

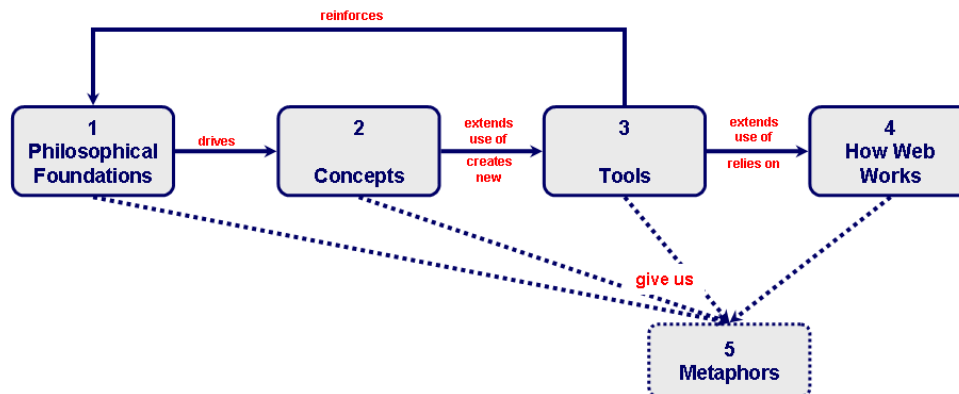
LEVERAGING WEB 2.0 FOR GOVERNMENT SERVICE DELIVERY

INTRODUCTION

If **Web 1.0** is the broadcast web (“*here I am and this is what I do*” – it is read only - static) then **Web 2.0** is the collaborative web (“*here I am and we can do this together*” – it is read/write and interactive – a far richer experience).

Web 2.0 offers many opportunities to enhance government and business service delivery via the tools that **Web 2.0** offers coupled with the self reinforcing and evolving philosophical foundations and metaphors.

Ultimately, **Web 2.0** permits people to leverage the knowledge of others in a trust network to enhance their business, function, service, product or some other value driven endeavour.



PHILOSOPHICAL FOUNDATIONS OF WEB 2.0

There is an argument that supports the concept that we have moved into an information or knowledge age where instead of “*things*” producing wealth, “*knowledge*” is the centre of wealth production. This movement is characterised by a number of different philosophical foundations that have been further enabled by the tools of the web, including:

- Democratisation. The democratisation of society is led by the empowerment of individuals to participate and to learn without filters. No longer are the powerful and rich the sole proprietors of information generation.
- Exhibitionism / Voyeurism. Those who wish to be known can explore the opportunities and the world will provide a response. Conversely, if you wish to remain anonymous but explore, this too is possible.
- Peer Trust. No longer are trust networks centred on acknowledged experts or professionals. Trust is personal and earned via peer-to-peer networks.
- Communities and Relationship Building. Building a relationship (no matter how shallow) or community can now be managed independent of proximity, subject and even language. It easier to find and join a community no matter how thin or obscure the subject.
- Open Source Movement. Communities building a common tool/system where attribution and contribution are the only “fees”. Open source software is a particular example. Where “solid” goods are the output – there are less examples.

THE CONCEPTS OF WEB 2.0

The concepts of Web 2.0 provide a bridge between the philosophies and the tools. They include:

- Service Oriented Architecture (SOA). SOA is about the developer. It makes it easier to develop applications because of the open standards, the proliferation of developers and the service based platforms (shared services). It means it is now possible for a “community” to work in/on the one area and it permits lots of small applications that do a little bit each to then be cobbled together.
- Software as a Service (SaaS). Pay for a service which utilises software as opposed to paying for infrastructure and software licensing. Fees are based around the level of security, data storage and user numbers.
- P2P (Peer-to-Peer). Two or more people can now connect directly and not be reliant on a central system. More akin to a nervous system without the need for a heart.

- Collaboration and Connections. This could be said to be multiple P2Ps all interconnected. Collaboration makes use of the “*wisdom of crowds*” concept or “*collective intelligence*” - if you have 10 scientists working on a solution to a problem inside your business – it would still not be as good as 1000 scientists working on the same problem outside your business in a collaborative environment. Trust is a big part of the collaboration effort – trust in each doing the right thing and trust in acknowledgement of the work of others.
- Participation. Everyone is free to participate ... or not. There is no control by others on an individual’s behaviour, but there are “norms”. It is more “interest” led or “values” led than “command” led.
- Rich User Experience. The user is able to get a richer experience due to different media such as movies, images, text, visualisations, colours, and sound; the faster loading of data; more interaction to tailor the experience to your own needs; and it is easier to manipulate the software.
- Emergence. Having a large collaborative effort means there will be features that were not anticipated or planned – this can be good and bad. These are the “emergent” properties – “*let the solution evolve*”- which leads to the system being in perpetual development but ultimately requires robust configuration management.
- Standards. All the elements are reliant on standards. If it is not possible to store, communicate, exchange and otherwise manage data to a standard then the whole system becomes problematic.

THE TOOLS OF WEB 2.0

Exploitation of Web 2.0 tools reinforces and extends the philosophies of Web 2.0 as people reap the benefits of using them. The tools include:

- Mash Ups. Originally used to mix various elements of different songs, mash-ups now extend to web applications that bring together multiple elements such as photos from one site, maps from another and text from yet another.
- Folksonomies or Tagging (Social Book Marking). This is where content can be categorised by those that use the content so that is useful to them, in their context. Tags can then be used by others or enhanced by others for their personal use. It can lead to shared understanding and meaning.
- Portals. Portals provide a point of entry into a “workspace” or “common space”. It integrates the workings of people, process and information.
- RSS (Real Simple Syndication). This permits “feeds” from other sites onto your site or portal. The data from the other site can be updated either in full or as a summary.
- Podcasts and Webinars. A Podcast is either a video or audio file “streamed” to the user / viewer over the web. A Webcast / Webinar is generally a one way “lecture” to users and is often done by commercial organisations to make available information on their products or to support their white papers.
- Blogs (Weblogs). An online diary of anything and everything. These are critical elements of the democratisation of the web.
- Wikis (Wiki Wikis). A collaborative content management system where content is jointly produced using a common interface. The content can be managed across a spectrum from completely un-moderated to moderated and configuration managed. Users can be anonymous or registered. They are equally applicable for use on intranets.
- Search. The search capabilities are being improved continually with new and/or better algorithms. This coupled with tagging, identity control and other features makes for more comprehensive and available content.

WHY WEB 2.0 WORKS

The technologies that allow Web 2.0 to work include:

- XML = Extensible Markup Language. A standard language for presenting data.
- RSS = Real Simple Syndication. Permits “feeds” as explained above.
- AJAX = Asynchronous Javascript and XML. Permits bits of a web page to be updated as it is called to do so without reloading the whole web page, so it is quicker and more efficient.

- RDF = Resource Description Framework (Ontologies). This will enhance the semantic nature of the web and permit cross organisational data/information exchange as there is a common meaning to different terms.
- APIs = Application Programming Interface. APIs permit applications to use the data in other applications and are generally built by the company that wants their software to talk to another.

THE METAPHORS OF WEB 2.0

The metaphors of Web 2.0 provide a pithy word set to identify the key characteristics and benefits of a new way of doing business and include:

- open conversations;
- collaboration and sharing;
- SaaS (software as a service);
- connections;
- friendships / friends / business associates;
- social networking – personal and business;
- tagging – individual and collaborative;
- agile;
- fast - to use and build;
- feeds; and
- webinars and podcasts.

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