

Report of the Digital Strategy Workstream of the Information Age Partnership, November 2006

1. Executive Summary

The IAP's Digital Strategy workstream provided a high level review of the Government's Digital Strategy and looked at the issue of digital inclusion, with a focus on how content services might improve inclusion.

This report should serve as a discussion document to stimulate debate about how the overall shape of the Government's Digital Strategy should evolve and act as a framework of recommendations for advancing its actions.

Review of the Government's Digital Strategy

- With the pace of change in the ICT sector increasing all the time the IAP welcomes the recently announced review of the Digital Strategy in 2007, one year ahead of the planned review of the Digital Divide in 2008. In particular, an opportunity exists in the context of Digital Switchover to drive overall digital literacy, not just in terms of take-up of linear television but also in digital, two-way, broadband services.
- It is important that in its review of the Digital Strategy, Government looks beyond the issues of digital inclusion and identifies broader areas that the Digital Strategy should cover. The second section of this report identifies some specific areas of focus such as fostering collaborative working between the public and private sector and encouraging individual digital entrepreneurialism, which extend beyond the issue of content services and which could be usefully broadened out into a wider focus for the Digital Strategy. A review of the Digital Strategy in 2007 should investigate the economic benefits to a knowledge economy of having an increasingly connected population and should consider how the digital literacy message could be communicated at a time when many people will be investing in new devices.

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- Overall success criteria for the Digital Strategy should be developed and the individual actions mapped against these with ongoing measurement based on a dashboard-style approach. There should be a single owner of the Digital Strategy.
- The IAP has made 11 recommendations in its response to the Digital Strategy which call for action from both public and private sectors and should be fed into the Government's Digital Strategy review for consideration. These recommendations are set out on pages 4 to 14 and summarised on page 5.

How to improve Digital Inclusion, with a focus on Content Services

- The availability of appropriate and attractive content services is an important factor in encouraging people to adopt ICTs and in ensuring they derive the maximum benefit from the Internet.
- The Department for Communities and Local Government's (DCLG) report 'Inclusion Through Innovation: Tackling Social Exclusion Through New Technologies' should be communicated widely across the private sector to serve as a catalyst for investment by helping the private sector identify market opportunity. Department of Trade and Industry (DTI) should work with DCLG to identify the most appropriate channels of communication and determine the best way of presenting the findings.
- Government should seek to stimulate investment in and demand for content services by publishing a clear description of its needs a number of years in advance but also allowing suppliers to own the IPR which they develop as part of their offering. This recommendation should be fed into the Transformational Government work.
- Innovation in the Internet world is based on very short development cycles with multiple product releases. A strategy is required to improve and facilitate partnerships between the private and public sector, as was highlighted in the Lambert Review of business-university collaboration and as Lord Leitch's current review is expected to further advance. This should form part of the work of the newly created Technology Strategy Board. This strategy also needs to encourage individual digital entrepreneurialism.

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- Communication of the tax credits applicable to software development is required along with further consideration of the definition of research to incorporate wider innovation and training in order to incentivise content providers to invest. The DTI should work with industry to identify the best channels to communicate available tax credits to SMEs and to analyse how the regime might be changed to promote further investment and build a case to take to HM Treasury (HMT).
- A thriving content services sector is dependent on highly skilled graduates entering the ICT sector. Universities could make a more explicit link between IT courses, which can be quite theoretical, and new, exciting job opportunities such as working in web development and new media companies. This action should be taken up by Department for Education and Skills (DfES) in partnership with the Higher Education Funding Council for England (HEFCE) and its equivalents in Scotland, Wales and Northern Ireland.
- The DTI should consider setting up a programme that helps venture capitalists understand the creative industries better so as to bring further investment into the sector.
- The most appropriate route to reaching the wide range of companies in these sectors is through Regional Development Agencies (RDAs). The Alliance for Digital Inclusion (ADI) and the National Endowment for Science, Technology and the Arts (NESTA) also have a role to play in communicating wider incentives than those that they fund alone and they are the appropriate bodies to take forward the recommendations of this report.
- The newly created, independent Technology Strategy Board (TSB) has committed to working “more closely with knowledge-intensive service sectors such as creative industries...to determine how best the Board can support their continued success”¹. It seems appropriate that this report is circulated to the TSB to help inform their strategy.

