E-Gov and the Citizen

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jboye08
Nov 4 – 6, 2008

Contents

- Web 2.0
  - Technology evolution
  - eGov opportunities
  - Citizen's role
  - Illustrations

Swedish Institute of Computer Science
ICT research

National Research Institute
- R&D in Information and Communication Technologies (ICT)

Objective:
- Conduct advanced and focussed research in strategically important areas of ICT

Areas:
- Networking, distributed systems, security, mobility, social computing, interaction, ...

Sponsors :
TeliaSonera, Ericsson,
Saab Systems,
FMV (Defence Materiel Administration),
Green Cargo (Swedish freight railway operator),
ABB,
Bombardier Transportation

World Wide Web Consortium
web standards

Sets the standards that make the Web work
- Free and open standards critical for success

Founded 1994 by Tim Berners-Lee

Collaborative standards work:
- 400+ Members from 40+ countries
- 1,500 participants in 60+ Working Groups

Standards
- Platform technology: XML, Web Services, …
- Information: HTML, CSS, SVG, …
- Interaction: Ajax, Rich Web Clients, widgets, …

Towards …
- A web of creators and consumers (2.0), of data and services (3.0), on everything, for everyone
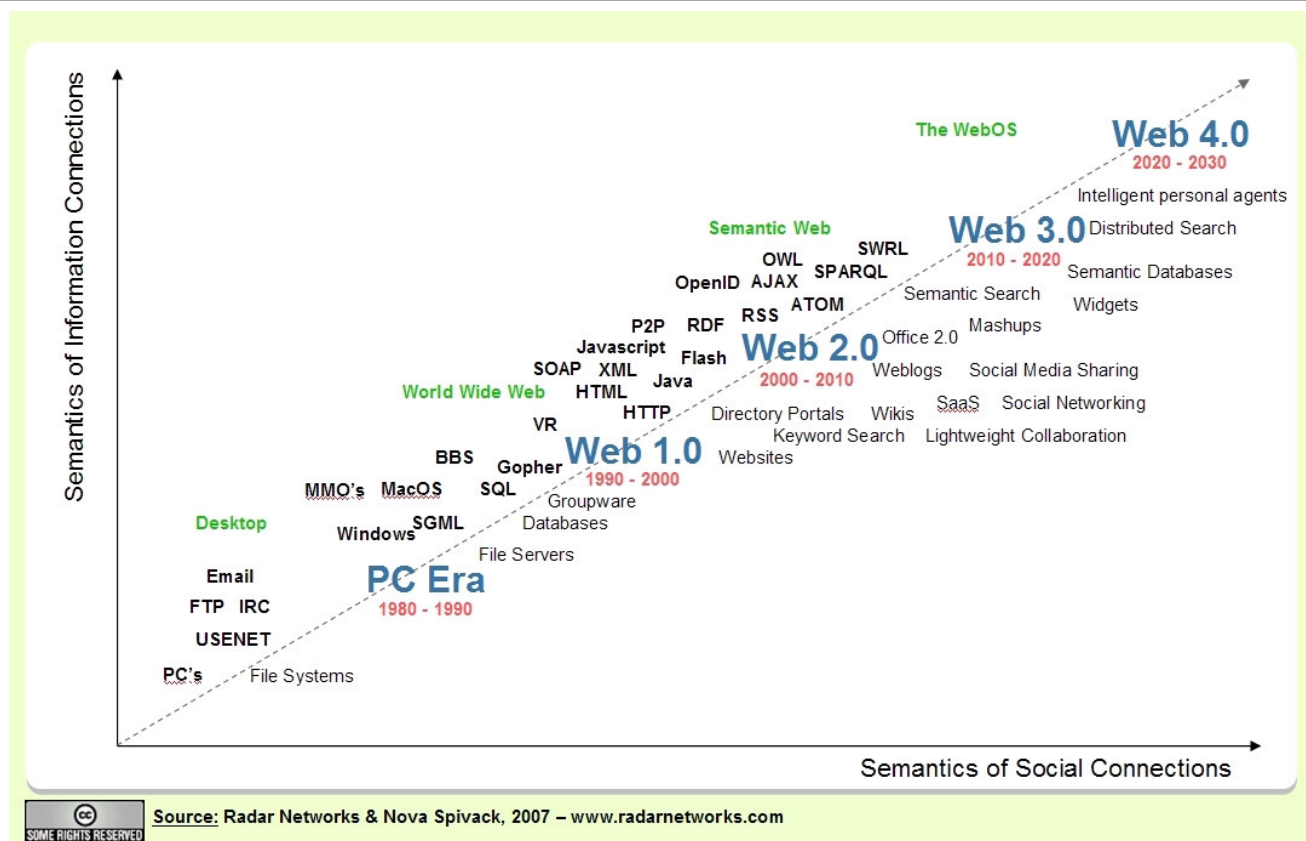
Government in the eWorld

- Government and technology usage:
  - Decrease costs
  - Efficiency in internal processes
  - Improved inter-agency communication
  - Digitizing external services
- Digital "brick-and-mortar"?
  - Basically, same old business
- Or rejuvenate?
  - New opportunities now enabled?

