Making IT Work

Policies for Information Technology

Policy Paper 54

Contents

Executive Summary

Liberal Democrats believe that the revolution in Information Technology can create conditions for a more liberal world in which people are able to overcome traditional boundaries. We want to ensure that everyone has the opportunity to benefit from this revolution. Therefore we would:

- Provide government support for broadband rollout in cases where the market is failing and better connectivity would improve the economic potential of an area.
- Support continued widespread innovation in software by resisting the wider application of patents in this area.
- Work towards a copyright law for the digital age that supports artistic endeavour without imposing unnecessary restrictions on legitimate purchasers of work.
- Ensure that government plays an active role in supporting industry bodies that are seeking to raise the standard of material sent over the Internet.
- Promote the further development and take up of IT qualifications.
- Work with existing fora on IT skills requirements to make public recommendations both on domestic training needs and on the need to recruit labour from overseas.
- Review IR 35 to allow specialist contractors to charge reasonable and legitimate expenses against their pre-tax income.
- Improve the use of IT by government.
- Ensure that government delivers better services using IT.
- Replace crude quantitive e-government targets with indicators based on the quality of electronic service delivery systems.

Introduction

This paper sets out a framework for Liberal Democrat policy in the area of Information and Communications Technology (in this paper we will use term "IT" to refer to Information and Communications Technology). As IT has tended to become pervasive over recent years, the paper necessarily covers a wide range of issues that are also covered by other policy papers. It should therefore be read in conjunction with those other papers and not taken as the last word on the wide range of subjects that are touched on within the paper. The ambition of the paper is to tease out some of the IT specific issues and outline policy ideas for them rather than to comprehensively cover the whole Liberal Democrat approach in areas such as education, utility regulation or privacy that are covered more fully elsewhere.

As well as the question of scope, the other specific challenge we faced in drawing up an IT policy was the question of relevance over time. Developments occur so quickly in technology that anything written on the subject runs the risk of very quickly becoming out of date. This is especially the case when a paper is undergoing a lengthy deliberative process as with this one. The temptation is to only deal in generalities so as not to become out of date but this would leave the paper empty of suggestions on pressing topical issues. We have therefore attempted to deal both with general principles and with more specific current debates in the full knowledge that some of our hot topics may be decidedly lukewarm or have moved on in the near future.

The paper is divided into three sections:

- Delivering the Information Society - the impact of communications networks
- The Best Place to do E-business – supporting the UK IT industry
- Better Services Through Technology - Government use of IT

This structure follows extensive feedback after the publication of the consultation paper in early 2002. The consultation paper very much concentrated on Internet related issues. Consultees made submissions to suggest that far more attention should be paid to the use of IT by Government (especially the problems with large IT projects such as those for National Insurance, criminal justice and the Child Support Agency) and the state of the IT industry in the UK. The substance of the consultation paper has therefore been wrapped up in the first section of this paper and two new sections have been added to cover the suggested areas.

The paper was subjected to online consultation for the first time in the party's history of policy-making. After a slow start, this proved successful in generating a large number of responses. The results of this will be evaluated for consideration by other policy makers. What is certain is that this paper looks very different from how it would have done without the online consultation which has generated well over 500 messages to date.

Foreword

1.1 Information and Communication Technology (IT) has become a significant item on the political agenda over recent years. There is a general perception that there is some sort of "information revolution" going on, but there is still a great deal of uncertainty about what this will mean and what the correct public policy response should be.

1.2 In seeking to form a response to the challenges posed by IT, we should avoid becoming bogged down in looking at the technology itself. It is helpful to think of IT as just a tool - in the same way that we might consider the printing press as being just a tool. That is a tool which fundamentally changed the way we think and work and led to entirely new social and political structures. The detail of the tool itself can be interesting to specialists but is of little significance compared with the wider changes it may provoke.

1.3 We should also understand that this change is not simply a result of the development and spread of personal computers and the Internet but exists in a wider context. The development of IT has been taking place over many years and consists of a range of major technologies such as radio, television and telephony, which have had a huge influence on people over the last century. What is different about the current phase of technological evolution is that it is designed for two-way communication. This shift from the broadcasting of information to passive recipients to interactive communication between active parties is of major significance in terms of social and economic change.

1.4 The general trend towards "globalisation" is also a key component of the IT policy mix. One of the most significant features of IT in all its forms is that it is no respecter of geographical borders. Newer forms like the Internet are geared towards a global market. And the market for older forms, such as television and telephony, has been developing into one where transnational corporations source and market products globally over a number of local output channels.

1.5 This paper sets out a Liberal Democrat response to this information revolution. It is an issue of serious interest to those who hold liberal views more generally. Like the changes brought about by major technological advances in the past there are a number of possible outcomes as IT increases its influence over our daily lives. The technology itself may be seen as essentially neutral, but there is scope for huge variation in the ways in which people apply it.

1.6 Some of these outcomes could be fundamentally illiberal if knowledge and power are jealously guarded by small groups or if the technology is used to exert control over people. There is reason to fear such outcomes as we have seen these patterns in the past, such as where feudal systems held sway after the move to settled agriculture or with the appalling conditions for workers which have often followed industrialisation.

1.7 We are generally hopeful that IT will instead create conditions for a more liberal world. We celebrate the way in which it can bring people together, overcoming traditional boundaries. We see that it has potential to allow the less well off to take part in

global trade on a fair basis. We look to technology to improve the delivery of public services. And we can envisage a future in which both the breadth and depth of democratic participation are enhanced as governments open up to input from their citizens.

