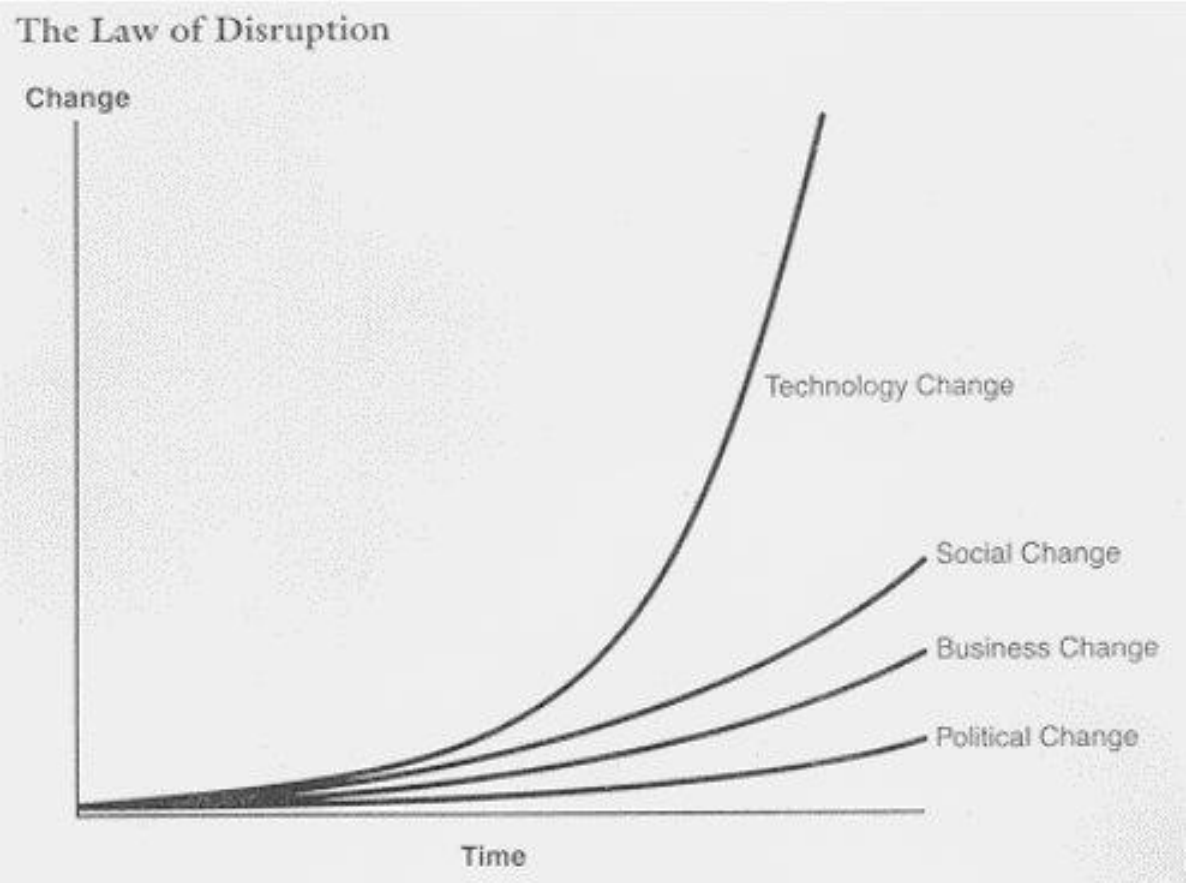
CHISHOLM & HARPER

ONLINE STRATEGY

8 emerging technology trends that will impact Government in 2011

Tuesday, 26 July 2011

The Law of Disruption



The 8 trends

- HTML5
- Augmented reality
- Cloud computing
- Game mechanics
- Next generation search
- Agile development
- Social technology
- Mobile internet

1. HTML5

"The cornerstone for modern web applications" – World Wide Web Consortium (W3C)

1. HTML5

What is it?

1. HTML5

What is it?

- HTML is the language used for structuring and presenting content for the World Wide Web, a core technology of the Internet.

- HTML5 is a new standard that aims to add native browser support for features that are currently the domain of 3rd party plug-ins.

- Notable features include:
  - Video
  - Geo-location
  - Canvas drawing
  - Drag and drop anything
  - Offline storage

1. HTML5

What is the impact for Government?

- HTML5 is an open standard that supports the premise of accessible, usable information, that should make reusing content easier across multiple devices.

- It philosophically meshes with the concept of open Government.

- It will facilitate closer integration between departments through improved web interoperability.

2. Augmented reality

What is it?

- The ability to place computer-generated graphics in someone's field of vision.

2. Augmented reality

What is it?

http://www.youtube.com/watch?v=3e71CEQ-yFA&feature=player_embedded

2. Augmented reality

What is the impact for Government?

- Opportunities exist through the ability to overlay graphics, audio and other sensory enhancements on a real-world environment.

- Isn't just about gimmicky tricks - augmented reality extends to anything that enriches a real life experience by providing contextually relevant data tailored to the individual or group.

- Potential issues in terms of device-appropriateness and security.

