

# OUR INFORMATION AGE

## THE GOVERNMENT'S VISION

### Foreword by Tony Blair

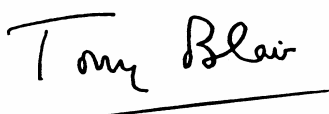
Information is the key to the modern age. The new age of information offers possibilities for the future limited only by the boundaries of our imaginations. The potential of the new electronic networks is breathtaking – the prospect of change as widespread and fundamental as the agricultural and industrial revolutions of earlier eras.

I want to ensure that everyone in the United Kingdom has the best chance to seize this moment – our information age which offers new opportunities for greater prosperity, and a better quality of life.

Britain's dynamism, creativity, drive and enterprise fit closely with the new age of information. English is the common language of the internet. I am determined to ensure that Britain is at the forefront of these new developments, as companies around the world link up in new forms of electronic commerce and individuals increasingly connect electronically, cutting across the restrictions of time and distance. The wired society is no longer a futurist's dream – but the new practical reality.

Information technology is central to our key priority of improving education for all – making Britain better. The vigour and innovation of new developments like the increasing convergence of broadcasting, telecommunications and computing will be reflected in our proposals to modernise government in Britain, including a modernised 10 Downing Street Web site. And the University for Industry will help deliver the widest available access to new forms of learning. The new opportunities of the new information age must be open to all – the many, not just the few.

In this policy statement, we set out our ideas on how the Government will act to enable people to take advantage of the new information age – a co-ordinated strategy which will focus on transforming education, widening access, promoting competition and competitiveness, fostering quality and modernising government. The prize of this new age is to engage our country fully in the ambition and opportunity which the digital revolution offers. That prize is there for the taking. We must stretch out our hands and grasp it.

A handwritten signature in black ink that reads "Tony Blair". The signature is written in a cursive style and is underlined with a single horizontal line.

<http://www.number-10.gov.uk>

# Transforming everyday life: the impact of new technologies

## The revolution is now

Just 50 years after inventing the computer, we have already made the most extraordinary advances – and we already think them commonplace. Electronic markets link traders around the globe. Whole businesses can be managed from a laptop computer. We can communicate with others from practically any point on earth.

We are no longer on the verge of a revolution. The revolution is happening now:

- 50 million people across the planet are already using the World Wide Web. This is expected to rise to 175 million by the end of 2001. (Source: IDC)
- In 1996, the internet helped create an estimated 50 per cent of new jobs in the US (760,000) and 1.1 million worldwide. (Source: [www.gip.org](http://www.gip.org))
- Consumer on-line spending in 1997 is estimated to have been \$2.74 billion – an increase of 275 per cent on 1996. (Source: Yankee Group)
- Latest figures show that, in the UK:
  - Around one-third of companies accept orders over the internet – an increase of 60 per cent over a six month period in 1997. (Source: NOP)
  - 6.2 million people are using the internet – an increase of 70 per cent over the previous 12 months. (Source: Spectrum/NOP)

1. Information and communication technologies offer us the opportunity to revolutionise our quality of life and economic well being. The Government wants Britain to lead in the information age in a way which benefits everyone, individuals and businesses. This document explains our approach. It sets the scene for a series of sectoral policy papers and initiatives being launched now and over the coming months.

## The opportunity

2. Advances in technology mean that traditional distinctions between information and communications are breaking down. Computers, telecommunications and broadcasting increasingly share a common digital language. With new high-speed, high-capacity networks huge quantities of information can be transferred affordably around the world.
3. These developments have already had a significant impact on how we communicate and do business with each other. Over time, we can expect information technologies to change the whole pattern of our lives, as completely as electricity, the telephone and high-speed transport did in the past.
4. Of course we cannot predict precisely what the information age will bring. But individuals can expect easy access to a wealth of information and entertainment, with new opportunities for participation, lifelong learning and leisure. Businesses will increasingly turn to electronic commerce, to be more competitive and to serve customers better.
5. The UK is well placed to benefit from the opportunities of the information age, building on its track record of inventiveness and creativity in past industrial revolutions. Today we continue to have a vibrant research base and a record of radical innovation. The information technology, electronics, communications and creative content sectors are some of the most

dynamic of the economy, likely to account for a major element of growth over the next few years. These sectors will in turn revolutionise many other sectors of the economy.

6. Of course the information age is a means to an end, not an end in itself. Nor will computers ever replace the personal contacts which we value and on which we depend. The task is to capitalise on the opportunities of the information age to improve people's quality of life and our wider industrial competitiveness.

### **Craigmillar Community Information Service**

Based in a deprived area of Edinburgh, the Craigmillar Community Information Service (a partner in IT for All) offers a range of activities for the local community. Its 'telematics from the cradle to the grave' programme, which includes Digital Dads, Modern Mums, Cyber Grannies and Techno Tots, has opened up the information age to many who would otherwise be excluded. The free services offered include Web surfing, e-mail accounts and user support and advice.

### **Our approach**

7. In the information age, the many must benefit, not just the few. A society of 'information have-nots' would not just be unfair – it would also be inefficient. The last industrial revolution may have been built on the inventions and enterprise of a few, but today, competitiveness depends on the skills and creativity of the whole workforce. The more people who have the skills and opportunity to use these new networks, at work or at home, the richer those networks will become.
8. The Government will not attempt to replace the private sector – competitive markets will bring the greatest benefits to the economy and consumers alike. But the Government does have an important role to play in five key areas:
  - **transforming education** – to harness new technology so that all can gain the knowledge and skills they need for the information age;
  - **widening access** – to ensure that the benefits of the information age are open to all, with no split between information haves and have nots;
  - **promoting competition and competitiveness** – to help business harness change and prosper, for the benefit of customers, jobs and the wider economy;
  - **fostering quality** – to ensure that the content of new services matches and exceeds the best available today;
  - **modernising government** – to ensure the Government uses new technology to deliver better, more convenient services.

### **Our targets**

9. Our targets for this strategy are ambitious.

#### **By the end of 1998:**

- the number of schools connected to the internet to double, and the National Grid for Learning launched;
- the number of 'IT for All' sites to more than double to 4000.

