

Universal Internet Access: A Realistic View | 1

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Universal Internet Access: A Realistic View



Citizens Online is a not-for-profit, completely independent organisation, established to explore the social and cultural impact of the Internet, to implement positive action to bridge the so-called Digital Divide, and to promote the benefits of Universal Internet Access.

Citizens Online has pledged to working in partnership with Government, Industry, Voluntary and Community organisations, to bring together the resources and expertise across all sectors to ensure that those who do not have access to the Internet, for whatever reason, have the opportunities to do so if they so wish.

Ambitious targets have been set by Government to achieve Universal Internet Access by 2005. Citizens Online has a role in addressing the needs of those in our society who are most at risk of falling through the Digital Divide.

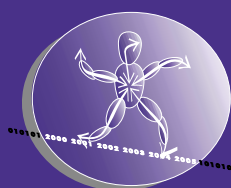
Citizens Online believes that the companies who make the technology to access the Internet have a social responsibility to consider the impact of their activities on those in society who do not have access.

We will work with research organisations to establish a clear picture of where to divert their efforts in the UK towards wider inclusion. We will also launch and extend programmes aimed at providing and improving access and use of the Internet in society

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Citizens Online

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Universal Internet Access: A Realistic View

Introduction

This is the first in a series of IPPR/ Citizens Online papers which explore the social and democratic role of new media. *Universal Internet Access: A Realistic View* discusses all the relevant issues around the 2005 target set by the Government, and proposes a coherent strategy to ensure that the benefits of the digital age reach all citizens.

Series Editor - Damian Tambini - IPPR

About the Author

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His publications include:

Cyberdemocracy (1998) Routledge

Citizenship, Markets and States (2000)
Oxford University Press

Digital Danger (2000) IPPR, London.

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1. Universal Internet Access: A Realistic View

New digital communications technologies offer opportunities for renewing democracy, fostering innovation, opportunity and economic development, and providing all members of our society with resources and opportunities previously out of their reach. Scarcities of certain types of information - for example the fact that some children have few books at home - could be offset by provision of virtual libraries, and ensuring access to publicly owned digital education resources. Citizens could be empowered by easier access to government services and those who provide them. And workers could develop the skills to perform in the new economy, benefiting themselves and the broader society in the process.

This paper outlines a coherent government strategy to ensure that the benefits of the digital age reach all citizens. In the first years of the impact of digital media, a small minority has benefited. Even if digital communications technology use continues to grow at its current unprecedented rate, a large group of citizens will remain excluded from the digital age. Not only will they and their children suffer from the resulting social exclusion, but society as a whole will suffer because building broader public access, and building the information infrastructure necessary for developing an innovative modern economy, are one and the same task.

Ensuring competitive communications markets is a key to ensuring fast rollout of digital services. Even the most competitive of markets, however, will not deliver genuinely universal access without a clear and stable regulatory framework which aims to ensure that benefits reach all.

This paper examines what Government should do to reach its target of universal access to the Internet by 2005. It argues that a more co-ordinated approach to access is required and that at the centre of that approach should be the idea of a citizen's right to access digital services, rights not only to connectivity, but also

to content.

Rights and entitlements are often thought to be the concern only of bleeding heart liberals: well-meaning gifts to grateful citizens. On closer inspection however, many of the things that we think of as rights or entitlements of citizens are revealed to be the result of sound economics and pragmatic politics. The universal right to education, for example, emerged at the precise historical moment when the economy demanded a unified language across the country and a population able to read instructions. Schooling also had the convenient effect of including people in a democratic public, and rendering government more effective and efficient.

Rights to information and communication technology are just as pragmatic: they will not become a reality because of the altruistic need for social inclusion or - heaven forbid - because of an abstract notion of equality. They will rapidly become a reality because the economy and the government urgently need them. The government has no choice but to grant universal rights to Internet access.

There are, however, many possible routes to universal access, each with its own consequences for government, the economy and citizens. This paper outlines a very simple and general set of principles for defining universality, which should inform the approach of government and the communications industries. Universal Internet Access should mean access for everyone, to the whole Net, from home.

- *Access for everyone*

This paper outlines why universal access should be a key government objective. It explains why universality - rather than improved take-up - is crucial. Providing access for all is a policy area in which promoting social justice and inclusion is in harmony with economic efficiency. Universal access would maximise the overall value and utility of the UK information infrastructure.

- *Access to the whole Net*

There is a tendency for interactive service providers to monopolise consumers and corral them toward proprietary content and restricted shopping malls. This is a huge problem for those hoping to improve public service delivery by ensuring citizen access to public services and educational content, and from the point of view of fundamental rights of freedom of movement, association and speech. And a genuinely borderless, any to any network is what spurs new economy growth. Access policy should focus not only on access to hardware, but on access to content. The basic aim of ensuring citizens can easily type in any URL and quickly access content should guide the overall approach to interoperability on the Internet.

- *Access from home*

Those who have access from home are far more likely to use online services more. Children are often unable to leave home in the evening to access public terminals and access points, and people in rural areas face much longer journeys than do city dwellers in the attempt to get access to public terminals. A serious policy that seeks to address emerging inequalities of access should be committed to promoting access from the home.

In the final section, the paper outlines the measures that need to be taken now to ensure that universality becomes a reality. The central idea is neither original nor radical: UK media policy should be informed by a clear commitment to universal access to the whole Internet. Because the implications of a joined up access policy apply across a variety of policy areas, from digital television licensing to public service broadcasting, to telecommunications universal service and other funding mechanisms, the notion of individuals' communicative rights should become a more fundamental basis of access and universal service policy. A series of policy measures to ensure that Universal Access becomes a reality should be immediately put into place. These are listed at the end of this paper. •

2. Access as a public policy objective

Imagine the scene, a school classroom in 2010:

'Before you go children I would like to set you your homework project for the next week. Here is a list of questions I would like you to answer. To answer them well you will need to find more information. I suggest you go to the British Library and the British Museum at the weekend. You should also go to the Library of Congress in Washington. Come in to the school library too. If you have time, you can also try this list of other places as a starting point. As ever, try to find additional information and links. You will find more at nationalcurriculum.com at course task number hist.243. Mail your answers to the exercises to the automarker. If you have any problems you can mail me questions over the weekend and I will answer them as soon as I can. Mail me your answers next week and we can discuss them in class.' -Teacher, 2010.

