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Open Government
– The state of play

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Executive Summary

"Open Gov" is a mantra that many within both the bureaucracy and the politi-sphere are uttering in the opening decade of the twenty first century. The call comes from a groundswell of disappointment and mistrust of governments combined with a growing frustration at the inadequacy of corporate systems to meet end user needs, particularly when compared to the so-called open and convenient platforms of Web 2.0.

This paper seeks to explain the genesis and evolution of the concept of "open" government within the context of changing forms of government within the web-driven world, a world where emerging web technologies are empowering the citizen as never before, providing access to vast quantities of information which, despite being presented out of context and often in a complex format, is nonetheless available and freely open to use and reuse.

It is based on our observations as both researchers and practitioners within the "open" gov space having come from both a policy and communications background, and having worked with numerous players who are seeking to implement emerging digital technologies to enable "open" government.

Context

In the first decade of the twenty-first century politicians around the world are professing a commitment to governments becoming "open". As a complement to this technologists see this environment as providing the perfect context within which emerging information management systems can at last be fully utilised in order to bring about societal change and enhance democracy.

The inaugural episode of "Yes Minister", aired on BBC Television broadcast on 25th February, 1980, saw Jim Hacker on his first day as Minister of Administrative Affairs who describes his governments intent to create an "open government" in order to "(take) the nation into our confidence".

The realities of government are beautifully illustrated in the following exchange Hacker has with his Permanent Under Secretary, Sir Humphrey Appleby, recalling his time in Opposition.[1] :

Jim Hacker: *Opposition is about asking awkward questions.*
Sir Humphrey: *… and Government is about not answering them.*
Jim Hacker: *Oh well, you answered all of mine anyway didn't you Humphrey.*
Sir Humphrey: *I'm glad you thought so Minister.*

As things progress Hacker soon learns that politics needs to be "open" not "gaping", where "politics is saying things with tact and finesse", and that "within the framework of open government" perhaps a more "flexible posture" is required.

During my own time as a ministerial policy adviser "Yes Minister" was almost compulsory viewing for all new recruits to the public service and, as with so many things, comedy all too often reveals truths that many fundamentally believe but dare not speak about openly.

Over the past few years the move towards "open government" has grown to be far more than a mere BBC comedy entertainment, it is being taken very seriously.

On 16th July 2010 Australia Finance Minister Lindsay Tanner made a "Declaration of Open Government"[2] stating that:

The Australian Government now declares that, in order to promote greater participation in Australia's democracy, it is committed to open government based on a culture of engagement, built on better access to and use of government held information, and sustained by the innovative use of technology.

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1   *Yes Minister, "Open Government",* Episode One, aired 25th February, 2080
2   Tanner, Lindsay - http://agimo.govspace.gov.au/2010/07/16/declaration-of-open-government/

Citizen collaboration in policy and service delivery design will enhance the processes of government and improve the outcomes sought. Collaboration with citizens is to be enabled and encouraged. Agencies are to reduce barriers to online engagement, undertake social networking, crowd sourcing and online collaboration projects and support online engagement by employees, in accordance with the Australian Public Service Commission Guidelines.

The possibilities for open government depend on the innovative use of new internet-based technologies. Agencies are to develop policies that support employee-initiated, innovative Government 2.0-based proposals.

The Australian Government's support for openness and transparency in Government has three key principles:

Informing: strengthening citizen's rights of access to information, establishing a pro-disclosure culture across Australian Government agencies including through online innovation, and making government information more accessible and usable; Engaging: collaborating with citizens on policy and service delivery to enhance the processes of government and improve the outcomes sought; and Participating: making government more consultative and participative.

Gartner analyst Andrea Di Maio believes that this sets a new benchmark [3] and

"provides solid foundations for a successful implementation, (captures) the essence of gov 2.0 as an employee-centric, viral phenomenon, which cannot be planned for but only enabled and nurtured, (and) … is exemplary in its simplicity and rigor and should become the benchmark for any government, anywhere in the world, that is trying to articulate the basic tenets and principles of open government.

At the Gov 2.0 Expo Australian Senator Kate Lundy [4], seen by some as "the pre-eminent Government 2.0 aficionado in the Australian Parliament bar none"[5] stated that open government consists of three key elements:

1. Democratising data – "making information collected for, an on behalf of citizens, publicly available in a useful, open format unless there is a demonstrable reason not to."

2. Citizen Centric Services – a "joined up" government experience, with clear, seamless services, delivered as bespoke or "haute couture", and

3. Participatory Democracy / Government - collaborative engagement in design of policy which is "applied, purposeful and outcomes oriented".

3   Dimaio, Antonio - http://blogs.gartner.com/andrea_dimaio/2010/07/16/australia-sets-a-new-benchmark-for-open-government/
4   Lundy, Kate - Gov 2.0 Expo 2010"The Path to Open Government: The Pillars of Gov 2.0", http://blip.tv/file/3677202 and Public Sphere - http://cpd.org.au/article/case-study-public-sphere
5   Gruen, Nicholas. Chair of the Gov 2.0 Task Force. http://clubtroppo.com.au/2010/08/10/what-coalition-politicians-get-government-2-0/

All of this should enable "an inclusive society and a stronger democracy" because she sees

"Gov 2.0 as "an opportunity for governments to push the evolution of democracy well beyond the ballot box and into life experience through online engagement."

Lundy is not alone and the move towards "Open Government" is gaining pace [6], however others, such as UK Prime Minister David Cameron, are driven by different priorities. For him the leading question in politics is "How do we make things better without spending more money?"[7]. Underlying this he stated very simply that

"if you give people more power and control over their lives, if you give people more choice, if you put them in the driving seat, then, actually, you can create a stronger and better society. And if you marry this fact with the incredible abundance of information that we have in our world today, I think you can completely … remake politics, remake government, remake your public services."

In New Zealand Deputy Prime Minister Bill English talks about "inside out government".[8]

Government holds a wealth of information. Some of it - quite rightly - is sensitive and access should be strictly controlled - tax records for example. But in other areas, I see no reason why we can't turn government inside out, so to speak, and make the same data and information available to those outside of government. Government can tap wider resources in the community to analyse and use government data to help solve problems and produce insights.

And, perhaps the catalyst itself was US President Barack Obama in his "Memorandum for the Heads of Executive Departments and Agencies" who wrote:

My Administration is committed to creating an unprecedented level of openness in Government. We will work together to ensure the public trust and establish a system of transparency, public participation, and collaboration. Openness will strengthen our democracy and promote efficiency and effectiveness in Government. [9]

Does this sound familiar? And, so, where has this all come from and what does it really mean, for citizens, for business and for governments themselves?

