

DH-MM (2000) 8

# UNIVERSAL COMMUNITY SERVICE: ACCESS FOR ALL TO INTERNET SERVICES AT COMMUNITY LEVEL

(Malta Conference, 2-3 November 1999)

**GENERAL REPORT** 

edited by Mrs Claire Milne and Mr Sean Creighton

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Media Division Directorate General of Human Rights Council of Europe Strasbourg, 2000

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# **INTRODUCTION**

#### Claire Milne, Antelope Consulting, Woodford Green, UK

This publication arises from a conference on universal community service that the Council of Europe held in Malta in November 1999. More than 100 people attended the conference, nearly half of these from Malta, and the rest from some 30 countries and organisations of "greater Europe". The conference was addressed by leaders and specialists from Malta, France, Portugal, Denmark, Finland, Italy and the United Kingdom.

Such was the interest of both formal and informal sessions that the Council of Europe committee responsible for organising the conference, the Group of Specialists on the impact of new communications technologies on human rights and democratic values (MM-S-NT), decided that the content should be shared with a wider audience. This book is the result. True to its theme, it is available both in a traditional paper format and on the Internet at <a href="http://www.humanrights.coe.int/media">http://www.humanrights.coe.int/media</a>. Anyone using the Internet version will be able to access also PowerPoint presentations, a video and live hyperlinks to the many URLs cited.

I was delighted to be asked to edit this collection of papers and to provide an overview of the topic, but to publish anything up-to-date in this area has seemed an impossible task. Not a week goes by without some major announcement or new development which ought to be included. Given the need to set a deadline, the best we can offer at present is a snapshot focused around the turn of the millennium. I hope that it may be possible to develop the website already mentioned into a central location where new developments will be reported as they occur, and relevant experience shared across Europe and more widely, on a continuing basis.

The papers delivered at the conference have been rearranged here under the following headings. Below we briefly discuss some of the main themes emerging under each heading.

- Background
- The Council of Europe's position
- Meeting user requirements for access
- Roles of key players
- Sustainable enlargement of public access

#### Background

Following this short summary are the words of welcome to the conference provided on behalf of the Council of Europe and the Government of Malta. The first raised fundamental issues of the reasons for the Council's involvement, which we will return to under the next heading. The second describes the universal community access initiatives already under way in Malta, which shows well how a small middle-income country can be a leader in this area.

# The Council of Europe's position

Included in full are the Council's September 1999 Recommendation No (99) 14 on universal community service, and its supporting Explanatory Memorandum. The remaining papers are based on the talks by two Council of Europe representatives - the Chairperson of the *Group of Specialists on the impact of new information technologies on human rights and democratic values* of the Steering Committee on the Mass Media (CDMM) and the Vice-Chairperson of the *Culture Committee* of the Council for Cultural Co-operation (CDCC). Between them, these documents clarify the Council of Europe's vision and priorities, and flesh out the key points below:

- Culture and education have always been fundamental to the Council of Europe. Freedom and diversity of culture are vital elements of its democratic values, and their protection is among the basic human rights for which the Council stands.
- The Council has recognised the huge significance of new information technologies both for culture and education, and in many other fields of human endeavour. The technologies themselves are morally neutral, but how they are used can make enormous differences to people's lives.
- The new technologies bring unavoidable risks: at one extreme, they could cause widespread unemployment, at the same time undermining the diversity of our cultural heritage. But the opportunities are at least as great as the risks: the technologies can equally bring new vigour to depressed regions and provide the means for truly individual development and expression of ideas.
- The technologies are already widespread in European societies, and avoiding their use is not an option. The Council is determined that European citizens and societies should benefit to the maximum from these technologies, and believes that pursuing positive goals is the best way to minimise potential risks.
- Widespread concern exists that adoption of new information and communication technologies may exacerbate social divisions, by bolstering the position of already privileged and powerful groups while leaving behind those who are less well-off and less educated. The Council is determined that everybody should have meaningful access to the opportunities offered by the technologies.
- This is a complex goal, requiring actions in support of physical access, appropriate content, and user training and motivation. Meanwhile, technology and the market have their own momentum and a growing proportion of European citizens are getting access at home.
- It follows that a key initiative in pursuit of universal access, complementing market developments, is to provide public internet access points, and the content and support that will enable current non-users of the internet to become users. This is the subject matter of the Recommendation to member governments, and of the conference.

# Meeting user requirements for access

Considerable efforts to provide access may be wasted if they are undertaken without adequate understanding of users' preferences and views. Two papers from the conference address user needs:

- Findings are presented from consumer research carried out by the UK Consumers' Association. The importance of simple, consistent user interfaces is stressed, and the likelihood that standard smart cards will be key to the takeoff of electronic commerce. The transmission speeds and costs offered by a range of technologies under development are surveyed, making it clear that today's conventional means of home internet access a personal computer with dial-up access over an ordinary voice line is likely soon to be superseded by "lean back" (television-style) alternatives.
- The work of the Web Accessibility Initiative (WAI) is described, with detailed references to sources. The WAI is an offshoot of the World Wide Web Consortium (W3C), an international vendor-neutral consortium which develops technologies to promote the interoperability and evolution of the Web. The WAI focuses on making the Web accessible to existing and potential Web users who have disabilities.

Lastly in this section, we have a paper not presented at the conference but specially contributed to this volume, based on research sponsored by the UK Economic and Social Research Council's Virtual Society programme. *Routes to Inclusion in the Information Society* surveys the views of both managers and users in telecottages and cybercafes, and provides a wealth of useful pointers for the future.

# **Roles of key players**

The theme of this section is the special contributions that can be made to universal community access by different social sectors. Though by no means comprehensive, our papers here offer a good selection of sectors: central and regional or local governments, educational and postal services, and private business.

- The Portuguese paper describes the exemplary approach of the Portuguese government. A cross-ministerial team led by the Ministry of Science and Technology already has a string of concrete achievements to its credit, including the first requirement in Europe for websites to be accessible to disabled people, and public kiosks in several "wired cities".
- A paper by the Mayor of a Finnish rural community describes a number of local and regional information society initiatives. A particularly encouraging feature is the degree of international networking that is already taking place local authorities are learning from each other across national boundaries. Finland itself is, not surprisingly, in the vanguard.
- The Maltese Minister for Justice and Local Government describes four innovative new IT systems which are already contributing to making Maltese local government simultaneously more efficient and more user-friendly.

- A paper from the Danish Ministry of Education explains how ICT has become an integral part of the curriculum in Danish schools. A sample set of graded objectives starts with young children being able to handle simple word processing and drawing programmes, and moves on to ensure that school leavers are equipped with the critical skills needed to find, choose and evaluate appropriate information.
- The Italian post office's programme of reform is described, and the integral part that email for all is playing in this. We see that this initiative enhances the effectiveness and efficiency of the postal service, while at the same time providing new scope for the whole public to communicate rapidly and access the Internet. Kiosks in post offices will also contribute significantly to the provision of public access.
- Last but not least, a representative of Microsoft Corporation gives an impressive picture of rapid technical change, and explains how his company's corporate responsibility programme aims to help individuals and groups to face the challenges. Microsoft's Fellowships have set many on the road to new careers. With Microsoft assistance, many refugees in Kosovo were provided with digital identity cards which helped with resettlement. The sums of money involved are significant, but small in relation to Microsoft's turnover. The expenditure is justified by its positive effect on Microsoft's image and reputation.

# Sustainable enlargement of public access

This closing section, by independent consultants, attempts to pull together the disparate threads of the conference. It looks at the question of how best to ensure a sustainable enlargement of public internet access in Europe. No clear answers can yet be given, but some provisional pointers are offered. For example, it is clear that the participation of many different sectors will be essential, including all those mentioned above, and, vitally, grass-roots community and user support.

This section also provides additional examples of good or novel practice in public internet access from many different countries, and a collection of sources for further information and research.

# Some themes of the conference

Some themes appear in several of the papers and are worth gathering together here.

- The very rapid pace of technical change. Among other implications, this means that universal access schemes based on recycling old equipment are likely at best to be short-lived. The costs of more powerful and more user-friendly new systems will soon fall below the costs of maintaining old systems.
- The vital importance of "design for all", and learning opportunities that are accessible to all, to cater not only for people with various disabilities, but for anyone of a generation which has not grown up with the Internet. Without this, people now of middle age and above risk being left stranded; and the industry will lose a huge potential market.

- The huge potential that universal internet access offers to public authorities, to save costs, to deliver better services, and to get more benefit out of existing resources such as museums and training courses.
- The need to recognise and handle possible negative impacts of the information society. Changes in employment patterns mean that less adaptable individuals risk unemployment. Environmental impacts are unpredictable. An overload of (often under-processed) information is inefficient and stressful. The technology must be used, among other things, to lessen its own ill-effects.
- The indispensable role of all levels of government in achieving the types of change that are sought. While government funding is important, the private sector has a large contribution to make here too. Governments must first and foremost provide leadership, and act as facilitators and catalysts for change. Although for the most part market forces are pushing in the right direction, the changes that we seek will not "just happen" without strong leadership.
- The indivisible relationship between access and content each being essential for value to be derived from the other. It is necessary for the two to be developed in tandem. Usually, different organisations have expertise and authority in these two areas, which greatly complicates the challenges we face. Organisations of divergent culture and outlook have to get used to working together.

# Setting the scene – the Council of Europe's concerns

Walter Schwimmer, Secretary General of the Council of Europe

The Council of Europe aims at building a Europe without dividing lines on the basis of shared values, such as respect for human rights and dignity, the rule of law, pluralist democracy and cultural diversity.