1.8   The paper deals with three elements of the mix that have to be got right if we are truly to benefit from the information revolution. These are the transition to an information society, support for our domestic IT industry and the use of IT in public services. We have made a number of proposals in each of these areas.

Delivering the Information Society

2.1 Regulation of Telecommunications Companies

2.1.1   As more and more economic and social activity takes place over computer networks so the ability of everyone to have quality access to those networks at a reasonable price becomes increasingly important. The current debate in 2002 is over what is termed "broadband" access. This debate has shifted direction several times over the last couple of years offering a good example of how fast moving technology issues can evolve.

2.1.2   The debate in the UK often centres on the role of BT as the dominant telecommunications provider. The heat in the debate reflects the state of liberalisation in the UK market. This liberalisation has led to the growth of a number of dynamic telecoms providers who are keen to develop products and markets but has also left one very large company, BT, as both a competing retailer of services and the owner of the largest network of wires into people's homes.

2.1.3   There are two very different views as to the overall state of the UK market. One perspective, as offered by BT, is that we have done very well in terms of lowering the cost of access to the Internet and moving ahead with new technology. The other, as usually put forward by BT's competitors, is that BT is stifling innovation by other suppliers and commanding an unfair advantage that reduces real competition.

2.1.4   As with many such debates, there are elements of truth on both sides. What the debate highlights is the need for reserve regulatory powers to ensure that this increasingly essential service is available on a fair and reliable basis.

2.1.5   The objectives of the regulator (OFCOM) should include the following: Internet access to be available as a universal service at a fair price and at an appropriate speed (this will increase over time); Firm action against restrictive markets in access devices, software and content delivery, and the promotion of mechanisms for interoperability. Increase consumer choice in the digital television (DTV) market by promoting free-to-air services and access to them. Promote competitive access over telecommunications infrastructure.

2.1.6   While we accept the general case that the market can and should provide internet access including the faster access that is generically called "broadband", there are instances where there may be market failure or where a public body wishes to invest to move ahead of the market. In these circumstances we do see a role for Government support for broadband rollout including targeted investment where appropriate and the use of fiscal incentives. This is explored further in section 3.1 of this paper.

2.2 Regulation of Internet Content and Copyright

2.2.1   The shift from the analogue to the digital storage and distribution of

7

copyright material poses a major challenge to its producers. This is compounded by the growth in speed of computer networks which means that audio and increasingly video content can now potentially be exchanged between millions of users very rapidly.

2.2.2   The traditional means of copyright protection have largely depended on being able to police the physical distribution media such as CDs, game disks, videos and printed material. There is pressure to translate this system into the digital age by attempting to police the networks and access devices that might be used to take advantage of unlicensed copyright material.

2.2.3   There is clearly a huge amount of work still to do on an international basis in order to develop a workable system for copyright and intellectual property rights that reflects the realities of a digital world. The guiding principle for the Liberal Democrats is our commitment to well-regulated free markets that genuinely serve the interests of the citizen.

2.2.4   We have regard to the fact that the citizen is both a potential producer of intellectual or artistic property who will rightly seek a fair return for their work, and a potential consumer of such material who should not suffer from unnecessary restrictions that weaken the market against the consumer interest. The challenge is to reconcile both these interests.

2.2.5   We do not believe that the citizen as consumer will be well served if a wholesale failure in the copyright system leads to a drying up of creativity as the financial incentives disappear. But we also recognize that there are circumstances in which protection systems can have the contrary effect of stifling creativity against the public interest. We are especially concerned about the use of

patents in the area of computer software in this respect.

2.2.6   There are usually many ways to achieve the same objective using computer code. The public benefits from the fact that different teams of programmers will work on solving problems and release their separate solutions as competitors in the market. The specific code each team has written is protected by copyright. Allowing a wide definition of inventiveness for patents in the field of software could lead to a reduction in this creative activity. This might be justifiable if there were evidence that the software industry as a whole were suffering because of an inability to secure revenue for research and development but there is no evidence that this is the case as the sector remains vibrant and growing.

2.2.7   We would also challenge attempts at restriction which seem to be geared towards distortions in the market rather than the genuine protection of artistic creativity. One of the key benefits of a global economy is the ability to trade from anywhere to anywhere. Measures that have the effect of restricting such trade against the interests of the consumer, such as the regional encoding of DVD disks and players, are not compatible with a belief in free markets.

2.2.8   Copyright law in the UK recognizes the concept of "fair dealing" which allows, for example, owners of books to make photocopies of sections for the purposes of research and private study. The fact that digital material can be copied more easily and accurately and then transmitted to a wide audience means that this principle must be redefined for the digital age. This has led to calls for a new copyright regime making all copying illegal and backed up by hardware and software devices that intrude on the private domain. We do not believe that

a highly restrictive approach would be either workable or fair.

2.2.9   We would instead extend the definition of fair dealing to include private time-shifting, space-shifting and format-shifting of legitimately obtained works, as well as use of a legitimately purchased product unlimited by time-outs or region locks. Once an individual has paid the copyright holder the fair price for that material they should have reasonable latitude in terms of their private use of it. Measures that are aimed at preventing the unlicensed use of copyright material will be counter-productive if they restrict the freedom of the law-abiding user to the degree that they resent the strictures of using the licensed product.

