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Universal Service, the Internet and the Access Deficit

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Abstract

This paper is concerned with the universal provision of telecommunications services. It is argued in this paper that universal service is no longer entirely driven by social inclusion imperatives, but is also increasingly driven by emerging governance imperatives. The focus of this paper is on Internet access in general. The debate has moved on since the empirical work for this project was carried out and is more clearly focused on access to broadband.

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"The knowledge economy must be an economy for the many and not the few".

Tony Blair, Speech to CBI and TUC, 7 March 2000.

1. Introduction⁴

This paper is concerned with the universal provision of telecommunications services. Universal service provision (USP) "... means that basic telephone services should be available to everybody upon reasonable request and at an affordable price. These services are considered essential for everyone in current economic and social conditions, and risk not being provided under competition alone."⁵

After several year of receiving little attention, USP is emerging as a key issue in telecommunications. In the United States where arguably the concept has its origins and where the concept is firmly entrenched in federal legislation⁶ and although debate has arisen fuelled by concerns about access to broadband⁷, the concern is more about reform rather than questioning the validity of the concept.⁸ In the United Kingdom the same issue is generating debate about universal service.⁹ The interrelationship between Internet (more specifically broadband) access and universal service has attracted comment from the House of Commons Trade and Industry Committee¹⁰ and from the Scottish Parliament's Enterprise and xxx Committee.¹¹ Ofcom, which is currently carrying out a comprehensive Telecommunications Review¹² has announced that it will also carry out a review of Universal Service.

This paper, although concerned with access to the Internet in general rather than broadband access in particular seeks to add something to the current debate. A key element of that debate should be the impact of expanding Internet access on the so-called "digital divide." If the danger of expanding that divide and exacerbating social

⁴ This paper is based largely on research carried out by the authors with funding provided by the Glasgow Caledonian Business School between September 2001 and December 2002. The findings were initially published as Working Paper No. 32 in the Caledonian Business School Series (S J Bailey, series editor) in December 2002.

⁵ Consultation on Implementation of Universal Service Directive, 12 March 2003, Ofcom, http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/uso0303.htm

⁶ Section 254, Telecommunications Act of 1996, Pub. LA. No. 104-104, 110 Stat. 56 (1996). See FCC site, <http://www.fcc.gov/telecom.html>

⁷ Note particularly the *ex parte* submission to the FCC in the matter of CS Docket No. 02-52 by Tim Wu and Lawrence Lessig, available at <http://www.democraticmedia.org/ddc/bestPractices.php>.

⁸ Peter K. Pitsch, *Reforming Universal Service: Competitive Bidding or Consumer Choice?* Cato Institute

Briefing Paper No. 29 May 7, 1997
http://nes.aueb.gr/material/REFORMING_UNIVERSAL_SERVICECompetitiveBiddingorConsumerChoice.htm

⁹ See below.

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exclusion are to be avoided, steps must be taken to expand access amongst those most likely to be excluded. The danger is possibly compounded by access to broadband. As use of the Internet becomes more and more widely used, the problem becomes greater for those likely to be excluded.

It is argued in this paper that universal service is no longer entirely driven by social inclusion imperatives, but is also increasingly driven by emerging governance imperatives.¹³ The present government's intention is to deliver as many public services as possible via the Internet by 2005.¹⁴ If the digital divide persists the delivery of public services will not be universal. This in turn could exacerbate the exclusion of the social groups heavily reliant on public services – it could generate an element of “governance” rather than simply “social” exclusion. Such developments raise important questions about the very definition of “universal service” and what it encompasses.

The paper examines qualitative evidence gathered by the authors within Scotland and argues that the drive to close that divide, in this part of the United Kingdom might not be hitting the target. This paper does not attempt to offer solutions to what are ultimately policy issues in an extremely turbulent technological domain. It explores attitudes and attitudinal shifts among those most likely to be excluded if there is a significant shift towards public access to government services electronically and Internet access – including broadband – become sufficiently ubiquitous to be regarded as universal. It is an attempt to assess, albeit at a very initial level, through qualitative data obtained in and relating to a specific area of the United Kingdom (Scotland), whether a digital divide is likely to persist or be exacerbated by such developments. In the light of such evidence the paper seeks to explore whether access to the Internet is a legitimate part of a universal service obligation and in particular whether governance objectives form a legitimate aspect of a Universal Service obligation.

The empirical work was carried out on focus groups selected from three geographical areas across Scotland. All groups were drawn from traditionally “socially excluded” sectors of society. The focus was a series of themes that reflect the aims of the research: to identify attitudes towards use, actual or potential of the Internet amongst such groups and the barriers, actual or perceived to so doing. The results of this study are examined with these dominant themes explored. By way of conclusion the results are used to inform the debate, theoretical and juristic surrounding the extension of universal service to meet governance targets on delivering government services over the Internet.

The focus of this paper is on Internet access in general. The debate has moved on since the empirical work for this project was carried out and is more clearly focussed on access to broadband.¹⁵ Our concern was not with broadband access *per se*, but with access to digital communications in general. Furthermore, although the emphasis of recent government pronouncements is with Internet (and more

¹³ It is at least arguable that these imperatives underlined the debate over USP in the United States and in the European Union – see below, pp Xxx.

¹⁴ Joint announcement by First Minister and Prime Minister, 31 March 2000.

¹⁵ The Enterprise and Culture Committee of the Scottish Parliament has now published its *Report on Broadband in Scotland* in two volumes, available at <http://www.scottish.parliament.uk/enterprise/reports/elr04-04-vol01-01.htm>

particularly broadband) roll-out and coverage, our concern has been with access to the Internet.

Our research suggests that such direct public funding initiatives can meet only the smallest part of such governance objectives, primarily because they do not adequately redress access imbalances. True, entire aspects of that redress will depend on direct public funding – for example, to remedy inequalities in IT education – but for the present there is no theoretical construct for determining whether and how governance objectives are to be met and the extent to which they can be met through USP.

2. Universal Service Provision – Definition and Scope

The concept of “universal service” is generally seen as originating in the United States, in the Communications Act of 1934, an important element of F.D. Roosevelt’s “New Deal.” The Act in fact does not use the expression, but the preamble to that Act of Congress uses the phrase “...to make available, so far as possible, to all the people of the United States, a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges.” The use of the expression is older. Theodore Weil, the founder of the Bell monopoly and erstwhile President of AT & T coined the phrase “universal service” in 1907, although he was referring to what would now be called “interconnection.” Having inherited a patchwork of provision from the various companies that AT&T absorbed, he contemplated all subscribers to the various previous providers being able to telephone each other using the ubiquitous Bell telephone system.¹⁶ Over time, the concept became synonymous with universal access to telecommunications, seen as an “essential element ... of public policy”¹⁷ and, in the United States at least, equated with another Weilian slogan, “a phone in every home.”¹⁸ Before the break-up of AT&T in 1982-4, a process of cross-subsidy from long-distance to local operators achieved penetration rates of well over 85% and ensured provision to rural and urban communities that might otherwise have been unable to afford it. “Universal service” came to mean a basic, but ubiquitous telephone service subsidised by a system of transfer charges.¹⁹

¹⁶ Sauter, W “The Evolution of Universal Service Obligations in the Liberalisation of the European Telecoms Sector” 1996 7 *Utility Law Review* 104; Mueller, M *Universal Service: Competition, Interconnection, and Monopoly in the Making of the American Telephone System* (MIT Press, 1997).

¹⁷ *Ibid.* p104. AT&T operating companies always traded under the original “Bell” designation.

¹⁸ Mueller argues that this notion was a “second definition” of universal service, developed by AT&T as a reaction to competitive stresses it began to encounter in the 1960s and 1970s and that “Universal service policy became synonymous with regulatory manipulation of rates to make telephone service more “affordable” to residential and rural consumers.” Milton Mueller, *Universal service and the new Telecommunications Act: Mythology Made Law* <http://www.vii.org/papers/cacm.htm>

¹⁹ “The “universal service” system” according to the FCC “ was originally designed to make local telephone service available to all Americans at reasonable rates. In many cases, universal service policies have required that rates for certain telecommunications services be set above the cost of providing those services to generate a subsidy that could be used to reduce the rates for local service provided to residential customers. Many other federal and state programs are presently used to ensure universal service.” *Early History of Universal Service Proceedings*, “FCC E-Rate Home Page,” <http://www.fcc.gov/learnnet/>

It is also arguable that the concept of universal service has its roots in US telecommunications regulatory practice from the 1960s onwards.²⁰ What is certain is that the expression made its legislative debut in the Universal Telephone Service Preservation Act of 1984, which followed the divestiture of AT&T (competed in 1984) and the creation of the Bell Regional Operating companies (RBOCs). Once AT&T's long-distance business had been separated from its regional and local operations, a system of access charges had to be devised between long-distance and local providers. This, if fully implemented would destroy the subsidies from long-distance enjoyed by many groups, rural and urban and would lead to significant increases in telephone charges. The Act attempted to keep such charges to a minimum and "preserved many of the old subsidy mechanisms."²¹

It is not necessary for the purposes of this paper to explain in detail the provisions of the federal Telecommunications Act 1996²² other than to say that the universal service²³ system established by Section 254 expands both the categories of companies that contribute to the off-setting or "subsidy" of telecommunications rates and the categories of customers who benefit from discounts. It highlights services to particular sectors (schools, libraries, and health care providers as well as residential and rural customers) and establishes seven "guiding principles" for the "preservation and advancement" of universal service by the FCC.²⁴

The deregulation and privatisation of telecommunications in Britain and Europe during the 1980s and 1990s stimulated debate over the precise definition of "universal

²⁰ Milton Mueller, *Universal service and the new Telecommunications Act: Mythology Made Law* <http://www.vii.org/papers/cacm.htm>

²¹ Milton Mueller, *Universal service and the new Telecommunications Act: Mythology Made Law* <http://www.vii.org/papers/cacm.htm>

²² Section 254, Telecommunications Act of 1996, Pub. LA. No. 104-104, 110 Stat. 56 (1996). See FCC site, <http://www.fcc.gov/telecom.html>. A detailed explanation of the operation of the provision can be found on the FCC's "Universal Service Home Page," http://www.fcc.gov/wcb/universal_service/. Section 154

²³ Section 254 © (1) provides a general definition of universal service: "Universal service is an evolving level of telecommunications services that the Commission shall establish periodically under this section, taking into account advances in telecommunications and information technologies and services. The Joint Board in recommending, and the Commission in establishing the definition of the services that are supported by Federal universal service support mechanisms shall consider the extent to which such telecommunications services--

(A) are essential to education, public health, or public safety; (B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers; (C) are being deployed in public telecommunications networks by telecommunications carriers; and (D) are consistent with the public interest, convenience, and necessity."