For Digital Brand, as part of the organising committee for the Metadata 2009 "Sharing Data, Sharing Ideas" conference, the Metadata 2010 conference, the OpenGov2.0 Initiative in Canberra and the Wellington Open Gov Unconference , and as co-presenters in the recent Managing Public Communications workshop for ANZSOG (the Australian and New Zealand School of Government) it was fascinating to see a range of people working in the information management space came together to discuss the role of data, metadata and linked data as the basis upon which much of the promise of 'open government' needs to be built. However, there was a gap – a gap in both the

6   Silberberg, Alan. W. - http://www.huffingtonpost.com/alan-w-silberberg/gov-20-growing-globally-a_b_650799.html
7   Cameron, David - TED, February, 2010, http://www.ted.com/talks/david_cameron.html
8   English, Bill - http://www.beehive.govt.nz/speech/public+policy+challenges+facing+new+zealand
9   Obama, Barack - http://www.whitehouse.gov/the_press_office/TransparencyandOpenGovernment/.

language use as well as the perspectives of those involved. This gap is one of mindset, language and perspective and is the one which all too often exists between those who readily embrace and champion emerging technologies, often with a "technology for technology sake" perspective, and those who have actual problems to solve, but are less interested in the actual technical solution.

This is the first in a series of papers in which we will seek to both articulate and perhaps bridge that gap to an extent, by

* seeking to understand the fundamental concepts that are of most importance to the notion of 'open' government, and from that 'open' organisations across the board

* investigating the context within which this push for "openness" is being promoted and the linkage of that to both the state of the democratic process, particularly in western countries

* exploring the available and emerging technologies that could facilitate this 'openness' and transparency, and

* proposing some ways forward to connect the two.

In this first paper we will do this through framing our discussion around the following themes:

1. The move towards 'open' government – why is it of such importance and receiving so much attention?

2. The challenges of 'open' government – what are the key societal, political, cultural and commercial obstacles that need to be overcome?

In our second paper we will investigate:

1. The technologies that could potentially enable 'open' government – how 'real' are they and how are they being applied?

2. The societal and policy challenges that will be required in order to leverage those technologies

3. The implications of 'open government' – if technologies can provide transparency of data and information what does that mean for citizens? For public sector employees? For politicians? For the nation state?

Our final paper in this series will propose some ways forward to connect the policy and technology conversations, a number of which we have already initiated.

We cannot pretend to comprehensively address all of these questions within this paper but we can progress the thinking, and perhaps somewhat demystify the concepts.

Open Government - the gestation of a concept

Bernard Woolley: But what's wrong with Open Government?

Sir Arnold Robinson: My dear young fellow, are you serious? … It's a contradiction in terms. You can be open or you can have government.

The current conversation around "open" government is a logical consequence of both the push for greater government efficiencies facilitated by 'eGovernment' platforms together with the solutions and the integration of a multiple-channel communications environment facilitated by Web 2.0 technologies.

"e" or "electronic" government is, according to the Web 2.0 resource of choice, Wikipedia,[10] *(about) creating a comfortable, transparent, and cheap interaction between government and citizens (G2C – government to citizens), government and business enterprises (G2B –government to business enterprises) and relationship between governments (G2G – inter-agency relationship).*

There are four domains of e-government namely, governance, information and communication technology (ICT), business process re-engineering (BPR)and e-citizen.

In the 1990s this was largely undertaken by the utilisation of the World Wide Web (Web 1.0) as a publishing platform as the web enabled agencies to publish information and key documents online thus encouraging citizens and enterprises to seek, and hopefully, find, what they required in order to then provide the appropriate data either via online forms or via posted forms, which they had to print out and send in themselves.

This mechanism mirrored that adopted by many private sector organisations, particularly financial ones, and was intended to make life easier, and reduce costs, for both public servants and citizens alike. Essentially it was the migration of the physical document process to the digital world and remained very much the "push" model throughout largely driven by the traditional mindset of print and information management.[11] What began to change was the value chain of information between the 'creator' and the 'consumer'.

Creator to Consumer in the Digital Age

In their 2000 book "The Support Economy"[12] authors Shoshana Zuboff and James Maxmin state that digital technologies have facilitated the convergence between consumers' desires, technological capabilities and organisational innovations. The combination of this has led to three key trends:

• The claim of Sanctuary

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10   http://en.wikipedia.org/wiki/E-Government

11   Siegel, David – Pull: the Power of the Semantic Web to Transform Your Business.

12   Zuboff, Shoshana. and Maxmin, James (2002). The Support Economy: Why Corporations Are Failing Individuals and the Next Episode of Capitalism. New York, Viking, Penguin Books.

- Demand for Voice

- Quest for Connection

These trends result because when information is created, archived, managed and communicated in digital form it enables the following:

1. global transparency and the capacity to inform in a way which is visible, sharable, knowable, mobile and manageable

2. accountability and responsibility

3. the need for new and better business practices

4. for humans to more effectively and efficiently deal with complexity

5. the opportunity for comprehensive understanding through collaboration and co-ordination as a result of distributed learning and customisation

6. immediacy

7. infinite "plasticity" in the manipulation and shaping of products and information

8. supply chain relationships which are "kaleidoscopes" (as in three dimensional networks) rather than linear processes, without reference to geographical location

9. information ubiquity - anywhere, anyhow, anytime, provided you are connected.

What digital technologies have done is to make data transparent, but transparency is not necessarily all that useful for humans because humans need data in context. In order to understand exactly what the data means we need to tell stories and create relationships, and hence we create documents.