¹ Page 6, Technology Strategy Board Annual Report 2006

2. Introduction

- 2.1. This report sets out the recommendations from the Digital Strategy Workstream of the Information Age Partnership. The workstream focused on two key areas. Firstly, it provided a high level review of the Government's Digital Strategy, which was published in March 2005 and is currently being implemented, in order to inform its on-going development. Secondly, it looked at the issue of digital inclusion, with a focus on how content services might improve inclusion, rather than tackling access issues.
- 2.2. Led by Ashley Highfield, Director of Future Media and Technology at the BBC, the workstream kicked off in earnest in May 2006. 12 organisations and 5 Government Departments contributed senior staff to take part in workshops in June and September and gave input into the drafting of the final report.
- 2.3. The development of digital content and services can act as a means for creating a more inclusive society. This should serve as a discussion document to stimulate debate about how the overall shape of the Government's Digital Strategy should evolve, the best ways to achieve the actions set out in the Government's Digital Strategy and act as a framework of recommendations for advancing them. This report should therefore serve as an input into Government's own review of the Digital Strategy.

3. Section 1: Review of the Government's Digital Strategy

- 3.1 The objective of this element of the workstream was to review the eight areas of the Government's Digital Strategy and to offer recommendations that could inform its ongoing development and implementation to ensure it remains relevant.
- 3.2 The IAP recognises that the pace of change in the ICT sector is increasing all the time, in particular in the speed of take-up of new technologies such as broadband and

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in the nature and development of content services. This means that the relative areas of focus for the Government's Digital Strategy will need to change over time. The IAP welcomes the recently announced review of the Digital Strategy in 2007, one year ahead of the planned review of the Digital Divide in 2008.

3.3 It is important that in its review of the Digital Strategy, Government looks beyond the issues of digital inclusion and identifies broader areas that the Digital Strategy should cover. The second section of this report identifies some specific areas of focus such as fostering collaboration working between the public and private sector and encouraging individual digital entrepreneurialism, which extend beyond the issue of content services and which could be usefully broadened out into a wider focus for the Digital Strategy.

3.4 This section of the report reviews the eight actions of the existing Digital Strategy.

Summary recommendations

- To transform learning with ICTs, a number of high level objectives should be set around the learning outcomes themselves, which can be delivered by increasing usage of ICTs as enablers for learning rather than as technologies per se.
- For some sections of the population, it might be more appropriate to focus on devices such as digital set top boxes and mobile devices rather than computers to encourage adoption.
- Given the potential scale of the Digital Challenge opportunity for Local Authorities and the constrained resources, the commitment for partnership with industry is required to help with the roll out of the winning initiatives.
- In terms of making the UK the safest place to use the Internet, government and industry should focus on better informing users about the real as opposed to perceived risks attached to different online activities and how they can protect themselves, and on raising business' understanding of how security standards currently available can help them offer more security to their customers when operating online.

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- Government should develop a single Information Security strategy, which has full sponsorship from the top of Government.
- Government should consider partnerships with the private sector to deliver its services rather than rely solely on a single, consolidated governmental portal and also look at the right intermediaries to deliver relevant public services, for example job centres, social workers and voluntary sector partnerships, ensuring that in the development of transformational e-government services a strong focus is maintained on the digitally excluded.
- The measures of success for transformational government services need to be outcome based metrics that measure value delivered supported by input based metrics such as deployment of systems.
- Ofcom's regulatory strategy should continue to recognise the capability of market-led innovation to develop new forms of online content, and focus on ensuring incentives are in place for network providers to invest in capacity.
- Subject to evaluation, 'My Guide', which offers a slimmed down version of the internet to enable beginners to establish confidence, should be rolled out more widely across the UK.
- Government should set up and fund a 'design challenge' to encourage companies to build easier to use interfaces based on open standards with appropriate hooks for accessibility functionality built into the core fabric of hardware and software products.
- There should be a single owner of the e-Inclusion agenda at Government level; amongst other benefits this would help industry engage better with Government and ensure better alignment with the Government's Digital Strategy and the wider EU agenda.

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Detailed recommendations

‘Making the UK a world leader in digital excellence’:

3.5 Action 1 - Transform Learning with ICT (Lead Department: DfES)

3.5.1 It is important that the nature of success for this action is understood in order that the focus does not rest solely on providing improved access to ICTs but rather on how to maximise their use to transform learning. A number of high level objectives should be set around the learning outcomes themselves, which can be delivered by increasing usage of ICTs as enablers for learning rather than as technologies *per se*. The contribution of ICTs to improving learning should then be tracked against these objectives rather than simply, for example, how many students have taken spreadsheet courses.