²⁴ The principles listed in Section 254 (b) are: "(1) [that] quality services should be available at just, reasonable, and affordable rates; (2) [that] access to advanced telecommunications and information services should be provided in all regions of the Nation; (3) [that] consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications ...; (4) [that] all providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service; (5) [that] there should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service; (6) [that] elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services ...;(7) such other principles as the Joint Board and the Commission determine are necessary and appropriate for the protection of the public interest, convenience, and necessity and are consistent with this Act."

service". In Britain, at least, the link between "universal service" and the concept of the "public interest" was strong. It is a convincing argument that the concept of nationalisation of major industries was at least in part born out of a desire to provide "universal service" to all regardless of social position. In Britain these nationalised public utilities sought to provide these services and to act in the "public interest". In practice this concept was ill-defined and led to some critical problems in the way these industries were run.²⁵ Universal service in telecommunications was achieved, if at all by a degree of cross-subsidy. This clearly happened in the United States telecommunications market where profitable long distance calls²⁶ subsidised very cheap or even free local calls and telephones to all. Although telecommunications was in the hands of a private monopoly, US policy both at Federal and state level allowed this monopolistic process to continue because of its perceived social and governance benefits. In essence "universal service could be provided, but at the expense of competitive policy of long distance".²⁷ This was underlined by a statutory definition of universal service: "To make available, so far as possible, to all the people of the United States, a rapid, efficient, nation-wide and world-wide wire and telecommunications service with adequate facilities at reasonable charges"²⁸.

Developments in the United States undoubtedly influenced events internationally. The Telecommunications Services Reference Paper of 24 April 1996²⁹ agreed by the negotiating group on basic telecommunications at the WTO, one of the outcomes of the General Agreement on Trade in Services (GATS) recognises signatories' right to make provision for universal service: "Any Member has the right to define the kind of universal service obligation it wishes to maintain. Such obligations will not be regarded as anti-competitive per se, provided they are administered in a transparent, non-discriminatory and competitively neutral manner and are not more burdensome than necessary for the kind of universal service defined by the Member."

The processes of privatisation and deregulation of nationalised industries in all instances "raised some serious questions about the policy of universal service"³⁰ and nowhere more so than in telecommunications. It is arguable that without liberalisation in this sector there would have been no clear definition of the concept³¹ both in Britain³² and at a European level,³³ where it was part of the push for full liberalisation of all telecommunications services.³⁴

²⁵ For a detailed discussion of these issues see Tony Prosser, *Nationalised Industries and Political Control* (Blackwell, Oxford 1986).

²⁶ The vast majority of long distance telephone calls were business calls. Effectively the subsidy was from business to private subscribers.

²⁷ John AK Huntley "Competition and the Provision of a Universal Telecommunications Service – a Comparison of the EC and the US" 1994 *World Competition* 5, p9.

²⁸ S2 Communication Act, 1934.

²⁹ http://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm

³⁰ Cosmo Graham, *Regulating Public Utilities: A Constitutional Approach* (Hart Publishing, Oxford 2000), p12.

³¹ Sauter (1996) op. cit.

³² The Director General of the Office of Telecommunications (OFTEL) examined the concept of Universal Service Obligation in detail every two years since 1994, the most recent of these being in August 2001: *Oftel Universal Service Obligation* (Oftel, 2001).

Liberalisation in Britain presaged such attempts to define universal service, but as part of the privatisation process it was necessary to emphasise that public services would remain protected. Condition 1 of British Telecom's licence stated that the company is obliged to provide to every person that so requests "voice telephony services, other telecommunication services consisting in the conveying of messages except to the extent that the Director (of OFTEL) is satisfied that any reasonable demand is or is to be met by other means".³⁵ This statement is fairly broad in its terms and does not comprise a definition of universal service. The conditions of the licence *in toto*, however did amount to the elements of a definition.

The onset of full liberalisation in the British and European markets caused concern among major telecommunications operators who feared being subjected to competition from competitors who, unlike them were not under universal service obligations. This same argument of the potential for "cream-skimming" of profitable business by competitors had proved a major obstacle to the enactment of the Telecommunications Act 1996 in the United States until the funding of universal service obligations was agreed. Initially the Director General of Oftel conceded this argument to British Telecom and argued that interconnection payments be made by other operators.³⁶ In practice these were extremely limited with only Mercury communications making a payment for international calls which terminated in 1996.³⁷ By the time Oftel concluded a detailed examination of the nature of universal service in Britain in 1995 and published its statement on Universal Service in 1997³⁸ Oftel's position had changed. The precise content of universal service was defined in basic terms:

- a connection to the fixed network able to support voice telephony and low speed data and fax transmission;
- the option of a more restricted service package at low cost;
- reasonable geographic access to public call boxes across the UK at affordable prices.

This stood until September 2001 and even after that Oftel's definition of universal service remained largely unchanged.³⁹ The statement on call boxes was replaced by a statement on disconnection that emphasised the need for BT to have "proportionate and non-discriminatory disconnection procedures which are published and made publicly available,"⁴⁰ but, despite the extent of technological developments the

³³ The Commission undertook an investigation into the concept in 1993: see COM(93), 543.

³⁴ Sauter(1996), *op. cit.* contrasts this with the period of 1987-92 where the Commission was interested in extending the internal single market to telecom services.

³⁵ See Colin Long, *Telecommunications Law and Practice* (2nd Edition) (Sweet and Maxwell, London 1995), 5-08.

³⁶ On this see Mark Thatcher *The Politics of Telecommunications* (Oxford University Press, 1999).

³⁷ Perhaps this reflected the dominant nature of British Telecom at this time, even with the "duopoly" arrangement.

³⁸ Universal Telecommunication Services Statement (Oftel, 1997).

³⁹ Oftel(2001), *op.cit.* S.5.

⁴⁰ *ibid.*

definition was not expanded to include enhanced Internet services.⁴¹ Potentially more influential were developments in Brussels.

In response to the European Commission's initiatives the major European telecommunications providers argued, much as BT had done with Oftel, that they would be hampered in a competitive environment by their obligation to provide uneconomic services, even though there was a large discrepancy between the standards of universal service applied across the European Union, particularly as between northern and southern Europe. One academic puts it as strongly as this: "In some member states universal service was no more than a fiction".⁴² After lengthy debates the Council of Ministers adopted a definition of USP in the Green Paper on Infrastructure:⁴³ "access to a defined minimum service of specified quality to all users at an affordable price based on the principles of universality, equality and continuity". This was neither specific in the details nor standardised in application to Member States because of the stress placed on subsidiarity. It did however recognise that as technology advances the definition may have to alter: "The concept of universal service adopted by the Community is dynamic and will over time come to include advanced services". More importantly, the definition encompassed the sharing of the cost burden and allowed for the establishment of a Universal Service Fund (USF) to which all operators would contribute – again, subject to subsidiarity and influenced by the French system where the concept of "service publique" equates with universal service and a USF which is levied on each operator.⁴⁴

This placed Oftel under an obligation to re-examine BTs' claim that they bore an unfair financial burden under its universal service obligations and to share the costs with other operators. Oftel determined that the cost "was not an undue burden on the company"⁴⁵ and provided a detailed explanation of the economic benefits to BT in providing universal service. As an analysis of economic benefits, rather than the more usual identification of the social benefits of universal service this analysis was unique.⁴⁶ The benefits included the fact that the greater the size of network the greater the benefits to each subscriber; the environmental benefits of relying on direct communications rather than physical transport; that public services are more efficient if extensively connected to a telecommunications network; and the clear benefits to the education system. Oftel also isolated the costs to BT in meeting these services and argued that they were not of proportions to justify sharing costs. BT had a significant net benefit as a Universal Service Provider and an additional burden on potential competitors would not help the competitive environment. This position was maintained throughout the four year period of 1997-2001, even though it was subject

⁴¹ This will be discussed below.

⁴² Sauter(1996), op.cit. p105.

⁴³ COM(94), 682.

⁴⁴ Thatcher (1999), op.cit. p168.

⁴⁵ Thatcher (1999), op.cit., p210.

⁴⁶ See for an American example of this type of argument, William J Baumol & J. Gregory Sidak *Toward Competition in Local Telephony* (MIT Press, Cambridge 1994).

to review during that period and restated in the 2001 document.⁴⁷ BT continues exclusively to bear the cost of universal service.