2.2.9   We must also consider the issue of standards for material sent over the Internet whether it is from mainstream suppliers or from those on the fringes. Our general approach is to support the self-regulatory and co-regulatory approaches rather than responding in UK national legislation. We believe that this is the route most likely to lead to success in terms of protecting citizens from inappropriate material though we accept that if self-regulation fails then national governments may wish to resort to legislation.

2.2.10 Discussions about harmful material on the Internet sometimes seem to miss the fact that the normal criminal law applies here as with any other media. If someone is in the UK jurisdiction and is publishing illegal material or otherwise using the Internet to incite or assist criminal activity then the right course of action is to prosecute them under the criminal law. If they are outside the UK's jurisdiction then action can be taken using whichever legal channels exist between the UK and their home authorities. As new technology makes it easier for people to operate internationally so we can expect to see

a greater need for international law enforcement capability. We must ensure that law enforcement agencies have the technical and legal support to allow them to keep up with trends in hi-tech criminal activity.

2.2.11 While the Internet does not in itself create a need for specific offences, there is a need for specific reporting and detection mechanisms. The Internet Watch Foundation (IWF) is a good example of such a mechanism. The IWF is largely funded by the Internet industry and carries out valuable work in the reporting of child pornography on the Internet. We would encourage the development of industry bodies like this as the most effective way of "policing" the Internet.

2.2.12 There is material on the Internet that, while it is not illegal, causes concern to many people. We do not believe that an appropriate response would be to bring it under the framework for regulating broadcasters and welcome the Government's decision to leave Internet content outside the framework for regulation by OFCOM. However, this does leave the industry with the responsibility to create its own standards and tools to allow users to use the medium safely and in a way that is acceptable to them.

2.2.13 The concerns about the potential exposure of children to highly inappropriate material are especially valid and may lead to parents switching off Internet access if the industry does not respond effectively. There are already examples of good practice involving software solutions, codes of practice, rating systems and moderation/supervision procedures. Government should play an active role in supporting industry bodies that are seeking to raise standards.

2.3   Privacy and Data Protection

2.3.1   We support the principles that are enshrined in UK data protection legislation. These are based on an EU Directive which we believe sets out an effective framework for the protecting the rights of UK citizens in this area.

2.3.2   Data Protection legislation accepts that the rights it creates are not absolute. There are circumstances where public interest may override these rights. We accept that the right to privacy can be breached where protecting it would be contrary to the public interest or freedom of information.

2.3.3   Where there appears to be a need for such a breach of the right to privacy we would wish to see the proportionality test rigorously applied. This would place the onus on those seeking the breach to demonstrate that it would be proportionate to the public interest they are seeking to advance.

2.3.4   The best way to ensure that the proportionality test is being correctly applied is for there to be independent oversight of requests for breaches of privacy. We do therefore support a system of judicial oversight for the interception of communications and intrusive surveillance.

2.3.5   The Government has made it clear that it wishes to develop common databases integrating the information it holds about citizens in various discrete systems at present. From the point of view of effective system design there could be considerable advantages to common data standards and exchanges of information between government systems. But this does also naturally raise concerns about the scope for potential abuse of personal information. As systems become more accessible and integrated they can be used to do more good for the citizen but if they were abused they could also do more harm to the citizen.

2.3.6   We believe that Government must be take the approach that it has in effect a contractual relationship with citizens to hold data on their behalf. This means that it should only hold data where this can be justified in the public interest. Government has no business holding personal data for any reason other than in carrying out its functions in serving the public. It should explain why it is holding data and consider whether there is broad public agreement to that data being held. It should seek the consent of the citizen for the collection of that data and explain the purposes for which it will be used. And it should publish explicit rules for the exchange of data between various arms of Government showing why such exchanges are necessary.

2.4   Commerce and Taxation over the Internet

2.4.1   The move towards electronic commerce in the form of consumers buying goods directly over the Internet has suffered from being heavily oversold. The dot.com boom of the late 1990s was based on predictions of people abandoning high street shops for Internet purchases that have patently not turned out to be true.

2.4.2   However, the extravagant hype and subsequent gloom that have accompanied the dot.com mania should not obscure the fact that a quiet revolution is taking place with the growth of electronic commerce. Business to business transactions have especially benefited from the increased ease and reduced cost of electronic commerce. And there are consumer sectors that are growing in strength on a "horses for courses" model. While most people clearly have a preference buying department store items in person, they are carrying out many other transactions such as banking and flight and holiday booking online.

2.4.3   One of the characteristics of electronic commerce is that it aims to mask the geographical distances between vendor and purchaser. A major selling point for businesses to engage in e-commerce is that they can sell to anyone anywhere as though they were a local business. However, the legal frameworks for commercial transactions are generally nationally based. This means that when a dispute arises there is the potential for confusion over the rules that should be applied to settle the matter.

2.4.4   Consumer confidence is essential to the further development of e-commerce. If it proves to be confusing, expensive and difficult to settle transactions because of the legal complexities of working across jurisdictions then this could discourage consumers. The European Union has been actively trying to resolve these questions by clarifying that the rules in the country of origin for any goods or services supplied that should be applied. It is also seeking to integrate the systems for seeking redress so that, for example, a citizen can access the consumer protection service of another EU state by going to their local equivalent. Liberal Democrats support this work as an important step in the development of e-commerce.