#### **Council Policy on Public Access**

At their Second Summit meeting in Strasbourg on 11 October 1997, the Heads of State and Government of the Council's member States called for

'a European policy for the appreciation of the new information technologies, with a view to ensuring respect for human rights and cultural diversity, fostering freedom of expression and information and maximising the educational and cultural potential of these technologies.'<sup>1</sup>

New communication and information services offer new opportunities for access to information, education and culture. Ideally, they could offer possibilities for everyone to participate in the circulation of information and communication across frontiers.

Given the large differences among the 41 member States with regard to their infrastructure and resources at national and regional level, we have to prevent new inequalities, a growing gap between the 'information rich' and the 'information poor'. At the same time, individual citizens, too, differ widely as regards their ability and readiness to use these new services – education, gender, age and linguistic skills all play a role.

However, if, as many hope, new information can contribute to increasing participation on all levels, all citizens must be given the opportunity, both technically and intellectually, to use them.

We cannot expect that citizens across the continent can solve this problem individually. The solution might be achieved in an easier and faster way by promoting access at a community rather that an individual level by providing a *universal community service*.

# **Universal Community Service**

Recommendation (99) 14, which was adopted by the Committee of Ministers on 9 September 1999<sup>2</sup>, deals with the idea of a universal community service.

There are three major aspects of public access to Internet services: access, services and knowledge.

<sup>&</sup>lt;sup>1</sup> Declaration and Action Plan adopted at the Second Summit of Heads of State and Government of the Member States of the Council of Europe, Strasbourg, 10-11 October 1997, Article IV.

<sup>&</sup>lt;sup>2</sup> Reproduced in full at p. 17 below.

- Access. Access to Internet terminals can be facilitated by establishing public access points in libraries, educational institutions, public administrations or other places.
- Services. The issue of services or content is more complex: news, cultural, educational and entertainment programmes have been the backbone of traditional audiovisual services in Europe, but we assume that transactional and interactive services will become so widespread that they will encourage new interaction between public administrations and citizens.
- **Knowledge**. Users need information and training in order to fully participate in the developing information and communication society.

# The Conference

Countries represented at the Conference have developed a variety of strategies for, and examples of, wide access to Internet services. The papers in this volume provide substance for the political guidelines of Recommendation (99) 14, in order to raise awareness of the need for creating greater cohesion of the Information Society throughout Europe.

# Malta – making rapid progress towards an information society

Louis Galea, Minister of Education of Malta

# Introduction

The latest comparative figures on access to the Internet put Malta rather low down on the list of countries when it comes to measuring how many Maltese can access the Information super-highway from their homes. Figures published in September 1999 suggest that only 4% of Maltese households have access to the Internet.

In contrast, if one includes those Maltese who access the Internet from their work or study place, it would appear that approximately 10% of the population effectively has access to the 'Net'. These figures do not compare very well with many other European countries where we find 20-30% of the population having access to the Net, very often from home.

# **Role of Education Ministry**

The Internet is a cheap and effective way of accessing an untold wealth of information. It also permits cheap and fast communications between people world-wide. This is why the Ministry of Education is determined to ensure that the greatest possible number of Maltese are told about the benefits of Internet access and, where practicable, assisted in obtaining regular affordable access at the earliest opportunity.

In accordance with the Thessaloniki Declaration of 1997, the Ministry of Education is currently preparing plans for a project intended to implement the principle of Universal Community Service. This is the commitment by European Governments that the new communications and information services - e.g. Internet - shall be made accessible at community level by all individuals, at an affordable price and regardless of their geographic location.

# Access Exclusion

This new principle was devised after research revealed that over 90% of lower-income earners in Europe do not have access to the information highways such as the Internet. This phenomenon threatens to create a society of information haves and information have-nots over the next twenty-five years (the time estimated for the Internet to achieve the same domestic penetration as TV).

The principle of Universal Community Service responds to this phenomenon by securing the commitment of international organisations and national governments to providing access to the Information Highway at least at the level of the local community, in every town and village.

# Maltese Schools and Libraries

When preparing these plans the Ministry has been careful to make maximum use of existing resources in schools and libraries.

# Schools

Over the past 4 years, the Government has made a considerable investment in installing computers in schools and has also made technical arrangements to have the Internet accessible in more than 20 schools, as the first part of a project which will permit Internet access from every school.

In late 1999 the Ministry agreed with its Internet Service Provider that access to the Internet in schools can now technically be made available on a non-commercial basis 24-hours a day, 7 days a week, thus paving the way for permitting the thousands of computers in Maltese schools to be used after school hours by members of the local community.

# Libraries

During 1999 the Ministry carefully examined the feasibility of a project which is intended to kill two birds with one stone:

- To assist the literacy campaign by revamping libraries all around Malta, thus making good books more accessible to everybody in a pleasant modern environment;
- To provide, at the level of every local community, a friendly place where everybody can go and obtain access to the Internet at a nominal price.

The Government is currently conducting a Resource Management Exercise intended to finalise a detailed plan for the pilot phase of this project, and will then phase in implementation in all 67 Local Council localities<sup>3</sup>. In some of these areas, Regional Libraries as well as school libraries may turn out to be suitable venues for such initiatives. The Ministry looks forward to working together with Local Councils in this exciting new project.

# The Conference

The above initiatives explain why the Ministry welcomed the Council of Europe's initiative to hold the first European Conference on Universal Community Service in Malta. We see here a true partnership among different levels of government:

- The Congress of Local and Regional Authorities of Europe was also invited to participate.
- The Ministry of Education worked hand in hand with the Ministry of Justice and Local Government to ensure that representatives of local Councils participated in the Conference.

The concept of Universal Community Service was born out of the wish to make the wisest use of available resources. The fast rate of change of Internet-access technologies also means that we must be very careful to spend our money wisely when implementing this important principle.

This conference offered us an opportunity to share the latest information on how best we can reach our objectives in the shortest possible time.

<sup>&</sup>lt;sup>3</sup> See also the paper by Dr Austin Gatt below at p. 89.

# **CHAPTER I**

# THE COUNCIL OF EUROPE'S POSITION

# **RECOMMENDATION No. (99) 14**

# OF THE COMMITTEE OF MINISTERS TO MEMBER STATES ON UNIVERSAL COMMUNITY SERVICE CONCERNING NEW COMMUNICATION AND INFORMATION SERVICES

(Adopted by the Committee of Ministers on 9 September 1999 at the 678<sup>th</sup> meeting of the Ministers' Deputies)

The Committee of Ministers, under the terms of Article 15.*b* of the Statute of the Council of Europe,

Considering that the aim of the Council of Europe is to achieve greater unity between its members for the purpose of safeguarding and realising the ideals and principles which are their common heritage;

Recalling the commitment of the member states to the fundamental right to freedom of expression and information as guaranteed by Article 10 of the Convention for the Protection of Human Rights and Fundamental Freedoms, and to entrust the supervision of its application to the European Court of Human Rights;

Reaffirming that freedom of expression and information is necessary for the social, economic, cultural and political development of every human being, and constitutes a condition for the harmonious progress of social and cultural groups, nations and the international community, as expressed in the 1982 Declaration on the Freedom of Expression and Information;

Stressing that the continued development of new communication and information services should serve to further the right of everyone to express, to seek, to receive and to impart information and ideas, for the benefit of every individual and the democratic culture of any society;

Welcoming this development as an important factor enabling all member states and everyone to participate in the establishment of a coherent information society throughout the European continent;

Referring to the Declaration and Action Plan of the 2nd Summit of the Heads of State and Government of the Member States of the Council of Europe of 11 October 1997, where the Heads of State and Government resolved to develop a European policy for the application of the new information technologies;

Referring to the declaration and resolutions on the information society adopted by the participating ministers at the 5th European Ministerial Conference on Mass Media Policy, which was held in Thessaloniki on 11 and 12 December 1997;

Convinced that new communication and information services will offer everyone new opportunities for access to information, education and culture;

Convinced also that the use of new communication and information services will facilitate and enhance the possibilities for everyone to participate in the circulation of information and communication across frontiers, so fostering international understanding and the mutual enrichment of cultures;

Convinced that the use of new communication and information services will facilitate the participation of everyone in public life, communication between individuals and public authorities, as well as the provision of public services;

Aware of the fact that many people in Europe do not have sufficient opportunities to have access to new communication and information services, and that the development of access at community level can be achieved in an easier way than at individual level;

Aware of the social, economic and technical differences which exist at national, regional and local levels for the development of new communication and information services;

Aware of the possible synergetic effects of co-operation between public authorities and the private sector for the benefit of users of new communication and information services;

Resolved to encourage the implementation of the principle of universal community service concerning new communication and information services, as defined in Resolution No. 1 of the 5<sup>th</sup> European Ministerial Conference on Mass Media Policy,

Recommends to the governments of member states:

1. to implement the principles appended to this recommendation, taking account of their respective national circumstances and international commitments;

2. to disseminate widely this recommendation and its appendix, where appropriate accompanied by a translation; and

3. to bring them in particular to the attention of public authorities, new communication and information industries and users.

# Appendix to Recommendation No. R (99) 14

# Guidelines for a European policy for the implementation of the principle of universal community service concerning new communication and information services

# Principle 1 - Access

1. Member states should foster the creation and maintenance of public access points providing access for all to a minimum set of communication and information services in accordance with the principle of universal community service.

This should include encouraging public administrations, educational institutions and private owners of access facilities to new communication and information services to enable the general public to use these facilities.

2. Member states should foster the provision of adequate and internationally connected networks for new communication and information services, and in particular their extension to areas with a low communication and information infrastructure.

3. Member states should foster the provision of adequate facilities for the access to new communication and information services by users requiring support.

# Principle 2 - Content and services

1. Member states should encourage public authorities at central, regional and local levels to provide the general public through new communication and information services with the following basic content and services:

*a.* information of public concern;

*b.* information about these public authorities, their work and the way by which everyone can communicate with them via new communication and information services or through traditional means;

*c*. the opportunity to pursue administrative processes and actions between individuals and these public authorities such as the processing of individual requests and the issuing of public acts, unless national law requires the physical presence of the person concerned; and

*d.* general information necessary for the democratic process.