#### **By 2000:**

- the whole of the country to have access to NHS Direct, a new 24 hour telephone advice line staffed by trained nurses;
- the University for Industry (UfI) to be launched.

**By 2001:**

- to double the number of small and medium-sized companies who are making effective use of the new technologies to improve their competitiveness.

**By 2002:**

- 25 per cent of government services to be available electronically;
- all schools, libraries, colleges and universities to be linked to the National Grid for Learning;
- all teachers to have had the chance to update their information and communications technology (ICT) skills.

**Within five years of launch of the UfI, we expect:**

- 2.5 million people and businesses a year to be using its information services;
- 600,000 people a year to be following programmes of learning it has brokered, including 200,000 in ICT skills.

10. These targets are interdependent, and they reinforce each other. For example, the use of ICT can transform education, which in turn produces the skilled people who develop and apply the technologies. The information age will permeate all aspects of life – such as healthcare, leisure, running a business or delivering a public service. With competitive markets, demand will stimulate innovation and the development of products and services for the global market. But most of all, by reinforcing each other, the five areas identified in ‘Our approach’ can create a culture where we all feel comfortable with these new technologies and can exploit them to make Britain Europe’s pioneer in the information age.

# Transforming education

## Wired education

Some schools have already shown the potential of ICT. In Scotland, for example, children from remote rural primary schools can work through video-conferencing with peers in other remote small schools, and improve both their ICT skills and educational standards. In Orgill School, Cumbria, pupils receive much of their maths instruction through computer-based learning systems and teachers come in from a wide area for training sessions. In Bristol, Withywood School has developed ICT use across the curriculum, with teachers enthused and the school developing a reputation for success in its area.

11. Education and the information age will support and reinforce each other. The information age will transform education, at all levels and for all ages. Education in turn will equip people with the necessary skills to profit from the information age. We want to open up these opportunities to everyone.
12. Information and communication technologies (ICT) are learning tools, just like the blackboard or the textbook. But they bring three major advantages that will enhance the quality of our children's education. They are personal – allowing individuals to progress at their own pace. They are global – taking learners to new sources of knowledge from across the world. And they are economical – automating routine tasks and freeing teachers to concentrate on teaching itself.
13. By exploiting these advantages, we can transform education, raising standards in schools and offering new opportunities for lifelong learning.

We shall turn this potential into reality, through the National Grid for Learning and the University for Industry (Ufi).

## National Grid for Learning

14. The National Grid for Learning will provide a network for schools to gain quality material through the internet, to establish links between individual schools and to develop links with libraries and subsequently with museums and other institutions. The Grid will help deliver National Curriculum targets, raise standards and develop the skills which industry will need to remain competitive. It will promote sharing of best practice and mutual support between schools. It will provide access to educational content from broadcasters and commercial suppliers. Over time it will transform the information available in schools and ways of working.
15. In close co-operation with local education authorities and the private sector the Government is acting at four levels.
16. First, networks. We are on track to deliver our commitment that all schools will be wired up to the internet free of charge, with access charges as low as possible. Through OFTEL, BT and the cable companies have agreed to offer free connections and special cheaper rates. We aim to see a doubling of schools on-line to 12,000 by the end of this year; our target is that all schools should be wired up by 2002.
17. Second, equipment. To make the most of new network connections, we shall support over £100 million of ICT equipment improvements in schools this year in England, with proportional amounts made available for Scotland, Wales and Northern Ireland. Beneficiary local education authorities and schools will have an ICT development plan, covering use of the new technologies within the curriculum, teacher training and how to manage upgrades or replacements. We are particularly encouraging primary schools which have lagged behind in

the past, and examining how Education Action Zones can use these new technologies. We welcome private sector involvement through UK NetYear to raise awareness and help schools make informed purchasing decisions.

18. Third, training. Too often in the past schools have been encouraged to invest in hardware but have not been helped to train teachers to make full use of it. We will use £230 million from the National Lottery for a four-year programme to put that right, by funding ICT training for serving teachers; and we shall ensure that from next year all new teachers in England must be ICT-literate to a mandated standard to become qualified. By 2002, all teachers will have had the chance to update their ICT skills.
19. Fourth, content. The Grid's usefulness will depend on what it carries. We want high quality content to support the delivery of basic literacy and numeracy, to enhance all areas of the curriculum and to encourage ICT skills. Among the main content providers will be teachers and pupils themselves – thereby developing a huge resource of shared experience and mutual support. We welcome the parallel efforts of the commercial sector and broadcasters to build on their current input by providing high quality and up-to-date education products.
20. For its part the Government is:
  - creating public educational Web sites within the Grid, to help teachers find the best teaching resources and to support the drive to raise standards;
  - launching the British Educational Communications and Technology Agency (BECTA) to take a leading role in developing the Grid, to guide schools and others on the best ways to use ICT and to advise the Government more generally;
  - helping to develop the market through increased funding for ICT in schools and through active involvement in European and other networking initiatives.

### **Lingu@NET**

A Web site for language teachers and students. An interactive forum provides a discussion and information exchange. Research results, useful contacts and a listing of over 200 useful sites on the World Wide Web.

It can be found at:

<http://www.becta.org.uk/linguanet>

### **BBC Learning Station**

Curriculum resources and interactive material for teachers, primary and secondary school students. GCSE BITESIZE revision designed in small, manageable sections which focus on areas that examiners' reports have shown to be the main areas of weakness. Teacher 'chat rooms' and a complete guide to BBC Education learning resources. Links to resources for parents and lifelong learners.

It can be found at:

<http://www.bbc.co.uk/education/schools/index.htm>

### **Schools On-Line**

Teaching materials for science, a 'chat-room' where science teachers can share information and experiences, and a virtual lab where pupils can undertake experiments.

It can be found at:

<http://sol2.ultralab.anglia.ac.uk>

### **The Virtual Teacher Centre**

Helps teachers find the best teaching resources, through access to useful internet Web sites.

<http://www.vtc.ngfl.gov.uk>

For Northern Ireland: <http://www.nine.org.uk>

For Scotland: <http://www.vtc.scet.com>

### **The Standards and Effectiveness Database**

Provides teachers and managers with advice and materials to support the Government's drive to raise standards.