2.4.5   The development of e-commerce also carries with it major implications for taxation. The most obvious area of concern is over the collection of indirect taxes such as sales tax and value added tax. Many governments have shifted from direct taxes such as income tax and corporation tax over recent years towards taxes levied on goods.Yet, e-commerce has a global dimension that renders the collection of sales tax increasingly difficult.

2.4.6   In the UK, we have seen a major concession to this trend when the Government abandoned the collection of betting tax in the face of growing off-shore internet betting operations. It was recognised that tax could no longer be efficiently collected from the individual customers, but only from the profits of the betting companies based in the UK. VAT could not be abandoned so readily, but some of the same considerations apply to any discussion of future tax collection

2.4.7   We can also predict challenges to other forms of taxation as the global economy evolves. Businesses that operate a distributed model based on the use of IT will be looking for the most efficient way to fulfil their obligations in respect of corporation tax. And income tax liabilities become more complex as individuals find new ways of working as we discuss further in section 3.3 of this paper.

2.4.8   Liberal Democrat policies for well-funded public services are potentially influenced by the taxation question. We can anticipate major shifts in revenue raising patterns over the medium term. But these changes also need to be looked at in the context of tax policy more generally and any decisions by the party on public service funding. These are questions that need further consideration.

2.5   Digital Politics

2.5.1   Democratic structures and modes of participation are a core interest for the Liberal Democrats. The party has pioneered many techniques for information exchange and public participation in the physical world that may now be adopted more widely as they are made easier by advances in IT. For example, there is now much talk of email newsletters and on-line consultation as being important advances made possible through new technology. Such methods are functionally equivalent to the Focus newsletters and consultation-rich philosophy that underpins the Liberal Democrat tradition of community

politics. It could be argued that IT is now allowing others to catch up with what Liberal Democrats have been doing the hard way for years.

2.5.2   As well as being an electoral campaigning methodology, this form of highly participative politics is also a political end in itself. It is a major objective of Liberal Democrat policy to transform government and politics so that it has a greater degree of citizen participation and accountability. It can therefore be argued that new technology has the potential to make all of politics and government more "Liberal Democrat", whichever party actually holds the reins of power.

2.5.3   The Liberal Democrat approach has generally been one of accepting the maxim that "knowledge is power". This has led us to prioritise education as not just an economic enabler but also a political enabler. We wish to see informed citizens take more ownership of their own governance.

2.5.4   The key question we have to answer in terms of the information revolution is whether it is spreading knowledge, and therefore power, or just creating access to large quantities of information which may be interesting but lacks potency. The anarchic nature of the internet has genuinely shifted the power balance in that it has allowed the transmission of important information outside the control of traditional authorities. Good examples of this can be found in the famous Serbian radio station B-92's internet broadcasts during the conflicts in the Former Republic of Yugoslavia and the use of the internet by liberation movements in many parts of the world.

2.5.5   The future shape of the Internet is hard to predict in terms of the extent to which it will fall under the control of governments and large corporations. Liberal Democrats should argue for it to continue to be a community space rather than a government or corporate space. We would use the UK's voice in the international for a which define the rules and standards for the Internet to argue for the central role of community space within it.

2.5.6   As a party, Liberal Democrats already have a sound reputation for adopting new technology. The e-democracy space fits so well with Liberal Democrat political aims that we should go much further in adapting the party to work in this new political environment. We should regard the e in e-democracy as not just referring to "electronic" but also "evolving" democracy and work at all levels to encourage that evolution to a more open and participatory democratic model.

2.5.7   We should approach moves towards direct democracy cautiously. The priority should be to ensure that as well as increasing the quantity of contributions to the decision-making process, we need to increase their deliberative quality. This may lead to an enhanced role for elected representatives rather than removing the need for them. The representative working in an e-democracy context can work with more citizens more effectively if they have the skills and tools to back them up.

2.5.8   In respect of making voting available by electronic means, there are two areas of concern that require further investigation. The use of remote voting methods, whether postal ballots or remote electronic voting such as over the internet, raises issues about the potential for abuse because of the lack of supervision when the act of voting takes place. The use of electronic voting systems raises concerns about public confidence in the results if they do not understand the systems for verification and audit. E-voting systems may be shown to be "secure" in a technical sense but this does not necessarily mean that their use will command public confidence.

2.5.9　The current paper voting system offers little security in terms of checking the identity of voter but is very strong in offering a safe, supervised environment for votes to be cast secretly without undue influence or coercion. Remote electronic voting by contrast can be designed to offer a greater degree of security over the identity of the voter but do not permit any effective supervision of the circumstances in which the vote was cast.

2.5.10　Confidence in the results of elections depends on the knowledge that the participants can have the result audited if they suspect there has been any foul play. Those monitoring elections and participating in them can understand the audit process for paper ballots and so will generally accept the eventual result following a challenge and audit. It is far harder for most people to understand what is going on within an electronic system and therefore to feel confident in any audit that takes place if a result has been challenged.

2.5.11　There has been a lack of substance in the arguments for remote electronic voting to date. We fully accept that remote electronic voting will bring additional convenience but this has not been shown to make a significant increase to voter turnout in the pilots conducted so far. The real benefits of e-voting may come when it is linked to new ways of participating in politics online yet it has largely been treated as a discrete exercise separate from developments in participation.