As part of the establishment of the common regulatory framework for electronic communications networks and services⁴⁸ *Directive 2002/22/EC* on universal service and users' rights relating to electronic networks and services⁴⁹ states that "The concept of universal service should evolve to reflect advances in technology".⁵⁰ It also states that the obligation is to provide a single narrowband connection to support transmission of speech *and data communications* "at data rates ... sufficient to permit *functional Internet access*, taking into account prevailing technologies used by the majority of subscribers and technological feasibility."⁵¹ This reinforces the policy that public telephone access should be fast enough to support access to the "public Internet"⁵², although it does not mandate a specific transmission rate for member states to comply with. Recital 8 to the Directive specifically states that it is "not appropriate to mandate a specific data or bit rate at Community level." However the directive allows for a review after two years of universal service that will take into account technological developments.⁵³

In the United Kingdom, Oftel since its original Universal Telecommunications Statement in 1997 consistently stipulated that the USO requires connection to a fixed network able to support voice telephony and low speed fax and data transmission "*up to 24,000 bits/s.*" The Universal Service Directive had to be implemented by July 2003. This might have been problematic, if the Telecommunications bill did not become law before that date. The implementation mechanism in the Telecommunications Act 2003 was a "universal service order" under Section 65 (1) of the Communications Act, 2003. Section 67 (1) allows Ofcom to "set any such universal service conditions as they consider appropriate for securing compliance with the obligations set out in the universal service order." Section 67 (7) further states that "Universal service conditions may impose performance targets on designated universal service providers with respect to any of the matters in relation to which obligations may be imposed by such conditions."

The legislation thus appears to allow the imposition of an obligation to provide a minimum standard of Internet connectivity that can be defined in functional terms well beyond Oftel's minimalist 24 kb/s. Oftel in its 2001 review is quite explicit: "The Universal Service Obligation (USO) is about basic telephony and data".⁵⁴ Oftel went as far as to comment that "the draft Directive on Universal Service and Users'

⁴⁷ Although the issue will be included in Oftel's review of retail markets which is likely to be completed in 2002.

⁴⁸ The Directives and Decisions that comprise the new framework were published in the Official Journal [2002] OJ L108 and are available at http://europa.eu.int/eur-lex/en/archive/2002/l_10820020424en.html.

⁴⁹ [2002] OJ L108/51, http://europa.eu.int/eur-lex/en/archive/2002/l_10820020424en.html, replacing *Directive 98/10/EC*, the "Revised Voice Telephony Directive" (or RVTD).

⁵⁰ *ibid.*, para(1)

⁵¹ *Article 4(2)*. Emphasis added.

⁵² *ibid.*, para(8).

⁵³ *Directive 2002/22/EC*, Article 15.

⁵⁴ Oftel(2001), *op.cit.* S.14.

Rights concludes that the scope of Universal Service should not be extended to include higher bandwidth services at this time”.⁵⁵ Following promulgation of the Directive, but before the passing of the Telecommunications Act, as early as March 2003 Oftel felt compelled to issue a closely argued notification, in which Oftel made it clear that the Universal Service Order that would implement the Directive under the 2003 Act would not include a definition of “functional Internet access.”⁵⁶ Universal Service Guidelines would simply refer to “a reasonable minimum data rate of 28.8 kb/s.”⁵⁷ Effectively, the imposition of a broadband USO was precluded.

The Select Committee on Trade and Industry revisited the issue, but its Report seems inconclusive: “It may be that broadband becomes so ubiquitous amongst those members of the population able to access it that those who cannot become genuinely excluded. Under such circumstances a USO might be considered. But with the market at such an early stage of development and with broadband use still confined to a small minority of Internet users, albeit a growing minority, it is far too early to judge whether this will ultimately be necessary. It is also not yet clear how widely broadband can be rolled out without resort to a USO.”⁵⁸ The Report does, however add that “in the absence of competition, there will clearly be an incentive for BT to slow the progress of broadband roll-out in future in order to maximise any anticipated public subsidy. It is to be hoped that local and regional efforts from public bodies and communities alike can prevent this from happening and can ensure that broadband can be made available to the maximum number of people before more direct subsidy or a USO need to be considered.” Endorsing the Select Committee’s view, David Currie cryptically precludes a broadband USO: “We cannot consider broadband to be a USO in the traditional sense until the Brussels Directive is reviewed in 2007.” Nevertheless, although a review of universal service obligations is not within the Review of Telecommunications currently undertaken by Ofcom,⁵⁹ the terms of reference of that review make clear that USOs will be the subject of a separate review by Ofcom during 2004.

3. The theoretical underpinnings of Universal Service

This is an area where theoretical worlds collide – the world of a competition and the world of social policy; the world of telecommunications networks and of the Internet. It is also an area where convergence - of regulatory structures, of technologies and services – is happening and where innovation, actual and potential is acute. Access to broadband is the kind of turbulent environment where intervention in competitive structures might seem inappropriate or inadvisable. That certainly seems to be the stance taken by the present United Kingdom regulator.⁶⁰

⁵⁵ *ibid*, 4.34

⁵⁶ *Consultation on Implementation of Universal Service Directive*, 12 March 2003, Oftel, http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/uso0303.htm

⁵⁷ *Ibid*.

⁵⁸ Broadband Market Report, 2004, HC 321, <http://www.parliament.the-stationery-office.co.uk/pa/cm200304/cmselect/cmtrdind/596/59603.htm>, paragraph 48.

⁵⁹ http://www.ofcom.org.uk/static/telecoms_review/tor.htm

⁶⁰ See “Briefing on Ofcom and Telecommunications” by Steven Carter, Chief Executive, 28/04/04, http://www.ofcom.org.uk/media_office/speeches_presentations/tel_pres_28042004 ; David Currie,

It is also true that many analysts are sceptical about the benefits of government intervention in dealing with the Internet. Objections range from concerns that the Internet could be subverted into a control mechanism by central authority. Foucault⁶¹, utilising Jeremy Bentham's image of the panopticon - a prison where ubiquitous monitoring meant that the prisoners regulated themselves - has argued that modern social control structures create a shift from state-sponsored punishment towards self-regulation.⁶² Such a model can be appropriated to the Internet.⁶³ Ubiquitous access to an individual's Internet history leads to self-regulating criminal behaviour. There is a tendency to regard the Internet as an area that does not readily broach interference, largely because it is beyond legal frontiers. This potential of intrusive state intervention fuels suspicion of legal or governmental involvement in the Internet.⁶⁴ This suspicion could be extended to initiatives to tackle the digital divide. Lessig has addressed the issues raised by "cyber-libertarian" analyses of Internet regulation.⁶⁵ Although Lessig has not directly commented on universal service provisions, other than to suggest that they may be part of regulatory structures that have little application to the Internet, he has stressed the importance of regulation in encouraging innovation in this area.⁶⁶ Lessig places particular stress on the notion of "competitive neutrality." Noam suggested that a universal service system should be based on "seven neutralities,"⁶⁷ of which competitive neutrality is one. Although not specifically written into the Telecommunications Act, 1996 the Federal

Ofcom chairman, "Speech to Communications Management Association Annual Conference, 16 February 2004" 17/02/04, http://www.ofcom.org.uk/media_office/speeches_presentations/currie_20040217.

⁶¹ For a relatively early article relating Foucault to the Internet see James Boyle "Foucault In Cyberspace: Surveillance, Sovereignty, and Hard-Wired Censors" 1997. <http://www.law.duke.edu/boylesite/foucault.htm>

⁶² Michel Foucault, *Discipline and Punish: The Birth of a Prison* (Vintage Books, New York 1975).

⁶³ Tom Brignall III "The New Panopticon: The Internet Viewed as a Structure of Social Control" *Theory & Science* 2002: 3,1. See <http://www.icap.org/iuicode?105.3.1.x>

⁶⁴ Boyle labels this group "digital libertarians", see Note 78.

⁶⁵ See particularly Lawrence Lessig, *The Laws of Cyberspace*, paper presented to Taiwan Net '98 Conference, Taipei, March 1998, http://cyber.harvard.edu/works/lessig/laws_cyberspace.pdf; Lawrence Lessig, *Code and other Laws of Cyberspace* (Basic Books, 2000).

⁶⁶ Lawrence Lessig, "Innovation, Regulation, and the Internet," *The American Prospect*, Volume 11, Issue 10, March 27 - April 10 2000, <http://www.prospect.org/print-friendly/print/V11/10/lessig-1.html>. "The choice is not between regulation and no regulation. The choice is whether we architect the network to give power to network owners to regulate innovation, or whether we architect it to remove that power to regulate. Rules that entrench the right to innovate have done well for us so far. They should not be repealed because of a confusion about 'regulation.'"

⁶⁷ Eli M. Noam, "Beyond Liberalization III: Reforming Universal Service," 1994 *Telecommunications Policy*, 687-704, <http://www.citi.columbia.edu/elinoam/articles/beyondlib3.htm>. These are: *Competitive neutrality* ("A new financing system should not skew the relative market strength of any carrier or of consumers' choice"); *Structural neutrality* ("It should not favor or disfavor integrated or unbundled provision of a service"); *Technological neutrality* ("It should not favor any type of transmission technology over others"); *Applications and content neutrality* ("It should not favor any particular use of telecommunications or type of message"); *Geographical neutrality* ("It should not burden any parts of the country disproportionately"); *Transitional Neutrality* ("There should be no shocks or windfalls to any participants due to transition to a new system"); *Jurisdictional neutrality* ("The new system should be integrable into the federal-state regulatory system").

Communications Commission has adopted and applied the principle of competitive neutrality.⁶⁸

Noam argues that “Universal service will endure and even expand. If anything, the politically mandated support for universal service will increase in the age of information. The argument is essentially one of public choice analysis. In a democracy, the constituencies desiring subsidisation of their telecommunications service can create an influential coalition. Regulatory policy then becomes a matter of devising a system of levies and beneficiaries. The 1996 Telecommunications Act reflects this dynamic. For all its pro-competitive rhetoric, it is a solid commitment to redistributive universal service to rural areas, the poor, the middle class, and the educational system.”⁶⁹

This is not a universally accepted view. One industry chief Recently proclaimed: “The concept was flawed when it was invented, but the motive was pure. It was a socialistic motive. I’m a capitalist and I think it should be removed now. Rural America and rural India and rural China should have telephone service, but it shouldn’t be subsidised.”⁷⁰

Provision of telecommunications is therefore almost everywhere subject, in one form or another to a universal service obligation (USO).⁷¹ Although such an explicit obligation is a feature of the deregulated telecommunications environment, explicit and implicit USP objectives were formerly funded by the monopoly telecommunications providers through cross-subsidy, usually from business to local telephony, regardless of whether the operator were a public or a private monopoly. A range of telephone prices were maintained above marginal revenue by the monopoly supplier and the misallocated resources thus generated were diverted to funding universal services, such as public payphones and, as in the USA, “toll-free” local access. The social objectives to be achieved were generally consented to by all parties as worth the price of monopoly profit.