<http://www.open.gov.uk/dfee/best.htm>

### **University for Industry (Ufi)**

21. Alongside the Grid, we shall launch the Ufi by the year 2000 to ensure that adults have access to a wide range of learning. The Ufi will be a new kind of organisation. It will complement traditional learning mechanisms by using new technology to make learning available to adults at work, at home or at local learning centres. New technology will add to users' convenience, save time and help keep costs down, so the Ufi can reduce barriers to learning.
22. The Ufi will perform six main activities:
  - analyse the needs of the market and potential customers;
  - drive demand for learning, through mass marketing and promotion;
  - provide and direct people to information, advice and guidance;

- ensure the availability of, and connect customers to, high quality learning programmes;
  - commission new content to bridge gaps between supply and demand;
  - ensure the quality of products and services accessed through it.
23. The Ufi will be a public/private partnership. It will generate revenues by charging some users for some services and charging fees to providers. It will be linked closely to individual learning accounts, which the Government is developing to encourage more investment in skills by individuals and their employers. The Government's subsidy to the Ufi is expected to fall over time; but we will continue to provide support, for example for free basic skills provision for adults.

### **Skills for the future**

24. ICT skills are a key component of most jobs. By deploying these technologies as part of the learning process in schools and beyond, we will familiarise people with them. But we need also to promote the development of ICT skills more directly through basic training and by offering people the opportunity to acquire advanced skills.
25. We will use the £100 million skills package announced in the Budget to establish at least 40 centres of excellence for IT training and to help small and medium-sized enterprises with the costs of training staff to deal with the Year 2000 problem.
26. For the future, we are reviewing ways in which ICT teaching for pupils might be improved. The previous Government set a target for these skills, but progress has been slow in the absence of a single ICT qualification in England. We are therefore working with the Qualifications and Curriculum Authority and others to develop a strategy for assessing the attainment of ICT skills. For adults ICT will be a key target area for the Ufi, with 200,000 people a year expected to take ICT courses within five years of launch. These training initiatives will ensure that most school leavers are ICT-literate and that adults who missed out on ICT training will be able to get it. As well as increasing employability, this will increase demand for commercial products and for public services delivered electronically, creating a virtuous circle of ICT literacy to the benefit of individuals, the economy and the wider community.

### **Action programme**

27. Our programme of action to develop skills is as follows:
- as part of the National Grid for Learning, we are supporting expenditure through the Standards Fund this year, so that schools can link up to the internet and get new computers and access to curriculum-focused software. By 2002 all schools will be on-line and most administrative functions will cease to be paper-based;
  - we will establish an on-line Virtual Teacher Centre and Standards and Effectiveness Database so that teachers can exchange information and get up to date with best practice;
  - working with BECTA and the private sector we will look to improve the quality of available content so that teachers and parents can be assured that software achieves educational objectives, is robust and does not include undesirable content;
  - using £230 million from the New Opportunities Fund we will give all teachers the chance to train in the use of ICT as a learning tool, and from 1999 all trainee teachers will need to be ICT-literate to qualify;
  - we will establish the Ufi to encourage people to re-skill throughout their working lives. It will be open for business by the year 2000. Within five years of launch, we expect 2.5 million people and



businesses a year to be using the Ufi's information services, with over 600,000 a year following Ufi-brokered programmes of learning;

- the Ufi will focus on making people ICT-literate as one of its initial priorities. Within five years of launch, we estimate that 200,000 people a year will be acquiring ICT skills through Ufi.

## Widening access

### **The connected community Micro'Borough, East Sussex**

The LEARN Centre, based at Beacon Community College, Crowborough, provides a wide range of services to schoolchildren, adult students, local businesses and the wider community. It is equipped with 100 Pentium PCs and offers local employers and employees the opportunity to experience new technology and undergo training to develop solutions for their businesses. It offers training for staff to use various applications, whether software tools like Excel or Access, or systems like scanners and desktop publishing which can be used to produce price lists, publicity material or business stationery. The Centre has helped business set up and use Web sites, eg:

- Sandra Phillips Hats which has had greatly increased sales enquiries as a result;
- The Sherlock Holmes Society which has linked enthusiasts from all over the world;
- Local estate agents Wood and Pilcher who now have a programme allowing them to update their Web site each week.

Ambitious objectives for the next two years include setting up IT demonstration projects to support local agricultural businesses and health services, spreading the benefits of IT throughout the community.

The Micro'Borough web site can be found at:

<http://www.beacon.e.sussex.fch.uk>

28. The opportunities of the information age – for education, entertainment or employment – must be open to all. The Government's role is to make sure that we do not create a society of information haves and have-nots. We shall do this through our policies on IT for All, on libraries and through a variety of other action. Related policies on broadcasting are discussed on page 24.

### **IT for All**

29. The government-led IT for All programme is specifically focused on adults not being targeted by other initiatives. It raises awareness, provides access and develops skills in the use of technology.
30. The key to achieving the objectives of IT for All is providing a national network of access sites where members of the public can make use of the new technologies. These sites must be convenient, local and unthreatening, where people can get help to guide them through perhaps their first 'live' experience of information age technologies. The Government will work with private sector partners to signpost existing access points and facilitate the development of many more.
31. Within the planned 4000 access sites by the end of 1998, we want half to form a nationwide network of learning centres, where the public can get a supervised 'taster' session to develop simple IT skills. This network will provide very basic introductory training for those who have no experience of using computers and will complement the learning centres within the University for Industry.

## **IT for All access sites**

There are currently some 2000 IT for All access sites, which give hands-on access to new technology. Working in partnership with the key private sector partners in the initiative, including Dixons, BT, ICL, Microsoft and The Woolwich, we are aiming for a minimum of 4000 sites accessible to the public by the end of 1998. These will include libraries, training centres, schools and community centres. The IT for All Web site can be found at: <http://www.itforall.org.uk>, or alternatively contact the response line on 0800 456567.