The changing nature of documents

Documents can be defined as "objects containing information". In the pre-digital world documents were traditionally seen as physical (papyrus, stone tablets, paper) but within the digital world a "document" is often seen as "an organized view of information", *an object, a collection of pointers and rules that can simultaneously engage a number of different information components and actions. The document becomes a dynamic resource. Information is portrayed in a timely manner and formatted for each user and business task*.[13]

Much has been written on the impact of the printing press in terms of knowledge, but one of the most important outcomes was the creation of a "document-centred" world, where nation states were founded on the written word and the "document nation" arose.[14]

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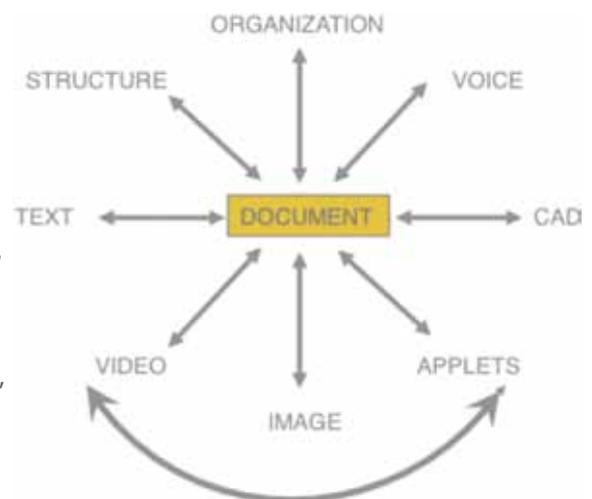
13   Delphi Consulting Group, Xplor 1997

14   Wright, Alex. "Glut: Mastering Information Through the Ages". National Academies Press, July 2007

An analysis of the printing[15] industry itself, which was, and still is, at the centre of all information management that involves 'documents', illustrates how these trends are evolving. This was recognised during the late 1990's when a great deal of work was done to more fully understand and anticipate the impact of digital technologies and the Web on what was then the third largest manufacturing industry in the world. Projects such as Print21 UK[16], the Printing Industries Action Agenda and Print 21 Australia[17], together with projects undertaken in Europe[18] reflected the fact that governments understood that a major redefinition, rationalization and consolidation of the industry was under way and they sought to be proactive in managing such a significant change.

Digital publishing had arrived and with it a complete realignment of the value network. In the "C2C - Creator to Consumer in the Digital Age"[19] research was undertaken to understand "Future Technologies, Future Markets and Future Skills in the Book Production and Publishing Supply Chain". Whilst this only applied to books per se, for a range of political reasons linked to Australia's adoption of the Goods and Services Tax, the knowledge gained was relevant throughout the printing and publishing industries globally.

The investigators concluded that
"Printing and publishing are knowledge industries, creating and manufacturing products that only exist because they carry intellectual property."[20]

As part of this they heralded the "digital dilemma" and with it the need to more fully manage and understand digital content which, within a web-enabled communications environment, becomes a much more complex and fluid because as things shift from "push" to "pull" the clear definition of a "creator" and "consumer" become blurred moving towards what Alvin Toffler termed the "prosumer"[21] and what Seely Brown and Hagel term the "Big Shift"[22].

Enter Web 2.0 – the Social Web

According to Wikipedia, itself a prime example of Web 2.0, the term itself was coined in 1999 by Darcy DiNucci in her article, "Fragmented Future"[23]. DNucci writes that

The Web will be understood not as screenfulls of text and graphics but as a transport mechanism, the ether through which interactivity happens. It will … appear on your computer screen … on your TV set … your car dashboard … your cell phone … hand-held game machines … maybe even your microwave oven."

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15   There are various definitions of what this actually means, and these have changed as emerging technologies have blurred the boundaries, one of the key challenges.

16   Print21 – Coming of Age. British Print Industries Federation, http://www.britishprint.com/

17   Print21 Action Agenda, http://www.print21.com.au/

18   Jacobsen, K and Roos, Goran 'Tools for navigating in the future Printing Industry - PRINT21', PIAA, Sydney, 2001; Aadne, J.-H., Jacobsen, K. and G. Roos - 'Navigating in the Future Media Market', Intergraph, Brussels, 1998.

19   C2C - http://c-2-cproject.com/
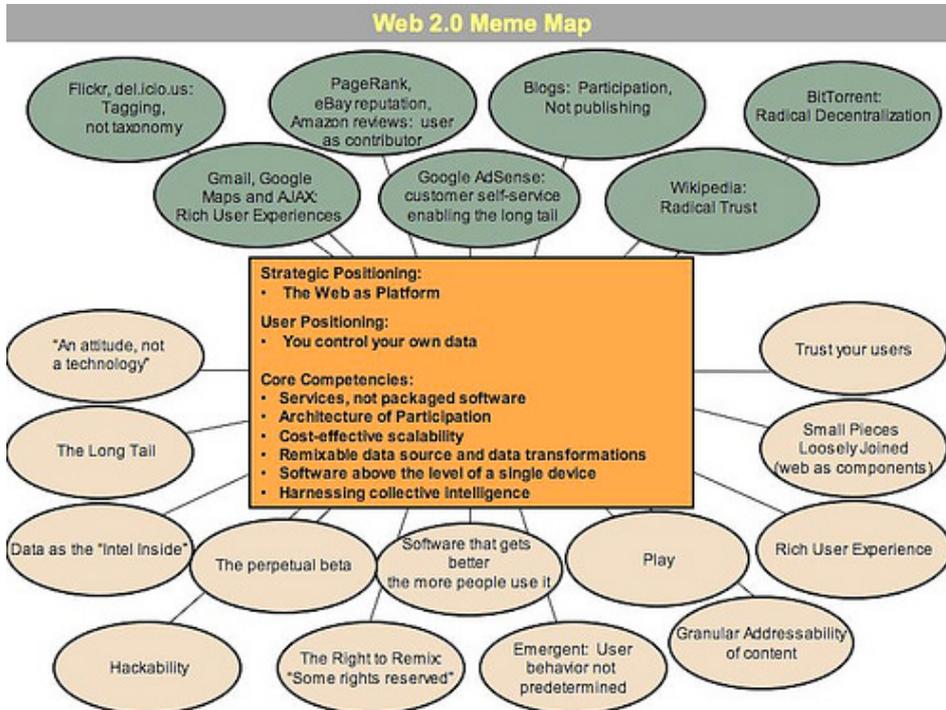
20   Cope, W. and Kalantzis, M, C2C Book 4 "Manageable Knowledge".

21   Toffler, Alvin. "The Third Wave". 1980, Pan Books.

22   Hagel, John III et al. "The Power of Pull: How Small Moves, Smartly Made, Can Set Big Things In Motion". Basic Books, 2010.

23   DiNucci, Darcy. (1999). "Fragmented Future". Print 53 (4): 32. http://www.cdinucci.com/Darcy2/articles/Print/Printarticle7.html.

The term then began to enter the vernacular when John Battelle and Tim O'Reilly outlined their definition of the "Web as Platform" at the first Web 2.0 Conference[24], where software applications are built upon the Web as opposed to upon the desktop.