In a deregulated, competitive telecommunications environment, the underlying assumption is that competition will drive prices down to an extent that makes at least some objectives of USP redundant. Policymakers also recognise that competition might not deliver other, socially important objectives. It may simply be uneconomical to provide a telephone to a remote or poor household at an affordable price; but it may be socially desirable. If an obligation to provide such a service is imposed on a telecommunications provider who nevertheless has to compete with other providers, competition will be distorted unless it is clearly defined and the source of funding clearly identified. If USP is seen as the provision of a “floor of rights” for citizens, it will be necessary to identify, or create a mechanism for identifying the range of services that ought to be universally provided. This paper is concerned with whether

⁶⁸ FCC Universal Service Report and Order, 1997, FCC 97-1571 http://www.fcc.gov/wcb/universal_service/fcc97157/sec03.html

⁶⁹ Noam, op. Cit., 956.

⁷⁰ Interview with William Schrader, CEO PSINet, *Tele.com*, April 1999, p 14.

⁷¹ “Universal service goals exist in every developed country. This suggests that similar benefits for a widespread interconnectivity are perceived around the world, usually independently of the political party in power.” Eli M. Noam, “Beyond Liberalization III: Reforming Universal Service,” 1994 *Telecommunications Policy*, 687-704, <http://www.citi.columbia.edu/elinoam/articles/beyondlib3.htm>.

or not access to the Internet is or should be part of such a “floor of rights,” of a universal service obligation. This would have such serious implications for telecommunications providers under the burdens of competition that the social imperatives must be very strong before it can be contemplated.

The extension of access to electronic communications, a priority precondition for access to the “knowledge economy” is generally perceived as central to future economic and social development at all levels of society. The need to eliminate or at least minimise any “digital divide” that excludes major social groups from access to and use of, in particular the Internet is universally accepted and at a minimum expressed by the notion of a “universal service.” Although this divide is admittedly closing, its very existence impacts adversely on groups socially excluded by age, social standing, race and geography. Acceptance of this essentially social inclusion agenda is clearly reflected in legislation adopting Universal Service Provisions.⁷² Such provisions, however, do not generally comprehend electronic access to the Internet or email, except at a most rudimentary level. Regulators on both sides of the Atlantic have steadfastly refused to encompass more than minimal Internet access within the universal service obligation, seeing it as an unnecessary burden on providers and users.

4. Universal Service, the Digital Divide and the Internet

In its Annual Plan for April 2004-March 2005⁷³ Ofcom’s figures show that, whereas the take-up for Digital TV has grown to almost 50% of UK households at the rate of about 30,000 households per week and mobile phone ownership approaches 90% of households, only half of Britain’s households are online (40% in Scotland). Even worse, only 20% of those, or about 10% of Britain’s households have broadband Internet access. Three million households *and small businesses* already have taken up a broadband service – with around 40,000 households *and businesses* a week installing a new broadband connection.”⁷⁴ A total of 3 million broadband subscribers is modest and, despite the encouraging trends in take-up⁷⁵ the current rate of increase suggests that it would take over 20 years to reach the subscriber levels of the mobile telephone.

The need remains to bridge the emerging “digital divide” and to generate “digital inclusion”. Within Scotland, as early as September 2001, the Scottish Executive declared its vision: In a digitally-inclusive Scotland, the public, private and voluntary sectors will make positive use of digital technologies and the Web to improve quality of life and deliver new opportunities for disadvantaged individuals and communities.”⁷⁶ The UK government strategy was delineated in the *Third UK Online Annual Report*, 2001: heighten public awareness of the benefits of the Internet and ensure support is available for those seeking access; such access should be easy and

⁷² EU, S, UK.

⁷³ http://www.ofcom.org.uk/about_ofcom/reports_plans/annual_plan_2004-05/

⁷⁴ *Ibid.* Emphasis added.

⁷⁵ See *UK Online Annual report* 2002, <http://www.e-envoy.gov.uk/assetRoot/04/00/04/01/04000401.pdf>, Figure 12, page 74.

⁷⁶ *Digital Inclusion: Connecting Scotland’s People* Scottish Executive Sept. 2001, <http://www.scotland.gov.uk/library3/enterprise/dics-00.asp>.

affordable; achieve significant levels of use by addressing the key barriers of motivation, trust and skills; and improve the range of platforms for accessing the Internet – in the community, via home PC, home digital television and by mobile devices. These aims are reflected in the Scottish Executive’s strategy, where the emphasis was on awareness and promotion, skills development and education, community involvement and increased public access (primarily through the creation of 1,000 public Internet access points (PIAPs)). Most significantly, “the Executive is committed to bridging the digital divide and to achieving universal access to the Internet by 2005 – ensuring that everyone in Scotland has access to the Internet – whether at home, work, or through public internet access. The Executive is working to ensure that public Internet access is generally available within five miles in rural areas, and within one mile in urban areas.”⁷⁷ This is not a particularly ambitious target for a significant part of a G7 country; yet the number of households online has only risen since 2000 by one third to a mere 36% in 2004 and in Scotland “People with higher incomes are six times more likely to have access to the Internet than people with low incomes.”⁷⁸ The Executive’s Broadband strategy was outlined in *Connecting Scotland: our Broadband Future* in August 2001 and “aims to promote affordable access across Scotland for the purpose of economic development and to prevent a digital divide opening up between urban and rural areas.”⁷⁹ This would be done through close regulatory liaison at UK level, through progressive aggregation of public sector demand for broadband infrastructure (the “Pathfinder” aggregated procurement projects in the Highlands and Islands and the Borders) and through direct support programmes for wireless, fibre optic, power line and satellite projects. There is a profound recognition of the dangers of a deepening digital divide and its potential social consequences and a willingness to do something about it. As the *UK Online Report* states: “... we cannot lose sight of those who do not understand the Internet and its benefits. The potential consequences of permanent exclusion from the Internet are too considerable to ignore, even if it only affects a decreasing number of people.”⁸⁰

In addition to the social exclusion dimension of Internet – and more particularly Broadband – access, there is increasing sensitivity to the governance dimension: “as access levels grow, we need to ensure that a natural part of Internet adoption is the use of e-Government services.”⁸¹ There is an even greater danger: as the cost of paperless provision of government services decreases with volume, the relative cost of paper-based provision is likely to increase. As online governance and e-citizenship increases, so does the impact of the digital divide. As one commentator explains: “Those without access will be at a disadvantage - creating and maintaining paper systems in addition to electronic ones will be a costly exercise”.⁸² The centrality of universal public access to high-speed Internet resources heightens rather than diminishes the significance of any “digital divide”.

⁷⁷ *UK Online Annual Report, 2002, op. cit., page 78.*

⁷⁸ *Ibid.*

⁷⁹ *Ibid.*

⁸⁰ *Op. cit., p. 78.*

⁸¹ *UK Online Annual Report 2002, op. cit., page 78.*

⁸² *ibid. p193*

No telecommunications operator could promise “broadband Internet in every home”. The alternative of financing USP through general taxation is also impossible in an era of generally low taxation and low public sector spending. Indeed, in a Scottish context the Executive does not consider the “digital divide” to be an issue simply of telecommunications: “The digital divide is not related to a lack of telecommunications itself but to poverty, lack of awareness and low skill levels”.⁸³ Thus the chosen solution seems to focus around public access points. The UK initiative on Wired Up Communities⁸⁴ confirms this as does the Scottish Executive’s announcement of a “New Opportunities Fund” of National Lottery money to provide training and community resources.⁸⁵ Also in the United States the Chairman of the Federal Communications Commission in a generally pro-liberalisation anti-government intervention speech spoke very favourably of the e-rate programme which would wire schools and libraries to the Internet.⁸⁶ In a British and Scottish context the question remains: Will this be enough to meet the target of Internet access for all by 2005?

The Scottish Executive elaborate on the extension on public access points to the Internet on April 22 2002.⁸⁷ A £3.2 million initiative was launched by the Social Justice Minister to extend the type of locations that would serve as public access points. Any business which is able to guarantee public Internet access for at least 40 hours a week can apply for funds which would provide four computers, line rental and Internet service provision for two years. The Executive stated that the scheme will provide up to 1000 new access points across Scotland where current public provision is poor. The target is that access to the Internet will be “generally available within five miles in rural locations and around a mile in urban locations”.⁸⁸ This initiative underlines the fact that simple reliance on public access points will not be enough to support universal Internet access in the next few years. However it still puts the focus on access points rather than alteration to the legal context of universal service obligation for the telecommunication companies.

One American commentator puts it boldly: “the key question in coming years will be whether to redefine the concept of universal service to embrace such services (fast Internet access etc)”.⁸⁹ The concern stems from a desire to encourage full involvement in a modern “Information Society”. As this has advanced through the 1990s and into the twenty first century so have concerns over a “Digital Divide” creating an information “underclass”⁹⁰ who have neither knowledge nor “technology”

⁸³ <http://www.scotland.gov.uk/library3/enterprise/dics-02.asp>

⁸⁴ See Note 32

⁸⁵ Scottish Executive Press Release, SE0240/2000. <http://www.scotland.gov.uk/news/2000/02/se0240.asp>

⁸⁶ ‘The Unregulation of the Internet: Laying a Competitive Course for the Future’ <http://www.fcc.gov/Speeches/Kennard/spwek924.html>

⁸⁷ Scottish Executive Press Release SESJ006/2002, April 22 2002

⁸⁸ *ibid.*

⁸⁹ Thomas J Long ‘Telecommunications Regulation in The USA: Seeking the Right Balance between Regulation and Competition’ in Laura McGregor, Tony Prosser and Charlotte Villiers(eds) *Regulation and Markets Beyond 2000* (Ashgate, Aldershot 2000), p96.