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New opportunities

- Web 2.0
  - Blogs, wikis, Facebook, YouTube, etc
- Popular phenomenon
- Engaging users:
  - "participatory web"
  - "social web"
  - "collective intelligence"
- Transformation of the web
  - From a delivery channel
  - To a space for presence and activity

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Semantics of Information Connections

The WebOS

Web 4.0
2020 - 2030
Intelligent personal agents

Semantic Web
OWL SWRL
OpenID AJAX SPARQL
ATOM
Web 3.0
2010 - 2020
Distributed Search
Semantic Databases
Semantic Search
Widgets

P2P RDF RSS
Javascript
SOAP XML Flash
HTML Java
Web 2.0
2000 - 2010
Office 2.0
Mashups
Weblogs Social Media Sharing

World Wide Web
VR HTTP
Directory Portals Wikis SaaS Social Networking
Keyword Search Lightweight Collaboration
Websites

BBS Gopher
MMO's MacOS SQL
Web 1.0
1990 - 2000
Groupware

Desktop
SGML
Windows
Databases
File Servers

Email
FTP IRC
USENET
PC Era
1980 - 1990

PC's File Systems

Semantics of Social Connections

Source: Radar Networks & Nova Spivack, 2007 – www.radarnetworks.com

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Rapidly growing

A sector where ...

- People go

- Companies and organisations establish themselves

- Development is rapid
  - technology
  - needs
  - forms of usage

Drivers

- Network bandwidth
  - Enabling multimedia, presentation-rich content
- Machine performance
  - Processor speed, memory
- Web browser capabilities
  - Functionality, extensibility, programmability
- Mobile world
  - Network-based communication/interaction
  - More "doing" than "getting"
- Small-scale innovation on the web
  - Individual explorers and experimenters

Something for e-Government?

- Power tools for users
- Public sector front office
  - Enabling citizens to be active
- Public sector back office
  - Supporting own workers
- Inter-agency relations
  - Enabling collaboration between agencies

Blogs as a communication medium

- A blog is a channel for opinions and discussions on topics.
  - Blog author describes/discusses some topic
  - Readers can comment ==> a discussion thread
- Provides a "news" source
  - also archival
- Best when personal (blog of an individual)

Blog - "Fire Chief"

Why personal?

- Humans relate naturally to persons

- More attention to messages from persons

- On the web, visual identification important
  - "there is a person"

- Cf. animated artificial personas on automated helpdesks on the web!

Wikis

- Collective construction of a space describing something

- Paradigmatic example: Wikipedia

- Internal use:
  - Knowledge sharing in community of workers

- Cross-agency use:
  - Knowledge-sharing between communities

- External use:
  - Sharing knowledge with citizens

Wiki - external use – "Patent evaluation"

Tagging

- Tags are words/phrases associated to a resource
  - typically keywords
- Resources are someone else's
- Tags are mine
  - But seen by others
- Tags help me re-find resources
  - My tags and tags of others
- Social bookmarking
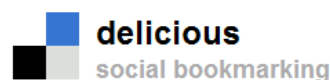
Tags in the public sector

- Obvious value for the citizen
  - Difficult to find public sector information on government portals!
- Who stores tags? How are they machine processed?
  - Who provides search/retrieval functionality?
- Public sector search engines should make use of tags
  - Public Sector provides tagging functionality

Dogear
Save and share bookmarks

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Folksonomy

- Tagging creates term spaces
  - Terminology model
- Called "folksonomy"
  - Contrast with "taxonomy"
- Created by users, reflection of:
  - Their conceptualisation
  - Their needs
- Folksonomies are more practical than controlled vocabularies

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Folksonomy value

- Folksonomies should be used when creating authoritative conceptual models (controlled vocabularies, taxonomies, ...)
- Folksonomies evolve continuously
  - The world evolves
- Challenge:
  - How to manage development and maintenance of conceptual mode that are partly based on folksonomies?