3. Cloud computing

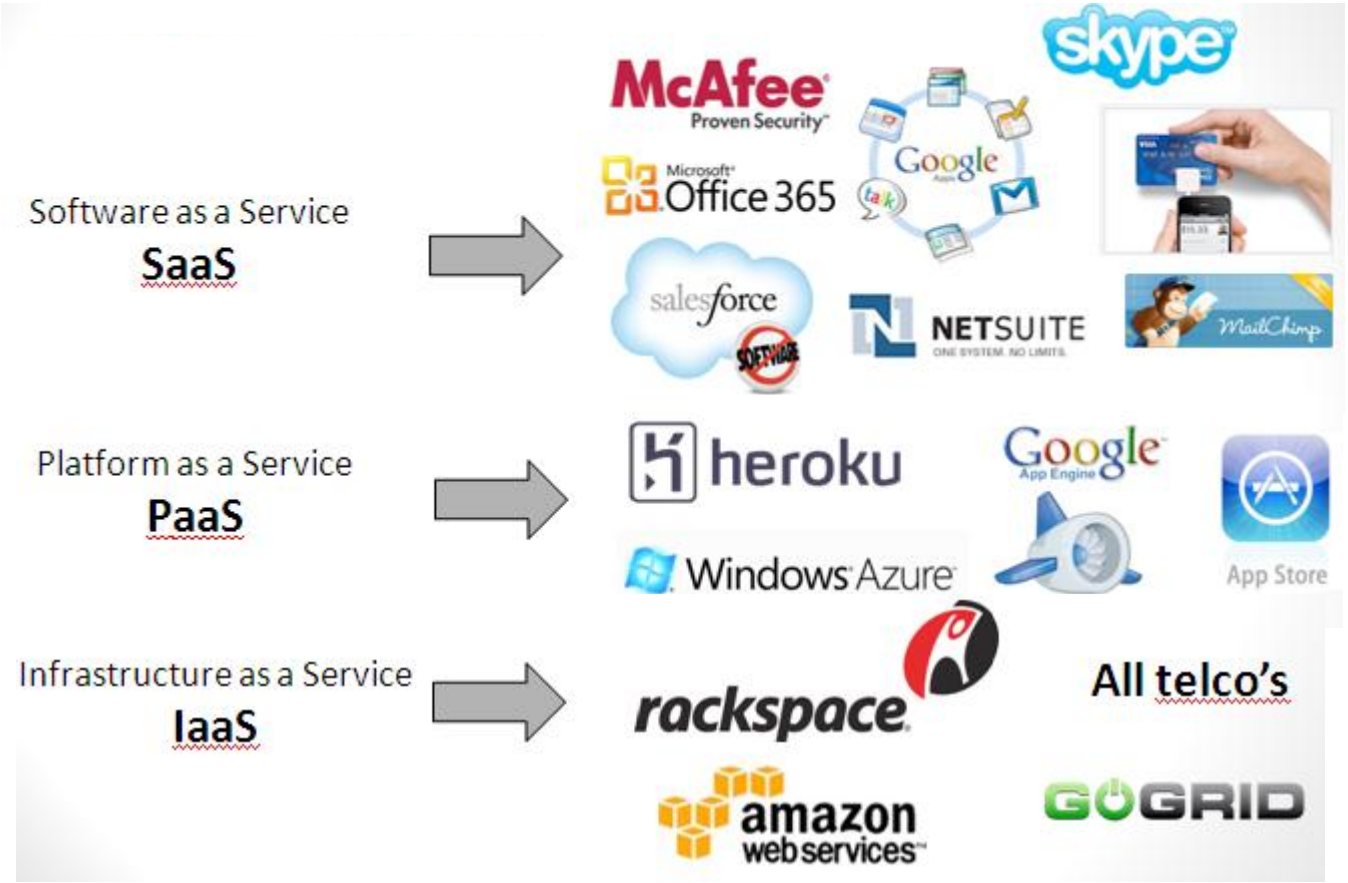
What is it?

- Cloud computing is on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services).

- There are three types of cloud computing:
  1. Software as a service (Saas)
  2. Platform as a service (Paas)
  3. Infrastructure as a service (Iaas)

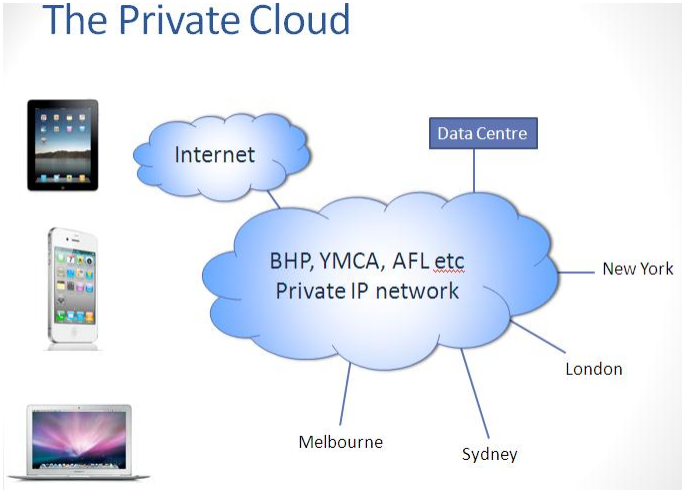
3. Cloud computing

What is it?



3. Cloud computing

What is it?



3. Cloud computing

What is it?

	Private	Public
SaaS		
PaaS		
IaaS		

3. Cloud computing

What is the impact for Government?

- As with any emerging technology, the costs and risk of things not going to plan are higher than the utopian 'cloud computing' concept lets on.

- The US market is much more advanced than the Australian market, so watch this space and learn from similar organisations.

- As the market becomes more mature, benefits will outweigh drawbacks and risk, resulting in more organisations going into the cloud.

4. Game mechanics

What is it?

- The engagement & motivation tactics typically used in computer games.

- Gamification refers to the application of game mechanics to real world situations not typically considered games to elicit certain behaviours.

- Real life situations that resemble games, with challenges, players, levels and achievements are everywhere!
  - Education system
  - The workplace
  - Life generally!

4. Game mechanics

What is the impact for Government?

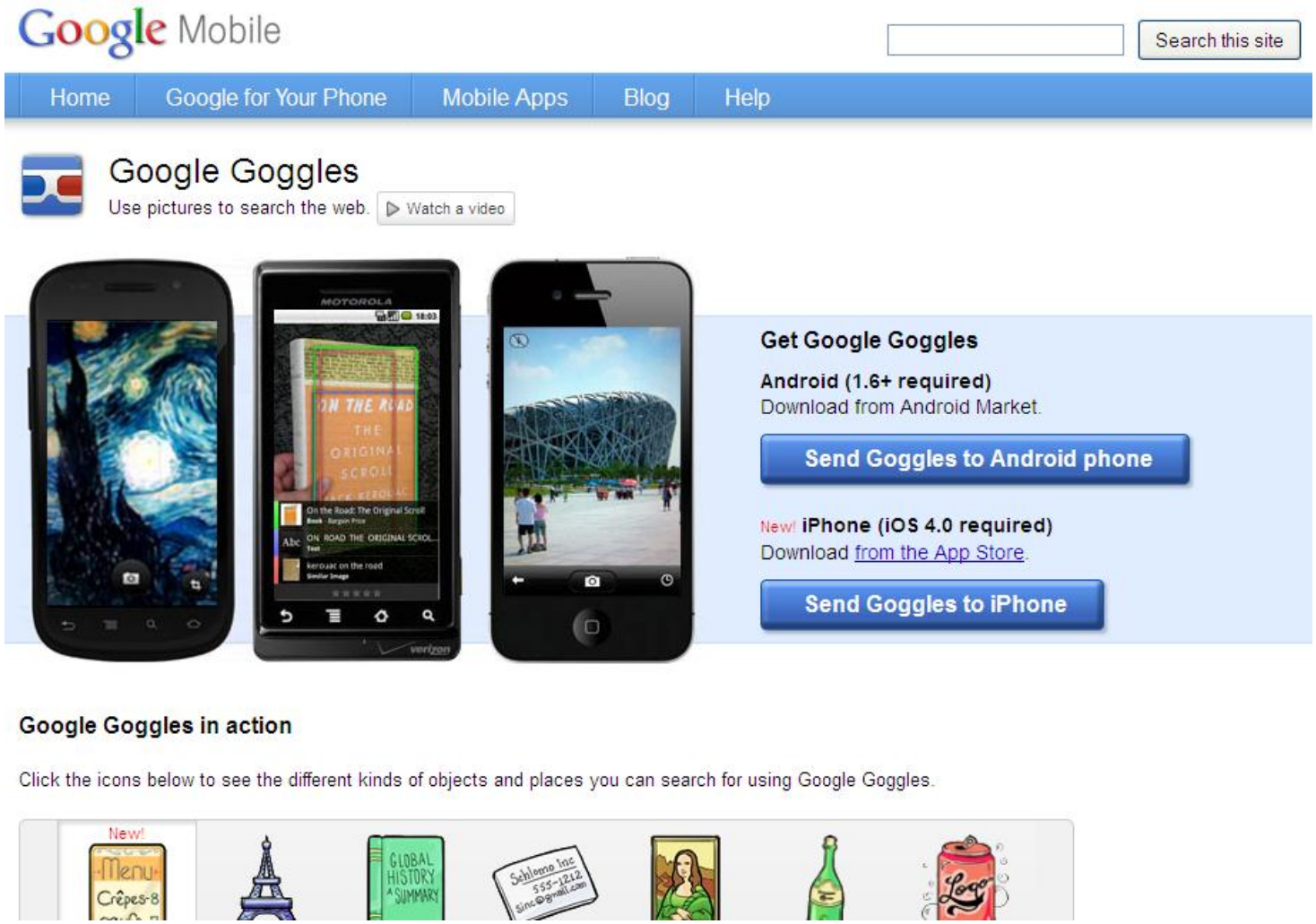
- How could Government use game mechanics to engage citizens or change behaviour?
  - Bonuses
  - Countdowns
  - Levels
  - Points
  - Progression
  - Quests
  - Reward schedules
  - Status