New information and communication technologies could enhance the basic freedoms and cultural life of UK citizens hugely over the next decade. They render accessible a huge wealth of culture and information that was previously out of reach. The educational benefits are already being realised. Homework packages have the potential to guide students, including those previously excluded because of shame or fear, through the basics. They also offer the brightest students the possibility to do more: to follow links of interest in ways that are not limited by the number of books that a student, school or library can buy, or that the child can fit into her bag.

And education is only one of the public services that is being transformed by the shift away from paper-based technology as new interactive media become available to a wider population. The efficiencies and network effects that have led people to hail a 'new economy' have implications in all areas of social life. Health and other services are being made available via online media, rendering delivery of those services more flexible and efficient – for those who have access to the necessary phone, digital television or Internet

technology.

The rosy scenario we have depicted, however, may not come to pass unless actions are taken now: it assumes that our media infrastructure develops in ways that are by no means inevitable.

Perhaps the teacher will be confronted with a class in which less than half students have access to the entire web. By 2010, we can predict that most households will have access to some digital services package at home, but that not all these packages will provide full access to the entire Net. Some children will have an interactive digital tv package that offers access only to the content that is selected and funded by a single private company. Some parents will have bought a cheaper package offering access only to an online shopping mall, which has no ability to search for national curriculum sites. Should the teacher give out the list of sites and risk privileging only those who have full access from home? Or should she set a homework task that offers none of the excitement that independent digital learning can offer?

And education is only the tip of a rapidly expanding iceberg of online services. The efficiency gains to government of delivering services electronically will be greatest if public services are provided in ways that are accessible to all citizens. Education services are the key: it is by accessing education services that citizens will first use the technology. And a lack of education and media literacy are themselves the main barriers to access. If they are not accessible to all, digital services will reinforce social exclusion and quickly seem illegitimate. Already, I can file my tax returns, have my child's homework marked, go to the job centre, access information on local government, vote, and contribute to political discussions online from my home. My neighbour, who has no Internet access, cannot. This is not only a problem for her: it is a problem for all of us. Electronic services that cannot be accessed by all will be less efficient, less legitimate, and likely to prove an embarrassment to government. •

3. Universal Internet Access by 2005: What does it Mean, and Will the Market Deliver?

The UK Government is ahead of most in responding to the challenges of online media. They have made a public commitment to 'universal access to the Internet' by 2005. Both the Prime minister and the e-Envoy have publicly announced the targets (http://www.ukonline.gov.uk/speech_launch.htm). But what does universal access mean?

At first glance, the target seems hugely ambitious. Even if we take into account Internet access via digital television and other devices, the idea that we will all own devices able to access the Internet in such a short time seems pure science fiction. The answer is found in the small print: when pressed on these matters, officials from the E-envoy's office are quick to point out that the target includes public terminals. Universal access will be achieved when we can gain access to the Internet from public libraries, Internet cafés and street terminals. At this point the disgruntled citizen would be justified in saying that the targets have already been met: there are public libraries and Internet cafés near all our homes. If the targets include these then surely we have universal Internet access already.

In order to escape these criticisms, the targets should be clearly defined in terms of access to the whole web, for everyone, from the home. It may be that this will be difficult to attain by 2005, but at the time of switch-off of analogue broadcasting, it should be possible to have universality. But only if the government pursues a proactive politics of universal access rather than launching well-meaning but ultimately empty slogans.

Clearly, digital television, games consoles and phones will contribute to improving access. But whilst a commitment to competition and a multi-platform approach speeds rollout, it may not alone deliver universal access.

Why worry? Why should the government have any

involvement at all? When we look into a future of digital plenty, are we not looking at a Negropontian vision of trillions of bytes flowing into and out of our homes on an increasing variety of platforms? The number of people online globally rose by 80% between 1999 and 2000 (U.S. Department of Commerce, 2000). In the UK the number of Internet users rose from 4.9m households in October 1999 to 7m households in August 2000 - More than a quarter of all households in the UK now have access to the Internet. The numbers of new users in the first years of rollout of digital television have far exceeded expectations. (MMXI Europe, 2000). Shouldn't we trust in the market to continue to roll out digital technologies and devices?

We are indeed entering a phase of rapid technological rollout. Recent research predicts that eighty million households in the EU will be using interactive television to go online by 2005 (Forrester Research). Games consoles cost much less than other Internet enabled devices, and WAP phones will offer another potential gateway to interactive content. But even in the US, where penetration is far ahead of UK rates, the top predictions are that 71% of households will have access to the Internet by the end of 2005 [<http://www.etforecasts.com/pr/pr600.htm>].

Despite this; we should worry for three reasons: First, as was the case with telephony, universality will not be achieved without regulation. In the UK, penetration of PC ownership is likely to tail off at around 50% of households, as it has done in the US. Even with the incredibly fast initial rollout of digital TV, and all that is being done to guarantee access to the excluded, there will remain a significant minority who will not be able to take up the digital services. Second, there will also be significant inequalities in the quality and speed of access. Third, we should worry because of the emerging inequalities in access to Net content. Access to hardware alone is not sufficient to bring the full benefits of e-commerce, if users are locked in to an anti-competitive market of suppliers. Merely having the hardware will not empower citizens democratically. It will have the opposite effect if they are corralled by search engines

and garden walls into a limited menu of content owned by a single provider. Merely distributing the hardware is not the most effective way to jump-start the information economy: it will appear a cheap fad if hardware rapidly becomes obsolete and there is no guarantee of replacing it.