3.5.2 In helping people make better use of ICTs, a staged approach is required. Whilst communicating the benefits of ICTs at an early stage is important to stimulate interest and giving confidence to users is key to encourage them to invest in equipment, the first point at which users may need tangible help could be in selecting, setting up and then using devices. At that point, people’s competence needs to be further developed before they actually go online. Once online, this is the point at which learning can be transformed through the use of digital content.

3.5.3 Providing access and hardware should go some way to exploiting the potential for ICTs to improve learning, although this does not in itself promote the usage of those technologies. A wider set of initiatives is required to incentivise individuals to get online, for example by offering individuals the opportunity to share in the financial benefits of digital technologies such as receiving discounts on tax bills for online filing. A combination of benefits is normally required for most people, ranging for example from the provision of public sector services online, the ability to buy products and services, to the opportunity to develop personal hobbies and interests and communicate more effectively with friends and family. Content services are discussed in more detail in the second section of this report.

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3.5.4 The focus of this action seems to be primarily on adoption and usage of computers and the Internet by learners of school age. However, for some sections of the population (e.g. the elderly), it might be more appropriate to focus on other digital devices such as digital set top boxes which could also offer opportunities for learning by providing access to a greater range of content whilst being simpler to use than a computer. This should be discussed with the Department for Culture, Media and Sport (DCMS) and the DTI's Digital Television team. More broadly, the Digital Strategy should look at how learning might be transformed for adults as well as learners of school age. Similarly, various forms of services and help could be best provided for via simple mobile or wireless solutions.

3.6 Action 2 – Set up a “Digital Challenge for Local Authorities” (Lead Department: DCLG)

3.6.1 The IAP welcomes this action as it devolves activity to local communities where real impacts can be achieved. It is encouraging that plans are already in place to help all 10 finalists to work co-operatively with each other to turn them all into mainstream initiatives as appropriate. Where relevant, all the proposals should then be embedded at local and community levels across the UK.

3.6.2 Given the potential scale of the opportunity and the constrained resources at an individual community level, engaging industry and the voluntary sector is required to help with this wider roll out. Individual organisations or consortia could focus on a particular winning bid and try to sponsor its development and roll-out going forward – in order to do this fair mechanisms to share core management information and development knowledge will be required. DCLG needs to consider how best to encourage private and voluntary sector investment in this area.

3.6.3 Local authorities should try to identify the potential for the Internet to deliver real benefits for social cohesion at a community level by creating digital content services with local or regional relevance. Experience from Hurricane Katrina in New Orleans has shown that the Internet does not simply offer opportunities to conduct normal business more efficiently and effectively but can also be a powerful tool in

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moments of need. Local authorities need to consider how to turn their online offerings into an area of focus for the local community in order to generate social cohesion, for example by facilitating conversations between different community groups, rather than focus on digital delivery of existing local authority services such as information on planning applications.

3.7 Action 3 – Making the UK the safest place to use the Internet (Lead Department: Home Office)

3.7.1 The IAP welcomes this objective as a key means for giving confidence to new users of the Internet but wishes to confirm the way by which such a challenging objective may be met. By definition the Internet is an international medium, which presents huge opportunities for individuals, communities and business but also presents some risks. It would be inappropriate to reduce the openness of the Internet in an attempt to make the UK the safest place to use it. Phrases such as ‘making the UK the safest place to use the Internet’ potentially give the impression that there is a lot of risk attached to using the Internet. The Internet itself, however, is not inherently unsafe; rather, uninformed use of the Internet could expose users to a higher level of risk, and high profile but small scale issues affect people’s perceptions of risk. Government and industry effort should focus therefore on better informing users about the true risks attached to different online activities and how they can protect themselves from these risks. In particular, surveys suggest that school leavers and others are not picking up good safety awareness at school or on courses. There is therefore a role for DfES to help educate regular users of the Internet to ensure they do not take unnecessary risks.