Web 2.0 Meme Map

- Flickr, del.icio.us: Tagging, not taxonomy
- PageRank, eBay reputation, Amazon reviews: user as contributor
- Blogs: Participation, Not publishing
- BitTorrent: Radical Decentralization
- Gmail, Google Maps and AJAX: Rich User Experiences
- Google AdSense: customer self-service enabling the long tail
- Wikipedia: Radical Trust

Strategic Positioning:
- The Web as Platform

User Positioning:
- You control your own data

Core Competencies:
- Services, not packaged software
- Architecture of Participation
- Cost-effective scalability
- Remixable data source and data transformations
- Software above the level of a single device
- Harnessing collective intelligence

- "An attitude, not a technology"
- The Long Tail
- Data as the "Intel Inside"
- The perpetual beta
- Software that gets better the more people use it
- Play
- Trust your users
- Small Pieces Loosely Joined (web as components)
- Rich User Experience
- Hackability
- The Right to Remix "Some rights reserved"
- Emergent: User behavior not predetermined
- Granular Addressability of content

From this the concept of Web 2.0 began to fundamentally change the model of both publishing and digital content management because it

- gave all individuals with a computer, Internet connection, basic literacy and appropriate software the opportunity to publish their own ideas to the world. Sites such as You Tube, Flikr and blogs thereby changed the publishing power dynamics throughout the "creator to consumer" value chain.

- created an environment where, with minimal technical skill, individuals could connect globally to others online

- enabled the creation, collection and recording of vast snouts of unstructured data in the form of conversations (typed, spoken, sung, filmed) which could then be searched and repurposed.

- placed the end user firmly in control in terms of the marketspace. Whilst many processes are still traditional in nature end users are increasingly demanding control over their data, privacy, space and time.

- clearly illustrated how the traditional communications industry has commodities itself and thus the main currencies are now "experience" and "attention".

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24   http://conferences.oreillynet.com/web2con/, http://oreilly.com/web2/archive/what-is-web-20.html

As occurs in human history it is often a technological or cultural innovation that ignites major changes in the fabric of society and the Internet, and the Web is now the driving force in terms if knowledge and information but also in terms of how organisations actually function.

Enterprise 2.0

"Forget change. Successful businesses of the future will be about embracing transformation. Change is doing what we do now, but doing it more efficiently of productively. Transformation is about a new way of being." [25]

As is so often the case the term "enterprise 2.0" was coined by at least two people, Stuart Eccles on 20th February, 2006[26] and Andrew McAfee on 24th March, 2006 [27]. Eccles gives it the following characteristics:

- Delivering all off the company information as addressable discoverable sources

- Allow custom mash-ups of this information on a user-by-user basis

- Identity services will stretch across this information seamlessly

- Rich dynamic user interfaces for employees

- Customised RSS feeds delivered to desktops

- Low integration price points delivered by extremely loosely coupled services

- Custom business processes applications continually developed in low-cost technology

- Unstructured information dissected by collaboration and social services such as tagging

- Data exposure of all employees thinking and analytic environment through event and blog integrations

McAfee bases his thesis on three converging trends which concern "the changing relationship between those who offer technologies and those who use them". These trends are:

1. Simple, Free Platforms for Self-Expression

2. Emergent Structures, Rather than Imposed Ones

3. Order from Chaos.

Essentially the term relates to organisations, of all kinds, that seek to utilize web 2.0 technologies to more effectively engage with their marketspace (this term itself[28] was coined to define an

25   Barrett, Richard. Liberating the Corporate Soul: Building A Visionary Organization, Butterworth, 1998.

26   Eccles, Stuart - http://www.liverail.net/articles/2006/02/20/enterprise2-0

27   McAfee, Andrew - http://andrewmcafee.org/2006/03/

28   Rayport, Jeffrey F. and Sviokla, John J., "Managing in the Marketspace," Harvard Business Review, Nov/Dec 1994, Vol. 72, Issue 6, p. 141-150).

"information and communication based electronic exchange environment" where information and/or physical goods can be exchanged via transactions which take place through computers and networks.)

Thus we are talking about a transformation in terms of organisational practices, processes and capabilities. According to some reports, it is forecast that the global expenditure on Enterprise Web 2.0 technologies and processes will reach $5.7 billion by 2015 "driven by expanding broadband capabilities, decreasing prices, improving performance of networks, and the development of advanced, highly interactive Web 2.0 applications".[29]

Ross Dawson[30] captures the essence of Web and Enterprise 2.0 in the following model.
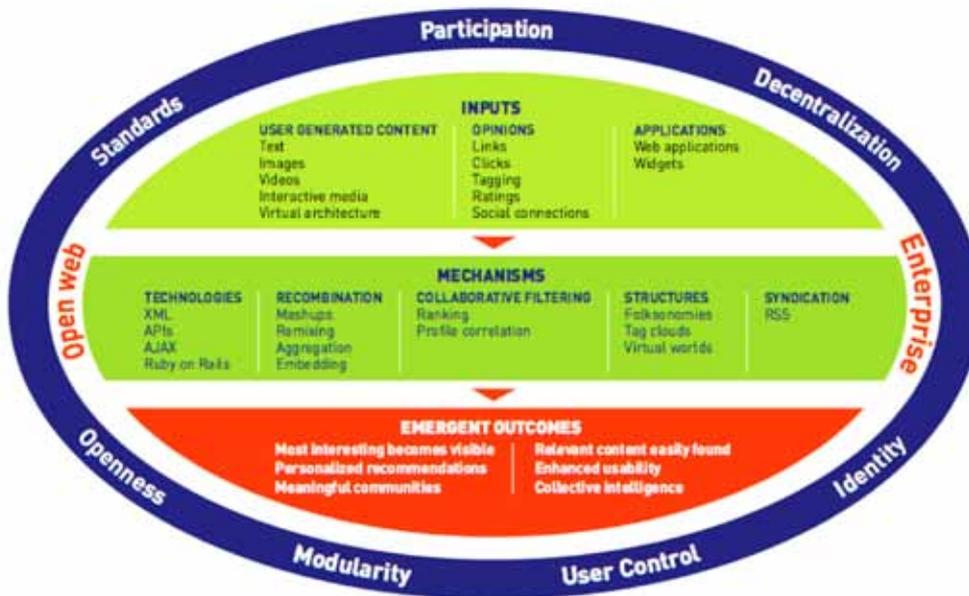
And so, as enterprises of all kinds begin to move in this direction what does this mean for government?