Access for everyone

No one will deny that we should improve access to digital services. But why promote universal access? Why should universality be a public policy aim worth paying for? Discussions of access have tended to focus on the spectre of increased social exclusion resulting from the uneven rollout of new media. These concerns are important, but should not obscure the key economic benefits of universal access, which cannot be reduced to the sum of the benefits to individuals. Universality of access, rather than broadened access, matters. Without universality of access, many of our hopes for the new technology, for innovation in economic development and the new economy, for e-commerce, for provision of electronic service delivery, for advancement of education and for the growth of e-democracy, simply will not come to pass. We should aim to provide for those excluded not only out of altruism, but for the efficiency of the whole network. It is this last 20% that will drag down the rest. Their non-participation (or inability to participate) will hinder e-government, will restrict the development of e-commerce, make e-democracy illegitimate and act as a general brake on the development of the new economy.

Accessing the whole Net: intermediation and access to public intangible assets

Access policy must take into account the new trends that are transforming the online world, and act with clear vision regarding the genuine - and unfulfilled - potentials of the new media. Previously the site of non-commercial, free exchange, the Net is increasingly controlled by invisible intermediaries, in the shape of commercial search engines and walled gardens. Net users, though they may have the impression of inhabiting a free space

of searchable content, are in fact subject to an increasingly restrictive commercial logic that determines what their searching will deliver. Search results are increasingly dictated by expensive registration with search engines, and e-commerce creates incentives for digital services packages to lock consumers in, rather than grant them freedom of the web. (Mansell 1999, Rogers 2000).

Whilst a degree of corralling and walling is inevitable on the web, this logic, if followed to extremes, threatens to undermine many of the benefits of the information society. It will act effectively as a restriction of citizens' right to access government services, such as education, that citizens have paid for, restrict access to the free, quality public content that are a benefit of the new digital world, and undermine the information infrastructure of the country. The government has taken a proactive position in relation to the rollout of new digital services, for example through the high profile targets for Internet access and digital TV switchover. It must clarify what those targets mean and why they are important. Without a clear idea of why universality of access matters, it will be difficult for the government to develop a co-ordinated approach to access across various aspects of communications policy.

Access from the home

There is, further, a general problem of whether to promote access from home, or access from public terminals. Research on rates of use of public terminals shows that users with terminals at home use these services at much higher rates than those without. In a civic network studied in Canada in 1997, access was given via both public terminals and home PC. Only 15% of the users reported using public terminals for any of their connections, and only 1% relied on public terminals for all their connections. (Patrick, 1997). Whilst rates will depend to a certain extent on the convenience of terminals, it is clear that there will be a preference for access from the home. Access from the home means more access, more inclusion, and more efficiency.

An overbearing government access policy may not be

popular. The public might, with some reason, fear a 'telescreen scenario' where television is replaced with the interactive agent of Orwell's Big Brother. These fears must be allayed. This can be done through support for and improved public awareness of existing policies towards use and exchange of personal data and a coherent policy on online legal identity. Another response to the '1984' objection is to ensure that the process of digital take-up is driven at bottom by empowered citizens claiming services that they want: such as government services and quality, free educational content. Policy, lastly, must be prepared to tackle the objections based on uneasiness about sex and violence on the Internet, and take positive action to protect children. (Tambini, 2000). •

4. Why Universal Access Matters

Innovation, economic development and the new economy

The centrality of ICT to future economic development is clear. U.S. Vice President Al Gore released a report in June 2000, which showed that the IT industry accounts for more than half of the improvement in U.S. productivity since 1995. It also showed that those employed in the sector earn average wages 85% higher than the private sector average. And it is not merely the IT industry narrowly defined that is driving growth. According to the report 'the new economy is being shaped not only by the development and diffusion of computer hardware and software, but also by much cheaper and rapidly increasing electronic connectivity (U.S. Department of Commerce, 2000).

The debate about the precise role of ICT in productivity will continue. But it is clear that the shift to new digital media involves various forms of network effects. Network effects refer to the fact that the value of a network increases exponentially as new nodes or users are added. A single telephone is worthless if there is no one to call. But as each new telephone is added to the system, the value of each increases, until telephones become indispensable when universality is reached. Such patterns depend on access, inclusion and interoperability, and are most powerful when nodes in a network can easily access every other node in the network (as can telephones and the world wide web, no matter what provider). In the case of the web, network effects depend upon the searchability of the medium, which ideally enables nodes to find one another insofar as they can be represented in searchable natural language. U.S. new economy growth is based on the web - which has been an any-to-any network, with maximum flexibility and searchability.

Promoting network benefits can lead to tough policy decisions. There may be a trade-off between the benefits to the provider of a service -e.g. an ISP or a digital broadcaster and that to the network as a whole. 'The

benefits from this process may not directly accrue to the network provider, but may instead turn out to be externalities which will be reaped by others: end users, providers of applications which ride on the network, even competing network providers. In the end, however, the benefits will be felt on an overall basis by the regional and local economies and by the communities served by the network providers' (Bar and Riis, 1998: 4).

Universality of access will bring huge benefits as a basis for innovation-driven economic growth. '*Because an initial push is necessary to get the innovation cycle started and because many of the initial benefits are external to individual providers, policy has a critical role to play in harnessing the innovative potential of a broad base of lay users.' (Bar and Riis, 1998: 24). Given these broad economic benefits, it becomes less critical to define the precise list of services that should be included in a new definition of universal service than to encourage experimentation with a variety of services. 'What is especially critical to that ability is the broad availability of an advanced infrastructure, not particular decisions about individual services.' (Bar and Riis: 1998, 24).*

e-Commerce

A second reason to support universal access is to promote e-Commerce. The Booz, Allen and Hamilton Report to the Prime Minister's Policy Unit issued in February 2000 showed how access to the Internet can lead to a virtuous cycle of innovation and entrepreneurship. Users progress through stages of passive use, active use, authorship of content, and then sales and e-entrepreneurship (Booz, Allen and Hamilton, 2000: 18). The more individuals are granted access and can enter the first stages of this cycle, the more they will become innovative drivers of e-commerce.