## **Libraries for the next century**

32. Libraries also have a major part to play in widening access to essential services for those who could not otherwise afford them. Just as public libraries brought knowledge to many through books in the 19th century, they can do so through information and communications technology (ICT) in the 21st century.
33. A recent report from the Library and Information Commission (LIC) looked at how this might be achieved. It recommended that the Government should:
  - encourage appropriate public/private partnerships to create a managed UK-wide public libraries ICT network;
  - develop the range of content and services to be made available over the network in electronic form;
  - develop a training strategy for the 27,000 employees in the public library sector to enable them to manage the introduction of ICT in libraries;
  - establish a Development Agency to undertake and co-ordinate the roll-out of the public libraries network.
34. The Government's response to the LIC report is being published today. We recognise public libraries' central role in ensuring that all members of society have access to ICT and can enjoy the benefits it brings. So the Government is setting the objective of ensuring that every public library should, where practicable, be connected to the National Grid for Learning by 2002. To encourage this, the Government will:
  - provide £50 million from the National Lottery New Opportunities Fund for the digitisation of educational and cultural materials held primarily by public libraries;
  - provide £20 million from the Lottery so every public librarian in the UK can be trained in ICT use;
  - provide a £6 million challenge fund in conjunction with the Wolfson Foundation over the next two years, creating cutting-edge ICT pathfinder projects in public libraries in England;
  - challenge the private sector to contribute to and participate in the longer-term roll-out of ICT infrastructure;
  - explore with industry regulators and other interested parties the scope for securing reduced connection costs and on-going charges for libraries;
  - establish a public libraries ICT network implementation committee under LIC auspices, to oversee the roll-out of the network.

### **The UK public library system**

- Nearly 5000 libraries in the UK plus 19,000 library service points in other public places such as hospitals and old people's homes;
- 58 per cent of the population hold library membership – 34 million in total;
- Nearly 400 million library visits every year. This is more than ten times the number of people admitted to league football matches.

### **The Hendon Multimedia Library**

The Multimedia Library at Hendon Central Library provides an information technology-based learning skills centre which meets the needs of a wide local audience including children, students, local businesses, unemployed people and lifelong learners. The centre offers:

- 40 high specification computers loaded with a wide range of software;
- scanners, desktop publishing and colour printing;
- a fully equipped training suite for group users;
- public access to the internet and e-mail facilities;
- video conferencing and cyber skills training in partnership with Barnet College and strong links with Middlesex University and North London TEC.

The facilities of the Multimedia Library are also available to local schools as a resource for their homework clubs and provide an opportunity to introduce children to information technology and the part it can play in learning. The project was 50 per cent funded from the DCMS/Wolfson Public Libraries Challenge Fund and was launched on 24 March.

### **Further action**

35. Some people find it easier to take advantage of the opportunities of the information age than others. We need to identify where barriers exist for certain groups and focus on finding solutions.
36. The Government has launched a study to look at how the converging industries are responding to the needs of elderly and disabled people. This will identify action to help them benefit from information age technologies and improve industries' understanding of their needs.
37. Competition is constantly driving down the cost of communications services. But we need to ensure that the least well-off members of society, who often have the most to gain from the new technologies, have affordable access to them. OFTEL has been working in partnership with telecommunications operators to identify ways to improve access. Already BT has launched its In-Contact scheme – a low cost service package providing incoming calls and outgoing emergency service calls for those who cannot yet afford a full telephone service. BT and other public telecommunications operators are also implementing alternatives to disconnection for customers who fall behind with their bills, enabling them to control expenditure and reduce exposure to debt by predetermining the amount they can afford to pay. OFTEL is examining ways of improving the provision of communications services to people with disabilities; and the Independent Television Commission (ITC) has carried out research into audio description and automated deaf signage to increase the accessibility to television for the sight and hearing impaired. These are welcome moves, which will play a valuable role in bringing the information age to everyone.

## **Action programme**

38. Our programme of action to widen access is as follows:

- working in partnership with the private sector, local government and the voluntary sector, we will establish a national network of 4000 IT for All access sites by the end of the year. As part of this network, we will develop IT for All learning centres where beginners can develop basic IT skills;
- by 2002 all public libraries should, where practicable, be on-line. Using £50 million from the New Opportunities Fund, we will digitise the educational and cultural resources found in libraries. And using a further £20 million from the Lottery we will train all librarians in the use of ICT.
- working with OFTEL, BT has launched the BT In-Contact service for those who cannot afford a full telephone service, providing incoming calls and outgoing emergency calls. Alternatives to disconnection are being examined, together with the needs of people with disabilities.

## Promoting competition and competitiveness

39. The information age poses major challenges for business. Companies face the twin pressures of more choice for consumers as global electronic commerce takes hold, and more opportunities for competitors as barriers to market entry come down. But these pressures represent opportunities too in domestic and overseas markets. The role of government is to put in place a secure legal framework for electronic commerce, to ensure effective and sustainable competition and to help companies exploit their strengths and improve competitiveness.

### Electronic commerce

#### Electronic commerce in action I

##### An interactive flower marketplace on the internet HortiNet

Developed by De Montfort University, Leicester, HortiNet (<http://dld.mk.dmu.ac.uk/hortinet/users/Global/HortiNet.idc>) is aimed at small and medium flower growers to help them sell their produce in competition with larger suppliers who have traditionally dominated the major buyer market.

HortiNet makes it easier for buyers to source the range, quality and quantity of cut flowers, pot plants and nursery stock they need, at a competitive cost.

Growers and buyers alike, including major supermarkets, see the benefits of buying over the internet including easy forecasting, continuity of supply, improved quality and greater price stability.