Gov 2.0

In 2008 and 2009 Web 2.0 technologies began to impact upon the political process with US President Barack Obama's use of social media during his election campaign. In addition during 2008 and 2009 a number of government agencies began using "social technologies" (for example NASA used Twitter to upload photographs of Inauguration Day[31]). This culminated in Obama's Memorandum on "Transparency and Open Government"[32] which then led to what Mark Drapeau described as "the rise of the goverati"

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29   http://www.companiesandmarkets.com/Summary-Market-Report/web-2.0-a-global-strategic-business-report-317189.asp?prk=
        141a80531dd544e117b39ef445a70de9
30   Dawson, Ross - http://rossdawsonblog.com/
31   http://fcw.com/articles/2009/01/20/nasa-to-twitter-and-video-inaugural-parade.aspx
32   http://www.whitehouse.gov/the_press_office/TransparencyandOpenGovernment/

people with first-hand knowledge of how the government operates, who understand how to use social software to accomplish a variety of government missions, and who want to use that knowledge for the benefit of all." [33]

The first Gov 2.0 unconference was held in Washington in March 2009 [34] and since then there have been numerous 'open government' events held around the world in Canada, New Zealand, Mexico, Germany, Australia, USA, UK, CeBit and it's annual eGovernment forum., Senator Lundy's Public Sphere, the Transparency Camp and even NASA is now sponsoring Space-Centred Barcamps.

Essentially Gov 2.0 is a fundamental step along the way to Open Government bringing together the utilisation of emerging Web tools and mechanisms which enable multi-channel communications and information sharing. It builds on the feelings of many in the US and within other governments who have written blogs and experimented with web 2.0 technologies [35] but the inauguration of the world's first "Web 2.0 President" certainly brought things front and centre.

So, is this a new era for democracy or is it a fad that will eventually disappear? As with all aspects of technological and social change once the dynamics of information are altered things rarely return to where they were but the path forward now is one that no one can predict with any degree of certainty, despite the vast rhetoric that is now crowding the mediaspace.

Gov 2.0 is, however, only part of the story. What is far more interesting now is the path to "Open Government".

Open Government – a "read/write" society

Bernard Woolley: *But surely the citizens of a democracy have a right to know.*

Sir Humphrey: *No, they have a right to be ignorant. Knowledge only means complicity and guilt. Ignorance has a certain dignity. … You don't just give people what they want if it's not good for them. Do you give brandy to an alcoholic?*

Sir Arnold Robinson: *If people don't know what you're doing they don't know what you're doing wrong.*

When it comes to defining precisely what "open government" actually is our experience has told us that whilst there is an abundance of rhetoric around the adjectives there is very little substance to support the reality.

Much of the drive for "open" government comes from the "open organisation" and "open data" movements because essentially, as the Economist stated in February 2010 "the nation has always

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33   Drapeau, Mark - http://www.readwriteweb.com/archives/government_20_rise_of_the_goverati.php

34   http://mixtmedia.wordpress.com/2009/01/16/government-20-camp-is-happening/, http://www.government20club.org/?cat=2

35   Beizer, D - http://fcw.com/Articles/2009/12/07/FEAT-Gov-2dot0.aspx?p=1

been a product of information management"[36] and *"(t)here is a cultural change in what people expect from government, fuelled by the experience of shopping on the internet and having real-time access to financial information,"* says John Wonderlich of the Sunlight Foundation, which promotes open government.

The nation state has always "been a product of information management" in terms of the vast amount of information that governments collect relating to all behaviours of citizens, organisations and businesses. However, with the ubiquity of digital technologies coupled with increasingly user-friendly interfaces and access citizens from all walks of life are demanding more. Not only do they expect to vote in fair and free elections, but they also want to have access to government data as evidenced by the movement towards greater Freedom of Information.[37]

According to the Obama Administration the concept of "Open Government" is founded on three fundamental principles[38] :

Transparency. *In a well-functioning democratic society citizens need to know what their government is doing. To do that, they must be able freely to access government data and information and to share that information with other citizens. Transparency isn't just about access it is also about sharing and reuse — often, to understand material it needs to be analysed and visualized and this requires that the material be open so that it can be freely used and reused.*

Releasing social and commercial value. *In a digital age, data is a key resource for social and commercial activities. Everything from finding your local post office to building a search engine requires access to data much of which is created or held by government. By opening up data, government can help drive the creation of innovative business and services that deliver social and commercial value.*

 Participatory Governance. Much of the time citizens are only able to engage with their own governance sporadically — maybe just at an election every 4 or 5 years. By opening up data, citizens are enabled to be much more directly informed and involved in decision-making. This is more than transparency: it's about making a full "read/write" society, not just about knowing what is happening in the governance process but being able to contribute to it.

And that with when it comes to the information needs of communities in a democracy:

1. **Communities need to coordinate**. Activities like elections, emergency responses, and even community celebrations succeed only if everyone knows where to be at what time and what role to play. This requires a system of information and exchange. Information is also the central resource in enabling the creation of economic and social connections that build a community's capacity for action.

2. **Communities need to solve problems**. They have to identify goals, challenges, and options

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36   The Economist "The Open Society", 25th February, 2010 - http://www.economist.com/node/15557477)

37   http://www.citizensinformation.ie/categories/moving-country/moving-abroad/freedom-of-movement-within-the-eu/freedom-of-movement-in-the-eu and http://www.freedominfo.org/

38   Orszag, Peter. Executive Office of the President of the United States, "Memorandum for the Heads of Executive Departments and Agencies", December 8, 2009.

for response on everything from building the local economy, to improving the performance of community schools, to protecting health and safety and combating local hunger. They have to estimate the consequences of alternative approaches. They have to weigh those consequences in light of community values. All of this requires information, interpretation, analysis, and debate.

3. **Communities need to establish systems of public accountability**. Public officials answer to voters for their performance in office. Voters need information and analysis to assess how officials are doing their jobs.

4. **Finally, communities need to develop a sense of connectedness**. They need to circulate ideas, symbols, facts, and perspectives in a way that lets people know how they fit into a shared narrative. A community's system of meaning evolves as new voices and new experiences enter the information flow. People need access to that information to avoid feeling alienated and excluded.