There are also dangers that consumers without access to e-commerce-capable technology will be excluded from the price, quality and convenience benefits of e-commerce, much as those who do not drive cars

suffered the rise of supermarkets. Without universality, e-businesses will not benefit from access to the broadest domestic markets that will prepare them to perform in the global marketplace. It is not only individual consumers that will suffer if significant numbers remain excluded from e-commerce, however. The viability of e-commerce depends on efficiencies in content provision and distribution services. As more people use e-commerce services, distribution costs decline. When everyone, and every neighbourhood, uses them in some way, costs become minimal. These benefits apply both to B2B and to B2C. Finally, if access to the whole web is not granted, competition in e-commerce will suffer, which will have generally detrimental effects for the economy as a whole. In order to develop an information infrastructure that is genuinely going to make the UK the best place in the world to do e-commerce, therefore, access policy must be two-pronged. We must seek to get as many nodes as possible onto the network, and take measures to ensure that those nodes can easily access one another.

Electronic service delivery

Electronic service delivery raises more acute problems. According to the government, all its services will be accessible electronically by 2005. Should large groups of citizens have no access, not only will delivery be less efficient, but electronic service delivery will look increasingly illegitimate, as citizens that have paid for those services will be unable to access them (Tambini, 2000). The greater the variety of means and quality of access that persists, the greater will be the cost to government agencies in providing the services: content will have to be reversioned for a variety of speeds and qualities of access.

Those delivering electronic government services must therefore take into account the complex of issues surrounding the increasing variety of ways that the public will access their content. With the rapid changes in this technology, PC Internet users can upgrade their access capabilities by downloading new design software capabilities in order to open and read documents and

websites configured using the latest technology. First generation digital television set top boxes and WAP phones do not allow new software to be downloaded and saved. Users will therefore not have access to new types of webpages and designs. There will be a constant differential in the quality of access, and service deliverers must therefore continually monitor access. The challenge is to achieve the broadest possible access whilst not stifling innovation.

Efficiency gains will be proportionate to the numbers who access the services electronically: access from the home will be the main driver of use of electronic services and therefore of efficiency gains in service delivery. If citizens have to go to a public terminal, they may just as well go to a public office or a post box to conduct transactions with government.

Education

Education services are a case in point. One aspect of digital education services is the aim of developing distance learning and innovative new packages for schools. Education is a basic entitlement of us all, and the national curriculum is presumably owned by all of us. When these public education resources, and national heritage content such as museum sites are made available over the Net, all citizens should have equal rights to access and benefit from that material. Should some have better access than others it is likely that social exclusion effects will be compounded, inefficiencies introduced, and the knowledge-based economy will suffer the long-term consequences.

And access to hardware and content is no use unless citizens have the basic skills to use them. Universal written and writing literacy, though still an unfinished project, emerged as a goal of education at a time when citizenship and economy required those skills. New forms of digital literacy are rapidly becoming essential. Those who fail to become sufficiently skilled to use them will become stuck in self-reinforcing cycles of exclusion, just as those who lacked functional literacy in the past did.

e-Democracy

e-Democracy, without universal Internet access, is equivalent to elections without universal suffrage. The range of experiments with the new technology, such as electronic voting, online deliberative polling, discussion groups and open government information provision, will be neither efficient nor legitimate whilst access is restricted. The hope that e-democracy can reverse the trend to apathy that is currently undermining the legitimacy of governments in all Western Countries can therefore not be realised without universal access.

New media will not catapult us into a new electronic Athens of direct democracy any more than the old media did. They will certainly however, like previous changes in media technology, transform the flows of public debate and conversation that are the lifeblood of democratic life. Those who use the new media will be empowered by easy and fast access to new forms of political information, they will be able to organise themselves and campaign more easily, and they will have access to significantly more 'voice' in the broader democratic debate. This is not the future, it is now. With the rise of online polls, government information and discussion groups conducted by mainstream media, the voice of the e-citizen is already much louder than that of citizens without access, and e-citizens have many more information resources at their fingertips than those who do not have access. •

5. The Long Term View: Why Internet Access Matters

Policy Objective	Infrastructure & Access			
	True Universality:	Non-Universal Access.	Walled Garden/ mediated access.	'Access' from outside the home.
	Access by everyone, to the Whole Internet from home	Only part of the population is online	Access to only part of the Net	Public terminals
Stimulate e-Commerce	Network effects, economies of scale in distribution	Inefficiencies, (e.g distribution)	Less competition, monopolistic, provision	You may as well go to the shop warehouse/ market/ supplier
Promote innovation/ economic growth	Network effects, innovation, Skills learning	inefficiencies, slower growth in new economy	Lack of network effects, monopolistic provision	Promoting innovation & economic growth or permitting it
e-Democracy	'Universal Suffrage', possibility of using media to recruit participation & stimulate deliberate democracy	Lack of legitimacy, sampling error, non representative	Lack of access to public service information & 'quality content'	No cure for apathy, or the link between social exclusion & participation
e-Government/ Electronic Delivery	improvement in service to citizens at reduced cost	Social exclusion, inequalities of service provision, illegitimacy, reversioning of content	Social Exclusion, inequalities of access, inefficiencies of service provision, illegitimacy reversioning of content	Fewer efficiency gains, incentives to learn/ use technology. 'I may as well go to the phone/ postbox/ government office
e-Education	Provision of IT skills, promoting lifelong education, including those alienated from school based learning	Illegitimate, unfair advantage information rich compounds social exclusion, inefficiencies	Lack of access to public sites information around the world, radical diminution of educational research potential of the Net	Apathy, inequality of public service provision, social exclusion, digital divide exacerbated