⁹⁰ Graham(2000), *op.cit.* p193.

to access the web. In the United States a section of the US Dept of Commerce, the National Telecommunications and Information Administration has established a group which examines this divide and how to reduce it.⁹¹ Its last report in October 2000 under the Clinton administration highlighted the problem and showed that people from a Black/Hispanic background and the poorer sections of society were considerably less likely to access the Internet.⁹² This policy has now completely stalled under President Bush who in his 2003 budget announced a \$100 million cut in programmes designed specifically to aid disadvantaged groups' access to the Internet. A pressure group with the aim of ending the digital divide put it starkly: "The Bush administration ... has abandoned the decade-long national fight to bridge the digital divide".⁹³ Indeed the regular survey on Internet use by the US Department of Commerce since February 2002 has now changed its name from "Falling Through the Net" to "A Nation Online".⁹⁴

In Britain there are similar initiatives. The Department for Education and Skills has a local programme seeking to connect disadvantaged areas to the Net.⁹⁵ The United Kingdom government also has a distinct department within the Cabinet Office to increase Internet awareness and use: the Office of the e-Envoy.⁹⁶ In Scotland, the Scottish Executive's initiative on "Digital Inclusion"⁹⁷ demonstrates a clear awareness of the issues raised by such a digital divide.⁹⁸

With such a multitude of initiatives to expand access, to roll out broadband and to bridge the digital divide, what possible role could there be for universal service, a concept that seems, on the face of it stuck in the age of the fixed voice, analogue telephone connection?

5. Methodological Approach: Focus Groups

Our concern was to explore more deeply the relationship between the expanding availability of services electronically, access to them via the Internet and the provision of universal service. Data already available suggest that, although great efforts are being made to roll out and expand communications networks to ensure Internet access is available to all who want it, take-up of Internet access, especially via broadband remains patchy. The potential remains for a digital divide to persist. Further evidence was necessary to assess this and an empirical study was deemed essential. The team considered various methodologies, quantitative and qualitative, and the methodology considered most appropriate was focus groups. Eliciting information using this

⁹¹ See <http://digitaldivide.gov/>.

⁹² Falling Through the Net report, <http://www.ntia.doc.gov/ntiahome/fttn00/contents00.html>

⁹³ Benton Foundation, Press Release February 11 2002, "Bush abandons national strategy to bridge the Digital Divide". <http://www.benton.org/press/2002/pr0211.html>

⁹⁴ <http://www.ntia.doc.gov/ntiahome/dn/html>

⁹⁵ <http://www.dfes.gov.uk/wired/index.shtml>

⁹⁶ <http://www.e-envoy.gov.uk/>

⁹⁷ <http://www.scotland.gov.uk/library3/enterprise/dics-00.asp>

⁹⁸ At least in the Western World, the divide is also an international one with the developing world falling well behind in Internet access and use. 429 million people are online globally which accounts for 6% of the world's population, 41% of those numbers come from North America or Canada.

technique allows researchers to develop an understanding of issues relevant to a particular topic where such issues or nuances have not yet been formulated with any precision. The issues under our consideration are relatively new, relevant empirical data in this area particularly in Scotland are rare and the data and studies that exist lack specificity for the purposes of the project. Exploring broad themes through focus groups in what is after all an initial study would allow more precise techniques and methods to be adopted in future studies once the salient features had been identified.

Focus groups are a structured or organised discussion⁹⁹ relying upon “*interaction within the group based on topics that are supplied by the researcher*”.¹⁰⁰ The focus group moderator can gain insights into participants’ understanding and perceptions of using the Internet generally and, more specifically, of issues relating to online access to government services. The extent to which participants shared experiences and attitudes across the geographical, social and age parameters of the project could also be identified and compared.

The underlying theme of this research is the relationship between social exclusion and Internet access. If unemployment, poor skills, low income and even geographical location are factors in social exclusion in Scotland, then the expectation would be that this would be reflected in demand for and uptake of Internet access in Scotland. Approximately half of the most deprived districts in Scotland are reportedly in and around Glasgow where such factors become compounded for whole communities. A recent report predicted that by 2003 some 22 million people in the UK will be excluded by age and social class¹⁰¹. These factors are paralleled in the digital age. This is reflected in Internet access. Recent Internet penetration rates show that Scotland at 30% is well below the national average of 37%.¹⁰²

Multiple deprivation takes on a new dimension in rural areas where the sporadic and remote nature of settlements makes them less visible (and inaccessible) to potential service providers. Furthermore, services that are offered are more likely to be limited (especially in terms of broadband access) compared with services offered in populous central Scotland.

To promote social inclusion the Scottish Executive set up social inclusion partnerships (SIPs) to drive this strategy forward. The research undertaken in this project was predominantly within these areas. Ten focus groups were conducted in total, three in the South of Scotland, three in the Highlands and Islands and four within the Greater Glasgow area. The distinctive geographical make up of Scotland allowed us to focus on these three different regions, yet provide a balanced picture of the SIPs.

In all but two instances focus groups consisted of the participants, a moderator and a recorder. At the start of each session each individual was asked to complete a

⁹⁹ J Kitzinger (1994) The methodology of focus groups: the importance of interaction between research participants, *Sociology of Health* 16(1): 103-21

¹⁰⁰ Morgan, D. L., (1997, 2nd Edition) *Focus Groups As Qualitative Research*, London, Sage .

¹⁰¹ Booze, Allen and Hamilton, *Achieving Universal Access*, London March 2000. This report is available online at <http://www.pm.gov.uk/default.asp?PageId=1203>.

¹⁰² Scottish Consumer Council, *Consumers and Communications in Scotland* (January 2002). Available on website: <http://www.scotconsumer.org.uk>.

questionnaire (Appendix 1), which would be used to build a profile of the participants taking part in this research. This allowed the researchers to gain insights into the socio-demographic makeup of the groups and to quantify some of the responses, which were presented as percentages and tabulations throughout the report. The quantitative findings should be viewed with a degree of caution in terms of viability and generalising for these communities and the significance should therefore be considered within the context of the report.

The moderator facilitated the groups using an interview guide (Appendix 2), ensuring all items on the checklist were covered. Probing techniques to stimulate discussion where necessary were employed. All sessions were taped. The recorder (mainly) took notes and checked equipment during the sessions and helped administratively (two sessions involved participants and moderator only). As pre-existing groups were targeted (Appendix 3), all focus groups were conducted where the participants' regular meetings took place for their convenience. Each focus group had between three to eight participants. The participants fell within three main age groups, (15-41, 42-62 and 62 and over). Each focus group was transcribed. Comments were coded and recurrent themes identified. Exact quotations relating to these themes are provided throughout the analysis to illustrate salient points.

6. Findings and Analysis

Comments made during the focus groups were analysed and grouped into core themes that reflected the issues originally identified in the study and those which emerged from the data. The analysis that follows is presented using those themes as headings.

6.1 Theme 1: Types of Internet User and Associated Experiences

The initial task was to document the participants' current use of personal computers and the Internet to benchmark the impact this technology had on their lifestyles. Participants fell into one of three general categories:

- Users, active and passive;
- Potential users; and
- Uninterested participants.

6.1.1 Users, Active and Passive

The purpose of this classification was to map usage in terms of *actual* access, regardless of home PC ownership. The findings generally showed that less than half of the participants owned PCs (45.6%); yet nearly two thirds of the participants had actually been online (63.9%). This appears to confirm that there is an unmet interest in and demand for Internet access among the groups covered generally by the focus group findings.

For the purpose of this research active users range from those individuals who had used the Internet more than once to those that had made their first purchase online; passive users are those who had surfed the Internet only once.

When the data were analysed in terms of age it transpired that the overwhelming majority [88% of a total of 25 participants] of those within the 15-31 cohorts had used the Internet and would be described as active users. Most of the middle and in

particular those within the 52 plus cohort had never used the Internet [69% of a total of 19 participants]. Less than a third (31%) of this age group had used the Internet and would mainly be described as passive users.

Perceptions of the Internet's functions and uses were a little more surprising. Both active and passive users held similar perceptions by of the Internet, seeing it mainly as a means of communication (25%) and as a source of information (38.3%). This was so for participants across all age groups and within the three geographical areas visited. The perceived importance of the Internet as a source of information, rather than simply an interactive mode of communications has important implications on its role in governance.

The stress on the Internet as a source of information varied depending on participants' interests and to a certain degree their age, thereby reinforcing the overall importance placed by participants on information, as opposed to communications: for example information on their local areas, hobbies, jobs and information to help with coursework or homework:

"I did my dissertation in modern studies using information from the Internet"

"Look through jobs, the weather, types of news..."

"You find a lot of things on the Internet that you don't find elsewhere..."