The Knight Commission on the Information needs of Communities[39] believes that achieving its vision of informed communities requires pursuing three fundamental objectives:

1. Maximizing the availability of relevant and credible information to communities. The availability of relevant and credible information implies creation, distribution, and preservation. Information flow improves when people have not only direct access to information, but the benefit also of credible intermediaries to help discover, gather, compare, contextualize, and share information.

2. Strengthening the capacity of individuals to engage with information. This includes the ability to communicate one's information, creations and views to others. Attending to capacity means that people have access to the tools they need and opportunities to develop their skills to use those tools effectively as both producers and consumers of information.

3. Promoting individual engagement with information and the public life of the community. Promoting engagement means generating opportunities and motivation for involvement. Citizens should have the capacity, both individually and in groups, to help shoulder responsibility for community self-governance.

Precisely how this actually works is probably THE largest challenge facing democratic governments in the 21st century.

What is "Open Government"?

During our recent work in both Australia and New Zealand we interviewed a range of people and asked the following questions:

- Is there a shared meaning of *Open Gov* amongst the broader community of Government, Citizen and Business?

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39   http://www.knightcomm.org/category/opengovernment/

- What is your personal understanding of *Open Gov*?

- Who is driving the push to *Open Gov* and who is generating the conversations?

- What sorts of issues are you facing in your organisation in terms of achieving *Open Gov?*

- What other challenges are you facing generally in terms of information management?

- What do you think needs to be done to accelerate the journey to Open Gov?

A number of Key themes emerged from these research interviews which were that:

- It was believed that there is a lack of consensus about the meaning of "Open" Government. Explanations incorporating aspects of e-Govt and cost out strategies emerged, together with concepts of open data - structured, open data – content, and open source software. It was suggested that open government "lives" where all government activities can be monitored, audited and broadcast as an accountability measure, thus providing open access to information. The only underlying unifier was the need for access to the internet although little consideration had been given to the equality of broadband and hardware access or the capability of individuals to use the medium. Similarly, perceptions were dominated by the belief that Open Govt was about interactions with Government and Citizen almost exclusively and there was scant regard for the interactions between Government and Business. There was some referencing to the Media as being key potential users of freely available information but no linkage to emerging business models around digital content management.

- The diversity of understanding and a general confusion around key definitions generated almost unanimously a call for collaborative and inclusive leadership across the stakeholder groups to create a shared understanding, a shared purpose and an enabling strategy that would unify disparate activities and interest groups.

- Because of the lack of consensus on a definition for Open Govt there was no articulation of either what it looked like or how a country would know that that it was a reality and was in fact in operation. Internet access for all citizens was considered by some as being vital to modern openness with the notion that putting everything online seemed to equate to openness. Measures that were proposed included an international measure on eGovernance and Government transparency such as those conducted by the United Nations and Accenture Consulting.

By restricting the conversation to the definition of "the route to Open Govt can be considered directed and benchmarked by free access to all forms of Government generated data" focused the discussion on some of the more immediate challenges.

The challenges of Open Government

Government operations and processes

A number of key challenges emerge immediately when exploring how to actually achieve Open Government. If we begin by looking internally at how government agencies actually work the following manifest:

Dimension of Data Value
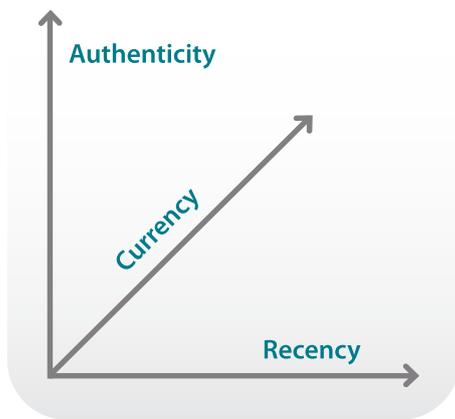
- **Data integrity:** data integrity diminishes as real-time presentment occurs and the value dimension is variable. Integrity issues range from validating the data as authentic and from an authentic source, version control (especially when there are multiple authors to an entity), data matching as government departments rationalize and merge, and data standards for publishing. Value and ethical considerations underpin all considerations of the integrity issue. Thus the dimensions of value can be represented as follows:

- **Data value:** whilst people completely agreed that there was value in the data, there were as yet no business models which were articulated which could create the value and therefore there was a reluctance to release data for fear of losing out on the value. This highlights the fundamental nature of the commercialisation of government activities and the contradiction that exists between funding the public sector by opening up information whilst simultaneously demanding openness and transparency through its publication and free access. Furthermore, document digitization brings with it a series of process and management issues that link with copyright, digital rights management and freedom of information. Within what legal framework should the data and digital rights management exist? Is Creative Commons governance the default position and preferred option? A key driver within the value conversation was "Information has value, knowledge is internalized and turned into something to sell. We are all looking for new business models to deliver the new knowledge economy."

- **Privacy and policy issues** – what should be published? When and under what guidelines? To what extent can policy in an undefined environment be created by not having first had some experience? Therefore, should some broad policy be driven by some relatively risk free, real-world experimentation, matched with international benchmarking and then refined to provide safe regulation for more risky initiatives? To this end, the concept of a "sandpit" and the opportunity to "put the data out there" in a safe environment was referred to frequently and this led to the development of a "sandpit model" as illustrated under Recommendations.   (A similar model was also a key outcome of the Australian event.)

- **Cultural change** within the organisation (Government departments) to support OpenData and Open Gov was a key issue, together with the challenges to existing divisions and roles, some of which may not exist in the new Open Gov model, and the general redistribution of power within the bureaucratic hierarchy. Extended further, there was some minor consideration given to the changing role of the citizen once all the data is available – does the citizen as a consequence have any additional responsibilities in terms of improved engagement and participation in the democratic process?

- It was considered that the journey to Open Gov will take a **lengthy period of time,** which lead to concerns being expressed about the transient nature of government structures in terms of reshuffles and policy changes. In addition the global nature of the Open Gov conversation means that the influence of bigger countries and technology suppliers must be considered as the concept develops. The potential impact of these sorts of influences could apparently be minimized if there was broad acceptance and commitment to making data available.

- In terms of **market drivers** for the push to Open Gov, a locus point was not identified. Because of the lack of agreement on what Open Gov actually means, no singular movement for change could be identified, which resulted in a disparate and unsure scope of response. The unifier across the board was probably the grass roots nature of the driver (i.e. "the people"as more specifically determined) hence the inability to attribute the drive to a single figurehead.