3.7.2 Education and awareness programs, such as the joint Government-industry sponsored ‘Get Safe Online’ campaign can also make an important contribution to raising understanding of Internet security risks. Equally important is raising business understanding of how recognised security standards currently available (for example ISO/IEC 17799 / BS 7799) can help firms offer more security to their customers when operating online, particularly SMEs that lack major IT security resources. The Digital Challenge (Action 2) could look at ways of working with ‘Get Safe Online’ and

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standards bodies (e.g. British Standards Institute) to improve users' understanding of risk.

3.7.3 Inevitably, as more transactions are conducted on the Internet, the incidence of fraud will also increase. The media has a tendency to sensationalise such statistics, whereas in fact, the Internet may prove to be a safer place to transact than in person. Government needs to help present a balanced representation of this issue.

3.7.4 The Government may have a role to play in incentivising the market to develop better security solutions through innovative procurement and tendering. Government may also help to professionalise the Internet security industry by raising awareness of the newly created Institute of Information Security Professionals (IISP).

3.7.5 Better incentives need to be in place for the private sector to invest in and tackle the area of online security. One part of the private sector, e.g. ISPs, cannot reduce risk alone. The Home Office could help by better co-ordinating private sector effort and working with overseas agencies. Indeed, the Government does not have a single Information Security strategy. A single strategy should be developed which has full sponsorship from the top of Government.

3.8 Action 4 – Promote the creation of innovative broadband content (Lead Department: DTI)

The review of this action is covered by the second element of this workstream later in this report.

“Constructing a robust strategy to achieve our vision”

3.9 Action 5 – Set out a strategy for transformation of delivery of key public services (Lead Department: e-Government Unit (eGU))

3.9.1 Whilst this action is now covered under a separate IAP workstream, the Digital Strategy workstream identified a number of points during its review.

3.9.2 Delivery of key public services needs to be based on a citizen-centric view. Given that one of the key target segments will be the digitally or socially excluded, Government needs to look at the right intermediaries to deliver the relevant service e.g. job centres social workers, voluntary sector organisations or even stimulate new companies and organisations to compete in service delivery. Reliance solely upon a single, consolidated Governmental portal is unlikely to deliver the best outcome given the specific needs, capabilities and approaches that different groups and individuals will have to accessing content online. Government should consider partnerships with the private sector to deliver its services e.g. DVLA transactions being available via AA and RAC websites, and also what incentives are required to encourage online usage (e.g. financial benefits). Clearly activity in this area could be quite resource intensive, but it is recommended that the owners of key public services are encouraged to consider what partnerships and intermediaries may help achieve their objectives for maximising the efficiency, reach and usage of their services. It is important that in the development of transformational e-government services, a strong focus is maintained throughout on the digitally excluded.

3.9.3 The private sector may be able to advise government on how best to achieve end-to-end engagement with customers based on its own experience. Government could consider benchmarking delivery of its services against private sector performance indicators and best practice. Government should experiment with new, more interactive web services that build on the one-to-one nature of the Internet. A balance will need to be struck in this area between the extent of central Government direction and control, and devolvement to individual government departments offering online services.

3.9.4 Given the scale of the potential investment to transform key public services, it is critical that there is clarity over the measures of success. These measures need to be outcome based metrics (e.g. numbers of online users, percentage of transactions online, the degree to which users prefer to use online services compared with more traditional methods of transacting and how e-government can make transacting easier for the socially excluded) supported by input based metrics (e.g. cost or deployment of

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systems), rather than based solely on the input side of the equation. The eGU should retain oversight of this area as part of its ongoing strategy.

2.1. *3.10 Action 6 – Ofcom sets out regulatory strategy (Lead Department: DTI with relevance to Ofcom)*

3.10.1 The IAP broadly welcomes the approach taken on regulation by Ofcom in particular in its approach to giving more choice to users. The IAP anticipates that the scope of regulation of content services could be heavily impacted by the Television Without Frontiers legislation at EU level. Government has a role to play in fostering a regulatory environment that will accelerate a fully digital UK.

3.10.2 Ofcom's regulatory strategy should continue to recognise the capability of market-led innovation to develop new and compelling forms of online content, and the benefits such developments have for the UK economy. It should continue to challenge the imposition of quotas for cultural content being applied to online digital content services. These services have in fact helped the online production and distribution of cultural content blossom through pervasive computing, cheap digital storage and broadband.

3.10.3 Ofcom should focus its efforts on ensuring there are incentives in place for network providers to invest in new capacity, where this is required. Given the fast moving nature of this sector, it is important that there continues to be a sustained dialogue between Ofcom, Government (DTI) and Industry to anticipate any regulatory bottlenecks. Ofcom should seek to work with local Government Departments to ensure their needs are adequately represented at a regulatory level.