5. Next generation search

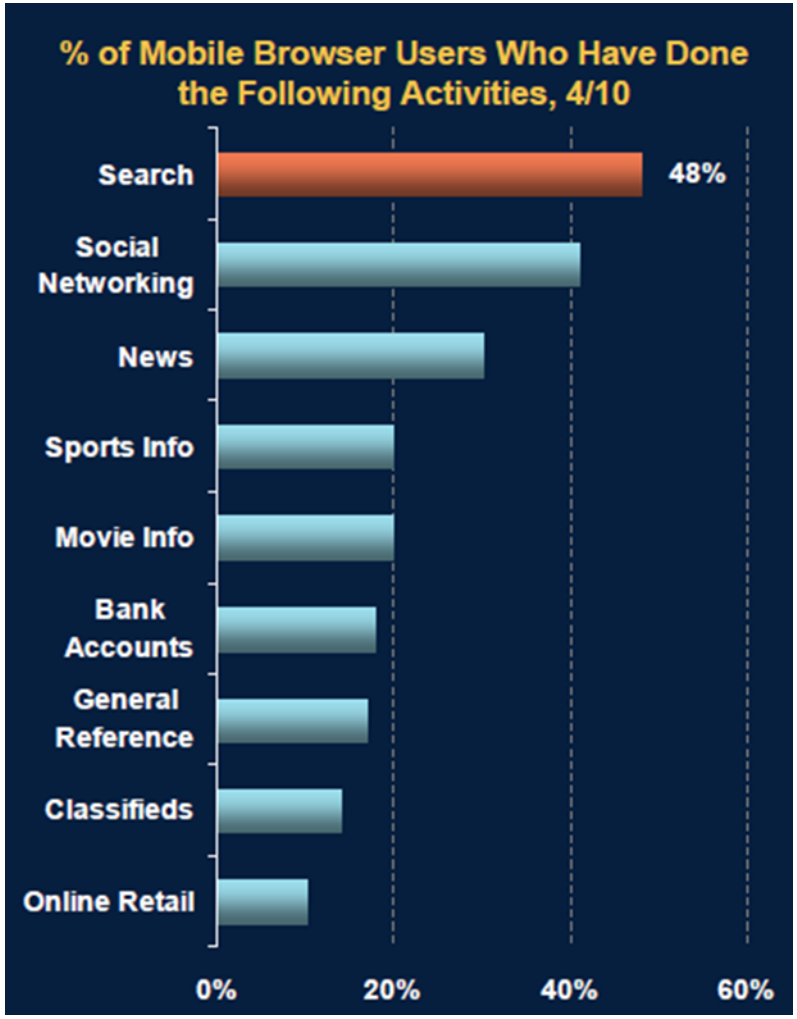
What is it?

- Next generation search is search but smarter, more efficient, fun, relevant and intuitive.
- It is driven by
  - Proliferation of Internet-enabled mobile devices
  - Increasing importance of location/maps and contextual information, (link between the physical and the digital world)
  - Evolving technology capability)
  - Evolving user expectations for a more intuitive and relevant search experience.

5. Next generation search



5. Next generation search



5. Next generation search

So what?

- Is Government creating content that can be easily discovered by mobile search engines?
- What opportunities exist for image-based search in the delivery of Government services?

6. Agile development

What is it?

- Agile software development is a group of software development methodologies based on iterative and incremental development.

- Requirements and solutions evolve through collaboration between self-organising, cross-functional teams.

- The philosophy is that software development is like fashion. It never ends.

6. Agile development

What does it mean?

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan

- While there is value in the items on the right, agile development values the items on the left more.

6. Agile development

What is the impact for Government?

- The Institute for Government released a paper in March 2011 recommending a divide between 'agile' and 'platform' work in order to maximise effectiveness and flexibility while achieving cost and time savings.
- However, this requires;
  - new ways of managing software teams
  - managing expectations of internal stakeholders
  - changes to processes