- Within the mix of responses, the demand could probably be mapped along the three dimensions of cost out, transparency and "outside looking in", with the dominant driver in the mix at any point in time being "top of mind issues" largely created in response to media activities and profiles. The most prominent driver in New Zealand was perhaps the open source community but this was recognized as being principally focused on the open source software agenda, which is a separate, though contributing, issue to Open Gov itself. It was agreed, however, that the electorate was not actually demanding Open Gov. Parliamentarians had begun adopting its messaging and intent but the perception was that this was being led by international governments and was not necessarily a uniquely New Zealand initiative.

- As a complement to this the commentary was that, as the ground swell grows, there is evidence of an increasing number of conversations around Open Gov, openData, privacy and licensing,
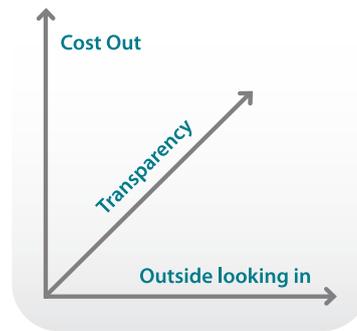
policy, education and to a far lesser extent business models supporting the change in value associated with free information access.

- Given the lack of common understanding of the notion of Open Gov, many of the issues raised related more to management issues within the organization itself. The primary issue with the organizations interviewed appeared to be organization and cultural change driven by departmental merges, process changes and changing technologies and roles. Further, the development of policies to support these changed entities and ways of operating were continually being developed. In a couple of instances, the changing nature of citizen/student engagement presented additional challenges with regard to new media, new delivery expectations and IP protection. Other challenges were around the data and its publication and are outlined above. The main fear was around "losing out" by giving up information which had an inherent value and which may be lost to the information custodian once the information is released. Coupled with this were the perceived repercussions of releasing whatwas perceived as sensitive information and having it broadcast through the social media and the mass printed media and it was recognized that the technologies exist to enable Open Gov in its broadest sense, that these technologies are not difficult to manage, but that the challenges are around business models and interaction with citizens and the policy frameworks to guide the application and use of information.

- In terms of accelerating the journey to Open Gov, there was a clear call for leadership, forums for shared leanings, expertise and international experience based on experience and opportunities for further collaboration and experimentation.

- In some jurisdictions state agencies, for instance the State Services Commission in New Zealand and AGIMO in Australia are clearly embarking on taking a leadership position with a clear agenda and the initiatives to determine what the future state is in terms of opportunities, governance and economic & social values. There were indications that they were modelling their engagements from the perspectives of multiple stakeholders (including citizens and the broader government) and encouraging both citizen participation and joint private/public sector projects that include the communities. The nature of these engagements was against a newly established product and infrastructure framework supported by a (draft) policy and in New Zealand there appears to be a broad Chief Executive (CE) sector engagement within their business with the specific aim of removing silos. The main challenge now was considered to be to embed the initiative within the entire agency process, supported by cultural change and to consider new and emerging business models. Key to the business model development was the need to model compelling end-to-end scenarios which illustrate the potential of Open Gov – compelling messages to articulate the story.

As we know, and Jim Hacker found out all too easily, nothing exists within a vacuum and governments, like all entities, operate within markets.

Market Dynamics around Open Government

When it comes to the dynamics of governments operating within local, national and global markets a number of fundamental challenges emerge which can only be addressed by examining the fundamental nature of the role of government information as a community resource and the business models surrounding that.

Our Experience of the Market Dynamics
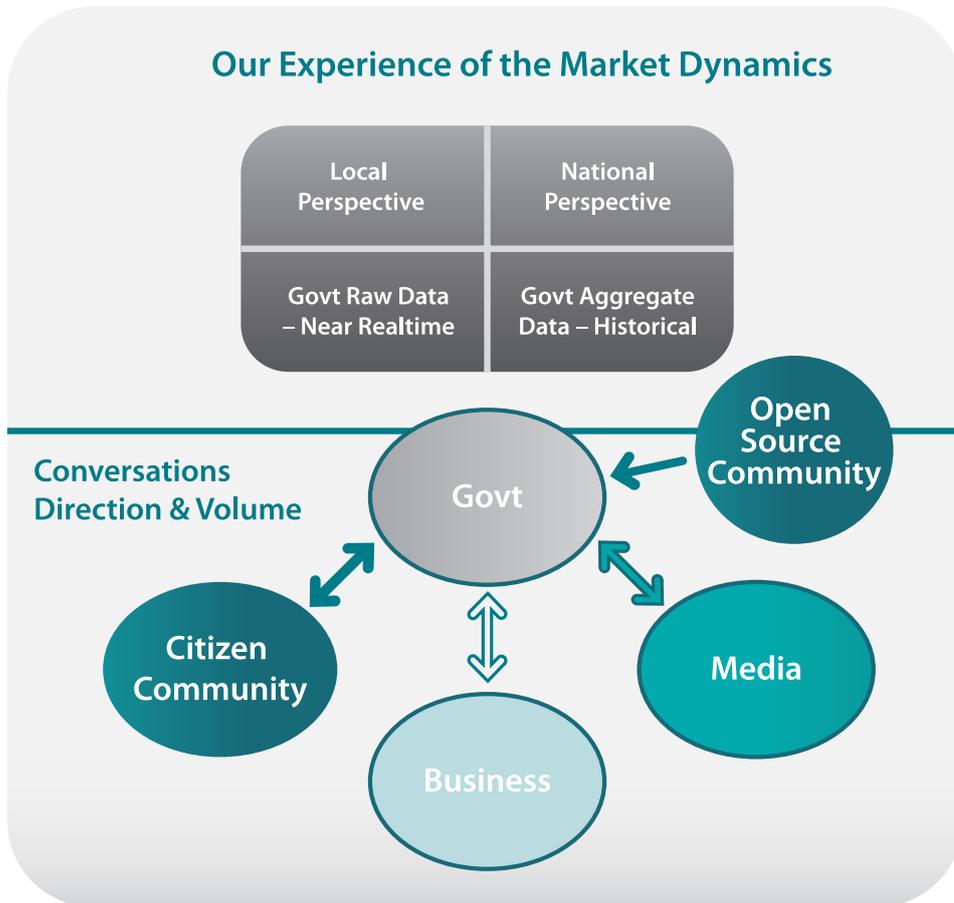
The market dynamics can be represented in the schematic below where Government data was perceived as being a vast resource pool that, if released to market, could enable a number of new developments, many of which were undetermined but in the spirit of entrepreneurship, many were keen to experiment with and trial.

