To be or not to be Digital Britain

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Where there is no vision, the people perish
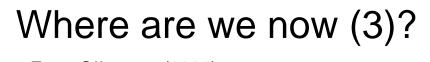Proverbs 29:18

We're not looking far enough ahead

- A three year "vision" is not good enough
- We need a proper strategy about what we want a Digital Britain to be like in 10,20, 30 years from now – not just in terms of the technology but what type of society that will lead to. If we get it wrong, it could be a society we don't want
- It's about being a British citizen in a digital world

Where are we now (1)?

- Falling behind?
- Is it good enough to say we've not got much money to invest in this so we're going for a market driven approach, with minimal intervention and a minimal "guarantee" of service (2Mbps – should be 1Gbps)?
- In a country where much of the technology other countries are using has been developed here this is madness
- As a country we are pretty much bankrupt but that is no reason not to look for ways to be at the level of the best of the world in terms of being digital – it doesn't all have to be central government/market led.

Where are we now (2)?

- From OII report (2009)
- 70% of households in Britain have access to Internet (up from 66% in 2007) – 96% of these households now have broadband
- 30% of Britains do not use the Internet
- Use of wireless/mobile devices has doubled since 2004
- Digital divide – people from lower incomes, lower social-economic groups, less educated have less access. Medical and physical/mental disabilities remain barriers as well
- Increasing use of search engines, social networking tools (50% vs 17% in 2007), use of Internet to obtain services (shopping, banking, government), and markeed increas in the creation and productioni of content by users (blogs, wiki's, Twitter miniblogs)
- Social implications of Internet are beginning to be increasingly significant

Where are we now (3)?

- From OII report (2009)
- Continuing growth of trust in the Web as source of information but even more significant growth of use for entertainment (rather than spending time with other people or watching TV)
- Growth of Internet/Web for obtaining news, being entertained, learning
- Decline in viewing TV and reading books
- Increasing use for communicating with others – family, friends, work colleagues and internet dating
- Most users have positive attitudes towards the Internet. Non-users worry more about privacy, pornography, security, spam etc and this is what the media focus on.

Impact on business

- Some traditional business will of course decline/change but many reports note the number of jobs that could be created or retained by next generation broadband networks.
- There are more opportunities for people to create and run businesses from home/local community – so important for rural areas – they need faster access not less
- Anecdotal evidence – the woefully small amount of the Highlands and Islands tourist industry that is on-line
- Nicholas Negroponte's wise words in his book "Being Digital" - things that can be converted into bits will quickly go digital, we still need to deal with atoms in the physical world. Royal Mail take note. Increasing use of mobile 'phone to pay for things in Africa.
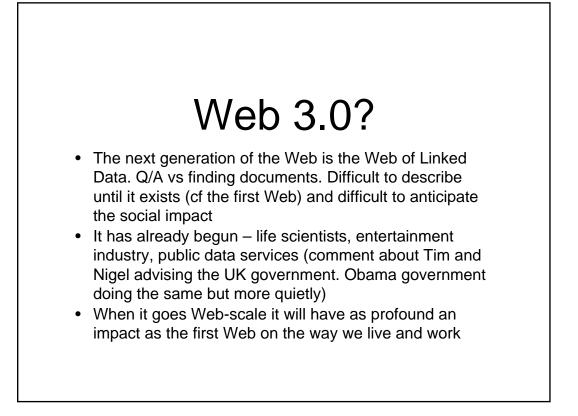
Technology changes so quickly

- Who would have forecast the amazing growth in mobile 'phone technology. Increasingly we access the Web using mobile broadband technology
- Dark fibre possibilities (UK leads the way in the development of optical fibre technology – just got the Nobel prize, work at Southampton – we really should develop a strategy for a national optical fibre network)
- Latency issues with use of satellite provision of broadband access but this is the way many of our competitors will be providing broadband to rural areas.
- And the price of terrestrial wireless is falling very quickly
- So let's think about hybrid solutions