It is clear that near-universal access will be a great deal worse than universal access and that there is a role for government in promoting universality. It is also clear that access from the home is far superior to public terminal access, and research confirms that people are far more likely to use digital services from within the

home, rather than public terminals. The next question of course is how to go about it: What are governments and industry already doing to promote universal access to services such as the Internet? and what should they do? •

6. The Legacy: Access to Telephones and Television

Before the Internet and interactive digital television, policies on telephony and broadcasting contained a clear commitment to universality in all European countries. All citizens enjoy effective rights of access to telephone services at affordable price. Universal service obligations (USOs) are imposed on telecommunications suppliers that oblige them to subsidise service to those people in outlying areas where service would be uneconomic to provide at cost or low use customers who are uneconomic to maintain. Oftel's recent consultation on universal service in telecommunications (September 2000) defines the objective for universal service as:

to ensure that those telecommunications services that are used by the majority and which are essential to full economic and social inclusion are made available to everybody upon reasonable request, in an appropriate fashion and at affordable price. (OfTel 2000: iii).

Broadcasting, another tributary of converging communications, has also enjoyed a universal access regime. In broadcasting the universal service obligation has seldom been defined as such, but a broad consensus exists that freedom of access to the information necessary to full participation in economic, political and social life is a central element of citizens' entitlements in modern societies (Collins and Murrioni, 1996: 76). This has been defined more in terms of access to content (listed events, privileges for free-to-air public service broadcasting must carry rules) than access to signal. The five core, free-to-air channels will be carried on all digital broadcasting platforms. Additionally, certain key TV events are listed, to prevent them being siphoned off to other platforms. Tom Gibbons summarised some of the ITC's (1997) provisions on what must be carried:

'free to air broadcasts, such as those of the BBC or Channels 3, 4 or 5, should be displayed on EPG menus in an easily accessible form which does not discriminate in favour of pay television services. Furthermore, due prominence should be given to public service channels,

access to which should be no more difficult than other channels, and viewers should be able to obtain'. (Gibbons, 2000).

Legal precedents for rights of access to TV signals are complex and unresolved. Previously, the interruption of television signals by building work in the past was claimed a nuisance. A crucial House of Lords decision (Patricia Hunter and Others v. Canary Wharf Ltd. 1997) was not upheld so there is no direct precedent for a right of access to TV in the UK at present. Similar claims have however been upheld in other countries such as Canada (Nor-Video Services Ltd v. Ontario Hydro (1978) 84 D.I.R. (3d) 221, 231). This would indicate that television services could be considered rights of citizens and that there are strong arguments for measures to ensure that all broadcast services that fulfil any public service responsibilities are available to all.

When telephony was a uniform service provided by a monopoly, and broadcasting consisted of a few national channels plus local services, basic communications entitlements were much more easily determined. As communications both converge and differentiate, universal service doctrines based on technology break down. Defining the level of service is problematic, and recent attempts to redefine them - such as that favoured in the recent draft directive of the European Commission - argue that imposing obligations on telecoms providers is no longer the appropriate model for USOs (European Commission, 2000). Should there be a right to broadband, or to certain types of content, and how could this be implemented in policy terms? •

1. See Patricia Hunter and others vs Canary Wharf Ltd 1997. House of Lords

7. Promoting Digital Access, Phase 1: Micropolicies

Given the importance of universal access, what is already being done? In recent years, the UK government and other agencies have initiated a series of policies to promote public access to the Internet and other digital services. These fit into a broader set of policies designed to spur the development of digital media to enhance UK competitiveness. The proposals include:

- Reconditioned PCs for low-income groups.
- Schools and libraries online.
- Kiosks / public access points.
- Competition to encourage affordable access .
- Targeting excluded groups: eg access in disadvantaged neighbourhoods. (PAT 15, 2000).
- Literacy initiatives to promote use.
- New funding mechanisms eg the E-rate in the US for schools access.
- Policies to reduce access cost, e.g. Unbundling of local loop.

The Booz, Allen and Hamilton report to the Prime Minister's Policy Unit proposed further initiatives, including tax incentives to access providers, incentivising electronic service use, and support for government portals. (Booz Allen and Hamilton 2000) PAT 15 outlined policies specifically directed at socially excluded and deprived neighbourhoods. (DTI Policy Action Team (PAT) 15, 2000).

Proposals developed up to now mainly therefore aim to improve access to hardware. They have achieved a great deal, but face the following problems:

- Obsolescence. Especially programs offering access through reconditioned PCs.
- Literacy. Merely providing public terminals is not enough. Users need to achieve the level of IT literacy necessary to use the technology.
- Access is a moving target. In a situation of rapidly changing technology and convergence it is difficult to determine the minimum level of key services to which

citizens and consumers should have access to.

- Access to content. As the Net grows exponentially, so the role of infomediaries in searching and content access becomes crucial. These become key arbiters of access, and can in effect restrict access, including access to public services.
- Partly as a result of the same process, significant numbers of providers give access to walled gardens of proprietary content, and do not offer the advantages of any to any universality that benefit the network as a whole. •

8. Digital Access Policies Phase 2: Universal Service Obligations (USOs) in Broadband, Rights to Connectivity and Rights to Content

In the coming years the Internet will be transformed. With advances in compression and delivery technology, delivery of high quality video via the Internet in real time will become a reality for many consumers, and the range of services delivered could expand in their scope and appeal. This has led to the argument that universal service doctrines from telephony should be updated to encompass the new broadband services, and eventually that a broadband regime for universal access should be put in place.

