

DINNER/DISCUSSION SUMMARY

The Digital Britain Report – keeping up with competition from other nations

Held at The Royal Society on 14th October, 2009

The Foundation is grateful for the support for this meeting from the
Engineering and Physical Sciences Research Council, and
the Science and Technology Facilities Council

Chair: **The Earl of Selborne KBE FRS**
Chairman, The Foundation for Science and Technology

Speakers: **Dominic Morris CBE**
Strategic Director, Digital Britain, Department for Business, Innovation
and Skills, and Department of Culture, Media and Sport
Professor Dame Wendy Hall DBE FRS FREng
School of Electronics and Computer Science, Southampton University
and President, Association of Computer Machinery (ACM)
Dr Alfred Spector
Vice President, Research and Special Initiatives, Google
Erik Huggers
Director, Future Media and Technology, BBC

MR MORRIS said that the Digital Britain report assumed that the development, application and use of digital technology underlay every sector of the economy - financial, retail, transport, healthcare and research. It was a snapshot of where we were, and what we needed to do, as the digital world replaced the analogue world. It specified where industrial activism was essential - modernizing and upgrading wireless and broadcasting infrastructure; providing a favourable climate for innovation and investment; securing high quality public service content; developing digital skills; and securing universal access to, and increased take up of, broadband. Drivers were the multiplicity of providers of content and service and the requirements of business, government and individuals, based on widespread use of PCs. But, 35 per cent of the population still did not have access to broadband, did not understand its value or appreciate its benefit for them. We needed to make it universally available if it were to be effective for delivering government services. There were real problems, however - notably security and the protection of IP and the consumer. Institutional reform needed to take account of both the universal nature of the web and local needs and problems. Looking forward to the future, and new technology, we needed to develop an inclusive framework for content, ensure infrastructure development and increase digital participation. Next steps would be the Digital Economy Bill, the Finance Bill, spectrum auctions, network revision and digital radio upgrade.

DAME WENDY HALL noted the paucity of women in the room. This revealed both shortcomings in educational and professional interests and culture, and indicated that we needed to think carefully about what future society we wanted and how the web could encourage it. She was concerned that we were not looking far enough ahead, and were falling behind other countries. Finance should not be a constraint: there were other resources besides those of government and the market which could be tapped. A major concern was the digital divide; there was a danger of increasing inequality. Those who accessed the web were increasing their usage, trusting it more for information (and entertainment) and were positive about its use for business and personal relations. It was important that broadband access was available in rural areas, to service and support small businesses, and where isolation could be a real problem. But, in the end, although technology was essential, the crucial factor was people - what did they want, how did they use the technology, how they

developed trust and how they could be protected from misuse, and breakdown. There were different needs in different areas, and people needed help to enable them to help themselves. Much could be done by encouraging communities to understand communications, to articulate their needs, find ways of meeting them, encourage philanthropy, and energize schools and local institutions to work together. Technology was continually developing and enabling new uses and structures to form e.g. Twitter, Facebook and other networks.

MR SPECTOR attributed the rapid development and use of the web to the simplicity of the standards in the early design, its federated structure and absence of complex architecture. There were omissions such as security, which would have delayed development if built into the early structure, but which now needed to be urgently addressed. He described the "semi-random" walk to the present achievements of the web: it was a virtuous circle - simplicity led to usage; usage spawned new applications and technology, and content, such as the "Library of Alexandria", universal networking, and new business models. But there was a core of basic technologies for which high quality research was essential, and which countries needed to ensure they had the capacity to nurture and use. His concern was whether we had the talent to fulfil this research task. The future could be described as an evolutionary revolution - an unpredictable certainty. The revolution would happen but we could not predict its content or timing. The future lay in breaking down barriers between different means of communication, ever greater transparency of communication (e.g. between languages) and relating text and voice, image and vision. For the future we must recognize that we could not choose top down winning strategies; there needed to be a bottom up approach lead by users and researchers. Innovation would be encouraged if there were minimal barriers to network creation; ubiquitous high performance connections and support for fast experimentation (knowing there will be failures).

MR HUGGERS emphasized the welcome the BBC accorded to Digital Britain, and to the government's active involvement in driving forward its agenda. The BBC itself was being transformed to cope with the digital age - already tapes were disappearing from its activities and images went straight from cameras to memory. Whereas Portland Place had been radio, White City television, Salford MediaCity would now be the media centre for the web. The digital world should benefit

consumers, institutions and commerce. But new technologies shifted value choices, as could be seen notably in music. But his concern was whether Digital Britain was looking far enough ahead and recognizing the speed of innovation and usage. For example, advertising revenue on the web was now surpassing that on TV; 1 in 6 consumers no longer watched BBC on television but used iPlayer. Do we have the infrastructure to meet this demand - let alone the demand that will occur in 2012? Compared with Korea, we were falling behind on investment and suitable regulation. As with other speakers, he was concerned about the digital divide, but considered the BBC had a role to play in education and showing the value of the web. If the BBC could bring the world of the web into the living room, instead of it being confined to individual access through computers and mobiles - the CANVAS project - this would help. He was also concerned about net neutrality - the ability of internet service providers to manipulate the quality of web sites reception.