Rating/reputation

- Users rate content/service
- Seen on most commercial electronic publications
  - "Rate this article: 0 – 1 – 2 – 3 – 4 – 5"
- Gives feedback on value of offering
  - What value-feedback does the public sector get?
- Simple solutions to complex solutions:
  - From: "Was this helpful?"
  - To: "What improvement would you suggest?"
- Ratings private or public?

  - Individual ratings?
  - Aggregated ratings?

Healthcare feedback - "Patient Opinion"
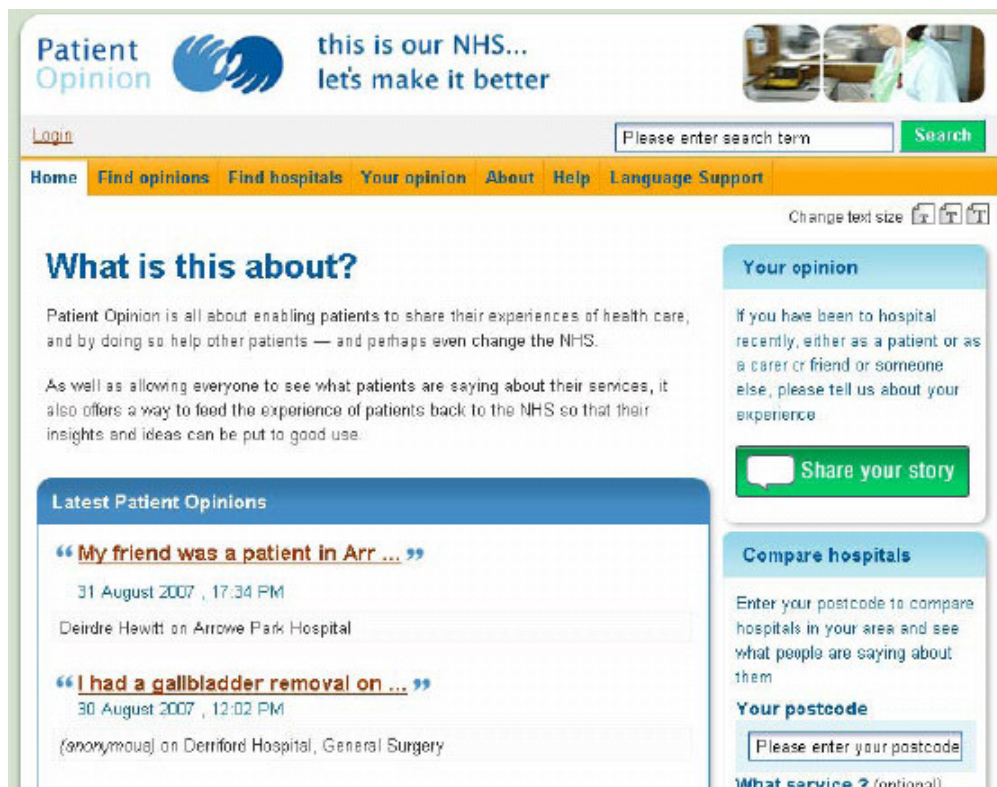
Social networking

- Popular
  - Personal private space: Myspace, Facebook, ...
  - Professional space: Linkedin, ...
- Interacting with "my friends", observing what is going on, ...
- A dynamic, rich, dynamic "address book"
- Use in maintaining professional network
  - Who knows what? Who is where? ...
- Related to
  - "Friend of a Friend" -- foaf

Social networks – extended view

- Dynamic construction of networks of expertise
    - Have a problem, wants a person
- Implicit information everywhere
- Data mining
    - Email, documents, document access, ...
    - Finding

E-Government and the eco-system

- E-government is part of an ecosystem
    - Commercial actors refining public information
    - Citizens
    - NGOs
    - Communities of users
- Who provides what?
    - Why should public sector provide everything?
    - Other parties build value-adding functionality
    - Other parties offer useful functionality

Pulling users or pushing information?

- Value of offering information/services where people are
  - Problem of getting people to where my information is
- Use other platforms for delivery
  - Web 2.0 platforms: Wikipedia, Facebook, YouTube, ...
- Advantages:
  - Platform functionality evolution done by others
  - Content is my only responsibility
  - Users are already there

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Outreach - Youtube

- Mayor Hickenlooper (Denver, Colorado, US)
- Channel in YouTube
- Communicating policy, challenges, objectives, ...
- Sharing and connecting to citizens
- Activating younger generations

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- Virtual worlds: 3D spaces populated by things and actors ("avatars")
- Use of our spatial navigation capabilities
  - In information spaces
- Commercial actors
  - IBM, Toyota, Nike, ...
- Public sector actors
  - Swedish embassy

Thank you!