The role and evolution of the Web

- The Web was the catalyst for all these changes (beginning of the Information Revolution – the Age of Networks)
- Didn't really take off until broadband technology became available in the home – problem of boot-strapping content on the Web – first 5 years surprise, second 5 years hope, third 5 years expect – what next?
- Dotcom boom and bust – inevitable (cf printing books that noone could read). Quote about the "end of shopping on the Internet"
- Growth of social networking – Facebook
- Growth of user developed content – Flickr, podcasts, YouTube, blogs, Twitter (tell the story) – there is a technology story to tell for all of these
- Growth now being driven the development of the Mobile Web

Changing businesses

- Google
- BBC (pro-Web rather than post-Web)
- Amazon
- eBay
- Open access (publishing)
- iTunes
- e-books (and audio books)
- BBC iPlay (can only be used in the UK at the moment)
- GlobalTV iPlay (Channel 4 won't buy Friends – we'll subscribe to the international service that provides the entertainment we want. How do we regulate that?)
- iMovie?
- iLearn?
- All while we're on the move

Web 3.0?

- The next generation of the Web is the Web of Linked Data. Q/A vs finding documents. Difficult to describe until it exists (cf the first Web) and difficult to anticipate the social impact
- It has already begun – life scientists, entertainment industry, public data services (comment about Tim and Nigel advising the UK government. Obama government doing the same but more quietly)
- When it goes Web-scale it will have as profound an impact as the first Web on the way we live and work

Digital Lives

- All these developments mean we are already living digital as well as physical lives. The amount of time we spend in the digital world and the amount of information that exists in the digital world about ourselves will continue to grow – whether we're Second Lifers or not
- Memories for Life project (UKCRC grand challenge based at Southampton) and others looking at digital memories – creation, storage, retrieval, curation, privacy, security
- Work with neuroscientists and Alzheimer's patients - the Microsoft SenseCam project
- Memory aids for the future

It's the people stupid

- We need to think hard about what type of society we want Britain to have in the age of networks
- Think about the sort of services we want to provide on-line – health, education, access to public information, emergency services, as well as commercial services
- People may put as much content on the Internet as they down-load from it
- The rural areas – indeed any under-privileged area - need faster/better access not less. Otherwise we'll drive people and businesses to the areas with the fastest access
- Think wireless, think mobile as they are in the developing world (cf tribe in Kenya)

Think the unthinkable or unimaginable

- If we have powercuts in the future it's not just the lights that go out (cf CST National Infrastructure report)
- Allow for the completely unforeseen (cf the story of Joseph Bazalgette, who planned the sewage network for London – made generous allowances and then doubled the diameter of the pipe needed. The unforeseen was the Tower Block. In the digital world the unforeseen could be teletransportation)
- On-line with the fastest technically possibly speeds anytime, anywhere (in the world)

Helping people to help themselves

- The Victorians didn't have enough central government funding to build a library in every town and village. Public Libraries act of 1850 allowed councils to levy a rate to build libraries, but also relied heavily on input from philanthropists.
- It's not a one-size fits all solution – different areas will have different requirements and be prepared to pay for different things
- Central government should determine standards and provide national infrastructure where essential but allow the focus to be on community-driven or assisted deployment
- This may be patchy for a while but if we don't take this approach we're doomed to be second or third best as a country and fast access will only be for the digital elite anyway.

Helping people to help themselves

- So focus on community-based activities
- Develop a national policy for the contribution industry, schools, libraries, hospitals, and other local services can make to this effort
- Ask people what they are prepared to pay for before levying the taxes
- Share best practice in how to make things happen on a local-level – what technology works best/is cheapest in which circumstances
- Encourage the young (the people that know how) to help the old, the sick, the digitally disadvantaged etc. to get on-line
- Make it sexy to be the person that donates a wifi network, or pays for the last n miles of the optical fibre network, to your local community
- Online anytime, anywhere, in a safe and secure environment (that is as green as we can make it)