2. The services referred to in paragraph (1) should not replace traditional ways of communicating with public authorities, in writing or in person, as well as the provision of information by public authorities through traditional media and official publications.

3. Member states should encourage educational institutions to make their educational services available to the general public through new communication and information services.

4. Member states should encourage cultural institutions, such as libraries, museums and theatres, to provide services to the general public through new communication and information services.

# Principle 3 - Information and training

1. Member states should promote information about the public access points referred to in Principle 1, the content and services which are accessible via these access points, as well as the means of and possible restrictions to such access.

2. Member states should encourage training for all in the use of the public access points referred to in Principle 1 as well as the services which are accessible via these access points, including as regards the understanding of the nature of these services and of the implications related to their use.

3. Member states should consider including education in new communication and information technologies and services in the curricula of schools as well as institutions for continuing or adult education.

# Principle 4 - Financing the costs of universal community service

1. Member states should examine appropriate ways of financing the implementation of the principle of universal community service, such as by granting subsidies or tax incentives, mixed public and private funding, or private funding including sponsoring.

2. Member states should ensure that the provision of financial support and sponsoring does not lead to the exercise of any undue influence over the implementation of the principle of universal community service.

# Principle 5 - Fair competition safeguards

Member states should ensure that fair competition between providers of new communication and information services is not distorted by the implementation of the principle of universal community service.

# Principle 6 - Information to be provided to the Council of Europe

Member states should inform the Secretary General of the Council of Europe about the implementation of these principles with a view to their periodical evaluation and a possible amendment of them in the future, as well as in order to achieve a common and coherent European policy for the implementation of the principle of universal community service.

# Explanatory Memorandum to Recommendation No. (99) 14 of the Committee of Ministers on universal community service concerning new communications and information services

# I. Introduction

- 1. The rapid development of new means of communication and information will offer new opportunities in terms of access to information, interactive information processing and public or private communication. Not everyone may be able to participate in this development, which might lead to a division of society into "information-rich" and "information-poor".
- 2. This division may be felt stronger than the existing differences in access to traditional media, where States have traditionally pursued policies for a wide access by the users to communications and information infrastructures and services at an affordable price and irrespective of their geographic location, often complemented by regulatory measures. As regards access to content, reference can be made to the notion of public service broadcasting which seeks to guarantee at least one comprehensive programme service comprising information, education, culture and entertainment which is accessible to the general public. As regards access to communications infrastructure, universal service norms have been designed in the field of telecommunications in order to provide certain basic services to users.
- 3. In preparation of the 5<sup>th</sup> European Ministerial Conference on Mass Media Policy, which was held in Thessaloniki in December 1997, the *Group of Specialists on the impact of new information technologies on human rights and democratic values* (MM-S-NT) of the *Steering Committee on the Mass Media* (CDMM) considered possible policies to promote the development of a coherent Information Society and concluded that the development of a wide access to these new services might be achieved in an easier and faster way by promoting access at community level as compared to access at individual level. The Ministers participating in the Thessaloniki Ministerial Conference endorsed this in the principle of "universal community service" as expressed in their Declaration and Resolution No. 1 on the Information Society.
- 4. Against this background, the CDMM gave the MM-S-NT the mandate to examine, inter alia, ways of promoting and applying the principle of universal community service. The work of the Group led to this Recommendation and its Explanatory Memorandum. The Committee of Ministers adopted the Recommendation on 9 September 1999 and authorised the Secretary General to publish this Explanatory Memorandum.
- 5. In this context, it should be noted that the Heads of State and Government of the member States resolved, in their Declaration and Action Plan adopted at their Second Summit meeting in Strasbourg on 11 October 1997, "to develop a European policy for the application of the new information technologies, with a view to ensuring respect for human rights and cultural diversity, fostering freedom of expression and

information and maximising the educational and cultural potential of these technologies." The issue of a wide access for everyone to new communications and information services was also addressed in the Declaration of the Committee of Ministers on a European policy for new information technologies, which was adopted on the occasion of the 50<sup>th</sup> anniversary of the founding of the Council of Europe on 7 May 1999.

- 6. Given the large differences between member States with regard to their respective infrastructures and resources at national or regional levels, the importance of the principle of universal community service will be even greater in those member States where the development of individual access to new communications and information services is lower. In this respect, the principle might help to lower the differences between States concerning the accessibility of new information and communications services for their population. In the same vein, experience has shown that people differ widely as regards their ability and readiness to use these new services. Especially for those who have a lesser affinity to these new services, access at community level may facilitate their participation in the Information Society.
- 7. Due to the rapid technological development and the enormous expansion of new communications and information services at present, the MM-S-NT concluded that the principle of universal community service should be regarded possibly as a transitional step and should be evaluated periodically.

# II. General commentary

- 8. The Recommendation uses the term "new communications and information services" without defining these services. This term or similar variants are widely used, commonly referring to digital communications and information services, such as the Internet with its World Wide Web and E-mail. The express mention of the Internet is avoided by the Recommendation, because of the rapid and unpredictable technological development in this field and the possible limitation which might result from an exclusive reference to the Internet. The word "new" indicates this recent and on-going development, although some aspects of this development might not be qualified as new in the near future. In the light of the descriptive nature of the term, member States have the discretion to be more specific in accordance with their national circumstances and policies. It must be acknowledged, however, that the word "Internet" is commonly used as a generic term for these new communications and information services.
- 9. Resolution No. 1 of the 5<sup>th</sup> European Ministerial Conference on Mass Media Policy defines universal community service as the principle "whereby, to the extent possible given the different national and regional circumstances and resources, new communications and information services shall be accessible at community level by all individuals, at an affordable price and regardless of their geographical location." The Recommendation on universal community service further illustrates the principle and the ways of its implementation. The term "universal community service" is to be understood in an original and unprecedented sense. It is not meant to refer to universal service in telecommunications, and the two concepts or principles are equally distinct as to their meaning.

- 10. The Recommendation is addressed to the governments of member States. Any Recommendation of the Committee of Ministers is an instrument of political commitment, and not a legally binding instrument. The political character of the Recommendation on universal community service is underlined by the fact that the Principles attached to the Recommendation are described as "guidelines for a European policy".
- 11. The means of implementation of the Recommendation and its Principles are not specified in the Recommendation. This enables member States to select any appropriate means of implementation at their own discretion. Such means might comprise national law and practice, the establishment of voluntary self-regulation or other initiatives by providers of new communications and information services, or an adequate framework for the functioning of competitive market forces.
- 12. The Recommendation does not seek to address directly the private sector and in particular the new communications and information industry. It is up to member States themselves to define any appropriate arrangements for ensuring that the private sector takes part in the implementation of this Recommendation. In this regard, it is recalled that the Declaration and Action Plan of the Second Summit of the Heads of State and Government of the member States of 11 October 1997 encourage to seek "suitable partnership arrangements" with the private sector for the application of the new information technologies. In addition, local and regional authorities might be instrumental in the implementation of the principle of universal community service, because of their greater proximity to potential users at community level.
- 13. Member States are recommended to implement the Recommendation and its appended Principles "taking account of their respective national circumstances and international commitments". This reflects the discretion of member States referred to above, and underlines that existing international commitments are to be taken into account by member States. Such "international commitments" can comprise treaty obligations under public international law, legal obligations under primary European Community law for the member States of the European Union, as well as binding international political commitments.
- 14. Member States are held "to disseminate widely this Recommendation and its Appendix, where appropriate accompanied by a translation", and "to bring them in particular to the attention of public authorities, new communications and information industries and users." The dissemination of the Recommendation is a prerequisite for its proper implementation, as this will help public authorities, the private sector and users to understand the principle of universal community service and contribute actively to its application.
- 15. The specific recommendations or Principles are appended to the Recommendation. This Appendix is part of the Recommendation itself. It is only for sake of clarity that the individual Principles concerning "a European policy for the implementation of the principle of universal community service" are grouped in the Appendix.

# III. Commentary to the Appendix

Principle 1 (Access)

# *a.* (*Public access points*)

- 16. The principle of universal community service is based on the assumption that access at community level can in many cases be established easier. It is, therefore, consequent to recommend in the first place "the creation and maintenance of public access points". The term "public access points" refers to a category, rather than to a particular type of access terminal.
- 17. Principle 1, paragraph *a* recommends that member States should, therefore, encourage "public administrations, educational institutions and private owners of access facilities (...) to enable the general public to use these facilities". Public access points could, for example, be installed in public buildings, public administrations, public libraries, educational institutions, public housing centres or other publicly accessible locations, such as shopping centres, post offices, underground stations, train stations, airports or hotels. In certain instances, public administrations and private owners could also be encouraged to consider offering as a special public relations service, employers could be encouraged to offer access to their employees, or educational institutions could be encouraged to offer access also to the general public. This could be achieved, for example, by offering incentives to operators of private access facilities who agree, possibly under certain conditions, to allow public use.
- 18. The phrase "minimum set of communications and information services in accordance with the principle of universal community service" indicates that member States are recommended to define this minimum set in view of their national circumstances and policies and in accordance with their international commitments. The basic content and services mentioned in Principle 2, paragraph *a* could be taken as a reference in this respect, but member States may go further.

# *b.* (*Network infrastructure*)

19. Access to new communications and information services requires not only access points, but also "adequate and internationally connected networks" for the transmission of data. Member States are therefore recommended to foster the establishment of such networks and their international connections. Special attention should be paid to areas with a low or inadequate communications and information infrastructure.