USOs in broadband face various problems. First of all, given that high bandwidth services will be delivered by many different players over many different platforms, how to organise and fund a USO? Second, how to determine the range of services that are necessary for social inclusion. Third, how to define what services are affordable. Clearly in the new environment, universal service will have little resemblance to the old universal service regime in telecoms. Universality has become *flexible* - in terms of the level of service necessary for social inclusion *relative* to the level of service enjoyed by the majority of public service users, and *multiple* - delivered by a variety of players, not just a monopoly PTO.

Given these difficult issues, and a lack of understanding of the importance of universal access, it is easy to understand why universal access policy might falter. The simplest and most effective way of delivering a new access regime will be to focus on the individual consumer, and invest in a flexible and responsive system of access regulation, that incorporates the principle that certain public services, including educational content, should be easily accessible to all. The most effective way of making such a citizen-centred regime work will be to incorporate a key notion of the *individual's rights to access and to content*.

Whilst the economic arguments for improved access

stack up alongside those that seek to promote equity and opportunity for all, there is no public appetite for an over-arching approach that forces new media into people's homes.

The approach to the UK information infrastructure should therefore be underpinned by a clear notion that access, universality and any to any principles apply first and foremost to the individual citizen/consumer as nodes on the network. *By promoting the rights of access for each user, the whole network and the broader economy will benefit.*

This section outlines a set of policy principles that should inform communications policy during the transition to digital. The starting point is that the market is often the fastest route to universal service, but that some key regulatory interventions are necessary to ensure that the optimal outcome in terms of universality is achieved. Central to this approach will be the notions of a right to access, and access to content. The goal is that a notion of the basic needs of individual citizens and consumers should be at the centre of policy on the converging media, and that the best way of achieving this goal is the notion of an individual right of access.

In an environment where Internet access, and, increasingly, higher bandwidth services define what is 'essential to inclusion' as Oftel put it, the nature of universal service in communications shifts. Access to certain forms of content, and especially to electronic public services, becomes crucial for social inclusion.

Policy cannot, and should not, force the Internet into people's homes. And it certainly cannot force people to use it. The advantage of creating a notion of rights of access is that this puts the onus on the consumer to claim rights to access and ensure that they are respected. *A simple notion of access to maximum possible content, especially public services, from the home, should guide policies across a range of areas including public service delivery, broadcast licensing, digital switch over and USOs.*

According to Paddy Scannell:

Communicative rights (the right to speak freely, for instance) are enshrined in the written constitutions of some countries but not in Britain. A minimal notion of guaranteed communicative rights is a precondition of forms of democratic life in public and private. Communicative entitlements can be claimed and asserted ... within a presupposed framework of communicative rights. Rights of free assembly, to speak freely, and (more often overlooked) to listen, contribute to creating formal, minimal guarantees for certain forms of public political and religious life. They seed the possible growth of wider and more pervasive claims from those denied a hearing in manifold public, and private contexts, that they should be listened to: i.e. that they should be treated seriously. As equals (Scannell, 1989: 160).

Even ten years ago, the call for communicative entitlements was driven mainly by normative aims: of building a socially inclusive society based on political equality between citizens. At the turn of the century, Britain still does not have a written constitution as such, but some of the basic communicative rights that Scannell refers to are now enshrined in the Human Rights Act, which came into force in October 2000. As the benefits of the network society come into view, the time has come to take the idea of communicative rights more seriously. Stephen Sedley (1995) argues that what is a human right is a question to be answered by a social consensus from time to time, not a priority. This will particularly apply in fast changing areas such as those in which technology changes fast. *'Rights depend in some ways not so much on what society can afford as on what it cannot afford. To create the right to engagement means creating the means to do something which is inherent to humanity/citizenship in our society.'* The obligation to confer a right to engage or participate in the Internet is not just to say that the state should not censor (or should limit censorship): it includes the positive obligation to create the means by which such engagement can occur.

Why Rights? Rights exist when citizens can claim an

entitlement and public authorities are constrained and able to deliver them. The transition to digital television is a moment when it is feasible that public authorities could be called upon to deliver new rights. Rights put the onus on the citizen: they do not constrain them to use technology or pay for it, but they make it more to do so. It is only by focussing on content and connectivity rights that the range of access problems can be resolved without resorting to risky, market distorting public initiatives.

In the transition to digital, much can be done to improve the availability, affordability and accessibility of digital television and other means of accessing the Internet. But the process must also be driven from below. By creating a right of access at affordable price it will be possible to join up the range of existing policies and reap the genuine benefits of universality. •

9. The Human Rights Act

The Human Rights Act: Bringing Rights Online?

The Human Rights Act came into force in Autumn 2000. The Act incorporates the European Convention on Human Rights into UK law. By discussing how these fundamental abstract principles could be applied to the online environment, we can begin to see how access rights might develop over time.

The articles relevant to internet access are Article 10 (freedom of expression) which includes the right to impart and receive ideas or - more novel, but arguably more interesting - Article 11 (right to freedom of assembly and association with others).

In a context of rapidly changing technology it remains to be seen what would constitute a curtailment of that right in terms of communication, but both articles contain a positive obligation for public authorities (and this could include some broadcasters) to take steps to protect the rights engaged.

In a case involving Article 11 called Plattform 'Arzte fur das Leben' v Austria (1988) (13 European Human Rights Reports 204), the European Court of Human Rights found that the state had a duty to protect the participants in a peaceful demonstration from disruption by a violent counter-demonstration. The general principle (in para 32 of the court's judgment) was that: 'Genuine effective freedom of peaceful assembly cannot ... be reduced to a mere duty on the part of the state not to interfere: a purely negative conception would not be compatible with the object and purpose of art 11 ... art 11 sometimes requires positive measures to be taken, even in the sphere of relations between individuals, if need be.'