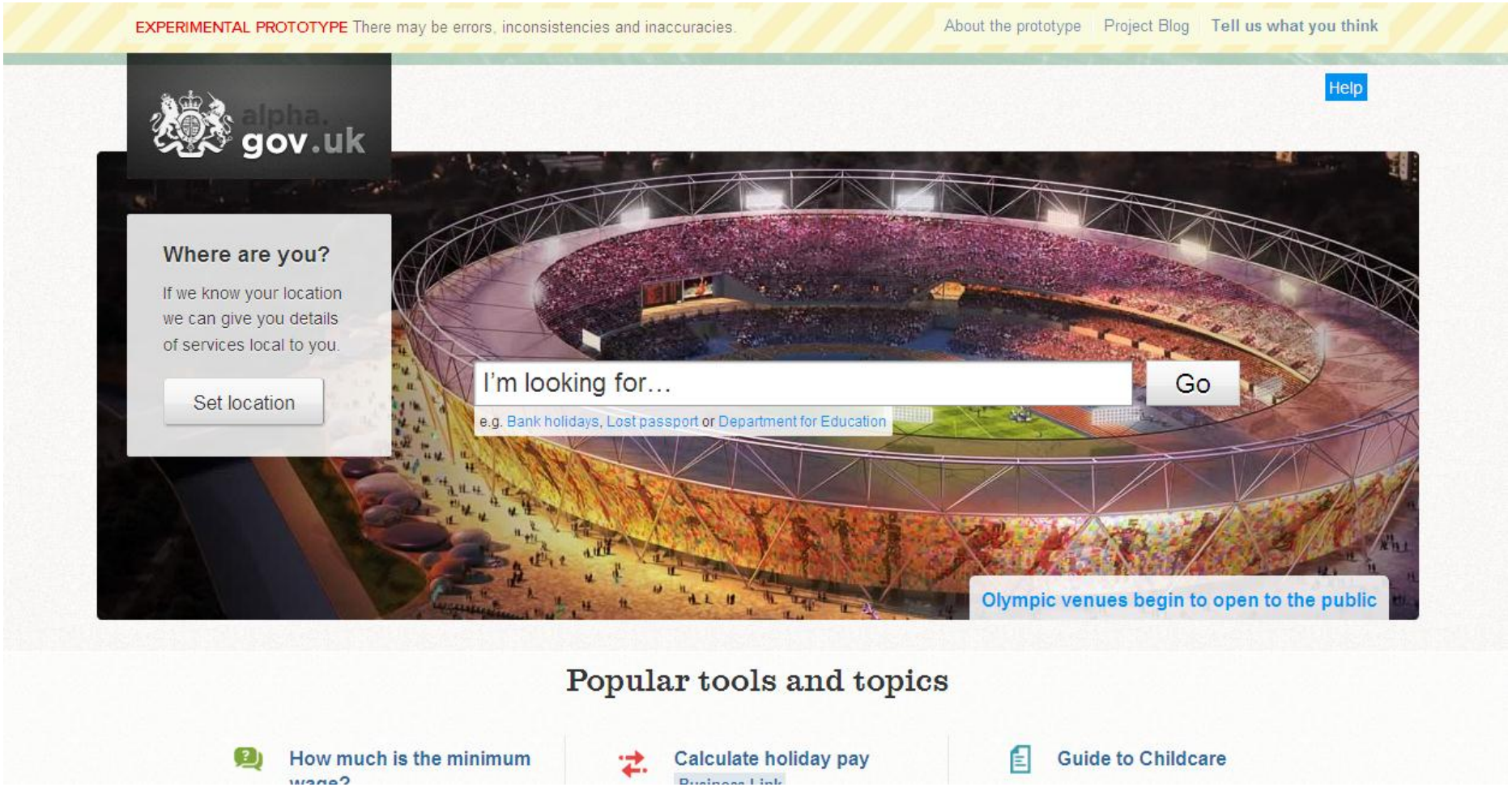
http://www.instituteforgovernment.org.uk/publications/23/system-error

6. Agile development

Government case study - Alpha.gov.uk

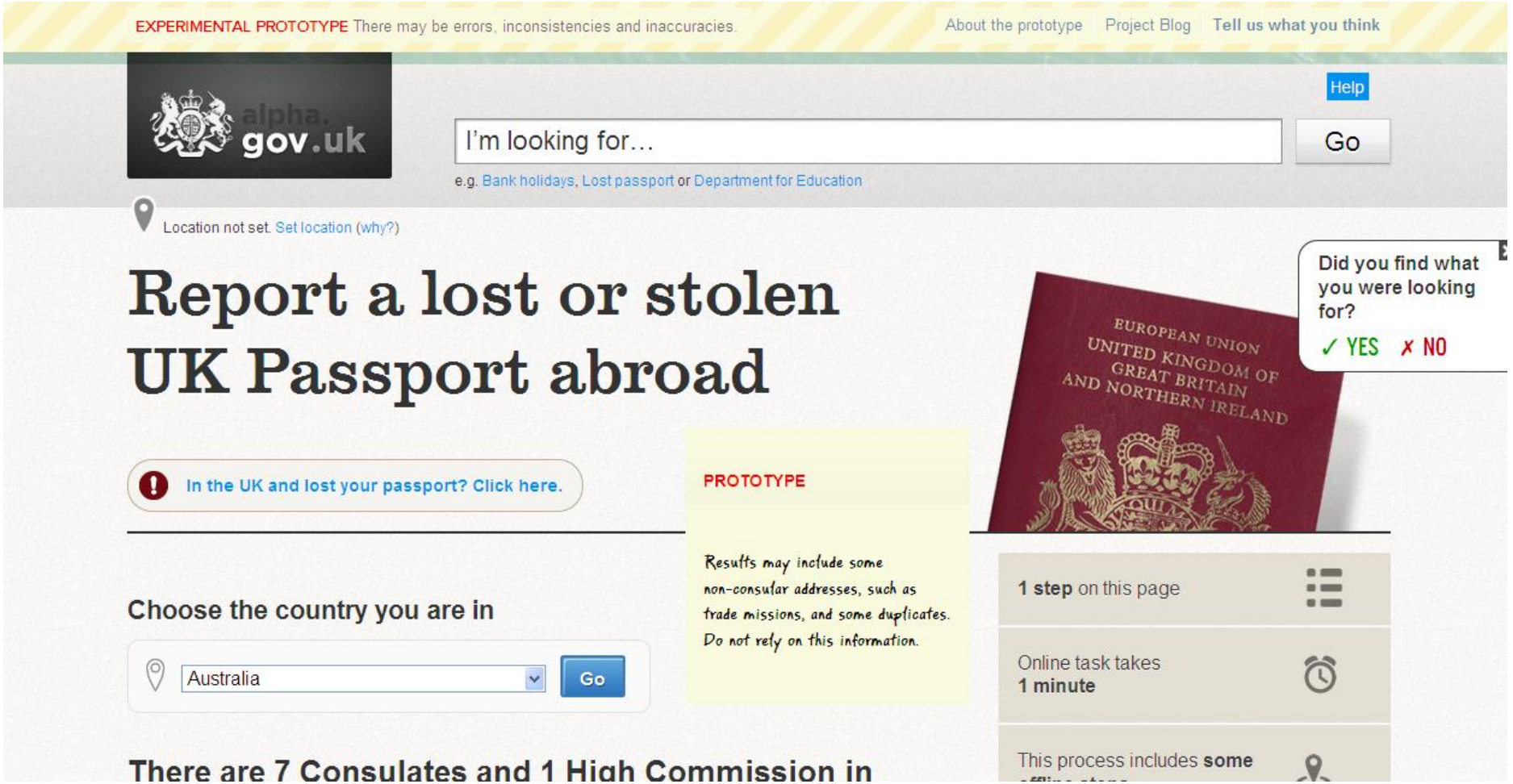
- A prototype single website to replace all UK government websites, built on the principle of treating taxpayers like customers
- Built in three months by a small team in the Cabinet Office
- Total of £261,000 ($392,579 AUD) has been spent on the prototype project to date
- Public feedback from alpha.gov.uk is now being consolidated - preparing to move into beta mode (beta.gov.uk)

6. Agile development



Prototype launched May 2011 with pages for top 100 questions asked

6. Agile development



7. Social technology

What is it?