The conversations and the directions of the conversations – which potentially could become the market drivers - are heavily weighted to bi-directional citizen engagement, media engagement, a small emerging business engagement and a uni-directional open source community engagement.

A new era for democracy and capitalism?

So, what does all of this mean? How do those within government agencies move forward and will there be a backlash once the complex dynamics of opening up information become more apparent. The activities of organisations such as Wikileaks[40] is heightening the awareness of implications of making government data public, but also the need to more proactively and responsibly manage it.

All in all we believe that a new era for government is approaching, and, for those of us who travelled the path of "Reinventing Government"[41] in the early 1990's many of the challenges are eerily familiar. This revolution, heralded by Margaret Thatcher and Ronald Reagan, came about because fiscal pressures forced politicians, and the bureaucrats who served them, to introduce capitalist market forces into monopolistic government enterprises based on the ideas of W. Edwards Deming, Peter Drucker and Tom Peters. They also saw the relevance for bureaucratic corporations where "(h)ierarchical, centralized bureaucracies designed in the 1930s or 1940s simply do not function well in (an) rapidly changing, information-rich, knowledge-intensive society and economy".[42]

Now, in the 2000's where managing complexity is the biggest challenge facing most senior managers[43] there is another call for reform further exacerbated because the Web, like the printing press, is challenging existing systems and processes in ways we have only just begun to anticipate, appreciate and understand. This reform is crucial in our systems of governance and, as Jake Dunagan, Research Director for the Institute of the Future, states

Most of the failings of government can be connected to the fundamental assumption that humans are rational creatures and the inherent structural biases toward mechanical processes and short-term thinking. … We need designers, political scientists, and social activists … to take up the challenge of designing new systems of governance … that are open, accessible, and learning. They need to embody the latest thinking about how the world works, how people work, and how we can use our technologies to make life better for all.[44]

Within the knowledge economy it is information that is as much a form of fundamental infrastructure as are our roads, electricity and water systems, and we need to trust that those we empower to make these systems work will do so with our best interests at heart, and with the utmost respect for the responsibilities they have been given. This trust is an essential element of governance because without it communities cannot function and laws and regulations will not

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40   http://wikileaks.org/

41   Osborne, David & Gaebler, Ted. "Reinventing Government". Addison-Wesley Publ. Co., 1992

42   Wright, Alex. "Glut: Mastering Information Through the Ages". National Academies Press, July 2007

43   IBM. "Capitalising on Complexity: Global CEO Survey", 2010

44   Dunagan, Jake. "The Future of Government", http://www.good.is/post/the-future-of-government/?utm_ source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+good%2Flbvp+%28GOOD+Main+RSS+Feed%29, 19th July, 2010

be respected[45] by either government officials or citizens, and thus the call for transparency is now perhaps the loudest of all, and this is as much for private as well as public sector organisations.

This is where new information technologies can now be employed in numerous ways, some of which we will explore in our next paper, but suffice to say here that we believe that the way forward must by definition combine a range of perspectives that bring together the technological, sociological and political aspects of society in order to focus on the end consumer, the ultimate constituent and the individual who, after all, is where the proverbial buck finally stops. We, as citizens, all have a role to play in not only asking what our governments can do for us but, as JFK famously stated, in what we can do for our nations and how we can take up our responsibilities as a corollary to demanding our rights.

Abraham Lincoln believed that "no man is good enough to govern another man without that other's consent". We are now in an era where consent can be easily and quickly obtained and this is where the notion of "open" is now going to well and truly be put to the test.

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45   Grimmelikhuijsen, Stephan. "Do transparent government agencies strengthen trust?" (2009) Information Polity, Vol 14, pp 173 – 186.

www.digitalbrand.org

DigitalBrand.org is an entity charged with creating collaborative environments within which key participants can explore and test the impact of emerging ICT technologies on organisational business processes and systems. We work with all kinds of organisations including academic institutions, government departments, and corporations and at all times our philosophy is underpinned by our commitment to create opportunities for both individuals and organisations within the digital world, to bring people together who understand and wish to leverage the opportunity of co-creation in order to solve problems and to leverage Australia's ability to innovate.

Our work combines and integrates three key elements:

1. research into emerging communications technologies and their application to organisational environments. We undertake this through an international and Australian research network combined with our own ARC funded research.

2. the development of leading edge and practical solutions utilising emerging technologies but always aligned to end user needs and the reality of applying them within organisational environments

3. strategy development and business models to inform the application of information technologies as organisations work to create their 'brand' within the digital space.

Essentially, we are champions and change agents for the 'digital brand' and we exist in order to enable our clients to be more effective and successful within the digital world by:

• more fully understanding the impacts and opportunities afforded by digital technologies as part of the holistic communications environment

• identifying new market engagements and opportunities

• recognising the need for and articulating the organisational support mechanisms and processes required to support those opportunities, and finally

• making informed decisions based on this in order to communicate more effectively throughout the value network.

Currently our focus is on the following projects.

ARC Linkage Research Projects – www.circlesofsustainability.org

We began our work in the area of emerging web technologies with our key partners Fuji Xerox Australia, Common Ground Publishing and RMIT University in 2006 with the first Australian Research Council (ARC) Linkage project focusing on the impact of semantic technologies on the printing and publishing industries. In 2009 we decided to continue this work and, with the original partners but joined by Microsoft Corporation, the City of Melbourne, Angusta Systems, Cambridge International and the City of Vancouver, we applied for, and were awarded a second ARC research grant to develop and open source software platform to utilise semantic technologies to enable Sustainability Reporting. This project is due for completion in July 2013.

Metadata / Open Gov – www.metadataaustralia.com

Over the past three years we have been collaboratively building a community of thought leaders and practitioners in the "open government" information management space. Initially this began with the Metadata International Forum, held in Sydney in May 2008, and since then we have worked with our key partners including the Commonwealth Government, Fuji Xerox Australia and Microsoft Corporation to hold the Metadata Forum in both 2009 and 2010. We are now working with representatives in various State Governments to create other events around the country. Metadata 2011 will be held at the Australian National University in May 2011. Essentially it is a community of practice around the creation, management, promotion, capability development, innovation and articulation of information for better governance.

In addition we have recently worked with ANZSOG, the Australian and New Zealand School of Government, to integrate emerging technologies into their "Managing Public Communications" course.

Authors

This paper was written by Michele Berkhout and Anni Rowland-Campbell