idea being that to improve the outputs we need to get better at processing the inputs amongst other things. This is critical because the author and other others¹ have observed that in order for organizations to change the way they serve their clients on the outside, they must change the way they work on the inside. The following paragraphs describe each of the main players.

Line Departments & Agencies

This is the largest and most diverse group that is responsible for “business of government”. In the Government of Canada there are hundreds of organizations,

¹ Public Sector Value Chain, Heintzman and Marson 2003

many of which are legislated to serve a particular Government outcome. These organizations range from being quite large with more than 40,000 employees to being quite tiny with only a few. In a traditional IT enterprise deployment of something like Human Resource or Enterprise Resource Planning (ERP) system, these organizations would be the “clients”, each of whom needs to agree to pay for the service.

However, if we are trying to build a complex adaptive system, the principle of self-organization means that everyone needs to be able to access the platform at any time. In addition, the principle of adaptability means that users need to drive the development of tools much more intensively than is usually the case.

Priorities & Policy

Within the Government of Canada, the high-level priorities of the Public Service are driven by Parliament and the Government of the day. Public Policy is the business of government, while the internal operating policies and legislative obligations are the business of the Public Service. Examples of these types of organizations include the Privy Council Office, Treasury Board Secretariat and the CIO Branch that initiated GCpedia.

The Internal Service Provider

In this case, the main organization is the Information Technology (IT) Service Provider, although there is potential for the involvement of others, in particular the learning function. The IT service provider in this case had a mandate to provide Information Technology services only when the cost could be fully recovered². This cost recovery mechanism in use by the Internal Service Provider prevented them from effectively providing a universally available service.

² At the time it was Public Works and Government Services Canada (PWGSC), today it would include Shared Services Canada (SSC).

SERVICE ARCHITECTURE

The 16 individual services³ that make up the platform were identified in 2008 and each have an identifiable owner. Figure 5 illustrates the accountabilities visually.

The portion allocated to Line Departments & Agencies is small because the Westminster System departments are not accountable each other, but to Parliament.

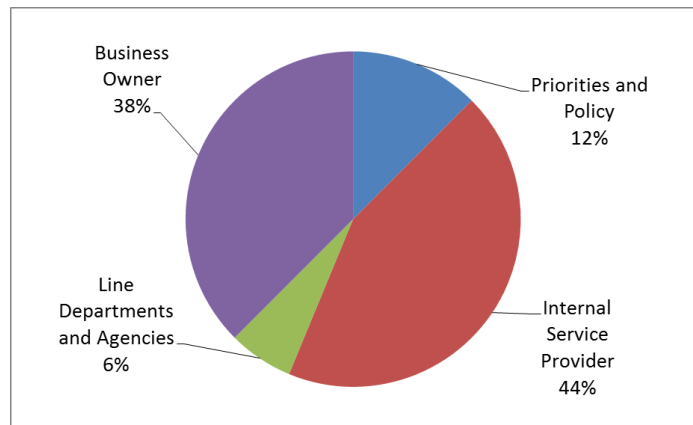


Figure 5: GCPEDIA Service Accountabilities

to

The services associated with the Business Owner (Users) are information related such as Content Democratization, and Information Management policy compliance, as well as user engagement and governance coordination.

The Internal Service Provider services are typical Information Technology services such as (agile) application development and hosting. The Priorities and Policy piece is quite small and focused on the Information Management and Technology policy as opposed to operations.

FACTORS THAT INFLUENCE GOVERNANCE:

Governance of a horizontally enabling technology like GCpedia turns out to be more complicated than one might think. On the one hand the project does not cost very much when compared to other enterprise systems while on the other hand it represents a fundamental change in culture which can be perceived as very high risk.

The table below identifies several factors that were observed to influence or challenge the various governance structures attempted.

³ A semantic map is available.

Table 2: Observed factors that influence governance

Factor	Impact	Result
Low Cost 1-2 million a year versus 10's or 100's of millions for other enterprise systems like HR and ERP	Difficult to get attention of senior executives. Not enough dollars to justify complex governance.	Ad hoc annual funding, creates unstable program environment
Divergence Participative nature of user generated content and direction is alien to a central planning culture.	Exciting for some, frightening for others. Somewhat polarizing. Business case difficult to nail down – like the telephone or email before it.	A beacon of hope and a lightning rod for risk. Slow adoption by un-believers.
Open Source Community model creates perceived risk of liability.	Threatening to big money solutions. Unknown risks to procurement. Iterative and agile approach is new to most.	Commercial forces oppose it. Sometimes mutually exclusive mind-set. (COTS vs Open Source)
Viral Horizontality Crosses many boundaries, benefits are diffused,	Does not fall into any single organizational mandate. Westminster system has difficulty adapting.	No one wants to or has the mandate to take it all on – business, policy and delivery. Tragedy of the commons

Positive Impacts

Some of the positive impacts that have been observed include:

GOOD ENOUGH FOR NEXT TO NOTHING

The growth in use of GCpedia indicates that users are finding value in the tool while the annual costs of operating the platform (1-2 million dollars) are small when compared to other enterprise tools (10's to 100's of million dollars).