The reality, as opposed to the perception was that virtually all participants considered the Internet a tool for communication. Many mentioned they preferred to use email as a more efficient way of corresponding generally with friends and family. Younger age groups especially in the South of Scotland and Glasgow appeared to be more interested in communicating in real time over the Internet with friends and in online communities:

"I receive communications from one of my neighbour's sons who is in South America and they have not got a computer, so he just rings them when he can but he just sends emails to us and we pass them on when we can"

Participants were also attuned to the perceived benefits of using the Internet for those living in isolation and those in remote communities. The distances people in remote communities have to travel in order to use public services would be eliminated if such services were available online:

"My neighbour needed one form from the post office, if it was available on the net then it would have saved her the 32 mile trip"

Similarly participants highlighted the advantages for older people and those suffering from disabilities regardless of whether they personally had used the Internet. It was considered a vital means of communication for those with debilitating or restricting diseases opening a whole new way of communication when traditional methods had failed them:

"Invaluable for me because I have Parkinson's...writing by hand is difficult ...so now I can write emails"

Equally participants from the older age groups felt that communicating through email would alleviate seclusion felt by peer group members who were restricted from leaving their homes, providing a more efficient and convenient method of contact:

“People who cannot get out the house use it as a means of communication”

The actual and perceived benefits of Internet shopping were not significant. Participants were aware of shopping on the Internet and several had purchased tickets and other consumer goods online; but participants were wary of giving credit card and other personal details electronically. This was particularly true of the middle and older age group participants despite awareness of family and friends securing transactions successfully over the Internet:

“I would not buy on the net. I don’t think its fraud free yet. I would not give my credit card details”

The youngest age groups, who were more likely to have been exposed to the Internet and computers, were also more likely to embrace these changes and felt the most confident purchasing items. Although participants expressed varied and contrasting attitudes towards the issue of security, the more pressing concerns appeared to be the speed of access to certain sites, download times and interruptions in connection:

“I’ve got narrowband access it’s frustrating, it takes so long”

“Sometimes it’s really slow, my Internet connection cuts off all the time. I think it’s just my server”

Despite their apparent lack of enthusiasm for online shopping, the older age groups were positive about the benefits of supermarket online shopping. Home shopping particularly with Tesco, was mentioned by all middle and older age groups. Most participants knew of someone who had purchased their shopping over the Internet:

“One time we went to visit my daughter and the Tesco man drove up, oh that’s great she says I did my shopping, I said what Tesco?, the guy came in carrying all the things. It’s just a different world to us.”

Despite this, participants had mixed feeling on whether they would participate in this and what the benefits of online supermarket shopping actually were:

“I’d rather go to the supermarket myself and pick my own (expiry) dates rather than have someone else do it, like picking the first thing that comes to hand... in your basket and that it, you got it delivered”

On the contrary, certain older and middle age group members felt that shopping in supermarkets was a form of social interaction and for some older members, especially in rural areas this may be their only opportunity to leave their homes and meet other people:

“I think people like us, like to get out and about and if you are sitting getting everything off a computer. It makes you lazy”

It was recognised that online supermarket shopping may not necessarily be the preferred choice but one more of convenience. Having to pay for the privilege was another drawback. However when the costs were weighed up against the transport fares incurred, consensus among participants was reached in terms of the benefits for those living in remote areas. Regardless of these benefits participants did not indicate whether this was something they would engage in themselves:

“It must cost more”

“£5 delivery anyway”

“In my street in Largs, it would cost you the train fare plus a bus fare or taxi to get to the supermarket, access is a problem, some of them are alone”.

“It should be there for the elderly, they are too scared to go out...they carry money with them, they don’t want credit cards”

The overall attitudes of those exposed to the positive and negative aspects of Internet use remained generally positive. Those perceived benefits varied depending on the participants’ personal situations, but remained positive, regardless of social or economic factors, age or other factors.

6.1.2 Potential users

Participants, predominantly from the South of Scotland and Glasgow within the middle and older age cohorts often expressed an interest in learning to use the Internet, even though they were unfamiliar with computers. They fell into two categories: those who had chosen to or were willing to learn and those who would be interested, but faced economic barriers.

Those in the South of Scotland focus group had enrolled for local courses on basic computer training and introductions to the Internet. Participants expressed frustration as courses were either cancelled mid-completion or prior knowledge was assumed that these participants did not possess. This mismatch was demotivating on participants and damaged their confidence to continue with courses. The disaffection was compounded for participants who had an appreciation of the opportunities and wished to explore the advantages that the Internet could bring to their daily lives. These sentiments were echoed in the middle age group in Glasgow, but their disaffection was more with the lack of knowledge and availability of training courses locally:

“...I am desperate to get started on computing...and generally at the moment we need the confidence to be able to switch it on”

“I wouldn’t be comfortable, too frightened of hitting the wrong button”

During further analysis it became apparent that for most older and middle age groups embracing new technologies was not for personal life enrichment *per se*, but for getting involved in an inevitable part of their children’s or grandchildren’s culture:

“Children are so computer literate, I mean it is an advantage to me to be able to talk about it to them and to watch what they are doing...”

“My daughter and son - a lot of their education revolves around computers and the Internet...it is part of their world and I would like to know what they are talking about basically”

The desire to become an Internet user seemed strong, largely regardless of age, status or other factors. The drivers behind this attitude seemed predominantly social rather than economic, but this may reflect a lack of exposure to the use of computers in the work environment. Attitudes were generally positive and showed a general willingness to overcome lack of technical knowledge and awareness. The desire for training suggested a need for confidence building and did not outweigh the overall desire to learn. Whether the cost of access was seen as a barrier is discussed below.

6.1.3 Uninterested Participants

If those who wished to use the Internet displayed a positive attitude towards its perceived benefits, then those participants who were not interested in the Internet showed a deliberate or conscious lack of interest. Such participants felt it impersonalised interaction. In terms of communication, face-to-face contact was not only preferred by these participants, but among their peer groups deviating from this was stigmatised and deemed anti-social behaviour. This attitude was predominant amongst all older groups and mentioned among middle-age groups:

“...I don't go on the Internet, I don't have the time to be bothered...If I want anybody I pick up the phone and phone them and ask what I have to ask”

“I have a friend in and she used to do all sorts and now she spends her time on her computer, and when you speak to her she has not got time....but she is now too busy and very anti-social”

“I would actually agree with that, my daughter is never off the flaming computer”

“We go to this elderly forum in Prestwick, I don't think that one single person has got a computer, and they are more interested in getting together with human beings and talking”

Whether such comments showed a true preference for face-to-face interaction, a lack of understanding of the potential benefits of Internet access, or were simply a reaction against the cost and learning barriers it was difficult to determine. All that can be said is that such preference was prevalent among this group of participants and would be a factor in making Internet access available to them difficult. At the very least it suggests that public education/awareness strategies would need to be highly and effectively targeted.

6.2 Theme 2: PCs and the Internet: Cost Issues and Associated Barriers

Cost appeared to be a major factor for all participants across all geographical boundaries in terms of accessing the Internet at home. The costs highlighted by participants were mainly associated with PC ownership and ISP subscription costs.

Affordability was an issue across all groups and it was felt that government should subsidise phone bills so that they could access the Internet cheaply while others felt that unemployed people should be given reconditioned machines per household. Groups that suggested this were aware that technology was constantly changing but as long as the hardware and speed of the processor supported the Internet a high specification was not considered important.

“How does the government no get all these computers and refurbish them and give them to everybody at home, I mean what do they do with all these trade-ins, I mean everything upgrades all the time, so why do they not have something like this, these old things [pointing at PCs], it would not cost them anything.”

6.2.1 Cost of Equipment

The initial outlay involved in purchasing a computer was of general concern to all those wishing or deliberating home access to the Internet. The investment required to purchase a personal computer was of particular concern for the unemployed and pensioners in Glasgow and the Highlands and was considered to be an exclusion barrier for those living in deprived areas:

“Cost is the main thing, you need to buy a computer before you can get the Internet”

“I think we would need to get quite a big pension before we could think about that”

Equipment costs were a great barrier, often appearing to be insurmountable.

6.2.2 Subscription Costs

Subscription costs were generally considered excessive. Older groups in the South of Scotland and the Highlands were concerned about the variety of rates for subscribing to ISPs. Shopping around for the best rates appeared to cause some confusion as did ascertaining when cheaper access was available. Participants were generally sceptical about the provision and content of “deals” to the extent that some participants were put off the idea of subscribing to the Internet altogether:

“[There are] so many service providers and people don’t know how much it actually costs”

“Cost of being on the Internet is a big problem. A lot of people could get into serious debt”

“These things aren’t cheap, I have to say to the kids to use it when it’s cheaper”

Access costs seemed prohibitive to most participants who were not online and excessive to those who were. At the time when this work was carried out most users

and potential users were thinking in terms of dial-up access (broadband access was still generally unavailable), although most would be aware of subscription-free dial-up access, such as that provided by Freeserve. Their concerns appear to reflect the perceived or actual costs of the online telephone connection.

6.3 Theme 3: Public Internet Access Points

Bearing in mind the cost barriers faced by participants, consideration was given to access to the Internet through public locations, such as schools and libraries. Such access is a key feature of government policy in meeting the access deficit without putting the burden on the telecommunications industry by expanding the universal service provision requirement to include Internet access. Participants' responses highlighted key benefits and concerns.

In remote locations where distances from services and even neighbours are significant, the benefits of Internet access are even greater. Equally, remoteness often restricts access to dial-up and for those who do not have home access PIAPs (which would now usually be broadband access) take on a particular significance.