- It's exactly as the name suggests - technology for social purposes.
- It is integrated into our everyday lives (48% of 18-34 year olds check Facebook when they wake up, 28% doing so before even getting out of bed! *DigitalBuzz*)
-

7. Social technology

What is the impact for Government?

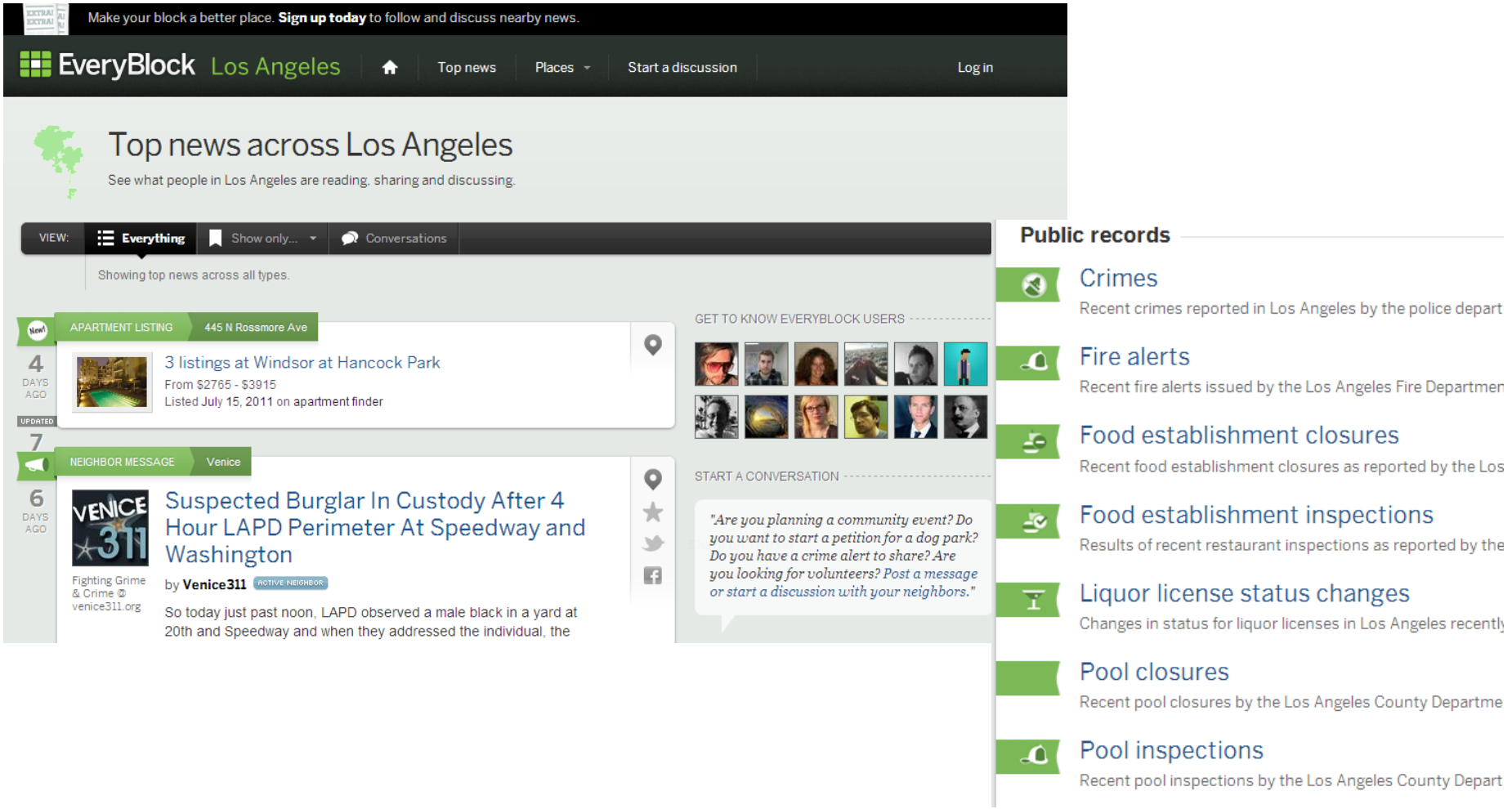
- Social technology has changed the expectations of citizens.
- For many, social technology means power - the ability to globally have a voice.
- Peer opinion is easily shared and heavily relied upon.
- Citizens are becoming increasingly comfortable sharing their personal information with others online.
- Be honest. Be transparent.

7. Social technology

Government case study – EveryBlock

- Allows people to follow neighbourhood news and connect with neighbours in 16 U.S. states.
- News comes from public records like crime reports, neighbour discussions, and photos people have taken in their neighbourhood.
- Also features civic information, such as building permits, crime reports and restaurant inspections – usually information already on the web but buried in hard to find government databases.
- 'Neighbours' can also report crimes or incidents.