THE GROWTH OF COMMUNITIES

By early 2010, more than 200 communities had declared themselves on GCpedia, by categorizing their pages as such. These groups ranged from regional young professional associations, functional communities such as procurement and communications. One of the more active of these was known by its twitter hash tag #w2p for Web 2 Practitioners, this group used twitter and GCpedia to organize regular mixers outside of working hours, and eventually spawned a professional development group that organized several internal learning conferences attracting 100's of attendees at virtually no cost.

HOPE

To many, particularly newer civil servants the very existence of an environment like GCpedia represents hope for a workplace that is otherwise alien and oppressive to Digital Natives

A LIGHTNING ROD FOR RISK

Introducing GCpedia has forced the discussions that are leading to an understanding of how to adopt Web 2.0 practices while respecting policy obligations. This understanding and comfort with the environment is fundamental to providing the services Canadians need in a networked future.

Discussion

The discussion builds an argument for the conclusions that Web 2.0 tools within an enterprise do change culture and that the collective governance associated with Web 2.0 is incompatible with the rigid chain of command that is characteristic of Gov 1.0. This section of the paper also looks for evidence of a complex adaptive system and concludes with some implications for practice.

Culture Change

ARTEFACTS

GCpedia is a collection of artefacts and the history of their creation. Examples of most of the Gov 2.0 artefacts described in Table 1 can be found in the user generated content on the platform. For instance, collective learning is evident in the many pages documenting the Communications Community of Practice efforts to understand the policy implications of social media. This is an example of self-organization that led to significant policy input that was unplanned but clearly necessary. Loosely coupled networks are found throughout the platform in the pages supporting formal and informal communities that form and disband constantly. Sometimes, these communities consist of 2 or 3 individuals collaborating on a single document over a brief period. Other communities have hundreds of members and continue to be active for years.

Habitual knowledge sharing is practiced by a few individuals who have simply moved their workflow onto GCpedia. For these people the platform is their primary content creation and sharing tool as opposed to the traditional file and email-based approach—they are the first examples of change, the positive deviants.

ESPOUSED BELIEFS & VALUES

People and groups that use GCpedia are for the most part espousing a belief that “need to share” is more important than “need to know”. Use of GCpedia does not automatically infer this belief, however, as others may use the tool simply because it is more efficient than alternatives with sharing being a by-product.

One way the Government could move the culture towards Gov 2.0 values would be to create a collaboration policy with an emphasis on sharing knowledge and information assets.

BASIC UNDERLING ASSUMPTIONS

The divisions between the Gov 1.0 and Gov 2.0 are sometimes subtle, but in the differences in assumptions that drive behaviour, the contrast revealed by Shein’s model (Table 1) is clear.

Information is Power vs Shared Information is Powerful

There were occasional reports of managers ordering their staff to not use GCpedia. When we investigated, we frequently discovered that the managers were simply unfamiliar with the purpose and conventions of the platform, in many cases once they learned about it they lifted the restriction. For those that did not have a valid security concern, the fundamental issue was that the manager believed that their control of the information was important—they were likely afraid of becoming victims of disintermediation.

Begging Forgiveness Instead of Asking Permission (Responsible Autonomy)

There are no documented cases of employees using GCpedia having to “beg forgiveness”, but there were anecdotal reports where employees who understood the purpose of their work did not ask permission of their managers to use the platform and took some measured risks. At times, there may have been

conflict, even informal disciplinary action. The message propagated by the GCpedia team was that you did not need to ask permission to do your work—if working on GCpedia made you more efficient, then you should do it.

Challenging the rules – managing by exception rather than prescribing

Providing employees with a platform that they can all access and use in any responsible way they choose is a gutsy move for an executive in the Government of Canada and the senior executives of the day⁴ should be congratulated for their foresight and risk management skills. The team that ran GCpedia challenged the rules on an almost daily basis. The project crossed many policy jurisdictions and continually challenged policies around official languages, privacy and information management to name a few. The intent was not to attempt to predict and prevent every possible transgression, rather to monitor and quickly respond to any issues that arose, one executive called this approach “Active Research”.