That does not imply that the public authority must provide the support itself, but that it must provide the structure within which the right can be exercised; either by imposing positive obligations on the private providers so that they do not exclude people from engagement, or by providing genuine 'public access' channels to engagement itself. Either is sufficient to fulfil the positive obligation.

Given the European Convention on Human Rights, and the broader public benefit of universal any-to-any communications media, it is likely that the freedom to impart or receive ideas, and freedom of assembly, will in the long term be applied to the online world. The policy challenge is to ensure that these benefits arrive sooner rather than later. Basic freedoms, of movement, property and assembly, were fundamental in the development of industrial societies, and it is the protection of similar fundamental principles that will enable the new economy to develop.

How will rights work?

The Internet is not a place or a tangible good. It is a set of communications protocols. If only for that reason, it is urgent that policies promoting access to the Internet must be clarified. Universal Internet rights of access should mean not only rights for all citizens, but also rights to easy access without hindrance to the entire universe of cultural goods that digital communications media offer, including free public content and government services.

A right exists when a public authority can be called upon to deliver on a citizen's claim to an entitlement. Rights always depend on resources, and generally become a reality only at certain historical moments of opportunity and given brave political will. The right to an education could only have developed at a time when public authorities could command the resources necessary to provide for that right, (i.e. schools funded from taxation), and that occurred only when the economy as a whole required a more educated population in order to achieve growth and competitiveness. We are now approaching a similar historical moment: the economy will benefit from a connected citizenry, and in a very short period of time the technology to make universal Internet connectivity a possibility will become available in peoples' homes. Without decisive government action to promote rights of access, however, there is a very real danger that digital services will not develop the features of any-to-any universality that the economy and society needs. Quite the contrary, the lucky majority will be connected with one another, and enjoy all the benefits of electronic services and the new economy. A large minority of the disenfranchised will be excluded, which will be bad for all of us.

If I have a digital television and am being denied access to the public service content that I have paid for through taxation, I should be able to complain to a public authority or a regulator about that. Public service content includes electronically delivered public services, public service broadcasting content, genuine searching, and a series of other services to be decided after public consultation.

Will rights of access penalise digital service providers and hinder the take-up of digital?

There are two answers to this question. The first is to agree that certain business models might experience a short term cost if genuine universality is achieved, and the garden walls are breached, but that the benefit to the public, and to communications providers, will in the long term far outweigh it, because of network effects

and broader benefits. Rights of access, like their less ambitious ancestors the USOs in telecommunications, do incur a cost to telephone companies. The cost of bringing telephones to uneconomic households was paid by industry, which in turn benefited from the network effects of universal reach. The same is true of rights of access in digital: they will benefit industry and the new economy as a whole, in terms of skills, education and innovation, though they will not benefit a monopoly player. The second answer is that we should re-examine just why it is that we are keen to encourage rollout of digital, and admit that government does support digital rollout, but only given certain conditions. The main reason to promote rollout is to make the UK a good place to do e-commerce. As we have seen however, merely having more access to 'digital services' is no guarantee of that. Indeed certain monopolistic tendencies (including the monopolisation of the individual consumer) may hamstring the sprint to e-commerce. All the other reasons why a rapid shift to digital is in the public interest: e-democracy, e-government, service delivery, education, have similar implications. Government should not promote all forms of digital rollout without exception. It should promote those that provide freer access to more people and more services. •

10. Conclusions: Joining up Internet Access Policy

Just as they did in the 1920's when broadcast radio gained a mass market, Government and industry face a series of policy and strategic decisions that will define the policy environment for years to come. If the real potentials of the new technologies are to be exploited during the transition to digital, entirely new objectives need to be written in to communications policy. It is not enough simply to update or modify the principles of the old worlds of telecommunications and broadcasting.

Private Schools protested against universal, publicly funded schooling. Bookshops may have been none too pleased when libraries provided free access to books. But in the long run neither suffered in an expanding market for both books and education, because of the broader changes in the UK economy that were demanding an ever-expanding number of literate people who demand ever more books. The same effects are generated in the shift to a digital communications infrastructure and hence the same rationales for government action to assist and regulate the process of change apply. Internet access is about infrastructure. Developing the UK information infrastructure and getting excluded groups online are one and the same problem. Underpinning the range of access policies should be a single set of citizen-centred principles: access to the whole Net, for everybody, from the home. These principles will have implications for a range of policy areas from digital television licensing to analogue switch-over, broadband USOs and any eventual government approach to subsidising set top boxes.

The new economy will best be served not merely by more digital access, but by a more open network characterised by genuine any-to-any functionality and universal access. In the rush to get to digital switchover, promote electronic services and e-commerce, and link up digital services, policymakers should not be duped by packages of digital services that promise – but do not deliver – the benefits of the networked economy and society. The rollout of digital services that restrict

access and hinder network effects may in fact serve to impede the new economy by slowing rollout of other more promising services.

Not only do restrictions on access hinder the economy and electronic delivery of government services: in the long term interoperability and access are concerns from the point of view of the user's basic rights of free speech, movement and assembly. With the rise of e-democracy, access could become fundamental to political rights.

If they are to be legitimate and efficient, e-government, e-democracy and the electronic delivery of public services must be available to all citizens. The government will face challenges and criticism if such services remain open only to a minority. It must be possible to reply that each citizen can access those services. The only way of doing that is to refer to the right of each citizen to easily access the Internet, and that means access from the home.

There has been a flurry of government activity in recent years to promote access to the Internet. Whilst recent policy recommendations such as Booz Allen and Hamilton's report set out to promote universality, they only in fact outline policies that promote improved access. By their own projections, such policies will fail to deliver 100% access. They also embrace a rather narrow view of access that neglects disparities in service packages and speed and quality of access, as well as the difference between access from home and outside the home. The policies are welcome, but are not enough, and reflect a model of top-down provision rather than bottom-up empowerment. This paper has recommended that we take a wider view and focus on access to content, as well as access to hardware.