7. Social technology

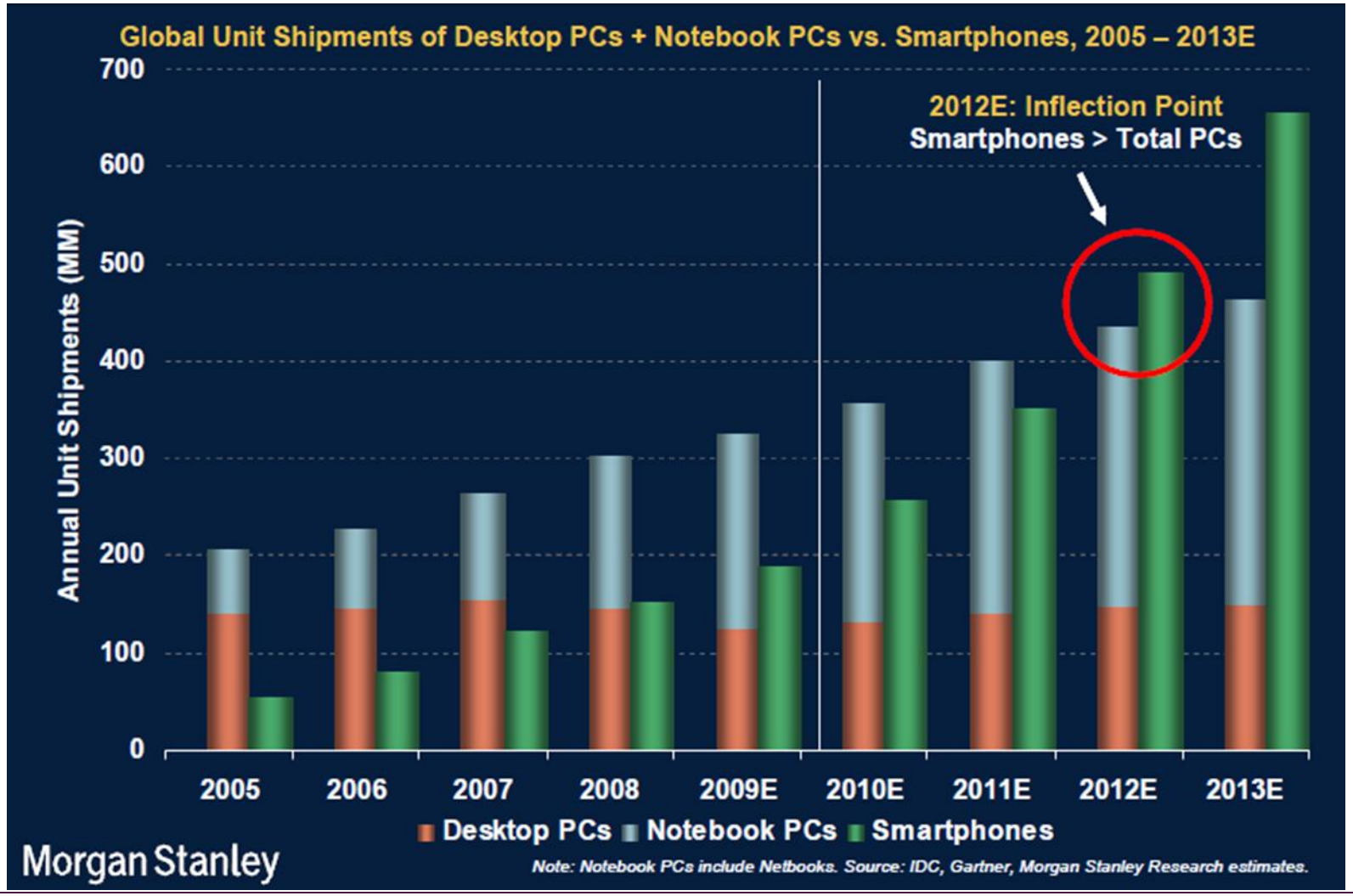


8. Mobile internet

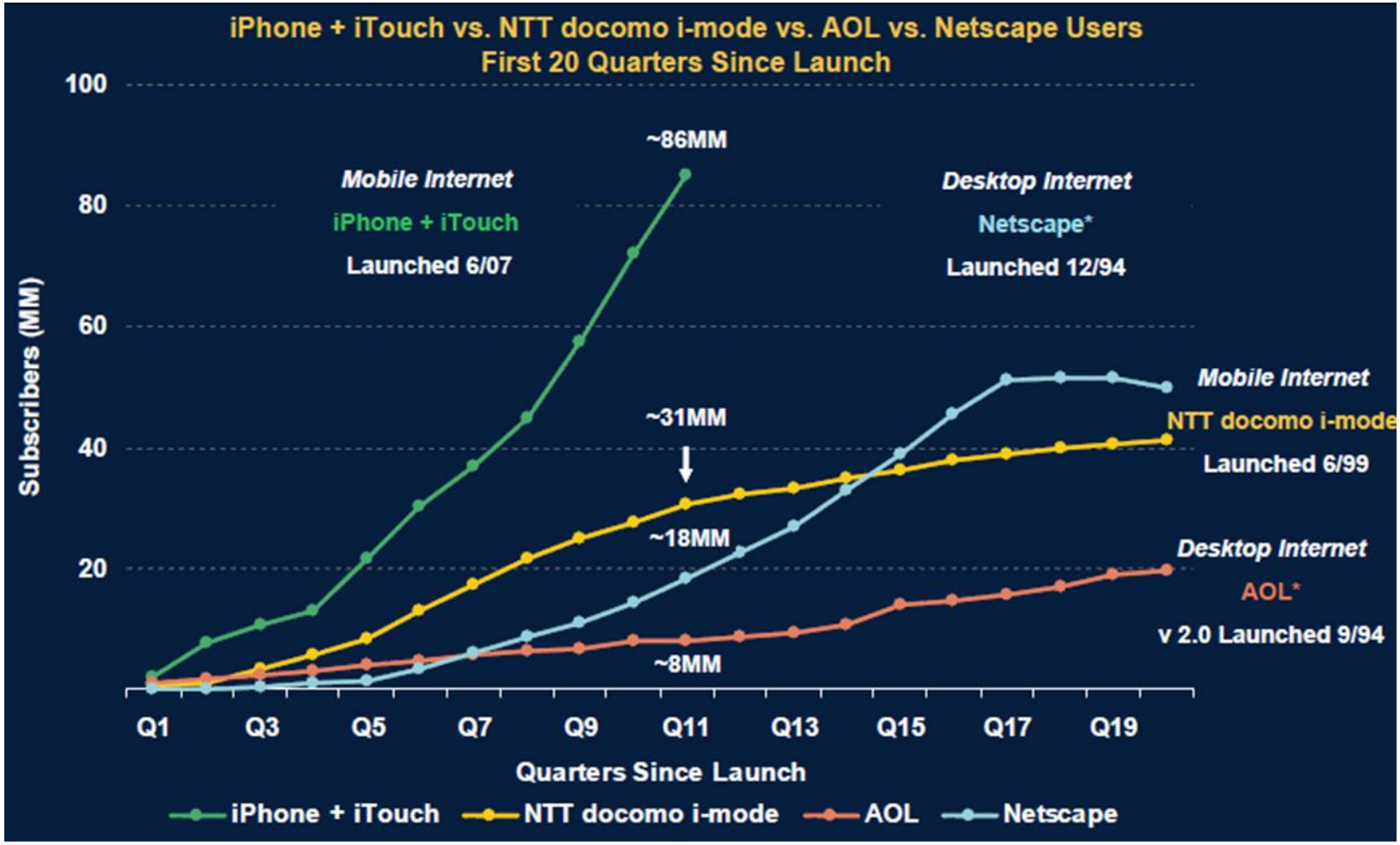
What is it?