Generally it was considered to be an advantage to have public access points. Similarly, in areas where home computer ownership was likely to be low, PIAPs would be an attractive alternative form of access. This was reflected in the areas targeted. Although each group had at least one member who was able to pinpoint a public access area, collectively there was low awareness among the participants (40.7%). Public access points mentioned included libraries, schools, community/voluntary organisations, these were mainly located within a town centre and would be expected to service local communities as well as remote villages surrounding that area. Some groups therefore had to travel more than 15 miles in order to get to their nearest access point. For example, in the Isle of Skye there were two main public access points on the whole Island expected to accommodate approximately 12,170 people (Skye and Lochalsh):

"They've got access to the Internet at Columbo 1400 up in Staffin"

"Yeah except for one minor problem there's no transport to get you there...imagine you live in Broadford and there's no Safeway there so then you travel 30 miles to get there"

"You can use it in Carnegie Library, but it costs and it's so far out the way"

"There are no buses in some areas to get here for example"

"None of us are local here we've all travelled 10 to 15 miles to get here to use this place"

Where school or library access was available, opening times were important since access would only be available during regular school or library opening hours. This was inadequate for those groups that had commitments during the day and preferences to evening access:

"I used the school once. I think it is maybe difficult for us to access it after school hours"

“Access points are limited. If you want to do something you’d have a very short time to do it in”

There was a feeling amongst the older age groups that public access points were geared towards and mainly utilised by younger groups. These groups felt perturbed and lacked confidence in approaching access points hindering otherwise potential use. The above coupled with the limited number of machines available with Internet access inevitably created problems accommodating individuals and acted as a deterrent to potential users:

“There’s only one computer at the library, my daughter uses it but you cannae get on for the school kids”

“Ayr Library in Prestwick has access during the day but not at night, because it’s mainly young people that are using it”

During discussions it transpired that within Glasgow the need to establish peer learning and training had been discussed and would be addressed for older people in the near future. Potentially two centres with PC and Internet access would be available for the local community and designated days or afternoons would be established for older people. As a result of this the group appeared to be more relaxed and receptive to utilising these public access points. However they were still as concerned as the other middle and older age groups about taking the initial step:

“A centre like ours, or a centre that you are used to going into where there are lots of people, you feel it is friendlier”

“Once you were used to it, you could use it in a public place. I would not like to go in, if I did not know exactly what I was doing”

Participants’ awareness suggested that libraries were seen as the main access point. A considerable charge was levied by libraries with some participants paying £2-3/hr for access. In more remote parts where a library serviced more than one area, travel distances to the PIAP were long.

The only means of free access that appeared to be available was through joining groups run by voluntary organisations. This again was still limited to one or two machines per organisation:

“The biggest drawback I would say is the access that we have here and the time limit because everyone wants to use it”

“You can go to the library and that’s £3 for half an hour...it’s quite expensive”

In the South of Scotland the youth group situation, in terms of ease of access, was unique. As for school pupils, university or college students, the use of computers was readily available to them and they appeared content with the access that was available to them.

A major concern was that public buildings did not exist within certain areas. Whether new premises would need to be built or if existing locations would be used as PIAPs was therefore an issue. Security for locations with PCs was also a concern, as was vandalism. This was particularly so for those interviewed in the South of Scotland

and areas within the central belt. The use of some form of monitoring or security was considered vital:

“There are a lot of community centres and halls, all of them have problems with roofs falling down. If they can’t get a decent roof over them will they build new access points?”

“Get broken into, PC wouldn’t last 3 days”

“The only public place is the library, unless you built somewhere”

“There is nothing next to where I live, there is nowhere to put something like that”

The groups in Skye felt that an ‘Internet café’ approach would be ideal as it would not only allow individuals to acquire new skills but go some way towards rekindling the community spirit alleviating problems of isolation facing more remote communities:

“You need to think about the community we should have community cafes, where people could meet because we have the problem of isolation”

“It’s about keeping the community alive”

“I know one particular girl who is physically handicapped and she loves being on the computer...which is something again when you are living in a rural community”

Most participants agreed that more public access was needed and unanimously opted for free access. However groups acknowledged that providing this would not be without problems. Patrolling any public access point to ensure optimum use was considered necessary. Access points would need to be local and within walking distance or a short bus/train ride away. However the logistics of this were considered to be contentious as for some more remote areas suitable bus services did not exist. This was mentioned in Skye and the South of Scotland areas. It was less of a concern within the centre of Glasgow, but was of similar concern for those living on the periphery:

“It should be in every village and club where kids can go”

“There needs to be about 10 to cover Skye. You have wee towns spread around, if there were ten it would cover most of the Island”

“Depends on a location where you can put in lots of PCs like town, but then if you need to go into town to access it, defeats the purpose really”

Within the South of Scotland there was a general feeling that individuals would not travel to a public place of access specifically to ‘surf’ the Internet. This was especially true if access was within the town centre. The groups felt that using this service would come secondary to the initial need to travel into the town centre. They

felt that numbers of PCs would need to be sufficient to ensure universal access was achieved:

“If I didn’t have access to a computer or the Internet at home and would have to get up and leave home and go round to the shop it would need to be really important”

“If you were out in town, you would go and use it but you won’t go into the Internet place for the hell of it”

Although public access was generally considered a good idea within all groups and benefits could be seen for communities. The participants felt that having PC access within their homes would be a preference. Participants that already owned computers said they would prefer just to use their own PC. They felt that their respective communities would also share these sentiments:

“I’d prefer to use it at home, you don’t have to go anywhere, it’s less hassle”

“I would like it in my house if I could afford it”

Although PIAPs were the main potential Internet access for those participants who were not online at home (and even, it is reasonable to speculate for those who were online, but not on broadband), the disadvantages were several: distance, limited access, environment and ambiance (at least for some participants) and, most significantly, cost. Attitudes overall were not negative, but real and perceived barriers were.

6.4 Theme 4: Government Services Online

Attitudes varied between older and younger groups on accessing government services. Older and middle age groups felt that they would like to lobby government or write to their SMPs/MPs and would be interested in changes, legislative or otherwise that affected their local areas. Amongst younger people – perhaps unsurprisingly - there was a general alienation from accessing any government or public service. Several factors appear to influence those attitudes.

Older and middle age groups in the Highlands who were currently using electronic mail to contact various organisations and local government appeared interested and were the most receptive to accessing government services online. Drawing from their personal experiences groups pointed out the efficiency and directness that emailing afforded them and felt that a quicker response was achieved than mailing using the traditional methods:

“If you write a letter or phone up the district council, it’s a waste of a phone call and waste of a stamp. Something that could link you to them straight away would be good”

“I have never written to any sort of official bodies, I mean I have sent emails to firms and I have found it much more personal, rather than sending letters, it obviously gets right to them as they are closely involved and you feel as if they really are much more chatty, it is much more informal and you feel as if you are getting

somewhere, especially when you have made complaints about something like that. You seem to get right to the person that matters and get a response quickly”

Overall it appeared that once the above discussions had been initiated the remaining participants could empathise with the advantages of interfacing with government departments. However they were not entirely convinced of any personal benefits that could be reaped. This has implications for investing in re-education and training programmes to influence people’s mindsets and encouraging communities to embrace this change.

The younger groups were particularly disinterested in anything to do with the Government. The only time that a positive discussion was achieved was when the moderator advocated the notion of voting online. Most felt that this would be advantageous, and especially within communities that were remote. Generally groups that discussed this felt that voting would actually increase if this was an option. It was felt that if this was available to individuals at their finger-tips it would be more convenient and take away the need to travel to public places to lodge their votes. This would be a particular advantage to the housebound, disabled, those working beyond opening times of polling stations and generally for those who would otherwise be dissuaded by bad weather. This would also open up opportunities for those on vacation or working abroad:

“A lot more people would vote if you could just log on instead of going to polling stations, less hassle”

“People like my mum and dad who are away on business, my sister was away on holiday she could have logged on abroad and voted online”

To assess attitudes towards accessing government services online, Participants were asked for a response to the hypothetical possibility that government services were only available online. Their responses are shown in the following table:

Q Indicate which of these statements best describes how you would feel if the only way you could access government services was online		
STATEMENT	NUMBER	%
I would be happy to access services online as I have Internet at home	8	16.7
I would be happy to access services online if I had convenient public access	6	12.5
I wouldn't be happy to access services online as I prefer face-to-face interaction	10	20.8
I would be happy to access services online ONLY if I had Internet access at home	3	6.3

I would prefer to have a choice of access methods	21	43.8
Missing	9	-
TOTAL	57	100

Table 1

As can be seen from Table 1 above although face-to-face interaction was important (20.8%) the majority (43.8%) still considered that a choice of access methods should be available. Comments made suggest that the right to decide how to access government services was an individual's and therefore options should be made available to them. Also access methods would need to retain flexibility to ensure they were inclusive to all sections of community.

"If voting was only allowed online then what about lower classes they would need access"

"You need to include old people as well, my gran wouldn't have a clue how to vote online"

"It should be there if you want it people should get a choice"

Particular worries about whether information on rights to benefits and pensions only being available online were expressed by older and middle age groups. It was felt that some form of personal contact would always be needed in order to explain any points that they were unsure of.

"I would prefer to go and speak to the person, because that way I would get a straight answer, I would not get a straight answer on the computer, I would get jargon"

Overall attitudes towards PIAPs were not negative, but the perceived practical problems coloured reactions: where could they be located (if at all); how would they be kept safe and usable? Attitudes were generally open about advantages of Internet access and, in terms of governance, attitudes among older participants were positive.

6.5 Theme 5: Recommendations for expanding Internet access

By way of concluding the discussion the moderator encouraged the participants to discuss recommendations that would ensure the government targets were met by 2005 in terms of Internet access.

Responses varied according to group: for example the older groups tended to emphasise education and training as central whereas the younger participants had all had direct recent experience of such training at school or college. However they agreed that older members of the community may need some form of training to use computers and the Internet.

"My problem is that they put me in front of a computer, and they gave me a recorded thing, which they stuck the things in my ear. It was telling me what to do and it was coming up in the screen telling me what to do. Use the mouse, but there was no detailed

instructions. I could follow at my own speed to try and get it. Unfortunately, I have one of those kind of minds that I want to understand the thing and my daughter says that is my problem, you don't have to understand how it works, you just accept it does work but I have not managed to get past that so I need something to teach me how to use the thing properly without all that paraphernalia, but just to use the actual machine..."

"We know how to use it naturally, we grew up with it, anyone who didn't use it at school would need to go on a course to learn how to use it..."

There was unanimous agreement that the convenience of access points was central if the target was increased access to the Internet. This included location. Public access areas would need to be adequately resourced in terms of computers available to cut down on waiting time and cost of use would need to be low or free in order to attract those that would otherwise be excluded. This was considered necessary across all geographical regions.