# c. (Users requiring support)

20. Individuals differ widely as regards their ability to utilise new communications and information services. Principle 1, paragraph *c* mentions in this regard the term "users requiring support". These users might be persons who have difficulties to use new communications and information services or who could use them to compensate other disadvantages linked to their person or situation, such as users with low income, users with physical disabilities, users who have difficulties to read and write, users who did

not have prior training in new communications and information technologies, or users in remote areas with a low infrastructure.

Principle 2 (Content and services)

- *a.* (*Basic content and services by public authorities*)
- 21. Public authorities provide the public with a multitude of services and information. New communications and information services can facilitate and enhance these services and the relation between public authorities and individuals. In this respect, the Preamble of the Recommendation stresses that "the use of new communications and information services will facilitate the participation of everyone in public life, the communication between everyone and public authorities as well as the provision of public services." Therefore, Principle 2, paragraph *a* lists the "basic content and services", the provision of which should be encouraged.
- 22. "Public authorities" might comprise, for example, governmental bodies, parliamentary bodies and courts or other judicial bodies, as well as local authorities. The Recommendation could be extended to private bodies which fulfil public service functions.
- 23. "Information of public concern" is to be understood as a general and wide category, including for example emergency warnings or public announcements, such as water levels during flood situations, forecasts for pollution in the air, addresses and opening hours of vaccination services or the publication of acts of local administrations.
- 24. "Information about these public authorities, their work and the ways how everyone can communicate with them" is also necessary for the participation of everyone in public life as well as for the public awareness of the functioning of public administration and public services. Examples could be the publication of the opening hours, contact addresses for the various services and the administrative requirements for the processing of requests by the administration.
- 25. Member States are also recommended to encourage administrative processes and actions via new communications and information services. An "on-line" communication with public authorities is only possible where national law does not require the physical presence of the person concerned. Member States might, however, reconsider the need for such a requirement in the light of the new possibilities offered by new communications and information services (see, for example for the area of written proof, Recommendation No. R (81) 20 on the harmonisation of laws relating to the requirement of written proof and the admissibility of reproductions of documents and recordings on computers). An administration could offer, for example, the on-line payment of public fees, the filing of documents on-line by individuals or the issuing of administrative permissions via E-mail.
- 26. "General information necessary for the democratic process" may, for example, refer to public information services about the political system, its functioning and the general historic and political context in which democratic decisions are taken. Such information might be provided by governmental information offices, educational

institutions and political bodies, and could comprise, for example, the results of elections, statistical information or information on the structure and mandate of political bodies.

# *b.* (*Parallelism between traditional ways of communication and new services*)

- 27. Despite the rapid development of new communications and information services at present, not all individuals will be able or willing to use these services. Therefore, member States are recommended to maintain "traditional ways of communicating with public authorities, as well as the provision of information by public authorities through official publications and traditional media."
- *c.* (*Provision of educational services*)
- 28. Principle 2, paragraph *c* recommends to member States to encourage educational institutions "to make their educational services available to the general public through new communications and information services". Such educational services could range from the possibility for students to follow courses via new communications and information services to making certain educational material also available to persons who are not enrolled as students.
- *d.* (*Provision of cultural services*)
- 29. Cultural institutions, such as libraries, museums and theatres, fulfil an important public function in society and are often publicly supported. The use of new communications and information services could increase access to such institutions and enable a larger public to enjoy their services. In the same vein, these cultural institutions could offer their services in a decentralised way to persons in remote areas and persons with physical disabilities, for example. Therefore, it is recommended in Principle 2, paragraph d to encourage such cultural institutions to provide services to the general public through new communications and information services. These services could range from libraries certain material of which can be read on-line to "cyber-museums" which provide for a virtual tour of their exhibitions or theatres which display performances on the Internet.
- Principle 3 (Information and training)
- a. and b. (Information and training concerning public access points and accessible content and services)
- 30. Opportunities for access to new communications and information services require knowledge and understanding on the side of the potential users, in order to be used. It is therefore essential for the implementation of the Recommendation that information about and training in the use of public access points and the accessible services is provided to the public at large. This does not imply that everyone should be compelled to pursue training courses or that training courses should be offered to everyone. The importance of information and training is, however, underlined by Principle 3, paragraphs a and b.

- 31. Member States have their own margin of appreciation of the need for such information and training, possibly taking account of the general education nationally available about new communications and information technologies and services (see Principle 3, paragraph c below). In this regard, information and training should especially be addressed to teachers, pupils, students, users requiring support, elderly persons and users afraid of new communications and information services as well as to employees of public authorities and private institutions providing public services, in particular educational institutions. In this respect, the training of trainers might multiply the effect of such efforts.
- 32. The "implications" related to the use of new communications and information services referred to in Principle 3, paragraph b might include the legal validity of communications via these new services (see, for example for the area of written proof, Recommendation No. R (81) 20 on the harmonisation of laws relating to the requirement of written proof and the admissibility of reproductions of documents and recordings on computers), the collection of personal data of users (see, for example, the Guidelines for the protection of individuals with regard to the collection and processing of personal data on the information highways which may be annexed to codes of conduct, published by the Council of Europe in 1998) as well as the credibility and authenticity of information available on public access points.
- *c.* (*Education in new communications and information technologies and services*)
- 33. General education in new communications and information technologies and services would also enhance the understanding of the services offered in accordance with the principle of universal community service. It is therefore consequent that member States are recommended to consider including such education "in the curricula of schools as well as institutions for continuing or adult education" and the continuing education of teachers.

# Principle 4 (Financing the costs of universal community service)

# a. (Financing)

The implementation of the principle of universal community service through the 34. provision of public access points and basic content and services will generate costs. Therefore, Principle 4, paragraph *a* recommends that member States "should examine appropriate ways of financing", without specifying or ranking the various possible measures and approaches. Member States should hence decide on the appropriateness of these measures, taking account of their existing national law and practice, their international commitments and their national circumstances. The examples given in paragraph a are only indicative. Typically, such measures may comprise direct public funding or subsidies, indirect public funding through tax incentives or similar measures, private funding such as charitable donations, as well as the conclusion of sponsoring contracts, i.e. the conclusion of contracts between public authorities and the private sector for advertising purposes. In certain cases, mixed forms of the abovementioned measures might also be suitable. In this regard, it might be particularly advisable to examine ways of exploiting synergies between both public authorities and the private sector for the benefit of the public at large.

#### b. (Independence of the choice of content and services from financial support)

35. Member States should ensure that the provision of financial support does not lead to "the exercise of any undue influence". Such undue influence could take place when, in return for granting financial support, a natural or legal person would have the right to decide on the operation of a service developed thanks to this support, especially where such influence aims at the provision of services which violate human rights, fundamental freedoms and democratic values or which constitute a form of disguised or surreptitious commercial or political advertising. National authorities in the member States have their margin of appreciation when evaluating a particular influence.

#### Principle 5 (Fair competition safeguards)

36. National measures for the implementation of the principle of universal community service might have an impact on competition on the new communications and information markets. This applies in particular to the provision of a wide access under Principle 1, the provision of content and services under Principle 2 and their public or private financing under Principle 4. This could be case, for example, where sponsored services of a public administration would lead to a monopoly position of the sponsor with regard to linked follow-up services, such as the purchase of other hard or soft ware by that administration and its future up-grading. Principle 5 reminds member States of this possible effect and recommends that member States "should ensure that fair competition between providers of new communications and information services is not distorted by the implementation of the principle of universal community service." Providers in this sense should include network operators, access providers, content providers and other service providers.

# Principle 6 (Information to be provided to the Council of Europe)

37. Due to the rapid technological development and the enormous expansion of new communications and information services at present, the principle of universal community service should be regarded as a possibly transitional step to be evaluated periodically. Therefore, member States are recommended to regularly inform the Secretary General of the Council of Europe about the implementation of the Recommendation and its Principles. In addition, such information might provide for a mutual exchange of experiences and hence for a framework for a common and coherent European policy for the implementation of the principle of universal community service.

# The policy recommendations of the Council of Europe and universal community service

# Marie-Christine Weiner-Wellhoff, Ministry of Culture, Paris

New technologies are today omnipresent, dominating the "new economy", regulating exchanges of information, services and goods, and generating huge profits. The press daily reports on technological advances and the latest instalments in the saga of the capital-intensive alliances of the major new economy groups. The proportion of hi-tech equipped households – and indeed web surfers - is constantly rising.

But all is not well. As has been critically noted, the gap between those who already have or will soon have access to the new technologies, and those who do not or will not, is becoming ever wider. This is why the Council of Europe, true to its role, set out to help combat this new factor of inequality, putting forward the concept of "universal community service".

Many organisations are active in the field of new technologies, but the Council of Europe has a special and major role to play for two important reasons:

- first, because of its goal: to defend human rights and democratic values,
- second, because of its membership: it is an organisation of countries in which the penetration of new technologies varies considerably. It has to take action to counter inequalities between states, which could otherwise become accentuated.

With these two factors in mind, the Ministers' meeting in Thessaloniki adopted a declaration undertaking "to work in favour of the application of the principle of universal community service". This declaration served as a basis for a recommendation adopted by the Committee of Ministers on 9 September 1999 in which the latter expressed their commitment "to encourage the implementation of the principle of universal community service".

Here, I shall give a brief overview of the parameters of the problem, the approach adopted by the Steering Committee on the Mass Media (CDMM), and finally the main points of the proposal.

# Parameters of the problem

The parameters are relatively straightforward and have been commented on considerably in recent years. New communication services represent a major asset for individuals, organisations or states which have access to them. However, because not all individuals, organisations and states do have access, they also represent a serious threat of increased inequality. New technologies help one to be better informed and, consequently, to have a better understanding of the world. And understanding the world better makes it easier to influence it.

There was an initial euphoria at the idea that unlimited access to unlimited information would provide access to equally unlimited power. But now we realise that information is not everything. Rather, it is processed information which makes for better understanding: information processed to serve specific needs or goals, making it possible to take appropriate action quickly, since more than ever before speed is a key factor in success. It is a question of authority, of power, and perhaps of simple survival in today's world heavily dependent on new technologies.