- The use of Internet-connected applications, or browser-based access to the Internet from a mobile device connected to a wireless network.

8. Mobile internet



8. Mobile internet

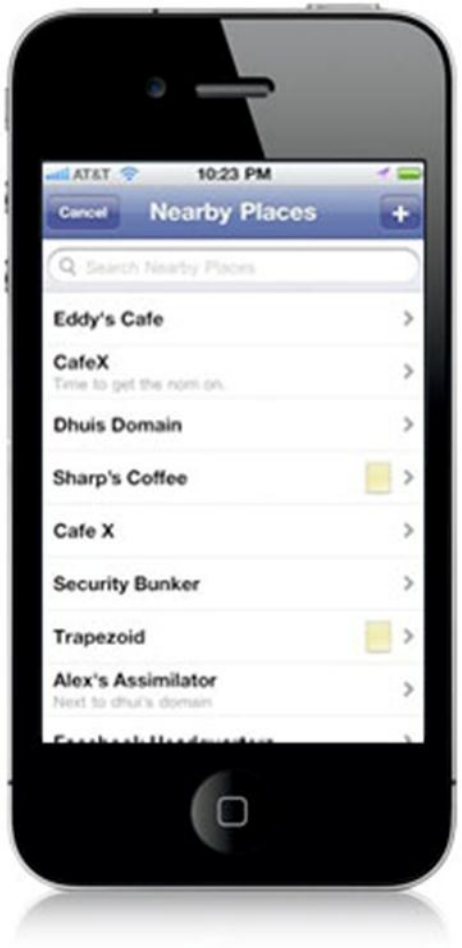


8. Mobile internet

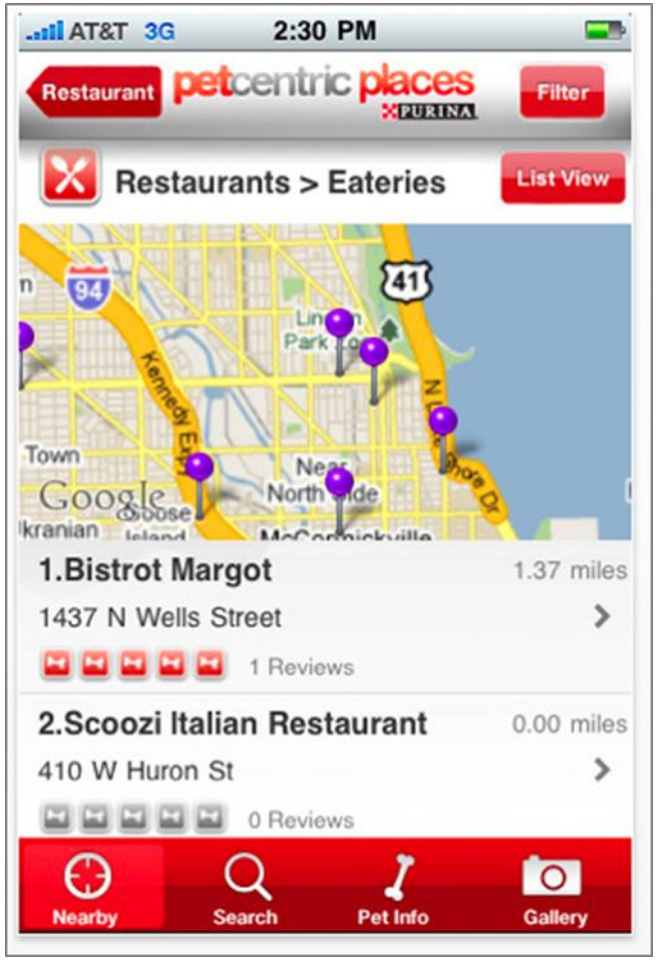
What is the impact for Government?

- Location-aware devices mean you can deliver location-specific information and services.
- Mobile devices are both personal and social, making this an ideal channel to facilitate engagement & connection.
- Mobile internet is usually available at any point of consideration, so perfect for providing timely information.
- Internet-enabled mobile devices are increasingly becoming transactional in their own right.