We have seen that universality of access is crucial not only to the information economy, but to a more broadly inclusive vision of the information society and polity. *The key to access policy should be a public commitment to rights of connectivity that will guide a range of policies, from the licensing and regulation of digital television to*

the provision of public services online. The central proposition must be a clear statement of the range of services to which access must be guaranteed to all users.

Access Principles

Access objectives should not present a static notion of a range of technologies to which citizens will have access. They should rather define the service types that will enable the optimum efficiencies and network effects to be achieved in the economy as a whole. A coherent set of principles should underpin the policy proposals.

- Access means access from the home.
- Access to public services should not only be theoretically possible to access from as many platforms as possible, it should be clearly signposted.
- Electronic public service delivery should reflect rates of technology penetration and literacy: Targets and guidelines should recognise that there are degrees of access to the Internet: fast and slow.
- All users should have access to public service searching.
- Advertising standards. The right to know when searching or signposting is a form of commercial advertising. Transparency regarding criteria of searching and selectivity criteria.
- Citizens who have a digital television and a return path should be able to access any site on the World Wide Web.
- Rights to the education necessary to achieve Net literacy sufficient to access the various services
- Freedom of speech and freedom of movement should be protected: this means that acting against restriction of access to digital services needs to be seen as a valid public policy objective.

- The right to all adults to enter the address of any site on the web and access free public content.

How to Pay for Connectivity and Content Rights?

The difficult part: who picks up the bill? The answer to this question will inevitably be a combination of principle – including the principles that those who benefit should pay and that innovation and good service should not be penalised – with pragmatism: who can be asked to pay?

The European Commission outlined its new approach to universal service obligations in May 2000. It recommended that USOs should be seen as a matter for social policy, and should be paid for out of general taxation, not imposed on industry players as was the case with telephony.

This neglects the fact that all communications services providers will benefit from an ever expanding range of services, and that communications players will continue to benefit from expanding network effects, and the growth potential that is reflected in their current share prices. Government, service providers and network owners are all in partnership in the process; for example as network owners benefit from carrying more free premium content such as essential government services online which add value to their services. Clearly, imposing a cost on one provider is no longer feasible in a multi-player, multi-platform world. All those who benefit from universal service should contribute to a Universal Service Fund.

The availability of connectivity and content rights for all entails potentially vast benefits to industry and citizens alike, and the incentive to promote universal access should therefore be considerable. Indeed, there is an increasing awareness within the media and telecommunication industry of the advantages of universal access, reflected in e.g. Microsoft's provision of free PCs to American schools and schools in the Nottingham area. It is unlikely, however, that the business incentive alone is sufficient to provide the

universal access called for in this paper. Accordingly, a publicly funded or subsidised provision of universal access is required. As noted above, however, the preferred method of funding such measures will inevitably depend on a combination of the desired principles and feasible opportunities guiding the decision-making process.

Many of the policy proposals we have outlined will require government subsidy. In the new communications environment government should think creatively about how to fund universal service, and there is no shortage of potential means. We support the proposal for a universal service fund, raised from a combination of the following:

- General taxation. Fund universal access from tax revenues.
- An Access fee. This could operate similarly to the current license fee for television, such that everyone in possession of a PC or digital television would pay an equal annual amount. Could be used in conjunction with the current TV license fee, and eventually be merged with that fee, imposing the requirement of universal access provision on the BBC, who in turn would receive a proportion of the fee revenue. A funding method could be based on the E-rate system currently used in the US to finance Internet access to schools.
- National e-Lottery. The lottery is likely to become an interactive digital tv package. It would be possible to contribute a large proportion of a universal access fund with revenues raised by adapting the national lottery to the Net, and allow it to operate from the public service portal. The ensuing reduction in costs of running the national lottery via the public service portal, and the access to a greater market, will justify the requirement of financing universal access imposed on the national lottery operator.
- Advertisements. Universal access financed by sale of advertisement space on the public service portal.

Given the number of visitors the public service portal is likely to have, there should be a considerable demand from business users to buy advertisement space. Offering full Internet access through the portal could add value to that advertising.

The basic conclusion of this paper is simple. We face a range of possibilities in the future development of the Internet, particularly in the forms of converged services that impact upon education and citizenship. The market, alone, will not deliver universal access in the sense of the basic freedoms and the degree of services and content that users should be able to access. This will have negative consequences for all of us, not only users, but service providers and the economy as a whole.

The most effective way of promoting connectivity of every citizen is to empower every individual citizen to claim their own communicative entitlements and freedoms, and to ensure models of finance are in place to make this work.

In order to achieve this objective, the following are necessary:

- The single portal for government services should include a gateway to the entire Internet. This should be carried only on those platforms that offer the technological capabilities to access the Net and any URL, and denied to those that cannot.
- The BBC should provide public interest, free Internet searching of registered sites of voluntary and non-profit organisations. (eg .org sites).
- Must-carry Internet access on digital TV as a license condition. The ability to type in any Internet address and access that site is important, but the ability to find sites for oneself using search engines is also crucial.
- Access principles should be taken into account in the Government's approach to all communications policy issues, including EPGs, regulating CAS, and interoperability.

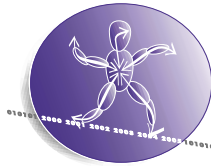
- Government should conduct a feasibility study into various options available to ensure that targets for digital rollout necessary for analogue switch over will be met, including subsidising set-top boxes.
- A new communications regulator should have a separate department with responsibility for promoting Universal Access, access to government services, and assessing access rights claims.
- A Universal Service Fund should be set up to offset universal service costs on operators where they are unfair.

The thread connecting these various policy initiatives is a clear notion that each individual citizen should enjoy a right to access the Internet: the whole Net, for everybody, from the home. •

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