3.11 Action 7 – Improve accessibility to technology for the digitally excluded and ease of use for the disabled (Lead Departments: Cabinet Office & DTI)

3.11.1 The IAP notes the establishment of around 6,000 UK Online centres, many of which are located in relatively disadvantaged areas, and which aim to motivate people

to use the Internet by providing people with skills, confidence and motivation, for example by highlighting the financial benefits of Internet shopping or its social, general interest and hobby uses. These have been piloting a scheme called 'My Guide' which offers a slimmed down version of the internet to enable beginners to establish confidence. Given the apparent success of this pilot, the IAP recommends that, subject to evaluation, this scheme be rolled out more widely across the UK. There may also be an opportunity for the 'My Guide' initiative to work with 'Get Safe Online' to maximise synergies (see 3.7.2).

3.11.2 The degree to which big institutions can help with accessibility issues is a moot point. On the one hand, industry needs to consider whether it can help alleviate the issue of social exclusion for example by offering appropriately configured and priced devices to certain segments of the population or building out infrastructure in socially disadvantaged areas. However, the focus for accessibility should also be on how to train and encourage intermediaries to help the socially excluded get online, particularly intermediaries holding a position of trust. For example, local authorities should provide training packages for key workers such as social workers, home helps and registered carers who could help the elderly or disabled use the internet or set up digital television receivers when visiting their homes. It is important that an analysis is undertaken that compares the benefits of extending Digital Inclusion in this way with the potential costs, and the extent to which Digital Inclusion may improve in any case if left solely to the market.

3.11.3 Industry can help in the way it designs its hardware and software products for use by people with accessibility issues. For example, there is a very helpful accessibility function in Windows, but very few people currently know about it or would know how to turn it on, though this is expected to improve significantly in the Windows Vista version. The private sector needs to do more to build in ease of use into its products more generally and make products as simple as possible and ensure they can be easily extended by use of functional accessibility hooks to allow special needs to be met cost effectively. One way of incentivising the private sector could be for Government to set up and fund a 'design challenge' (akin to the 'design a \$100 laptop' challenge in the US) to encourage companies to build easier to use interfaces based on open standards with appropriate accessibility hooks (or APIs or interfaces)

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built into the core fabric of hardware and software products. As noted in 3.5.4, devices such as digital set top boxes could be more appropriate for some sections of the population (e.g. the elderly) than PCs. The design challenge could extend to set top boxes that combine IPTV and other public services such as telehealth and access to the talking book library.

3.11.4 e-Inclusion work is fragmented across Government and there is a need to ensure that the Government's Digital Strategy fits into a wider e-Inclusion agenda. A single owner of the e-Inclusion agenda at Government level would not only help industry engage better with Government on this agenda but it would also ensure that a single digital inclusion agenda could be set that could be more easily aligned to the Government's Digital Strategy and the wider EU agenda.

3.12 Action 8 – Review the digital divide in 2008

3.12.1 In anticipation of the review, the IAP considers it would be helpful for overall success criteria for the Digital Strategy to be developed and for the individual actions to be mapped against these. There then needs to be an ongoing measurement mechanism to identify progress against digital divide issues, based on the type of dashboard measurement of key performance indicators adopted widely by industry. As a consequence, there should be a single owner of the overall strategy and there needs to be funding to track its progress. This links back to the observation in Action 7 that work by Government on cross-cutting issues can sometimes be fragmented.

3.12.2 As explained above, the IAP would be supportive of the view that the Digital Strategy and the Digital Divide should be reviewed in 2007 rather than 2008 to recognise the fast pace of change in this area. In particular, an opportunity exists in the context of Digital Switchover to drive overall digital literacy, not just in terms of take-up of linear television but also in digital, two-way, broadband services. A review of the Digital Strategy in 2007 should investigate the economic benefits to a knowledge economy of having an increasingly connected population and could consider how the digital literacy message could be communicated at a time when many people will be investing in new devices.

4. Section 2: How to improve Digital Inclusion, with a focus on content services

4.1 There has been a lot of effort committed over the past few years to solving the issue of access to ICTs. While solving these issues remains important, the availability of appropriate and attractive content services is an important factor in encouraging people to adopt ICTs and in ensuring they derive the maximum benefit from the Internet.