40. Information and communications technology (ICT) allows quick, convenient business transactions in global markets through the internet.
41. The Government wants electronic commerce to thrive, and for the UK to be a leader in its development. We recognise concerns that the framework for electronic commerce should be clear and command confidence. We are actively engaged in the international arena, particularly the OECD, to establish four guiding principles for that framework:
- **technology neutrality** – the law should in general apply to new technology and services in the same way as to traditional transactions. Taxation should aim to be technology and compliance neutral, so that businesses engaged in electronic commerce are not disadvantaged;
  - **security** – consumers and business should be confident in the knowledge that their electronic transactions are secure. We are working on a strategy with international colleagues, to promote the use of digital signatures and encryption to safeguard the integrity and confidentiality of the information communicated. And we are working to provide security of personal data with the Data Protection Registrar and by implementing the EC Data Protection Directive;
  - **protection** of intellectual property – protection for the creativity and investment of intellectual property rights (IPR) is essential to the free flow of new services. The updated UK law on copyright offers a firm basis to meet the challenges of new technology. Given the global nature of ICT, our priority now will be international harmonisation of copyright law. We therefore welcome the conclusion of two new World Intellectual Property Rights treaties last year. We will continue to work with our EU partners towards their early ratification, and on the draft European Directive to harmonise copyright laws.
  - **cutting red tape** – by accepting information electronically, the inconvenience and delays of paper-based systems can become a thing of the past. This will help more UK companies – especially small firms – to participate in international trade. Customs and Excise and other government agencies are already using this technology to streamline procedures and reduce the administrative burden on business, and are promoting this approach with their international counterparts.

## **Electronic commerce in action II**

### **Jack Scaife Ltd, butchers**

Jack Scaife Ltd, a 97-year-old family business in West Yorkshire, created a simple Web site promoting its range of meat products, like its speciality home-fed, dry-cured bacon and its black and white puddings, and enabling customers to place their orders over the internet.

Now the business is selling to countries as far away as Hong Kong, Japan, South Africa and Venezuela and into various European countries. By 2000, they expect the internet to be their main source of business.

## **Effective and sustainable competition**

42. The Government is determined to ensure that market frameworks provide choice for consumers and incentives for innovation and efficiency. That is why the Government has introduced a Competition Bill which will:

- introduce prohibitions on anti-competitive agreements and the abuse of dominance;
- ensure that regulators have the powers to investigate and remedy such practices.

43. Having strengthened the general framework, the Government will take a series of specific initiatives on the regulation of the communications sector:

- we are committed to relaxing current restrictions which prevent public telecommunications operators (eg BT and Mercury) from offering broadcast entertainment to homes on a national basis through their wires. Our aim will be to provide certainty and a fair balance between the interests of cable companies and other telecommunications operators and to improve choice for consumers;
- we are determined to ensure that those providing communications infrastructure into people's homes do not abuse their dominant position so as to favour their own broadcast, telephony or internet services. The Independent Television Commission (ITC) and OFTEL both have a role here; and so do the Office of Fair Trading and the Monopolies and Mergers Commission (MMC). The Government will encourage the regulators to work together to avoid double jeopardy or regulatory gaps;
- for the future we shall review the increasing convergence of broadcasting, telecommunications and computing, and its implications for the underlying logic and structure of regulation. We shall shortly publish a consultation document, asking for views on the likely nature and pace of convergence, what issues need to be taken into account in redesigning regulation, what regulatory methods are likely to prove effective, and what changes to current regulatory structures may be required.

## **Competitiveness**

## **Developing the tools of the information age**

Over the past two years, the Information Society Initiative (ISI) Programme for Business has been helping to develop the tools of the information age.

Key to the programme is the spread of awareness about the new opportunities, aided by a network of ISI Local Support Centres being set up around the country. These centres are usually based on the existing business-support activities of Business Links (and their equivalents outside England). They focus specifically on the business issues surrounding new, networked technologies such as the internet. Already, around 60 of these centres are operational and providing help to companies in their areas, with a further 20 likely to open over the coming months.

The ISI Programme for Business Web site can be found at: <http://www.isi.gov.uk>

The infoline number is 0345 15 2000.

44. Competitive markets breed competitive companies. But as well as promoting competition the Government can do more to help companies to modernise using new technologies. As part of the Competitiveness UK initiative launched by the President of the Board of Trade, the Government has set up working parties of senior business people to examine ways in which companies can exploit the new opportunities of the information age. Their conclusions will be reflected in the Competitiveness White Paper later this year.
45. The President of the Board of Trade has also established an Information Age Partnership with leading chief executives from the IT, electronics, communications and content industries. The aim is to accelerate the development of the information age by focusing on a small number of important themes where industry and DTI, working together, can add value and momentum to existing initiatives and groups. Electronic business will be on the agenda.
46. In the meantime the Government is taking action on four fronts:
  - to build on the work of the ISI Programme for Business, aimed at helping smaller companies benefit from the internet, e-mail and other new technologies to facilitate electronic commerce and communication;
  - to put in place a comprehensive programme to prepare for the Millennium Bug problem, so that IT and electronically-controlled systems can cope with the century date change – as announced by the Prime Minister on 30 March;
  - through the recently passed Wireless Telegraphy Act to ensure maximum value and efficiency from the use of the radio spectrum. The spectrum is a vital raw material for telecommunications and broadcasting. Our approach will allow new services to develop, such as ‘third generation’ mobile communications, combining multimedia services with full mobility, and interactive media services, including video-on-demand, home shopping and high-speed access to the internet;
  - to review the transition from analogue to digital broadcasting, freeing up spectrum for other uses. Our consultation paper on this was issued last month.
47. Overall UK business is strongly placed to capitalise on the information age. We have the advantage of English, which is the common language of the internet. We have pioneering telecommunications and media companies, helped by pioneering regulation. We have a creative and increasingly skilled workforce. In our approach to regulation and our support to business, the Government aims to help consumers and producers and to build on the UK’s competitive advantages to develop the jobs of the future.



## **The Enterprise Zone**

The Enterprise Zone launched on 4 November now makes the internet a viable tool for UK businesses looking for quick access to authoritative information. Only those sites which have been judged by business information experts as content-rich and authoritative have been, and will be, linked to the Enterprise Zone. All linked sites are clearly signposted in language that businesses understand.