2.5.12　We therefore recommend that no widespread implementation of remote electronic voting takes place before further work is done to answer these concerns. The current voting system does command a high degree of public confidence. The introduction of remote electronic voting is an option that we ought to be actively considering and studying by means of selective pilots but this must be on the basis of a genuine examination of the potential benefits, costs and risks.

The Best Place to do E-business

3.1 Infrastructure

3.1.1   In order for UK business to be successful it must be supported by a high quality national infrastructure. This has traditionally meant physical transport means and these are still of importance to many businesses today. But increasingly, it is the information infrastructure that is essential to a business's operation. We can foresee a time in the very near future where many businesses can no more do without fast Internet access and remain competitive than they could do without the telephone.

3.1.2   The spread of broadband is the current issue at the top of the information infrastructure agenda and has been mentioned in the previous section. This is however only one in a succession of developments that have become a priority for business users. And even if we are able to achieve a comprehensive spread of internet access at the speeds currently defined as broadband, we can already anticipate the next wave of even faster technologies that will in turn become essential to business competitiveness.

3.1.3   It is in the nature of things that infrastructure investments increase in cost per capita in less densely populated areas. Most information infrastructure is no different in that more cables, exchanges, masts etc. are needed to reach people in sparsely populated areas. The notable exception to this is satellite which broadcasts across a footprint without the supplier needing additional equipment on the ground.

3.1.4   A purely market driven approach would therefore almost inevitably leave businesses away from the main urban centres at a considerable disadvantage. They would either face considerable delays in the infrastructure being available to them at all (as is happening with many of the broadband options at present) or they would have to pay a higher price to reflect the additional costs of delivering the service to them. Whilst domestic consumers may be able to live without a new service for some time, businesses in more remote areas may find it much harder to survive when they lack an essential facility that is available to their urban competitors.

3.1.5   Liberal Democrats do not want to see burdens placed on service providers that would render them unable to compete themselves as we wish to see a healthy competitive market. However, the prospect of leaving businesses in large areas of the country unable to compete in the modern economy is of sufficient public concern to merit appropriate government intervention.

3.1.6   One model for intervention that appears to be having some success is that which has been pioneered in Cornwall with strong Liberal Democrat support. The Cornish are using some of their regeneration funding to effectively make up the difference between the actual cost of connections in Cornwall and the cost of putting broadband into homes in more densely populated areas that BT would normally expect to incur. There have been other examples of public investment of this sort such as that

which will bring better connectivity to the Highlands and Islands of Scotland.

3.1.7 Liberal Democrats believe that this is an effective model for intervention. Public funds can effectively be used to support infrastructure projects especially in the context of economic regeneration. As the IT infrastructure becomes increasingly important for the economic well-being of an area it is right to consider this to be a priority for public support.

3.1.8 Fiscal incentives also have an important role to play in encouraging the adoption of new technology. The specifics of the incentives on offer will necessarily change over time according to the evolving technological situation. We believe that it is right for Government to put in place incentives where these are likely to bring in a return in the form of increased productivity for UK businesses.

3.1.9 We are absolutely clear that we must not allow a digital divide to become a permanent feature of our society between those, mostly in urban areas, who have fast Internet access and those, mostly in rural areas, who do not. The measures we have described will go some way towards resolving access problems in some areas. Technological developments such as the rollout of new more powerful mobile telephone networks are also likely to help. However if in spite of this there remain areas of the country with no realistic prospect of receiving fast Internet via the market mechanism, then there is an overwhelming imperative for action by Government to intervene to ensure that there is broadband access for all.

3.2   Education and Training

3.2.1   IT is used in education across a spectrum of levels from the use of a wordprocessor for almost any course to specialist training in advanced

technology. This has been further developed recently with IT being used to deliver education in new ways such as those offered by the University for Industry.

3.2.2   This initial development of IT use has been supported by both technical and educational staff in schools, colleges and universities. Evidence has recently been presented of difficulties in recruiting and retaining the next generation of both teaching and support staff across the educational sector though this situation is very dependent on the health of the IT job market more generally. As IT becomes more integral to education Government must respond proactively to any evidence of staff shortages in the sector

3.2.3   Traditional qualifications frameworks have tended to evolve relatively slowly over time. In the IT sector many qualifications, such as the popular Microsoft Certified Systems Engineer range, have developed outside of the academic framework because of the need for them to be responsive to changes in the industry. Some colleges and Universities have responded by putting together academic courses in partnership with companies in the industry, such as the MSc in SAP systems at Sheffield Hallam University.

3.2.4   Liberal Democrats would build on the existing IT qualifications and promote the further development of IT qualifications within the national academic and vocational frameworks. This would make those needing to develop IT skills eligible for support in line with our overall policy for funding post-16 education.

3.2.5 The approach to personal taxation which we outline in the next section should also promote additional investment by IT professionals in developing their own skills.

3.3 Taxation and IR35

3.3.1   Technology is making possible new ways of working that challenge traditional models of employment. There is a tendency towards more flexible working in the market generally that has particularly been adopted by the IT sector. Many companies would rather use a variety of outsourced firms or contract workers to provide their IT services because they need access to a wide range of specialties.

3.3.2   There was understandable anger amongst IT consultants when the rules for self-employment were changed in a regulation known as IR35. IR35 was intended to tackle the problem of personal service companies and similar intermediaries providing a means to avoid paying a fair share of tax and National Insurance contributions. While the plugging of loopholes in tax and National Insurance collection is a sensible task for Government to undertake, the changes introduced by the Government do not take into account the needs of IT contractors. As methods of working have changed, so the taxation system should evolve to support modern working practices rather than discouraging small businesses in the UK.