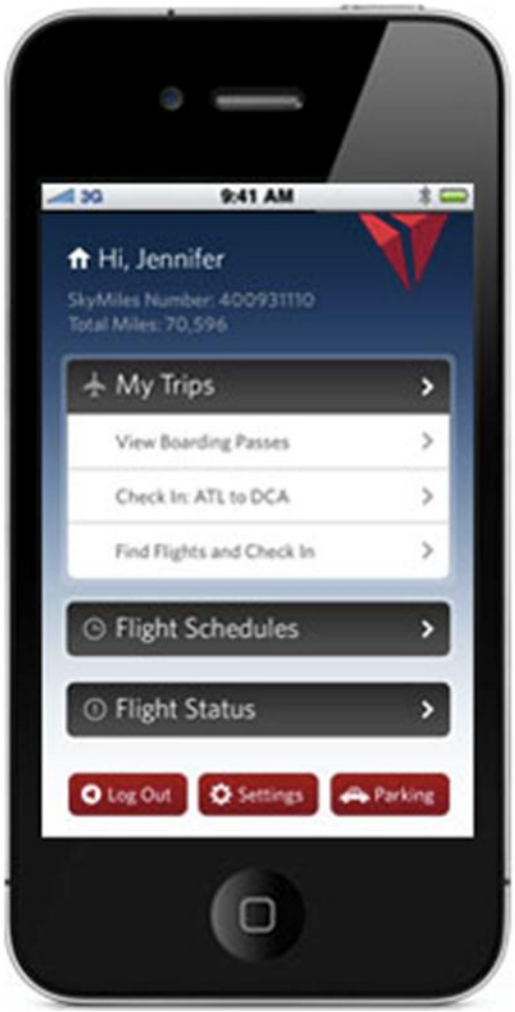
8. Mobile internet
Location-aware



8. Mobile internet
Location-aware



8. Mobile internet
Personal and social



8. Mobile internet
Relevant at point of consideration

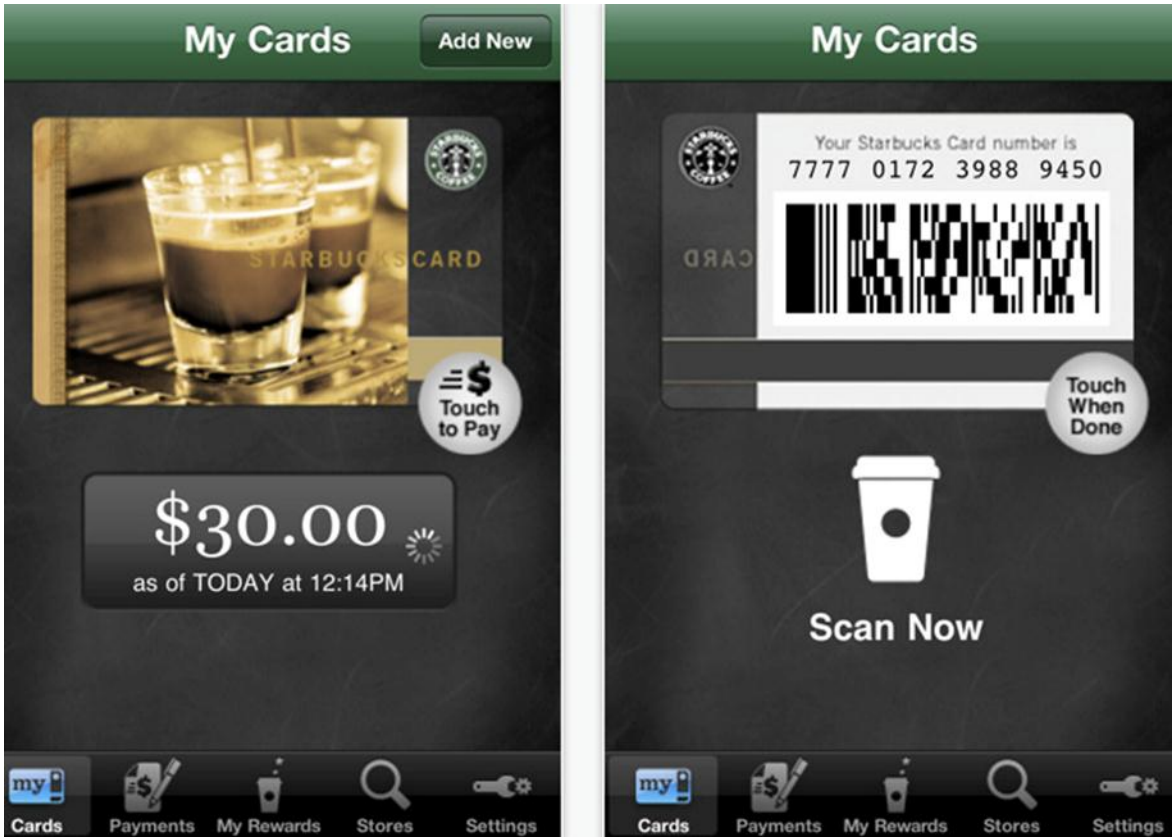
QR (quick response) codes provide a bridge between your offline product and online information.

8. Mobile internet
Relevant at point of consideration

8. Mobile internet
Transactional

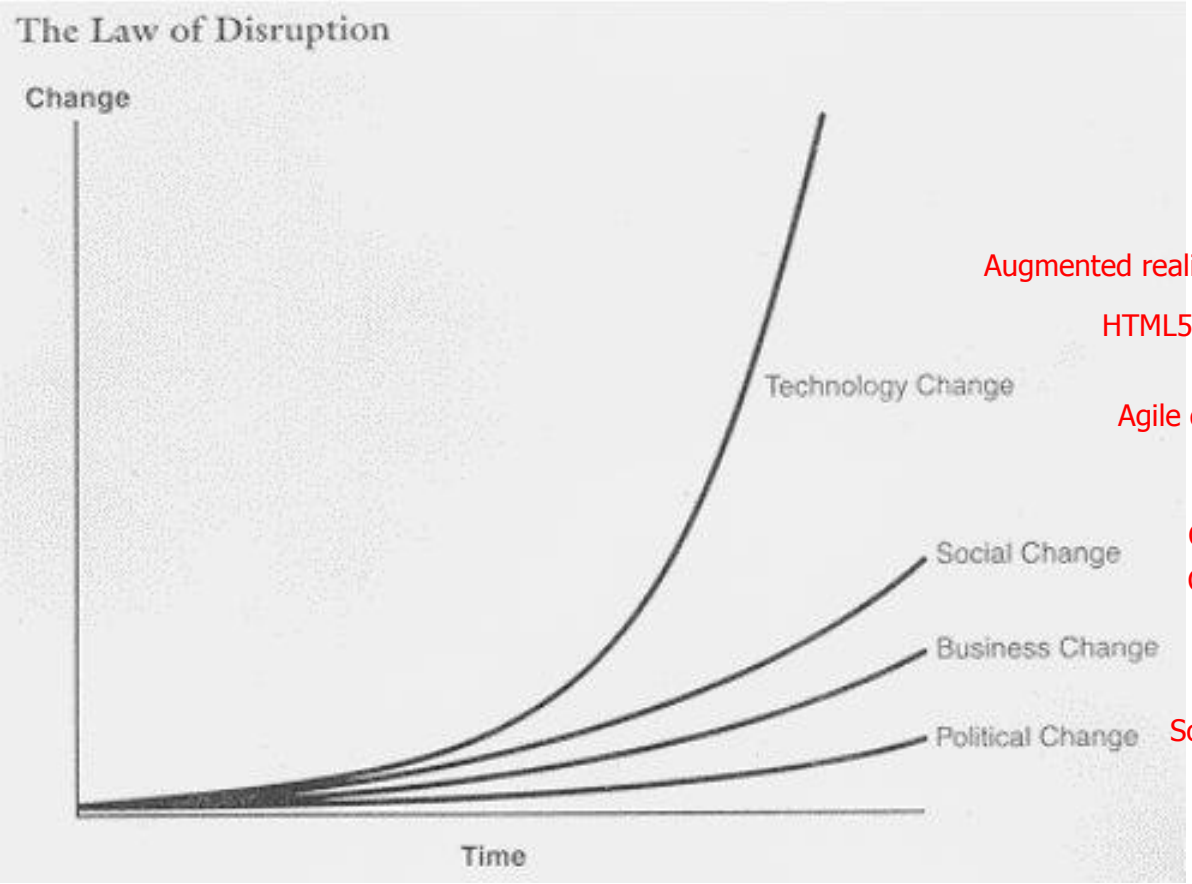
a) Systems that utilise a mobile network to initiate or authorise a transaction

8. Mobile internet
Transactional



b) Contactless systems that use a mobile phone in lieu of a credit card

In summary...



Augmented reality

HTML5

Agile development

Next gen search

Cloud computing

Game mechanics

Mobile internet

Social technology

In summary...

- Government adoption of emerging technology should always:
  - meet a *real* public need
  - improve the health, welfare and economic and social wellbeing of citizens
  - fundamentally improve the trust equation between the people and their Government

Thanks for listening

- Chisholm & Harper helps clients get the most from Internet-based technologies through:
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  - Governance & planning
  - Vision & strategy development
  - Procurement services (partner selection)
  - People & skills development
  - Contract resourcing
  - General consulting

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