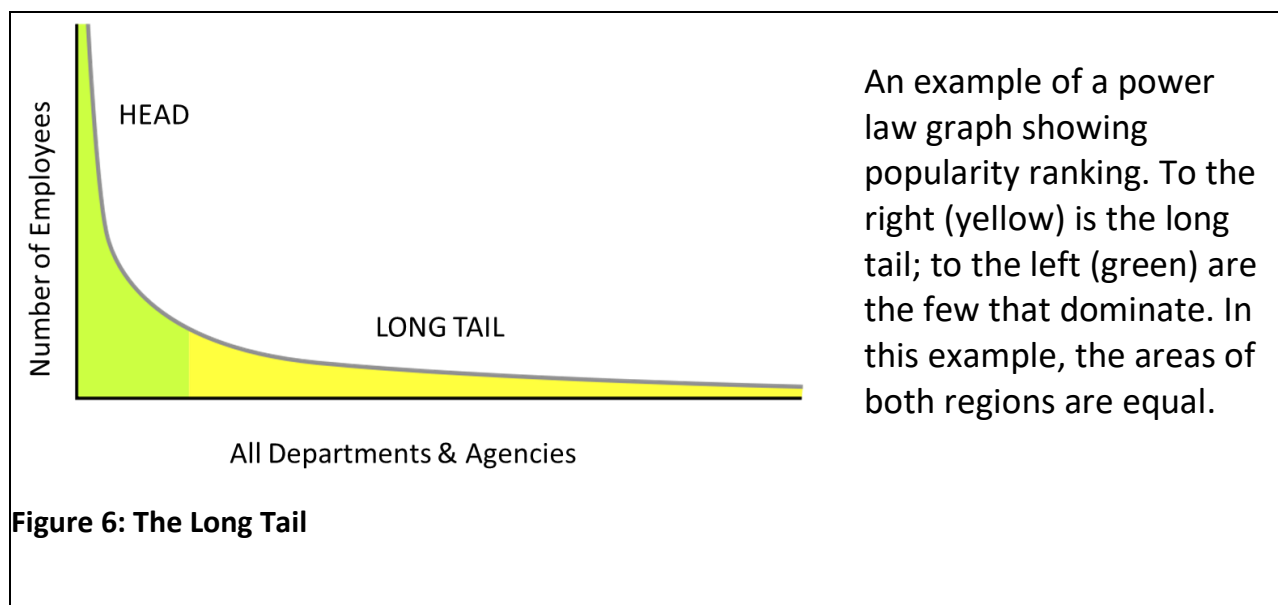
Governance Discussion

Governance of internal services is a large topic that in its entirety is beyond the scope of this paper; however, the next few pages will attempt to discuss the most salient issues.

THE LONG TAIL DOES NOT FIT IN A BOARDROOM

Chris Anderson in an October 2004 Wired magazine article popularized the long tail, in which he mentioned Amazon.com, Apple and Yahoo! as examples of businesses applying this strategy. The typical power law graph associated with it is shown in Figure 6. In many Web 2.0 applications the distribution of users generating content usually follows a similar pattern where a few users contribute lots of content, yet the many users that make few contributions can in fact be more important over time.

⁴ The Chief Information Officer, Ken Cochrane and the Clerk of the Privy Council, Wayne Wouters.



From a governance perspective, we might imagine that the base line is all public servants, and the vertical axes is number of employees per department. There will be a few large organizations making up the head with many other smaller departments and agencies making up the long tail. Current internal service governance culture tends to focus on the head, with the result that governance inevitably is dominated by the largest few organizations. In the case of Information Technology for instance this might mean that 4-8 departments essentially drive the agenda, a small boardroom is all that is needed to hold the few that make up the head. The problem arises with a platform like GCpedia where the benefits are mostly in the long tail—the members of which are not represented at the small table.

Existing mechanisms are weak for engaging many players, successful initiatives within the government are usually driven by one or two organizations, almost never by a crowd. In the case of GCpedia, the strongest policy supporters, users scattered throughout departments simply do not have a voice when the governance focus is entirely on the head of the curve.

AWKWARD FUNDING SOURCES

It has been said that inside an organization as large as the Government of Canada it can be easier to get 100 million than it can be to get 10, or in the case of GCEPDIA 2 million annually.