There are three major categories of inequalities: geographical, social and age-related.

Between Council of Europe member states there are clear inequalities. For some, new technologies are still closely tied in with the issue of improving traditional communications, and Internet access continues to be the prerogative of a minority. Some countries and regions are still very isolated, with as few technological as physical connections.

Social inequalities exist in all countries, no matter how developed they are. While some countries are making special efforts, particularly in the school environment, home use of new technologies by and large is restricted to the better-off.

Lastly, the development of new technologies is a recent phenomenon. Almost by their very nature, they are more accessible to younger people, who have the necessary ability to constantly adapt to a stream of innovations.

The CDMM's approach has taken these inequalities on board.

# The CDMM's approach

In order to help combat the inequalities inherent in the development and use of new technologies, the CDMM wanted an approach which was pragmatic and staged and which involved all partners.

# A pragmatic approach

Above all, the CDMM did not wish to lay down a pre-determined theoretical model for a complex and constantly changing situation. It sought to develop the principle of universal community service which took into account current facilities in terms of networks, equipment and financing possibilities.

The availability or otherwise of appropriate networks is a major factor in the development of universal community service. Accordingly, this was the CDMM's first concern.

The number of households and firms having access to new communication services is an important variable. The lower this number is, the greater the justification for providing equipment for community use as part of a universal community service. The CDMM also gave consideration to equipment likely to be found in public or semi-public locations. Such equipment can help the setting up of universal community service, provided, as we shall see, that certain conditions are fulfilled.

Lastly, the establishment of universal community service depends on financing possibilities for both the investment and operational stages. A number of models were considered for different levels of potentially available financing.

# A staged approach

This approach is staged since

- it is intended to establish access initially on a community basis,
- it provides for the gradual establishment of a range of services, beginning with basic services and then introducing more complete ones.

Recognition of unequal access to the new communication services, coupled with an awareness of financing possibilities, helps those lagging behind to catch up. Our approach is to provide community access for individuals who have no possibility of individual access. This makes it possible to overcome inequalities of access until such time as everyone is able to have individual access, a process which will inescapably take at least some years. Tentative steps have been taken by governments (eg the United Kingdom) or companies to equip and connect individuals, but these are just partial experiments which will take several years to become widespread.

Services accessible on a community basis should be as complete as possible, and from a public access point all information and communication services should be available. The CDMM nevertheless thought that priority should everywhere be given to promoting access to information and communication services of irrefutable community usefulness.

Lastly, the CDMM's approach has been first of all to consult and then to raise the awareness of all relevant partners, both public and private.

Public partners will be required to play a crucial role in setting up universal community service. These partners will be governments of course, given that it is a political decision, but also – and perhaps more importantly – local and regional authorities which will be running the show on the ground.

Partners in the private sector will include the operators involved in the setting up and running of networks, and the various associations likely to provide premises for public access points.

# The CDMM's proposal

# An attempt at a definition

What universal community service is not:

- It should not be confused with universal service in the sense of telecommunications, even though with regard to access to new information and communication services the CDMM wished to adopt a position similar to that adopted with regard to access to telecommunication services.

- It is not community in the sense of the European Union. The term "community" was chosen as it reflects arrangements for shared access within existing shared facilities in a locality.
- Lastly, it is not a finalised facility, but should be regarded as an introductory stage, the first in a longer process.

What universal community service is:

- It is above all a service, that is, something which offers assistance.
- It is universal because it is intended for everyone and should provide access potentially to everything.
- Lastly, it is a community service, in other words it does not exist on an individual and private basis, but on a community and public basis.

The universal community service is therefore the principle that, as far as practicable, new communication and information services will be made accessible **at community level** to **all individuals** at an **affordable cost** and **regardless of their geographical location**.

# Access issues

Universal community service has two aspects which are inextricably linked: access and content. This is what makes it so unique, innovative and, clearly, complex.

The problem of access concerns, by and large, access points, but also networks and access facilities made available to users.

Access points, which must all be freely accessible, can be public or private.

Public access points could be institutions:

- of an educational nature, such as schools, colleges and universities to which access might have to be restricted on security grounds,
- of a cultural nature: museums, libraries, etc,
- of a social nature: social centres, community clinics, social security centres, etc.

They may also be located in other public places such as post offices, town halls, stations, etc.

Private access points could be in various locations, such as:

- shopping centres,
- hotels, cafés, pubs,
- businesses.

There may therefore be numerous options for siting access points. The decision should be based on the practices and expectations of potential users, and on the views of those in charge of the public or private premises in question, bearing in mind the inherent constraints of each access environment.

Universal community service also requires appropriate networks and access facilities corresponding to users' aptitudes.

# Content issues

Universal community service is not a question of merely providing public access points but also of ensuring that the content available for consultation will lead to:

- better information
- greater interaction
- improved citizen participation.

The information which should be made accessible can be grouped into three categories:

- information of public interest: warnings, public announcements, opening times of public services, publication of administrative acts, etc
- information on public authorities: addresses, how they operate, procedures, etc
- information of a general nature: election results, statistics, etc.

# Some of the benefits

Universal community service should facilitate interaction with public or administrative authorities, for example by enabling a number of formalities to be carried out. By providing information and creating new ways of contacting public authorities, universal community service should lead to greater citizen participation in municipal life.

Universal community service should also lead to greater use of cultural establishments, in particular by offering remote access to the holdings (in digitised form) of libraries and museums. The possibilities of distance learning or remote access to certain educational material are another bonus.

# Training

Training in the use of new information and communication technologies will be key to the success of universal community service. This will require a comprehensive effort reaching the whole population and covering the entire facility: knowing both where to find access points and how to use the service.

As well as being comprehensive, training must also be adapted to users needing special assistance, and to those having particular responsibilities such as teacher or instructor

trainers. The training must not be restricted to technical aspects, but should also show how to choose from among the mass of information available, and how to sort and organise it.
#### Making it happen

Setting up universal community service requires a whole range of measures and tools, including:

- financial measures
- incentives
- monitoring.

Financial measures may be in the form of (a) direct funding: a service provided by the public authorities, or grants, or (b) indirect funding: tax rebates for approved investment or operation.

Non-financial incentives could be in the form of authorisations or simplification of administrative procedures.

Finally, monitoring should keep a check on any undue influence on content when financial support is provided.

\* \* \*

The Malta conference is an opportunity for the CDMM to make known the work which has been done. We shall gauge its relevance by learning from the experiences of operators in the field and of local and regional authorities, and we shall refine both the concept and the different approaches to implementation.

The political will has been expressed at ministerial level. We hope that field operators will now want to share ownership of this concept, for rapid practical application.

# Maximising the cultural and educational potential of new information technologies: the point of view of the Council for Cultural Co-operation

Pirkko Rainesalo, Ministry of Education and Culture, Helsinki

#### Introduction

CDCC stands for Council for Cultural Co-operation. Its principal task is to oversee the implementation of educational and cultural policies based on the European Cultural Convention.

The Cultural Convention itself was signed in Paris in 1954 by 14 States. Now, 45 years later, 47 signatory states are co-operating on a truly continental scale.

During those 45 years of cultural co-operation in the framework of the Council of Europe, a number of important decisions, and of course changes in our societies, have also shaped the nature of the CDCC's activities.

#### **Agreement on IT Policy**

At their Second Summit in 1997 the Heads of State and Government of the Member States of the Council of Europe decided

'to seek common responses to the development of the new information technologies, based on the standards and values of the Council of Europe...'

and resolved

'to develop a European policy for the application of the new information technologies, with a view to ensuring respect for human rights and cultural diversity, fostering freedom of expression and information and maximising the educational and cultural potential of these technologies...'

#### **The NIT-project**

As a direct response to this mandate, the CDCC set up its New Information Technologies project (the NIT–project). The main responsibility for carrying out the project lies with the Culture Committee of the CDCC. The Education Committee and the Higher Education and Research Committee are also closely involved, being jointly responsible for one of the project's working strands.

The main objective of the project is, in the spirit of the Summit, to maximise the cultural and educational potential of new information technologies and to develop guidelines for cultural policy in the information society.

At meetings of cultural and audiovisual policy officials dealing with new information and communication technologies, there has often been a prevailing feeling of anxiety and uncertainty. This is because information and communication technologies and especially their perceived consequences tend to be regarded as something rather confusing.

Consequently, the first decision of principle of the NIT-project was not to try to chase the rapidly changing technologies themselves, but

to set out to develop policies maximising the added value of information and communication technologies (ICTs) in the field of culture.

Put in another way,

the starting point for us is not technology but the attainment of basic cultural policy objectives, which remain valid irrespective of any technological change.

Although there are many contributions to the debate on the information society emanating from a wide variety of organisations and institutions, rigorous analysis on the role and tasks of cultural policy in the emerging information society has been rare.

In order to build a solid foundation to the NIT-project, it was decided to apply two commonly used conceptual tools: the logic of convergence and value chain analysis. In addition, a tentative cultural policy assessment of broader societal transformations characterising the information society has been developed, especially concerning possible synergies between knowledge-based economy and cultural policy objectives.

#### **Emerging Assessments**

The main assessments developed within the NIT-project are as follows.

#### The logic of convergence

The phenomenon of convergence is touching not only the convergence industries, but also all information intensive sectors of society.

Increases in the number, type, versatility and transmission capacity of different distribution channels have been spectacular. Obviously, the telecommunications and broadcasting industries as well as the information technology industry want to maximise the profits that their facilities are capable of producing. That calls for provision of content and services to audiences. The constantly growing need for both existing and new content, and innovative services, is transforming cultural industries into strategic growth industries of the information society. Their economic importance and their capacity to create new jobs have increased correspondingly. These changes have brought core cultural policy areas 'in from the margins'.