The Enterprise Zone can be found at:

<http://www.enterprisezone.org.uk>

## **Action programme**

48. Our programme of action to promote competition and competitiveness is as follows:

- we will seek to lead the moves in Europe and elsewhere to establish basic rules for electronic commerce. We will also encourage technology neutrality in all negotiations;
- working through OECD, the Inland Revenue and Customs and Excise are co-operating with their overseas counterparts to ensure fair and effective taxation of electronic commerce. It must be compliance neutral, so that businesses and individuals generally are not disadvantaged by others who might try to use electronic commerce to avoid and evade taxes;
- we are working closely with our partners in Europe on the EC Data Protection Directive and regard the harmonisation of copyright law as a priority. The application of laws already in force in the UK will support our competitive position;
- we are prohibiting anti-competitive practices, through the Competition Bill, and strengthening the powers of regulators to investigate and remedy them;
- our work on effective regulation will focus on promoting choice, innovation and efficiency through competing services and infrastructures. We will liberalise the framework where possible and address the problem of double jeopardy between regulators;
- we shall explore ways of exploiting the new opportunities presented by the information age in the Competitiveness White Paper to be launched this autumn, following business input through the Competitiveness UK initiative;
- we will develop our network of ISI Local Support Centres which offer independent ICT advice to small and medium-sized businesses;
- we will continue to build on the business Enterprise Zone, launched last November, so that business has on-line access to vital information 24 hours a day.

## **Fostering quality**

49. The success of the information age will depend on the quality of services provided and on their accessibility. With its widespread availability and established track record of success, broadcasting has a major role to play. The Government wants broadcasters to seize the opportunities of digital broadcasting and help lead viewers and listeners into the information age. We are also determined to protect consumers from harmful content. Our initiative on the creative industries will also help nurture the creative talent which alone can provide quality – and economic success – in the services of the future.

## **Broadcasting and the information age**

50. The UK has a strong record of high quality broadcasting, with a positive interaction between the public service and commercial broadcasters and a significant contribution from the flourishing independent production sector. The launch of digital broadcasting later this year brings the prospect of many more channels, better quality sound and pictures and new kinds of services for viewers and listeners, including interactivity and access to the internet. These are revolutionary changes.
51. The Government wants digital broadcasting to succeed, in the interests of consumers, the broadcasting and equipment industries and the economy as a whole. UK broadcasters have well-developed plans for enhancing their traditional services to seize the new opportunities; and it is right that they should be the driving force in digital broadcasting's success.
52. But the Government has a role too:
- we have established a framework allowing digital broadcasting to succeed on all platforms, on the basis of fair competition and universal access to the current range of free-to-air channels which viewers enjoy;
  - we are reviewing options for accelerating the take-up of digital services. Our consultation paper on managing the transition from analogue to digital seeks responses by September;
  - we have reaffirmed our vision of public service broadcasting in a multichannel age, providing universal access to a range of information, education and entertainment services and acting as a benchmark of quality. We have encouraged a revision of Channel 4's remit, recently agreed, to focus on its distinctive contribution;
  - through our decisions on the licence fee and the funding formula respectively, we have ensured that the BBC and Channel 4 are equipped with the resources to invest in digital services.
53. In this new territory, public service broadcasters will continue to guarantee universal access to high quality content, whether over the airwaves or the internet. In particular, there is an important role for established broadcasters as pioneers and trusted guides, providing high value new services and helping viewers and listeners to manage the greater opportunities of the information age.
54. As convergence takes hold, we need to review the current regulatory framework and structures. New services should not simply fall through the net, nor should traditional broadcasters be handicapped by regulation based on distinctions which no longer apply. But the basic aims of securing quality and diversity for the citizen remain and will not be set aside. We shall set out in a consultation document shortly our outlook on future communications regulation and seek views. Issues of copyright and electronic commerce will be important too, as discussed under 'Promoting competition and competitiveness'.

## **Safeguards**

55. As well as ensuring access to high quality material there will continue to be a role for the Government in protecting consumers from harmful content. This is best done not by censorship but by continuing to improve the mechanisms which prevent people from being harmed or gratuitously offended by material they would avoid if they could. Above all we are determined to protect children and to help parents to protect them.
56. On television the ubiquity and impact of the medium make taste and decency issues particularly sensitive. The increase in the number of services and the development of new service options create new issues for regulators. Improvements in technology open up the possibility of better information and greater control by consumers. The Government's review of regulation will consider these issues further. Overall we want broadcasters and regulators to work together for the benefit of viewers.
57. The nature and reach of the internet present particular challenges. We have worked in partnership with industry and law enforcement agencies, and the industry-led Internet Watch Foundation is now in place and providing a model for action across the world.
58. But there is no room for complacency. The Government has launched a review of Internet Watch's work, which will make recommendations about how it should proceed. We are also working with Internet Watch, internet service providers and the police to improve co-operation procedures.
59. More generally, we want to encourage all who use the internet to be internet-wise. Just as children and parents are careful to protect their safety in everyday life, they need to do so when using the internet. Rating and filtering tools may help parents control the types of material their children can access, overcoming problems of national and cultural sensibilities. We will also ensure that our guidance for schools and teachers to help them develop use of the National Grid for Learning will explain the necessary precautions, supplementing existing guidance for schools and parents.

### **The Internet Watch Foundation (IWF)**

Internet Watch provides a mechanism for applying existing law in the on-line environment, based on co-operative action between internet users, internet service providers and the police. IWF provides a hotline for users to report internet content which they believe may be illegal. It then distributes information to UK internet service providers, so that they can remove material which is likely to be found illegal from their servers ('likely' because only the courts can make this judgement), and to the police, for appropriate enforcement action against the originator. The framework ensures that all concerned remain responsible for their own conscious acts and omissions.

Reports can be made on-line to: [report@internetwatch.org.uk](mailto:report@internetwatch.org.uk), by telephone to 01223 236077, or by fax to 01223 235921.

Further information is available at:

<http://www.internetwatch.org.uk>

### **Creative industries**

60. Creativity in its widest sense will be the foundation of the new generation of high-tech, high skills industries on which the UK's success in the information age will depend. These industries are already big business, accounting for around £50 billion of our national economy; and they are set to grow.
61. The Government is determined to take an active role in bringing together and nurturing these fast-growing creative industries. A new Creative Industries Task Force is identifying ways of maximising the economic potential of this sector. The Task Force brings together Ministers and officials from across government and senior figures from these industries, to consider the creative sector as a whole for the first time. The Task Force will make recommendations over

the course of this Parliament on how government can encourage creative talent to succeed and remove unnecessary regulatory barriers.