3.3.3   The principal argument from the IT industry which does deserve a serious response is that while consultants may be placed with a single employer for a number of months, they nevertheless have additional expenses for equipment and training that are different from those of a PAYE employee. There are expectations on many contractors, that they should develop their own skills and undertake a level of self-management, that would not be placed on payroll employees.

3.3.4   The Liberal Democrats propose to review this area of taxation to develop new rules that will allow specialist contractors to properly charge reasonable and legitimate expenses against their pre-tax income.

3.2.5 These rules should balance the economic requirement for contractors to be able to operate on a self-employed basis with limited liability with the public need to prevent tax avoidance.

3.4 Global Working

3.4.1   The IT sector is at the forefront of the trend towards the globalisation of labour. We see this both with the movement of personnel and of the work itself. The economic necessity for businesses to acquire strong IT skills is forcing governments to look at the way in which their immigration rules are working.

3.4.2   There is a very careful balance that needs to be struck in the recruitment of overseas labour in this sector. There are dangers in both a too restrictive and a too open policy for the success of the sector. An overly restrictive approach risks IT businesses moving out of the UK to countries where they can recruit globally as they wish. A too open policy could damage the UK domestic IT sector as overseas labour is used not to fill genuine skills gaps but simply to replace domestic workers at lower cost.

3.4.3   Liberal Democrats propose that this should be dealt with in the various fora that exist to look at IT skills requirements, principally the Sector Skills Councils. These should be able to make recommendations both on domestic training needs and also on the need to recruit labour overseas. It is important that this process is conducted as openly as possible in order to command the respect of the industry as a whole.

3.5 Research and Development

3.5.1 The UK has an excellent research base in the IT sector. Areas such as "Silicon Fen" around Cambridge are at the forefront of development work. But there is far more that can be done to be able to compete within the global market.

3.5.2 Links between Universities and industry are especially important in enabling the country to take full advantage of the work done by researchers. Lessons should be learnt from the sectors such as biotechnology which currently have a very good record in forging such relationships.

3.5.3 Government has a role to play by virtue of the research funding which it makes available to the higher education sector. It can also act as a catalyst to bring in additional private and charitable sector funding as already happens effectively in fields such as medical research.

3.5.4 Tax credits are a helpful mechanism for encouraging investment in research and development by industry. Liberal Democrats would seek to encourage the take-up of R & D tax credits by companies working in the IT sector. Particular care should be taken to apply criteria for accessing such credits that do not discourage the many small businesses in the IT sector from taking advantage of them.

Better Services Through Technology

4.1 Large Scale Government IT Contracts

4.1.1   A worrying development in the way in which government procures IT services has been the apparent loss of real competition due to the limited number of suppliers who are capable of taking a project on and the growing costs involved in making a bid. This creates a degree of supplier dependence that is a cause for concern. From the public point of view there are two ways in which their interests may be harmed by this development.

4.1.2   Firstly, the ability of government to implement its policies may be dependent on the timetable set by the IT suppliers rather than by the politicians who are making the decisions. The delays in bringing in reforms to the Child Support Agency systems in 2002 are an example of this. While decision-makers need to be mindful of the difficulties of implementing policies they have agreed upon, we must consider whether delays are being made worse than is strictly necessary because of the structure of the market.

4.1.3   Secondly, service to the customer can suffer where real competition fails. Liberal Democrats strongly believe in the ability of truly competitive markets to deliver improvements in services. Conversely, we believe that when competition fails then poor services are a likely result.

4.1.4   When government is putting out a service to tender, it has to be the case that better value will be secured when a number of serious bidders are putting effort into competing for that business. Yet, we are now seeing large tendering exercises, such as that for the Inland Revenue systems, where the trade press commonly reports that only the incumbent supplier is serious about bidding for the business.

4.1.5   We should also be concerned about what happens when a supplier underperforms in the context of a lack of serious competition. Where the supplier is responsible for a critical application, the scope for the contracting party to impose meaningful penalties and see an improvement in performance is severely hampered where it is known that there is no serious alternative to the incumbent for a system that must be kept running.

4.1.6   The Liberal Democrat response to this is to look at the scale of the contracts being offered at present. Single supplier dependence is a function of very large contracts that offer proprietary solutions to the end user. The risks of such dependence are now sufficiently large that a different contracting model needs to be considered. Work should be undertaken to look at ways in which large systems can be tendered for in a modular fashion.   This is a model which appears to be under consideration for the NHS. The costs of the tendering exercises would increase under this model, but if it leads to stronger competition for each module than existed for the single large contract then it could deliver a cheaper result as well as a more resilient one. We would take this

forward by engaging in pilots for the smaller modular contract model that would be fully evaluated by independent auditors.

4.2   IT Project Management

4.2.1   Many government IT projects have become synonymous with expense, delay and failure. This has happened under governments of different parties and is a source of no satisfaction to those of us who are interested in good government services.

4.2.2   These failures have been the subject of criticism by many in the IT industry and by those charged with government audit such as the Public Accounts Committee. Liberal Democrats would implement changes to the way in which IT projects are managed in the public sector in response to the valid criticisms that have been made.