#### Value chain analysis

Digitalisation affects all parts of the value chain of cultural creation, production, distribution and use. Although the effects of digitalisation are felt all along the value chain, they are most significant in the field of distribution. From the point of view of cultural industries, the ongoing digitalisation of the final analogue part of the broadcasting transmission chain, that of the link to the home, will mark the beginning of a new digital era. Responding to the opportunities offered by the digital era creates new challenges for all other parts of the value chain, too.

In relation to use, easy availability of a huge number of cultural, as well as other, products and services promises to enhance the fulfilment of citizens' cultural and information needs and to facilitate the acquisition by citizens of new skills and competencies.

Studying the logic of convergence and the value chain offers useful conceptual tools to evaluate the developments that may sometimes appear complex and confusing. Both suggest unambiguously that the slogan 'Content is King' clearly holds true in the digital era.

Now it is of critical importance to check the appropriateness of present cultural policy instruments in this new situation. It is the question of using information and communication technologies to the maximum benefit of culture and cultural industries and, consequently, to the benefit of the citizens.

In addition to analysing the conditions of cultural production and cultural industry, the following preliminary lines of thinking have been developed.

#### **Broader societal transformations**

The term 'Information Society', just like its predecessors 'Agricultural Society' and 'Industrial Society', first and foremost refer to the prevailing mode of economic production. The essence of the ongoing economic transformation is, consequently, the establishment of information as the fourth factor of production. While theories of the other factors of production are rather far removed from traditional cultural policy, the processes of information production and reproduction may represent an entirely different case.

As an example, maintaining public access systems like public libraries and archives is a traditional cultural policy concern. But in a society characterised by its reliance on information, they acquire a much more important role than before:

- Immaterial economy (i.e. intellectual and copyright industries) will be increasingly dependent, not so much on traditional factors of production, but on creative cultivation of our cultural heritage and all other immaterial resources.
- The creativity of individuals, the widest possible access to our information resources and their active reproduction accompanied with cultural diversity may well become decisive factors affecting competitiveness in the knowledge-based economy.

Following the same logic, there cannot be a genuine information society without public access to the largest possible amount of information and without effective reproduction and transfer of information and knowledge.

These considerations quite clearly point, on one hand, to the need to review present cultural policy measures and, on the other, to the possibility to rethink the role of cultural policy itself in the information society.

#### Working Strands

Six working strands have been identified and policy guidelines are being developed so as to respond to the challenges. The working strands are:

- 1. Cultural diversity and sustainable development;
- 2. Public access and freedom of expression;
- 3. Creation and creativity;
- 4. Training, qualifications and professional profiles;
- 5. Media literacy, creativity and young people and
- 6. New information technologies in education and higher education.

An attempt is being made to contribute to both the practical concerns of cultural industries and to the more general questions raised by the information society.

#### **The Question of Access**

On the face of it, providing access may seem almost like a technical question. However, as soon as one goes a little deeper, a wide array of different opportunities and challenges emerge, especially if one attempts to explore access from the point of view of the role of information in the information society.

The public access working strand has concentrated on two important aspects:

- preparing a guidelines on 'freedom of expression in networked information', and
- studying the appropriateness of present public access systems such as public libraries and archives in the digital era.

The guidelines seek to lay down ground rules for public access in cultural institutions so as to facilitate the access by individuals to networked information. Implicit in this whole exercise is the attempt to alleviate fears concerning illegal or allegedly harmful information in networks, which may lead to limiting what information can be accessed at public access points.

The text, which was submitted to the 'Public Access and Freedom of Expression' conference in Helsinki in June 1999 as a draft Charter, is no longer referred to as a 'Charter' but as 'Guidelines'. This is due to the need, expressed by professionals in the field, to have the text disseminated as soon as possible. Subsequently, the Culture Committee approved the text (with a few modifications) in October 1999 in the form of "guidelines".

#### Access Charging Concerns

I am not convinced that public access will automatically be expanded in the information society. Neither am I convinced that when most of our written cultural heritage has been digitised, it will be made available free of charge as it is today in public libraries. As more and more relevant information is being produced in the private sector and by companies, there are no certainties that the present public access systems can guarantee public access to such information.

In order to shed light on matters like these, the NIT-project is about to commission a series of articles aiming at raising the awareness of the issues at stake.

#### Conclusion

CDCC is seeking to maximise the cultural and educational potential of new information and communication technologies. The Council of Europe, through its various bodies and committees - all approaching the issue from their own specific point of views - is very much committed to fostering public access to information and universal service.

In addition to the immediate value of encouraging universal access at community level, there is a broader issue of access that we have been tackling. We need to demonstrate convincingly that public access to information has become a sine qua non for the development of a democratic information society.

In his background paper to the 'Public Access and Freedom of Expression' conference, Kai Ekholm offered this insightful idea:

'The classic Baconian statement that information is power is more accurate than ever, but, and this is the crucial thing, *only* when it is shared with others, effectively reproduced and transferred and used as part of personal, organisational or societal value chains.'



# **CHAPTER II**

# MEETING USER REQUIREMENTS



# Access to new communications and information services for all: the demands and expectations of users

Robert Harrison, Consumers' Association Research Centre, Milton Keynes, UK

#### Introduction

The Consumers' Association<sup>4</sup> has 800,000 members in the United Kingdom. It is effectively a charity, set up to research and test any consumer product or consumer service. We advise consumers so that they are empowered to choose the right product, at the right service level, with good value for money.

We are also an Internet service provider. This service is one which reflects our testing of consumer products. It runs consumer discussion groups and gives insight into what consumers, in the UK at least, feel about the Internet and its services. We published the most recent survey of our consumers and an edited version is available<sup>5</sup>.

The culture of 'zapping'<sup>6</sup> seems to be primarily a youth phenomenon, and it may turn out to be short-lived. From analysis of the feedback we get from our consumers in the Consumers' Association, 'zapping' to them implies lightweight material and inability to access the material you want. In a properly working system you would receive the information you want from the Internet; therefore, as with television, it would be unnecessary to zap. Therefore it may well be that the zapping culture does not exist because of a different type of thinking, but because of the inadequacies of the current system.

#### Future access: by TV not PC

In 1997, Tony Blair, the present Prime Minister of the UK said: "By 2002, 25% of all government information services will be available to the citizen through television, telephone and personal computer electronic communication".

This statement is not significant by the commitment it makes, as Canada, Australia and many other countries have already achieved the level of government information services that Blair wanted to make available to the citizen. What is important is the order in which the communication media are presented: television, telephone, and then personal computers. He rarely talks about convergence of these reception mediums.

The suggestion is that television at the moment merits the biggest investment to develop its potential to bring information into almost any household. Any household that has a television and a telephone will, within the next ten years, be capable of some of the larger ISDN<sup>7</sup> type communication links which are only available to businesses today. A typical television set top box or multimedia home platform, which has all the processing capabilities of the most advanced computers of the time, will probably by 2002, and certainly by 2010, have a digital

<sup>&</sup>lt;sup>4</sup> Consumers' Association Research Centre: <u>http://www.cartc.com</u>

<sup>&</sup>lt;sup>5</sup> Consumers' Association, Market Research Department, <u>Internet Monitor</u>, 1999

<sup>&</sup>lt;sup>6</sup> Mentioned in Bernard Vergnes' paper, below at p. 105.

<sup>&</sup>lt;sup>7</sup> ISDN: integrated services digital network – enhanced telephone service typically permitting data transmission at speeds of up to 128 kilobits per second.

pipeline of about 100 megabits per second and a return interactive pipeline of 10 or even 20 megabits per second.

This device is not very special or very expensive compared with the most advanced computers nowadays. It is a device which is going to be made in millions, and which will in fact be primarily designed to entertain in the household, and to control household communications on various levels of wireless link. It will be able to return information to the source for interactive communications adapted to 10 megabits per second or more. The device will come with a cable rental, which, given the kind of commercial competition which is around at the moment, will probably be roughly the cost of the subsidised PC which the Chancellor of the Exchequer was going to give to 100,000 households. It is possible that the money invested in these PCs might be better spent by subsidising those households to have access to digital television set top boxes.

In the UK at the moment, digital television is the biggest developing domestic application for high technology and communication electronics. One major manufacturer is making a million components a month for digital satellite television, and is about to start rolling out a million components a month for digital cable television. Both the satellite service provider and the digital cable service provider will provide Internet access in various forms, and will achieve very low return path costs by using a telephone network as part of their service.

With commercial competition, the actual cost of buying a bouquet of programmes and services is likely to be lower than the rental cost of current wired telephone lines, or the cost of a subsidised PC to a poor family. It is also worth noting that in the UK the majority of television programme service users are poor families. The use of television is spread very evenly amongst the income levels. This is also true in some parts of the Continent.

If people already have a telephone they have the ability in principle to access the Internet. The actual cost effectiveness of these systems given the current cost structure is quite interesting. The 'winners', if it is thought of as a race, are people who invest in digital cable television, as the multimedia home platform will potentially transmit at a hundred megabits per second with a return path at 10 megabits per second. A close second is the digital satellite TV multimedia home platform, transmitting at 15 megabits per second and with a return path of 56 kilobits per second. It has this relatively low capability because it has to use a telephone return path. However, the download pipeline is still a very wide bandwidth by normal telephone or connected PC standards.

This is followed by the digital terrestrial television multimedia home platform, which has a telephone return circuit: seven megabits per second plus 28.8 kilobits per second return path, possibly up to 56 kilobits per second. Interestingly, in Ireland, the return path is a wireless one and there is a possibility of a one megabit per second return path, which exceeds anything that can currently be done with a normal PC and non-ISDN phone line.