4.2 The objective of this element of the workstream was to develop a set of recommendations that would help foster the development in the UK of relevant and attractive content services online in order to improve Digital Inclusion.

4.2.1 Communicate widely the DCLG's report 'Inclusion Through Innovation: Tackling Social Exclusion Through New Technologies'

4.2.2 Very few content services have universal appeal such that the most successful content services are often targeted to a specific user group. The principle of targeted services should therefore be applied to the digitally excluded segments of the population, taking advantage of the Internet's enhanced capabilities for profiling and targeting specific user groups. An example of a success story includes call centres that use video conferencing technologies to help the hard of hearing.

4.2.3 Given a more comprehensive understanding of how new technologies can tackle social exclusion, the IAP believes that private enterprise would invest in developing tailored solutions. It is critical that the DCLG's report is circulated widely across the private sector to serve as a catalyst for investment by helping the private sector identify market opportunity. Whilst Intellect has already volunteered to circulate the report among its members, other bodies with specific mandates in this area, such as the ADI (the Alliance for Digital Inclusion) and NESTA (National Endowment for Science, Technology and the Arts), should also take on board this report in developing their own initiatives. In addition, DTI should work with DCLG to identify the most

appropriate channels of communication and determine the best way of presenting the findings.

4.3 Government should seek to stimulate demand for content services

4.3.1 The IAP welcomes the Effective Content Initiative, which is a joint DTI and industry initiative to promote the use of effective digital content in the public sector, which should help government make appropriate use of private sector expertise in developing its own content services. Government has a crucial role to play not only in trying to foster the right conditions to help providers of content services to flourish (supply side issues) but also in creating the right incentives for companies to invest by stimulating demand. This means not only publishing a clear description of its needs a number of years in advance but also allowing suppliers to own the IPR which they develop as part of their offering. Over time, this should make the market more sustainable.

4.3.2 Taken together, these factors would encourage providers of content services to invest money in the development of services, for which they know they would get some return, but which they could also exploit more widely. Taking bold but calculated risks and being more innovative would lead to better public services, big cost savings, and knock-on innovation benefits to the whole economy.

4.3.3 A strategy is required to foster collaborative working between the public and private sector and to encourage individual digital entrepreneurialism

4.3.3 The opportunities for the UK to lead the way in content services are large, particularly given its English-language capability and its track record in research and design. To maximise the opportunity, however, the UK needs to find a mechanism for engaging academia with the private sector so that they are working together to develop innovative content services. In essence, the gap between research and innovation needs to be bridged by examining how to improve and facilitate partnerships between the private and public sector, as was highlighted in the Lambert Review of business-

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university collaboration and as Lord Leitch's current review is expected to further advance. This should form part of the work of the newly created Technology Strategy Board (see 4.8.1).

4.3.4 This is particularly important as the nature of research and development is changing. Whereas in traditional industries, research can last many years and is conducted in a very structured way often developed out of academia or industry research labs, innovating in the Internet world is based on very short development cycles with multiple product releases (the software development model), leading to the concept of 'perpetual beta'.

4.3.5 Moreover, with open standard APIs lowering the barriers to entry, development is conducted through groups of enthusiastic users, and not just the research communities. Businesses are now engaging with their customers at earlier stages of product development through the use of online communities of interest, soliciting informal feedback and customer reaction through engagement on blogs, forums and social networking websites in an ongoing process of product or service development. Based on partnerships with the private sector, such models could be adopted in the development of academic and educational content to help ensure the end-product created is relevant to the fast-moving developments in ICT services, helping formulate demand-led training and education. The Government needs to work with the Research Councils to help academia adopt a newer model for innovation in order that concepts and ideas can be turned into reality much more quickly. Moreover, individuals need to be encouraged to become digital entrepreneurs themselves, contributing to a highly connected knowledge economy, through collaborative projects fostered by government and industry working together.

4.4 Communication of the tax credits applicable to software development is required along with further consideration of the definition of research to incorporate wider innovation and training in order to incentivise content providers to invest

4.4.1 Currently there are tax advantages and other incentives for companies that invest in traditional research activities. HMT has confirmed that software development is eligible for tax credits. Intellect is working with HMT to train tax inspectors on how to

evaluate software claims. However, there is still much work to be done in educating companies, in particular SMEs, on how tax credits in this area might work for them. There is also merit in considering further the definition of research to incorporate wider innovation and training to incentivise content providers to invest given that the majority of production in the UK moving away from the manufacture of physical products. The DTI should work with industry to identify the best channels to communicate available tax credits to SMEs and to analyse how the regime might be changed to promote further investment and build a case to take to HMT.