### **Action programme**

62. Our programme of action to foster quality is as follows:

- we shall take steps to promote the success of digital broadcasting through all delivery systems;
- we shall continue to support public service broadcasters as a benchmark of quality in the digital age, and encourage all broadcasters to promote the wider opportunities of the information age;
- we shall set out shortly in a consultation document our outlook on future communications regulation;
- we shall continue to work with broadcasting practitioners and regulators to improve viewers' ability to protect themselves from offensive material;
- working with the private sector and the police, we will encourage the work of the Internet Watch Foundation, providing a mechanism for the removal of illegal material from the internet;
- Information and communications technology (ICT) training for teachers and guidance for schools will include precautions against undesirable content. We will help children and parents to become responsible internet users;
- through the work of the Creative Industries Task Force we shall encourage creative talent to succeed.

## Modernising government

63. How the Government organises its own work will have a major impact on the information age in Britain. The Government is both a key service provider and a significant customer. It can provide its services in ways geared to the convenience of citizens and business rather than to the boundaries of government departments and agencies. It can help shape the development and competitiveness of the information age industries by the way it executes the work of the State. We shall detail our plans in the forthcoming White Paper on Better Government.

### Improving public services

#### Intelligent form pilot project

This project, which was launched last December by the Chancellor of the Duchy of Lancaster, is an electronic one-stop-shop using the internet for those seeking to register as self-employed. It simplifies the current paper processes and combines what were once six paper forms from three different departments into a single electronic form.

User-friendly electronic help ensures the forms are filled in correctly.

The project also uses electronic signatures (and has validated their legal acceptability for the purpose).

This is a powerful project which tests technologies and principles with potentially wide application.

For further information please contact Matthew Bishop at the Central IT Unit, e-mail [mbishop@cit.u.gov.uk](mailto:mbishop@cit.u.gov.uk)

64. Today government services are too often complicated, slow and inconvenient to deal with – not just for people who rely on the State for help, but for all who endure the experience of visiting several different government offices to sort out the simplest of problems. Often this happens at difficult times, when we need to find help for ourselves or a family member. Although people express appreciation of the quality of services provided by government, many feel that the seven-days-a week, 24-hour world they live in appears to have passed government by.
65. We are determined to use the technological possibilities offered by the information age to make significant changes for the better. In the longer term we will see a transformation in the delivery of government services. Already we are setting action in hand in a number of areas.
66. We will use the internet to develop and deepen the dialogue with people about improving the delivery of public services. We are launching a new Web site for 10 Downing Street, which will provide access to government services and updated information on a daily basis.
67. Increasingly, telephones, interactive television and multimedia kiosks – whether in shops, offices, libraries or the high street – will enable the public and businesses to find advice, make applications or fill in forms. Instead of requiring people to visit lots of different offices and wait in queues, different government offices will work together to ‘co-locate’ services electronically on a user-friendly screen, enabling people to provide all the necessary information once only, but within the data protection law.
68. In some cases, intelligent forms will provide a solution. These forms will ask for all the necessary information only when it is needed. They will offer explanations and help at the right moment – for example, a short video sequence might explain what to fill in where. They will then carry the information to those parts of government which need it.
69. And government staff will be far easier to reach. Today, scheduling appointments can be a cumbersome process. In the future, that will change. The possibilities of the digital revolution

mean that we can consider the prospect of talking to government staff by video phone. And telephone call centres will enable citizens and businesses to get information and services from a variety of sources through a single call.

70. The Government itself is becoming increasingly interconnected. The Government Secure Intranet (GSI) is now providing a live service. This will progressively enable government departments to communicate securely with each other, while at the same time allowing them to access and be contacted via the internet. The GSI is providing ministers and officials with the tools to operate in a modern, more effective way.
71. Nor is it just in the direct provision of government services where the information age will transform current ways of working. Elsewhere in this document we have outlined its implications for education services, public libraries and broadcasting. The Welfare Reform Green Paper recently outlined the Government's determination to modernise the welfare system and in particular to use new technology to serve customers better. There will be equally significant effects for other services such as healthcare.
72. Naturally, we cannot turn the whole government machine into a digital system overnight. Many people will prefer to stick with the traditional ways of working. Some paper-based systems will need to be maintained alongside the new electronic arrangements. And there will always be a need for personal face-to-face contact. Organisations such as the Post Office, public libraries and Citizens Advice Bureaux will play an important part in providing assisted access for those uncomfortable with electronic media. Interactive television will open up another possibility. But the goal set by the Prime Minister is clear – to have 25 per cent of government services accessible electronically by 2002.

## Healthcare

A major review of the Information Management and Technology Strategy for the NHS is underway and will be reporting soon. The new strategy will ensure that information technology is fully exploited by the NHS, with electronic communications supporting seamless care. Specific initiatives covered by the White Paper *The New NHS: Modern – Dependable* include:

- easier and faster information through NHS Direct, a new 24-hour telephone advice line staffed by nurses. This will be piloted through three care and advice lines that began in March 1998; the whole country will be covered by 2000;
- using the NHSnet (the NHS's own information superhighway) and the internet to bring patients quicker test results, on-line booking of appointments and up-to-date specialist advice;
- providing knowledge about health, illness and best treatment practice to the public through the internet and emerging public access media (eg digital TV).

For further information see:

<http://www.open.gov.uk/doh/dhhome.htm>

## Competitiveness

73. Digital government will have a dramatic effect on Britain's overall competitiveness and productivity. The regulatory load that weighs down managers will be radically lighter as more and more is put on-line. The first to benefit will be those entrepreneurs starting out in commercial life, but forced to spend literally hundreds of hours dealing with up to ten different sorts of regulator, many demanding the same information over and over again. Quite soon, much of this process will be digitised. Better still, the valuable intelligence which the Government picks up about new trends and business opportunities will become instantly accessible for the first time.