The runners to compete with that are synchronous digital lines on permanent wired circuits, and asymmetric subscriber digital lines. These can provide a multimedia home platform for near instant television viewing, as well as for Internet and PC purposes, with a 1.7 megabit per second input pipeline and a 300 kilobit per second return pipeline. Again, this is much better than the average PC on a wired telephone network, and better even than a PC with ISDN.

The losers are, of course, what we have been using to date, which has also been promoted heavily as the low cost solution for universal internet access - the PC plus a wired telephone network. This offers quite poor performance by comparison, and is not likely to improve at low cost. It is good to hear that in Portugal it was a priority to provide wide bandwidth pipelines.

#### Achieving access for all

If public resources are properly channelled, and commercial resources are encouraged by fiscal incentives, it would be possible today for everybody who buys equipment for television entertainment also to get access to the Internet. It is in principle already possible for anyone to access the Internet at a service level which is more than adequate to disseminate public services, educational services and other aspects of public information to any household.

It would be easy for the government to subsidise those households which are classified as poor. In terms of fiscal incentives, a good relationship between the government and the commercial operators which are rolling out these networks to the average household would be important. Subsidies could be applied to profits using tax concessions, or to rentals for those households which cannot afford full subscription rates. The advantage to the commercial operator is that he has a bigger user base. This means more advertising revenue and more access to other revenues. Since every household is likely to own a television, such co-operation between government and commercial operators looks like a more effective approach than subsidising PCs in an arbitrary way for a network which, from our observations in the UK, we feel is already over-stretched.

Our feedback at the moment indicates that the 'zapping' mentality is overloading the Internet. Suppose you tried to construct a paper on a technical topic and draw your resources only from the Internet. If you work in a company where you have high speed access to the Internet, this would be easy, but for domestic users at home with standard Internet access via a modem it would be a totally different thing. One thing that feedback from our consumers shows is the importance of the time aspect of using the Internet, especially for an individual without the resources of a company behind him. The Internet is, at the moment, quite an inefficient way of actually channelling and assembling information, and it is becoming more inefficient.

#### Walled gardens

For any public information dissemination, it is important to use a 'walled garden' philosophy. In England walled gardens are usually rose gardens, places where you can relax and nothing will offend you. The walled garden philosophy means that the service provider, for example the cable company or the satellite company, will give you an access to selected Internet sites of your choice and will guarantee that you get them quickly without any problems. It is possible to go out into the wider world of the Internet, but the system will not necessarily be designed to make the best use of it, with access being slower than an equivalent PC.

The great advantage of a walled garden to the average user of the Internet will be that access is quick, guaranteed and safe where children are involved. Public and local authority information will always be there, and there will always be a school Intranet which uses the Internet for educational purposes, for example to co-ordinate students' homework and to update teachers on teaching techniques. All of that can be within a walled garden provided by a service provider whose main function is to provide television advertising and entertainment service.

These ideas may sound far fetched, but most UK service providers who are involved in communication to the home expect to offer such services at some point. It would be much better for government resources to be channelled into making the best use of that for public access, than into providing 100,000 computers to poor homes who are not likely to be able to make much use of the Internet in its present form because of the difficulty of co-ordinating information. The Internet is not for 'zappers'; it should be something you can use to access information in a properly co-ordinated format at sites which give you that information in the order you require, very efficiently.

#### **Demands and expectations of users**

We move on now to the demands and expectations of users, most of which will be met by the digital cable, digital satellite and other technologies we have been discussing.

The **man-machine interface** should be a consistent mechanical design. It should avoid design fashions such as those which appear in PCs and software in order to sell them. An intelligent adaptable user interface would encode user requirements.

Why should a set top box or a multimedia home platform do that better than a PC? The reason is that it is designed around an open language and it has a virtual machine translating that language to the user. It is reverse compatible, in other words any development in software will still be usable to a certain extent on earlier machines. The whole concept of designing the multimedia home communications platform initially for television and other entertainment means that it will be in advance of the PC. Software updates come automatically from the service provider, free, in a device which can interpret them to suit the user's habitual preferences.

A lot of effort is being put into **standardised interfaces** and buses. Because of the amount of money being spent on developing these multimedia home platforms, various bodies worldwide have jointly put together an unprecedented level of standards. These ensure that all developments of these devices will interface with existing equipment and will continue to interface with each other. Developments are guaranteed to be interoperable, backwards compatible and complementary. This means that your box should achieve its normal 8 or 10 year life-span despite radical technical change.

Also, **security** is harmonised in encryption standards which should apply to any networking information. All of these things are basic "cris du coeur" from our consumers.

**Design for all** was mentioned earlier, and I do not feel I need to add anything to that exposition: anything must be accessible to all users, whether or not they have full mental or physical ability. We are seeing less and less error tolerance in current PCs because of the dexterity of the users. There is a whole group of people going into early retirement who must have access to communication networks. The devices should be able to deal with their inability or lack of training on modern PCs.

**Cost transparency** in electronic commerce is absolutely essential. This is something which may need to be addressed at a legislative level. Full information on goods and services and

their prices must be provided. That seems an obvious statement but it is surprising, especially with the current explosion in e-commerce in the UK, how confused consumers are about the exact conditions on which they are buying goods and services.

'Pay-per-view' services and some others will demand some form of payment. Another consumer priority is the inadequacy of current **systems of payment**. The answer must be developing smart cards, which call for clear thinking to achieve sound legislation and common standards. There should be a standard card that can be used at all public and private access points for all purposes, whether for information, for access, for money or for anything else. The consumer must have full access to any information contained on the card. He must also be aware of any transaction costs entailed when using his card, and these costs must be minimised. Security and privacy are essential, and backup of data is imperative, when the smart card becomes such an important part of life.

#### Conclusion

The current UK position paper shows that email is still the principal use of the Internet. But in future the walled garden concept will be the key to access for all. It will mean quick, efficient use of the Internet. And for the majority access will, in our opinion, be "lean back", not "lean forward" as for the PC. It will be people sitting in their armchairs with wireless and infrared links which can access a very complex set of Internet information with hardly any problem, and certainly with no requirements for elaborate knowledge of PC programmes and PC technology.

# Technical aspects of access for all: the Web Accessibility Initiative

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"The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect."

- Tim Berners-Lee, W3C Director and inventor of the World Wide Web

#### Background

Millions of people use the Web daily for services related to their professional and personal interests. The Web provides information on every topic; it provides a vehicle for civic participation, commercial transactions, and education. It gives people access to world news, employment opportunities, and each other. Yet for many people with disabilities, it is currently difficult or impossible to access the Web.

As the Web rapidly displaces existing media, there is an increasing social expectation for its accessibility, and also a growing trend to require accessibility. This, combined with the realisation of the benefits that a Design for All approach can bring to the Web at large (for instance, to mobile phone users with limited display screens), led the World Wide Web Consortium (W3C) to take the lead and launch the Web Accessibility Initiative (WAI) program in 1997.

#### What is W3C?

W3C is an international vendor-neutral consortium which:

- develops technologies to promote the interoperability and evolution of the Web;
- hosts the Web Accessibility Initiative (WAI);
- co-ordinates the development of core Web protocols and data formats: HTML, XML, CSS, SMIL, etc;
- provides a setting where WAI can bring together industry, disability organisations, accessibility researchers and government representatives to explore accessibility requirements and develop accessibility solutions;
- focuses on making the Web accessible to existing and potential Web users who have disabilities.

W3C's credibility further assists in ensuring the successful promotion of WAI guidelines, tools and educational materials to a variety of audiences, including browser and authoring tool manufacturers and site developers.

#### **Current Access Problems**

The accessibility of the Web is worsening, due to increasing use of multimedia and advanced Web technologies, while awareness of the need for Web accessibility is only gradually increasing. Web accessibility barriers exist for many kinds of disabilities:

- People who are deaf do not have access to multimedia or audio events that do not contain captioning.
- People who are blind or who have low vision encounter barriers due to the Web's predominantly graphical interface, its graphic-based content, and any Web protocol or application that cannot easily be rendered or accessed using audio, Braille, large text or synthetic voice.
- People with physical disabilities have difficulty using browsers and authoring tools without full keyboard support, and may have difficulty using forms or frames that are not marked-up properly.
- People with cognitive or neurological disabilities may have difficulty interpreting Web pages that lack a consistent navigation structure or that lack visual signposts.

Over the past two years, WAI has developed guidelines and technical reference documents which have achieved international recognition. Awareness of WAI guidelines is spreading in both the public and private sectors. Emerging policy requirements for Web accessibility in various countries, combined with education and outreach efforts of WAI and collaborating organisations, should spur this awareness onward.

#### **Design for All**

In addition to policy requirements for Web accessibility, many organisations have expressed interest in the carry-over benefits of accessibility for other users. Even those without disabilities benefit from many changes motivated by the needs of people with disabilities.

When driving a car, for example, a driver may wish to browse the Web for information using a voice-based interface similar to that used by someone who is blind.

This is sometimes referred to as "Design for All," or the curb-cut effect, where an accessibility-driven design such as a mini-ramp in a sidewalk curb allows easier passage for wheelchair users but is also favoured by people pushing baby strollers, riding bikes, pulling luggage on wheels, etc.

In particular, the mobile phone industry has expressed interest in the contributions of Web accessibility to greater usability for all.

WAI's approach to improving accessibility of the Web is based on the realisation that several different things have to be done to reach the goal of Web accessibility. WAI is therefore organised to pursue accessibility of the Web through five complementary areas of work:

- 1. Ensure that Web technologies support accessibility
- 2. Develop guidelines for accessibility
- 3. Develop tools to evaluate and facilitate accessibility
- 4. Conduct education and outreach to promote awareness and implementation of accessibility solutions
- 5. Monitor and engage in research and development to promote future accessibility of the Web.