4.2.3   The nature of the changes required has been described in a number of comprehensive reports over recent years. Key changes that we would implement include the following:

4.2.4 Each organisation should have an IT "Director" responsible at board level. When IT is integral to the success of an organisation there must be accountability at the most senior level for its effective use and development.

4.2.5 Project requirements must be formally signed off rather than being left vague and subject to continual amendment.

4.2.6 When new legislation will require major changes in IT systems a technological impact assessment should be included in the legislative process to inform decision-making by those considering the rule changes.

4.2.7 Increased use should be made of rapid development methodologies. We can anticipate that government systems will need to change more frequently over time in response to public and political priorities. With a shorter systems lifecycle, over-elaborate methodologies may often no longer be appropriate.

4.2.8 The relationship between in-house staff and outside consultants must be carefully managed. There is an important role for external consultants to play in the IT strategies of most organisations as they cannot expect to have all the required skills amongst their permanent staff. However, an over-reliance on temporary external expertise and consequent failure to develop permanent in house skills can weaken an organisation.

4.2.9 There must be realistic expectations for any IT project. In many cases these should be checked by external validation. There are too many cases where the anticipated benefits of a new system cannot be realised because it has been "over-sold". A third party opinion on the ability of a project to deliver its stated aims should be obtained at an early stage.

4.2.10 Far more attention should be paid to the "people" dimension of large scale IT projects. These are often seen as largely technical challenges when they in fact require a high degree of organisational change. Such change can be brought about successfully by good management of the staff involved and careful consideration of all the implications such as changed working practices and training requirements.

4.3   Open Source Development

4.3.1   The use of Open Source software has become a hot topic in discussions of government computing in many parts of the world. This is not surprising given the strong political

strand that is present in the Open Source movement. This has led to heated debates about the definition of "Open Source" itself led by organisations like the Free Software Foundation giving rise to several different models for Open Source licensing. In this paper we cannot cover the details of this debate in depth but are using the term Open Source in a general sense to mean computer programmes that are not just available as finished products but also openly publish their workings, the "code". Most software companies have traditionally kept this code secret so that nobody can alter their products for their own use but have to go back to the original supplier for changes. In the Open Source world people are encouraged to alter or add to the programmes and then to share any useful new code they have written with the whole community of people who use that software.

4.3.2   Liberal Democrats believe that there is great scope for improving the use of IT by government by learning from the Open Source movement. This can come in various ways from the use of actual Open Source products to adopting common standards and engaging in more collaborative working.

4.3.3   We believe that Open Source software should always be considered as an option in making IT purchasing decisions. But we do not think that it is sensible to mandate only Open Source solutions as some legislatures have sought to do. A proper evaluation of all the options will lead to Open Source products being the preferred option on some occasions and proprietary solutions on others. What is important is that there is a level playing field in considering all the costs and benefits of the available alternatives.

4.3.4   Government should however make far more determined efforts to

follow the methodology of Open Source projects in developing its own solutions. In particular, a collaborative system in which large numbers of developers can freely share their work can be of enormous benefit. This has often not been the case to date with, for example, IT specialists in large public organisations like the NHS working separately to solve the same problems but unable to pool their results because they are tied in to separate proprietary system suppliers.

4.3.5   In order to support a framework for collaborative working and a healthy market in system suppliers, far more attention also needs to be paid to common standards for both databases and programming interfaces. Data models can be developed and interfaces specified for common national systems and adherence to these standards mandated for system suppliers. This would allow government purchasers to mix and match interoperable elements from different suppliers. It would reduce single supplier dependence and create a more healthy market for innovation.

4.3.6   Wherever possible consideration should be given to the benefits of placing software elements into the public domain and developing them collaboratively amongst the whole developer and user community. This may mean paying higher upfront costs to buy rights to software outright rather than on a use only basis. Such investment will require more imaginative decision-making than a simple consideration of immediate lowest cost.

4.3.7   An example of the benefits of this approach might be the use of imaging in the NHS. An optimal solution could be developed or bought in for the presentation of X-Ray or other diagnostic images within a personal health record. Common data standards and programming interfaces would mean that this could be bolted

on to any medical records system within the health service. If the software is further put into the public domain then it could be constantly improved by the whole community of medical records users. This would be a more efficient use of resources and give greater interoperability than encouraging the development of separate imaging systems by a whole range of medical records system suppliers.

4.4 Government "Online" Targets

4.4.1 The Government have set a crude target of 2005 for all government services to be "online". This has had some benefit in terms of encouraging government at all levels to think about new technology, but it remains a very blunt instrument and may also lead to some bad practice. The fear is that much of the money allocated to putting services online will be spent (wasted) on putting a new technology veneer on existing government systems rather than properly re-engineering them to take full advantage of the technology.

4.4.2 There is also a problem in attempting to define what is meant by putting a service "online". The Government definition to date has generally meant any form of remote access to a service including means such as telephone call centres. It also means web access where this is purely informational and the real work still has to be done using paper mail or in person.

4.4.3 Liberal Democrats would avoid the use of crude targets. We would focus on the quality of the work being done in enabling access to government services rather than simply looking at the quantity of services that meet a checklist of requirements.

4.4.4 The key measure of success lies in the actual benefits felt by citizens which will not always be obvious to those developing new systems. An example of this lack of predictability can be seen in the experience of two recent government systems. A high capacity system has been made available for the filing of personal tax returns online yet this has seen very little take-up by the public. By contrast, the Public Records Office commissioned a system to put census information online and saw such high levels of demand that it had to be taken down again.