74. As well as providing services which are easier and more convenient to use, the emerging role of government as a major user of electronic media will bring wider benefits to the UK. By simplifying the interface between government and business and consumers, a contribution will be made to lightening the administrative burden, and improving UK competitiveness.
75. More generally, the introduction of new technologies into everyday transactions like paying taxes or renewing a licence, will encourage more people to become familiar with the technologies. They will demonstrate to individuals, organisations and businesses what similar technologies may be able to do for them.

### **Action programme**

76. Our programme of action to modernise government is as follows:

- the Better Government White Paper will lay out our approach to re-engineering government services in the information age;
- the NHS White Paper and the Welfare Reform Green Paper have outlined how those services can be modernised and made more convenient, using new technology;
- we will use the internet to develop and deepen the dialogue with people about improving the delivery of public services. The new Web site for 10 Downing Street provides access to government services and updated information on a daily basis;
- we have launched the Government Secure Intranet, so departments can communicate better with each other and be contacted via the internet;
- we will make government staff and offices accessible electronically. This will reduce queues and mean people can access the many government agencies from one place. By 2002, 25 per cent of government services will be available electronically.

## Delivering the results

77. The information age has the potential to benefit everyone in their day-to-day lives. Whether old or young, in cities or rural communities, in education or at work, people have the opportunity to gain real social and economic benefits.
78. These benefits will be realised largely by the hard work, skills and innovative talents of the people of our country – whether they are in business, education or the community. But Government does have a role – enabling the best of the information age to be developed whilst ensuring it benefits the whole of society. Government will develop and maintain a framework within which the information age can thrive and promote values such as quality, enterprise and equality.
79. This statement sets out a comprehensive programme of action which will help equip Britain for the challenges of the information age. We recognise this means a new approach to government and that is why we will work with industry, the voluntary sector and with public services to achieve our goals. Our work together can put Britain at the cutting edge of the information age in Europe.
80. Today and over the next few months the Government will:
  - modernise equipment in our schools, develop networking between them and train teachers;
  - launch the full National Grid for Learning with wide-ranging content for pupils and teachers;
  - wire libraries, train librarians and develop a series of cutting edge IT pathfinder projects in public libraries;
  - prepare the University for Industry for launch by the year 2000;
  - complete connection of all Health Authorities and NHS Hospitals to the NHSnet;
  - begin implementation of the new information and communications technology (ICT) strategy for the NHS;
  - start to modernise government, with our White Paper on Better Government;
  - spread the electronic delivery of public services to fulfil the Prime Minister's 25 per cent target;
  - publish our White Paper on Competitiveness, with the information age as a key theme;
  - put in place a framework for electronic commerce;
  - initiate a consultation on convergence and regulation of the communications and broadcasting sectors;
  - publish an international benchmarking study comparing the UK's performance with other major economies;
  - complete our national network of Information Society Initiative (ISI) Local Support Centres;
  - expand our network of IT For All access sites and learning centres;
  - continue to work closely with the Data Protection Registrar on the implications of the digital revolution;
  - implement our plans to modernise the Welfare State, using ICT to deliver an active modern service.



81. Beginning immediately, we will roll out a comprehensive programme of action, continuing into the medium term. It includes a set of ambitious targets that will enable us to grasp the opportunities presented by the information age.

**By the end of 1998:**

- the number of schools connected to the internet to double, with the National Grid for Learning launched;
- the number of IT for All sites to more than double to 4000.

**By 2000:**

- the whole of the country to have access to NHS Direct, a new 24 hour telephone advice line staffed by trained nurses;
- the University for Industry (UfI) to be launched.

**By 2001:**

- the number of small and medium-sized companies who are making effective use of the new technologies to improve their competitiveness to double.

**By 2002:**

- 25 per cent of government services to be available electronically;
- all schools, libraries, colleges and universities to be linked to the National Grid for Learning;
- all teachers to have had the chance to update their ICT skills.

**Within five years of launch of the UfI,**  
we expect:

- 2.5 million people and businesses a year to be using its information services;
- 600,000 people a year to be following programmes of learning it has brokered; including 200,000 in ICT skills.

82. Achieving these targets will put us in a leading position – across public and private sectors – and will make the information age a reality in the UK, to the benefit of individuals, business and the wider economy.

## **Further information**

For further information on programmes and initiatives outlined in this statement, please contact:

### **Transforming education**

National Grid for Learning – <http://www.ngfl.gov.uk>  
Standards and Effectiveness Database – <http://www.open.gov.uk/dfee/best.htm>  
University for Industry – <http://www.ufi.org.uk>  
UK NetYear – <http://www.uknetyear.org>  
Schools On-Line – <http://sol2.ultralab.anglia.ac.uk>  
Lingu@NET – <http://www.becta.org.uk/linguanet>  
BBC Learning Station – <http://www.bbc.co.uk/education/schools/index.htm>  
British Educational Communications and Technology Agency –  
<http://www.becta.org.uk>  
Virtual Teacher Centre – <http://www.vtc.ngfl.gov.uk>

### **Widening access**

IT for All – free response line 0800 456567 – <http://www.itforall.org.uk>  
Libraries – <http://www.culture.gov.uk/new-library.htm>

### **Promoting competition and competitiveness**

ISI Programme for Business – low-call 0345 15 2000 – <http://www.isi.gov.uk>  
Enterprise Zone – <http://www.enterprisezone.org.uk>  
Millennium Bug/Action 2000 – hotline 0845 601 2000 –  
<http://www.open.gov.uk/bug2000/>

### **Fostering quality**

Internet Watch Foundation – <http://www.internetwatch.org.uk>.  
Reports can be e-mailed to [report@internetwatch.org.uk](mailto:report@internetwatch.org.uk), given by telephone to 01223 236077 or sent  
by fax to 01223 235921  
Creative Industries Task Force – 0171 211 6376

### **Modernising government**

Number 10 Web site – <http://www.number-10.gov.uk>  
Central IT Unit – <http://www.open.gov.uk/citu/cituhome.htm>  
NHS White Paper – <http://www.open.gov.uk/doh/newnhs.htm>  
Welfare Reform Green Paper – <http://www.open.gov.uk/doh/ohn/ohnexec.htm>

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