The funding mechanism associated with the cluster was initially a volunteer contribution which accounted for about %50 of costs. The sponsoring Priorities and Policy organization picked up the rest. This arrangement was seen as temporary and evolved until 2013 when more than 80 departments participated at four levels of funding. In principle, this idea of collective funding seems appropriate, however the realities of preparing more than 80 separate memorandums of understanding, and then collecting on the actual fund transfers, adds significant overhead to the project and the annual uncertainty is destabilizing.

The most logical funding source might be a government-wide standard infrastructure fund that pays for such things as telephone service. Such a fund existed at the time, and GCpedia costs could have been covered with an increase about %20. This option was rejected ultimately because this source of funds was controlled by the Service Provider, who viewed GCpedia as competitive to their service offerings. Their cost-recovery mandate essentially creating a conflict of interest.

THE MISSING BUSINESS OWNER

Unlike other enterprise-wide functions such as Human Resources or Finance, there is no single department with the mandate for collaboration and knowledge sharing. The Service Architecture results clearly show the need for a Business Owner yet the Governance Model does not have a place for such a stakeholder.

In the case of many systems, Departments are synonymous with the Business Owner. In this situation, I believe the model does not work because Departments and Agencies cannot be held accountable to each other; they are only accountable for their specific mandates and legislation. There is no single entity with the mandate for collaboration and knowledge sharing across government.

When a page on GCpedia is created by an employee of one department and then edited by others from different departments, what department can be said to “own” that page? In wiki culture, it is “owned” by the users who created it and it is the position of the author that the users of GCpedia should play a significant part of the governance as the Business Owners.

The core difference between “Web 2.0” and what came before it is that user generated content and participation dominate over planned content. The existing governance mechanisms in use come from an era when content and use could be anticipated and carefully planned. In a complex adaptive system, neither use nor content can be fully anticipated. The very strength of the system is its adaptability to new and unpredictable events.

Users are individuals who need to “get stuff done”, they work for stakeholders but are motivated by their need to accomplish immediate goals. For these people, the tools have an obvious and immediate benefit of making their jobs easier. Some users become quite passionate about the tools and evolve into culture change agents. Users are the only ones that can be accountable for what they create.

THE CONFLICT OF THE SERVICE PROVIDER

In the governance model, only one organization has the legislated authority to deliver a shared service, that being the IT Service Provider. The Service Architecture demonstrates that in fact they should be providing about half (44%) of the related services, and they clearly do not have the mandate, nor the capability to provide the other services identified. In addition to this, the IT Service Provider also suffered from a significant conflict of interest created by their cost recover model.

In the cluster model that was eventually adopted, the cluster committee was co-chaired by an executive from the IT Service Provider. This position should work towards providing a platform that enables all employees to connect and share knowledge. Unfortunately, this same executive was also in charge of a collaboration solution that had been procured the traditional way. This solution represented a significant investment that could only be recouped under cost

recovery rules by selling it to individual departments. GCpedia with its free for all model undermined the whole concept of departmental clients and traditional cost recovery. When budgets are threatened, it is unreasonable to expect that decision making will be impartial or user oriented.

Implications for practice

The following section attempts to capture some of the lessons from this case that may be applicable to future projects.

THE INTUITIVE BUSINESS PLAN

If GCpedia had been subjected to the typical investment planning process which requires a business plan and committee approval, it likely would have never gotten off the ground. The fact that management understood that we needed to experiment to discover the potential, and that they trusted the team to manage risk, allowed the initiative to take root and grow. Today the business case is self-evident for most users, like other ubiquitous business tools such as the telephone and email. The lesson is that leadership needs to be willing to trust intuition occasionally if it hopes to enable innovation.

GOVERN LIGHTLY

There is a certain “community magic” that can easily be crushed by imposing traditional bureaucratic governance. For users to feel enabled, they must have significant and real freedom to use the platform depending upon the domain they are in. The fact that GCpedia was perceived as a little bit of a rogue project was attractive to the more progressive community members. To attempt to impose too much control would destroy that spirit as well as reduce agility.

RISK MANAGEMENT

GCpedia is an excellent example of how to innovate and enable innovation in a large established organization. The need for culture change had been identified by the most senior leaders and the Policy Centre branch found itself able to act on that call to action by establishing a tool that enabled the desired behaviour. Even so, it was the leader of the branch (ADM level) that had to decide to manage the risk by encouraging his staff to undertake the experiment. Risk management in

this instance meant experimenting and actively managing those risks that emerged as opposed to attempting to prevent any risk from the outset.

An interesting observation is that the entire management decision tree up to the ADM level, at the beginning of the project was made up of individuals from Interchange Canada.⁵ This meant that they were all temporary public servants on assignment from the private sector. This fact may have had significant cultural implications as to the understanding of the risk-reward equation and the comfort in managing risk. There was little fear of making a career limiting moves because the “career” was already limited by the term of the assignment.