A major theme in the following discussion was the digital divide, and access to the web. Some speakers felt that the Government was not doing enough to ensure that rural areas (and rural areas could include areas close to urban areas where business and schools assumed there was web connection) were adequately provided with connections, but others warned against efforts to pressure people into demanding broadband before they were convinced of its value or understood its cost. At present there was a "patchwork quilt" of accessibility; it was not essential that the Government should be solely responsible for joining up the edges. Part of the problem was the over exuberant rhetoric that government and others had used to trumpet the need and use of the web - it would not be available everywhere and for every purpose. Politicians had to beware of sounding evangelistic, when application might well fall short.

Why was it that many people use the internet only once, in spite of having connectivity? We should not assume that people want an enormous range of choice. It would be valuable if the web guided people to what they might want, and encouraged a greater interaction between content on the web and the consumer. An iPlayer which was both simple and super useful, which allowed users to select key words and then browse through programmes to select what they want - in fact a form of personalized broadcasts - was a step forward away from passive reaction. While there was sympathy for the view that many communities could do more to help themselves there was also considerable scepticism that communities existed which had sufficient focus to develop or drive forward web accessibility and use. Much play was made about the network ingenuity and use by the young, but developing consensus and activity through schools still risked ignoring large parts of the population. No doubt generational change would solve many problems of usage, but the digital divide would be with us until we recognized more critically workforce, or consumer, culture.

Speakers took up Dame Wendy's comment about women. The internet was often marketed in such a way it seemed "toys for boys", and if it were true that there were cultural differences between men and women - perhaps women were more cautious and concerned about security - then this must be addressed. Indeed security, both in terms of privacy and fraud and unnecessary government oversight, was a real problem - although there were many ways in which individuals could help themselves - e.g. by frequently changing unusual passwords.

The internet was a major step towards sustainability. It was not carbon neutral, but it would enable increased economic activity and greater productivity, without adding significant operating or capital resources, to take place. But the more it became the bedrock of our lives, another crucial infrastructure resource, the greater the need for safeguards against breakdown if environmental and other catastrophes - such as floods and epidemics - were to be avoided

The role of government, the use of public information and availability of services were raised. Government clearly did have a role in regulation, encouraging research and innovation and encouraging the educational system to turn out people with the software and other skills to develop the web. At present there was difficulty in finding software engineers who could contribute, but there was also danger in concentrating efforts on filling in gaps at the more technical end of the spectrum and not giving sufficient emphasis on ensuring that those of outstanding excellence are brought forward. Government's role in using taxes or supporting monopolies to develop more effective broadband was less clear. There were, as speakers had said, many other resources available, and there was always the danger that monopolies or government regulation would go for applications which were not the consumer's priority, or were focussed on cost not quality. The use of information owned by the government (e.g. the Ordnance Survey) could no longer be preserved within tight copyright rules, but this was bound up with the whole question of IP protection. What level of data should be available free? There was much to be said - not least in the benefits to the taxpayer - for the government's policy of making many of its services - e.g. health - available through online means. But it was here that the digital divide was alarming. It would be the old, those with poor educational skills, and the poor, who most urgently needed the public services, who would be on the wrong side of the divide. The need to reduce public expenditure through using the web must not be at the expense of those who most needed social assistance.

Sir Geoffrey Chipperfield KCB

The presentations can be found on the Foundation website at www.foundation.org.uk.

Useful web links:

Association for Computer Machinery
www.acm.org

BCS
www.bcs.org

Department for Business, Innovation and Skills
www.bis.gov.uk

Department for Culture, Media and Sport
www.culture.gov.uk

Digital Britain Implementation Plan
www.culture.gov.uk/images/publications/DB_ImplementationPlanv6_Aug09.doc

Digital Britain Report
www.culture.gov.uk/images/publications/digitalbritain-finalreport-jun09.pdf

The Engineering and Physical Sciences Research Council
www.epsrc.ac.uk

The Foundation for Science and Technology
www.foundation.org.uk

ICT for the UK's Future - The Royal Academy of Engineering
www.raeng.org.uk/news/publications/list/reports/ICT_for_the_UKs_Future.pdf

The Institution of Engineering and Technology
www.theiet.org

The Science and Technology Facilities Council
www.stfc.ac.uk

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