"If they have one in Broadford, Staffin, Portree so nobody loses out. There needs to be about 10 to cover Skye. You have wee towns spread around. If there were 10 it would cover most of the Island, but it depends who uses them. In the remote parts you could put it in the chapel or in the church, it's free to all the people"

"Going hunting for a place to tap into the net is difficult and I'm easily side tracked. I would access it more if there was somewhere nearby"

In addition to the expansion of access points there was interest in the idea of government promoting and subsidising the use of computers at home. This would overcome some of the barriers participants felt over the use of public access points.

"I think the phone access should be free, more cause for people to go along. If they completed the course give them a free year's subscription. That would be a good incentive. Educate them to use it"

On the promotion of government services online while it was difficult to illicit any response at all from the younger groups, other participants would be wary of choice being refused and not being able to access public services in a more "traditional" way.

"Everybody needs options: options are getting taken away here"

"You want a person there not a machine"

Another central issue that participants raised was the involvement of the community in the promotion of public access points. This covered issues such as consultation with communities to discuss where to site access points. But publicising access points to the broader community and the support given to those wanting to use the service was also seen as important – this crossed the age and geographic divide.

“You need to have the support of the people, need to ask what the people want”

“They’ll (the government) need to advertise access points heavily”

“They could pay for buses into town”

“...they should look at what’s needed in different areas like maybe put more access points in council areas”

The predominant interface to the Internet is the computer. Most respondents were aware that the Internet was available through other interfaces such as digital television and set-top boxes. Those that mentioned using the Internet through television felt it could cope with basic communication through email but problems arose when attachments needed to be sent. Interestingly some groups in the South of Scotland and Glasgow mentioned that using the television as an interface to the Internet would not be their preferred option. The television was usually mutually owned within a shared communal living space and therefore access to the Internet would encroach on family viewing time.

Younger participants mentioned using mobile phones, but as this only supported a limited amount of sites that were predominantly text based they felt this was restrictive and would not be a preferred method of contact until the technology improved.

6.6 Theme 6: Ethnic Minorities

Any future strategy to be truly inclusive would need to ensure that access to services is universal. One of the Glasgow based groups was selected from the visible minorities to reflect the makeup and diversity of central Scotland and Glasgow. The participants from this group were exclusively of South Asian origin. The focus group was conducted similarly to that of the other groups. However questions were built in to highlight any cultural differences that may exist. The participants in this group fell within the younger age cohort established previously and as such experiences and usage of the Internet were akin to their white counterparts. Furthermore, although not explicitly researched, participants from this group appeared to suggest that these parallels would not exist with older members of minority ethnic and mainstream communities. Researchers are aware that direct and more in-depth contact would be required to establish nuances accurately faced by these communities and are essentially provided here to highlight the variances that may exist. Participants felt that language barriers may exist for some senior members of their communities. Participants stated that within their families older members appeared to be curious about using the Internet but would feel more comfortable learning or accessing it at home. The group conceded that any training courses that were provided would need to be tailored for older members and provided within their communities. Participants appeared to suggest that public access points were least likely to be utilised by older members of their communities.

7. Conclusions from Focus Group Research.

We are aware of the limitations of the evidence produced by this research. The use of focus groups necessarily means that the research makes use of a small sample and is qualitative in nature. We draw no conclusions that would require valid statistical analysis. Useful conclusions based on the attitudinal findings can however be usefully drawn and these can provide insights into the nature, if not the extent of the issues.

7.1 Issues behind digital divide in Scotland.

Although no statistically valid conclusions can be drawn from the fact that less than half of the participants owned pcs, this figure at least was in line with published statistics. More significant was that about a third of participants had never been online and this included about two thirds of the older age groups. This pattern was confirmed by and reflected in the attitudes of the uninterested participants. No statistically valid extrapolation may be made; but at least it is an indication that a major component of the digital divide are those, especially in those aged over 42, who because of education, social background or work experience have never been exposed to computers and the Internet. The implication is that an attitudinal shift in this group is important, but will be difficult to achieve. By contrast, the positive attitudes of those who have been exposed to computers and the Internet, especially the younger age groups, and of those in remote and rural locations, suggests that failure to satisfy their desire for access might alienate them further. All groups preferred the idea of accessing the Internet from home, once adequately trained. The cost for many, real or perceived was prohibitive. Although there was general support for direct or indirect public funding for the provision of hardware to families in need,¹⁰³ few saw answers to their further concerns over the future cost of accessing the Internet through the domestic phone line.

The suggestion is that the pattern of attitudes and the pattern of needs is complex and does not require standard solutions. For some in the older age groups, it might simply be a matter of information and education; for socially deprived youngsters, a matter of affordable access. Age, location and social position are all contributory factors.

7.2 Awareness, confidence and training.

Given the lack of Internet access at home and the corresponding lack of confidence in using these services many of the participants acknowledged the importance of skills training. This is true particularly for the participants identified through the research as potentially interested. Courses were seen as remote and not specific to their needs. This was particularly true for the older groups and those drawn from the ethnic minority community. Moreover this experience is not likely to encourage the groups identified in the research that have no interest at all in accessing the Internet. Bearing in mind the importance of this group as a key component of the digital divide, efforts to reach them will demand more than training: it will require direct targeting and advertising. The attitudes expressed by this group suggested that lack of awareness and fear of technology make them wary, rather than uninterested.

¹⁰³ This is being put into practice by the Scottish Executive in two small geographical locations.

7.3 Government services online

The digital divide would be exacerbated if public services became accessible on-line and a significant minority of the population could not access it. There was a mixed response to the desirability of accessing public services electronically. Particularly amongst the older and middle-aged group there was a clear feeling that a choice must be maintained between accessing services online and face-to-face. Younger people from disadvantaged areas, although generally more able to access the Internet still feel excluded from aspects of Internet access specifically the use of government services on-line.

It is one of the ironies of the research that the group most able to access government services - the younger active Internet user - has the least interest in doing so. This seems largely a consequence of broader societal issues not really addressed by government e-strategy¹⁰⁴. One note of encouragement was the potential interest in the use of the Internet for voting. The British Government has now launched a consultation paper on developing this idea.¹⁰⁵ This follows several pilot projects that were used in the English local elections in May 2002.

7.4 Public Internet access points

There was a general scepticism about PIAPs as a solution to the Internet access problems faced by many participants. The overall impression was that public access points would need to be targeted at specific groups, rather than be generally available. Older participants, for example were concerned about using PIAPs dominated by young people. The attitude amongst young people was that access points were not in locations where they would want to be. All groups were concerned about opening hours and cost. The rural groups saw little benefit in public access points unless they were located to make sure they were accessible by all. The general perception was that finding appropriate locations would be difficult.

It is ironic that whereas the universal service obligation on telecommunications providers to provide public pay telephones is obsolescent, its replacement with an obligation to provide public access to the Internet is never mooted. The question remains: should the public sector, the taxpayer bear the cost of an obligation formerly imposed on providers, or should the telecommunications industry bear the cost as part of their USO? In reality, Internet access at public phone booths is already appearing, but both the British government and the Scottish Executive have focussed on the provision of PIAPs funded through the public purse to promote Internet use. Our admittedly initial research suggests that this strategy is unlikely to fulfil the rhetoric of the “information society for all.”

Almost by way of postscript, the findings also suggest that reliance on alternative methods for accessing the Internet, for example through digital television was not favourably considered. Convergence of technologies and expansion of the options for Internet will remain an issue, but the implication is that unless they meet consumer needs, they are unlikely to be considered by them as viable alternatives.

¹⁰⁴ Or indeed any Western countries' proposals.

¹⁰⁵ See www.edemocracy.gov.uk. Money was dedicated to this project by the Comprehensive Spending Review of July 2002.

8. Conclusion: the Access Deficit

We set out to examine, in the context of access to the Internet, perceptions and attitudes within Scotland, amongst groups most likely to be affected, towards the digital divide. We were particularly keen to understand such perceptions and attitudes at a time when, partly through the onset of much more powerful broadband access, government services and interaction with government services more generally are increasingly digitised and online.

What we discovered and what this paper has argued is that such a digital divide exists and is widening. The divide is creating an “access deficit”, rather than a provision deficit, because major steps are being taken to ensure the expansion of broadband provision and these are likely to be expanded. Provision, however does not itself secure access for significant segments of the population.

We have also argued that new, governance imperatives are driving Internet access. These do not readily appear to fit into the set of hitherto social imperatives on which the concept of universal service, now a recognised part of all telecommunications regulatory structures, has been based. The new technology has changed the imperatives and makes universal service appear to be more and more a peculiarity of the old terrestrial, copper wire telephone network. This would be unfortunate.

The potential for the digital divide to worsen has been generally recognised and in the United Kingdom and in Scotland in particular the response has come on many fronts. Large amounts of public resources are being spent to support education projects, the rolling out of broadband projects to reach remote and rural communities to provide public Internet access point in urban areas and so on.

Our suggestion is that, no matter how extensive or co-ordinated such efforts are, they may not be enough to remedy the access deficit. There is an understandable unwillingness, on the part of regulators to be seen to interfere with competitive structures. But such structures cannot – indeed should not – deliver the kinds of social or governance objectives predicated by universal service provision. As long as such competitive markets have not “failed” in the economic sense, they cannot deliver uneconomic social objectives. Certainly the regulatory structures that we have set up – regulators that are independent of government – should feel uncomfortable about mandating interference with competitive forces, with all the unintended consequence that might accompany such interference. But unless someone does intervene, the access deficit will persist – and the consequences of that are equally unpalatable and unpredictable.

There is therefore a clash – not of ideologies, but certainly of policy. It is a conflict between “e-policy” and regulatory policy. Yet that is precisely the clash that the very concept of universal service, with its roots in the US regulatory system, is intended to resolve. Simply to define speed of access to the Internet in terms so limited that it ensures that it cannot form part of the universal service obligation is to ignore the social and now governance imperatives generating the access deficit. Perhaps the time has really come for a serious reconsideration.