STEALTH APPROACH

Project costs were very low, the software was open source and free, technically all it took was access to a server, an afternoon to set up and some student help to maintain the very first pilots. This gave the team invaluable early hands-on experience with the technology and allowed for a gradual education of the policy centers who would ultimately have to bless the initiative. Financial stealth did not mean that the project was kept quiet. The concept of a “Collaborative Library” was announced by the CIO at the public forum GTEC in 2007 and a year later at the same forum the evolution of that idea—GCpedia was released to public servants. From idea to enterprise-wide access in under 12 months. By the time the most senior leaders were formally made aware of GCpedia there were more than 10,000 users on the pilot—an excellent example of the Gov2.0 cultural attribute of begging forgiveness, rather than asking permission. As one Deputy was said to have remarked “The genie was out of the bottle” before it could be stopped.

THE IMPORTANCE OF OPEN

Open is an important characteristic of modern society and in this situation, has several meanings. First the solution must be open to all employees, anything that imposes silos or mirrors existing hierarchies degrades the potential for emergence by limiting the number of participants.

⁵ <http://www.tbs-sct.gc.ca/prg/iec-eng.asp>

Secondly, the information architecture needs to be open so that users can discover content and other users both intentionally through search and serendipitously by accident, this enables the self-organization and relationship components of a complex adaptive system.

Finally, the use of open-source software is important because it allows a small team to quickly adapt the technology to needs as they arise. The collaboration space is not a mature market like finance or enterprise resource planning. As the world changes, we cannot predict what will be required. Using open source allows the organization to remain agile in a sustainable way. Keeping the expertise to develop and maintain low cost, light weight technology also serves the innovation agenda in ways that outsourcing never can.

COMMON PURPOSE TRUMPS TERRITORIALITY

For the initial pilot, there was a shared belief that we simply needed to make this happen to prepare the Public Service for the challenges of the future. This shared purpose dampened the existing animosity between organization divisions and resulted in a team that effectively worked together without a formal reporting structure. The potential of the project was such that many were willing to set aside pre-existing notions of territoriality to let it happen. Territoriality is a constant threat to an innovation like GCpedia and may ultimately represent the biggest risk to the continuation of the project. It is the author's opinion that existing cost recovery approaches for the delivery of internal services result in increased territoriality.

Conclusion

In many ways, horizontally enabling tools like GCpedia manifest a dividing line within organizations. The participatory, egalitarian, community driven model is at odds with centuries of hierarchical tradition. Within the Information Technology community, the divisions are stark; Open-source vs COTS, Agile vs Waterfall, the Cathedral vs the Bazaar. On a broader level, there is a philosophical debate about the benefits and risks of openly sharing information.

A Westminster system that has its roots in the days of sail, is challenged by the concept of collective instantaneous communication. The idea of replacing a chain of command with a network can easily become an existential threat. Tools like GCpedia represent a fundamentally new and agile way of working, forcing the governance of such a thing into an ancient hierarchy will only serve to kill the magic of emergence. A new mechanism that puts the users as business owners at the centre of the model is needed to maintain the momentum towards a complex adaptive system.

In the words of one respected former bureaucrat writing about the new paradigm of Web 2.0 , “In this new paradigm, organization and structure are like a pilot’s view of roadways he sees while flying towards the horizon: guideposts from a different era of travel (Flumian, 2009).

BUILD IT TOGETHER

By bringing users to the governance table, innovative approaches to governance can be tried and valuable learning obtained with little risk (because costs are low). Radically new ways to operate such as Holacracy⁶ are emerging from the open-source development world. Evolving GCpedia provides a unique opportunity for government to try out some of the new approaches to governance in a low-risk environment—experience that may prove vital to remaining relevant in the years to come.

GCEPDIA represents one of the few examples of sustained Enterprise-Wide innovation within the government of Canada. It is a cultural beachhead for the new Public Service envisioned by Blueprint 2020. An important observation for any entity that may take over the operations is that the core competency of the GCpedia organization is not technical service delivery but rather facilitation and community building.

This paper is about the future, but I would like to close with a story from the past that captures the spirit of how GCpedia is best governed. About 1843, the newest and largest western frontier city—larger than Chicago or St. Louis—was also the

⁶ <http://holacracy.org/>

most orderly and well kept. A visiting dignitary asked the mayor of Nauvoo, Illinois, how he managed so many people so well. He replied, "I teach them the correct principles and they govern themselves" (Taylor, 1851).

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