4.4.5 Whilst this points to the need to improve predictions for the anticipated use of new systems there will always be a degree of uncertainty that requires additional flexibility from government. 4.4.6 We take the view that new technology should be used to create multiple channels for access to public services rather than being used to provide simple replacements for existing systems. There is a wide variance in the ability and willingness of people to use new technology. Public authorities need to be sensitive to this and not seek to impose 'one size fits all' solutions.

4.5 Joined-up Government

4.5.1 Not so long ago, computers were isolated machines that were used for a specific purpose. We then saw the development of networks connecting computers together at a local level and then at a wider level until we reached today's situation where computers can be joined to a global network at relatively low cost. The evolution of the world wide web as an information sharing tool ideally suited to this global network has led to a major shift in the way in which people use information and relate to each other and to organisations. Tim Berners Lee's book "Weaving the Web" is a very accessible guide to the thinking behind the ongoing development of the web.

4.5.2 There is little evidence that Government has responded to this seismic shift in the way in which it delivers information and services. Of particular relevance is the capability of the web to create a dislocation between public face of a service and the actual providers of that service. This dislocation brings with it huge potential benefits as it allows multiple channels to be used to access the same service. The choice of access channel can increase the reach of government services. The separation of back office function from access methods also allows for improved development of the backend functions.

4.5.3 Liberal Democrats would implement the following measures to bring about truly joined up government.

4.5.4 –We would further develop the Office of Government Commerce to achieve best value in government purchasing of IT equipment and services.

4.5.5 We would implement a system of comprehensive cross Governmental standards with the goal of making systems more accessible to the citizen. The development of standards should reflect best practice across the IT sector as a whole.

4.5.6 We would aim to optimise the development of systems across Government by conducting interdepartmental systems impact assessments.

4.5.7 The nature of the networked world is such that many of the most useful developments come from the interaction between a number of players. It will often be the case that this will include both Government agencies and those in the private sector.

4.5.8 An example of this can be seen in the provision of information to the Inland Revenue. The information required for tax returns will often be held in company or personal finance packages. The best solutions for both Government and the citizen will come from taking positive steps to work with the suppliers of commercial finance packages to accept data from their systems.

4.5.9 We would actively work with any organisation that can provide a helpful gateway to Government services to improve the interaction of the relevant systems with each other.

4.5.10 As society becomes increasingly dependent on electronic information systems the issue of the security of these systems will correspondingly grow in importance. There was a great deal of interest in this issue around the time of the 'Millennium Bug' but this has since largely faded. With the growing incidence of problems like denial or service attacks, financial fraud and the use of the Internet for terrorism or criminality there is now a need to place a far higher emphasis on security. Government-backed assurance schemes can play an important role in raising standards if they set high standards and are rigorously enforced. We would work with industry bodies that already operate in this area to raise the profile of security across the sector.

Conclusions

5.1   Government has a major role to play in enabling the UK to move towards an information economy. Much of that transition will be driven by the market as information technology is such a liberalising force, but there is a role for Government as supporter of the new economy and as a major commissioner of services in its own right.

5.2   Many of the proposals that are part of general Liberal Democrat policy will help create the right climate for UK success in IT, such as our commitments to education and competitive markets.

5.3   Our general approach when combined with the specific proposals set out in this paper will, we believe, offer the UK the best possible prospect of becoming truly successful in the information age.

This paper has been approved for debate by the Federal Conference by the Federal Policy Committee under the terms of Article 5.4 of the Federal Constitution. Within the policy-making procedure of the Liberal Democrats, the Federal Party determines the policy of the Party in those areas which might reasonably be expected to fall within the remit of the federal institutions in the context of a federal United Kingdom. The Party in England, the Scottish Liberal Democrats and the Welsh Liberal Democrats determine the policy of the Party on all other issues, except that any or all of them may confer this power upon the Federal Party in any specified area or areas. If approved by Conference, this paper will form the policy of the Federal Party, except in appropriate areas where any national party policy would take precedence.

Many of the policy papers published by the Liberal Democrats imply modifications to existing government public expenditure priorities. We recognise that it may not be possible to achieve all these proposals in the lifetime of one Parliament. We intend to publish a costings programme, setting out our priorities across all policy areas, closer to the next general election.

Working Group on Information Technology

Richard Allan MP (Chair)	Brian Robinson
Sharon Bowles	Christopher Shepherd
Mark Clayton	Martin Tod
Stan Collins	Alan Window
Ed Fordham	
Andrew Gilbert	*Staff:*
Peter Price	Helen Belcher

Note: Membership of the Working Group should not be taken to indicate that every member necessarily agrees with every statement or every proposal in this Paper.

Comments on the paper are welcome and should be addressed to:
Policy Unit, Liberal Democrats, 4 Cowley Street, London SW1P 3NB

Further copies of this paper may be obtained, price £4.00 plus £1.00 postage and packing from:
Liberal Democrat Image, 11 High Street, Aldershot, Hampshire, GU 11 1BH
Tel: 01252 408 282
Printed by Contract Printing, Units 9-10 Joseph House, Eismann Way, Phoenix Park Industrial Estate, Corby, NN17 5ZB.

Cover design by Helen Belcher

This document has been prepared using 100% recycled paper.