4.4.2 A key issue is that many SMEs are suffering from a skills shortage in this area. This is partly because of the cost of training programmes, the opportunity cost of taking employees off core activities and the fact that once trained, employees are more marketable and may be poached by other companies. There is a risk to UK competitiveness if the skills issue is not addressed. With the 'e-skills Council' not being funded to run its own large scale training programmes, it is recommended that spend on targeted, relevant training in this area also receives tax credits along with research. This should apply to the self-employed as well as employees.

4.4.3 The ADI, NESTA and RDAs need to communicate effectively to a disparate community of developers

4.4.4 A major challenge in the area of content innovation is the fact that SMEs are a diffuse community. Furthermore, content companies do not typically seek out funding from traditional sources, making it hard for available incentives to reach them. It is crucial that mechanisms are found to engage with this broad community.

4.4.5 The most appropriate route to reaching the companies in these sectors is through RDAs, who can liaise at a local level with companies and assist in trying to channel funding through to them. The ADI, NESTA and, to some extent, the Technology Strategy Board, however, also have a role to play in trying to reach as many companies as possible with their initiatives and to communicate wider incentives than those that they fund alone. Working with Government, these bodies also need to

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communicate the demand for new content services, whether with Government as buyer, or more broadly in terms of future trends in consumer behaviour.

4.5 A thriving content services sector is dependent on highly skilled graduates entering the ICT sector

4.5.1 The creation of compelling web content relies on highly skilled designers and developers who can build applications that maximise the potential of the web. It is therefore critical that students are encouraged to take-up relevant degrees and that more highly educated graduates enter the ICT sector.

4.5.2 One potential way of encouraging more graduates into the ICT sector is for universities to make a more explicit link between IT courses, which can be quite theoretical, and new job opportunities such as working in web development and new media companies, which can offer exciting and creative cultures to work in. This action should be taken up by DfES in partnership with the Higher Education Funding Council for England (HEFCE) and its equivalents in Scotland, Wales and Northern Ireland.

4.6 Venture Capitalists need help in understanding the nature of the content innovation sector

4.6.1 By definition, the area of innovation can be risky as only a small proportion of ideas will turn into exploitable products and services. However, there is a sense that venture capitalists do not typically invest in this area through a lack of understanding of the opportunities and how best to exploit them.

4.6.2 Whilst NESTA currently fulfils a role in funding some innovation, a large injection of investment from venture capitalists would help stimulate the growth and development of UK-based creative industries to better compete in a global economy, particularly in the areas of gaming and new types of online content. The DTI should consider setting up a programme that helps venture capitalists understand this sector better, in particular identifying and understanding international role models that have

had success in this area and supporting events that facilitate networking and discussion between innovative start-ups and venture capital providers.

4.7 The UK needs to have clear and appropriate measures for innovation

4.7.1 With the shift towards a different model for development as described above, it is important that Government measures the right sectors and activities that fall under innovation. This will help Government understand the degree to which the UK is investing sufficiently in this area.

4.8 The most appropriate bodies to take forward these recommendations are the Technology Strategy Board, the ADI and NESTA

4.8.1 The newly created, independent Technology Strategy Board (TSB) is taking over the funding next year of the £178m Technology Programme. With a remit to fund industry R&D projects, advise Government and help UK businesses take up new innovative technologies, the TSB has committed to working “more closely with knowledge-intensive service sectors such as creative industries...to determine how best the Board can support their continued success”². It seems appropriate that this report is circulated to the TSB to help inform their strategy.

4.8.2 Both the ADI and NESTA have remits to foster innovation in design and new media services. Rather than setting up another body with a specific remit in this area, it seems expedient to pass the recommendations from this workstream directly to ADI and NESTA, who can work with Government and Industry to take the actions forward. A discussion needs to be had with the ADI and NESTA to confirm how they might take the actions forward.

4.8.3 Both the ADI and NESTA should ensure that the scope of the issues that require action are built into their remits, for example in assisting SMEs with understanding IPR issues.

² Page 6, Technology Strategy Board Annual Report 2006