In order to meet the requirement of 'globality' of Web Accessibility, W3C combines its own membership funds with those of various industries and governments in the creation of a WAI International Program Office. This office is funded:

- through a co-operative agreement with the US National Science Foundation, which includes funds from the US Department of Education's National Institute of Disability and Rehabilitation Research;
- through the European Commission Telematics Applications Programme for Disabled and Elderly;
- from the Government of Canada's Industry Canada;
- from industry sponsors including IBM/Lotus, Microsoft and Bell Atlantic; and contributors including NCR, WinWriters and the Massachusetts Association for the Blind.

# W3C Work to Make Technology Useable

One of the first tasks of the WAI, and the reason why hosting it at W3C was so important, is to ensure that the foundation technologies of the Web enable its accessibility. It has a Protocols and Formats Working Group (PFWG) which:

- maintains liaison with over twenty W3C Working Groups;
- reviews and comments on charters, requirements documents, working drafts, last call drafts, and proposed Recommendations of these W3C groups, to identify WAI dependencies and assist in resolving accessibility requirements.

During the past year, WAI has reviewed and commented on the following W3C activities and specifications, with outcomes as described.

• Mobile Access Interest Group. The group has co-ordinated to ensure draft Mobile Guidelines harmonised with Web Content Accessibility Guidelines. As a result a separate set of mobile guidelines was considered unnecessary for the time being.

- Internationalisation: It has ensured that grids used in Asian language layout would be usable for Braille in Internationalisation Layout.
- XML (Extensible Markup Language): It has produced draft XML accessibility guidelines and developed requirements for schema functionalities.
- SVG (Scalable Vector Graphics): The draft specification currently incorporates strategies enabling long and short textual descriptions of graphical elements of a drawing. Support of CSS2 will enable user control over visual presentation; scalability will allow user control over size of rendering.
- XHTML (Extensible HTML): It has ensured better basic table and form modules. (See also the Accessibility improvements in HTML 4.0 note.)
- E-Commerce: It has ensured that alternative text is required for links activating payments.
- XSL/FO (Extensible Stylesheet Language/Formatting Object): It has ensured that formatting objects will include XML source access. (See also the Accessibility improvements in CSS2.0.)
- WCA (Web Characterization Activity): It has expanded and clarified glossary entries regarding user agents, authoring tools, link selection and visually-oriented interfaces.
- DOM2 (Document Object Model, level two): It included a built-in iterator that runs through all elements in the document and facilitates interface with assistive technology applications.
- SMIL2 (Synchronized Multimedia Integration Language version 2): This resolves conflict between captions and overdubs. (See also the Accessibility improvements in SMIL1.0.)

#### Working Groups

The best way to understand WAI's activities is to look in turn at its various working groups.

# Web Content Guidelines Working Group

The Web Content Guidelines Working Group (GLWG) has undertaken the following work.

- It completed 'Web Content Accessibility Guidelines 1.0' (WCAG 1.0). This focuses on accessibility of Web sites for people with disabilities. W3C issued this as a Recommendation in May 1999, indicating that the document has been reviewed by W3C Members and other interested parties and endorsed by the W3C Director, and is stable and may be used as reference material or cited as a normative reference from other documents.
- It issued a W3C Note, 'Techniques for Web Content Accessibility Guidelines 1.0.' This technical reference note provides a detailed explanation of how to implement WCAG 1.0, for instance giving mark-up examples for most checkpoints in the guidelines.

By November 1999 WCAG 1.0 had been referenced as a compliance approach for Web site accessibility by:

- the Electronic and Information Technology Access Advisory Committee of the U.S. Access Board in their report on Section 508 compliance by Federal agencies;
- the U.S. Department of Justice's self-evaluation tool for Section 508 compliance;
- the Texas Education Agency's report on accessibility of electronic curricula; and
- governments in Canada, Australia, France and Portugal.

Several additional governments are currently considering policies referencing WCAG 1.0 as the compliance mechanism for Web site accessibility. An increasing number of companies are adopting policies requiring their Web sites to comply with various levels of WCAG 1.0.

In June 1999, WAI received an 'Excellence in Access: Access Advancement Award' from the Association of Access Engineering Specialists for the Web Content Accessibility Guidelines. The guidelines have also received significant press coverage, and are being translated into a number of different languages.

#### Authoring Tool Guidelines Working Group

The Authoring Tool Guidelines Working Group published several working drafts of the Authoring Tool Accessibility Guidelines in the past 12 months. In February 2000, they became a W3C Recommendation. These guidelines address the broad range of tools used to create Web content, ranging from text and WYSIWYG editors to conversion tools, database generators, image editors, site management tools, etc. The primary focus of these guidelines is to ensure that authoring tools support the creation of accessible Web content.

This working group is also developing a Techniques for Authoring Tool Accessibility Guidelines document providing implementation detail and implementation examples.

#### User Agent Guidelines Working Group

The User Agent Guidelines Working Group (UAWG) published several working drafts of the User Agent Accessibility Guidelines as well. These guidelines should become a Recommendation in May 2000.

The Working Group is focusing on two types of user agents:

- graphical user interface "desktop" browsers, and
- assistive technologies such as screen readers or voice recognition that are used in conjunction with graphical desktop browsers.

The guidelines also include information useful for text browsers, voice browsers, and multimedia players, but do not currently address those types of user agents comprehensively.

### Evaluation and Repair Tools Interest Group and Working Group

The work of this Group includes development of:

- prototype tools to facilitate Web access, and is currently reviewing 'Web Content Accessibility Guidelines 1.0' to determine which checkpoints are machine-testable, and to resolve questions on interpretation of checkpoints where it may affect testability;
- a working draft of 'Techniques For Evaluation And Implementation Of Web Content Accessibility Guidelines' which recommends machine-specific testing protocols for WCAG 1.0 checkpoints;
- a reporting tool for manual review of Web site accessibility;
- a table linearizer for use by people whose screen readers do not support unwrapping of table mark-up;
- an exploratory description of techniques to be used by tools extrapolating text-equivalents from HTML context; and
- a reference list of evaluation, repair, and proxy tools

#### Education and Outreach Working Group

The Education and Outreach Working Group (EOWG) develops strategies and materials to increase awareness in the Web community of the need for Web accessibility, and to educate the Web community regarding solutions to Web accessibility. These include:

- a broad range of deliverables and activities, including promotional pieces such as flyers;
- general reference materials;
- technical reference materials on accessibility aspects of W3C specifications;
- curricula and on-line instructional materials;
- demonstration materials;
- training programs; and
- co-ordination of training events.

As with other areas of WAI work, this Working Group relies heavily on time and resources contributed by organisations and individuals from a number of countries.

Materials completed so far include:

Deliverables plan Events calendar Quick tips Policy references Accessibility features of CSS (W3C Note) Alternative browser reference links WCAG FAQ (Web Content Accessibility Guidelines "frequently asked questions") Accessibility features of SMIL WCAG curriculum WAI materials translation co-ordination page Video on WAI On-line presentation with overview of WAI

In addition to developing re-usable materials for WAI outreach and education, the Working Group also exchanges information and strategies on outreach approaches used with different audiences and in different countries.

In 1999, WAI domain staff gave 33 presentations in 13 countries. In addition, many WAI participants of the Working Group have given presentations using WAI materials.

# WAI International Program Office

The WAI International Program Office (IPO) provides overall co-ordination of WAI activities, including facilitating multi-stakeholder (industry, disability, research, government) participation in the WAI Technical Activity (technology, guidelines, and tool work areas). It maintains an Interest Group, with about 330 subscribers and high traffic.

Discussion includes priorities and solutions for Web accessibility, and reviews of WAI documents. The WAI IG home page includes archives of WAI IG Updates starting from September 1998, and links to all WAI working groups.

#### Conclusion

WAI's work so far has created a strong foundation of activities and resources, with participation from hundreds of organisations and individuals across the various WAI groups. During 2000, WAI will continue to promote awareness and implementation of WAI resources, particularly WCAG 1.0, and expand WAI's technical work. It will also need to start moving the Web Content Accessibility Guidelines towards the next generation of Web development.

Activities during 2000 will also continue to emphasise bridging of different stakeholder communities (industry, disability, access research, government) toward identification of user and developer requirements, and development of common solutions.

### **Publications**<sup>8</sup>

#### W3C Recommendations, Notes, Working Drafts, Press Releases:

Web Content Accessibility Guidelines 1.0.

This document is already translated in several European languages: French version, German Translation, Norwegian translation, Swedish translation. Additional translations in Danish, Dutch, Portuguese and Spanish are under development and close to being finished (see http://www.w3.org/TR/WCAG).
User Agent Accessibility Guidelines (see http://www.w3.org/TR/UAAG)
Authoring Tool Accessibility Guidelines (see http://www.w3.org/TR/ATAG)
Accessibility Features of CSS 2.0
Accessibility Features of SMIL 1.0
Accessibility Features of HTML 4.0
W3C Releases Web Content Accessibility Guidelines:

release, testimony, fact sheet

Press release on WAI IPO launch

Press release on Page Author Guidelines working draft

Press release on User Agent Guidelines working draft

#### **Resource and Reference Pages**

WAI home page

WAI groups: WAI Interest Group, Protocols & Formats Review, Web Content Guidelines, User Agent Guidelines, Authoring Tool Guidelines, Education & Outreach, Evaluation & Repair Group.
Quick Tips (also in vinyl business-card sized reference cards)
Policy Reference Links
WCAG Curriculum
WCAG logo pages
Alternative Browser Links
Events Calendar
Demonstration of accessible site conversion

#### Tools

Reporting tool Table linearizer Text-equivalence Note Techniques for Evaluation and Implementation of Web Content Accessibility Guidelines

<sup>&</sup>lt;sup>8</sup> See <u>http://www.w3.org/WAI</u>

# Routes to inclusion in the Information Society: the contribution of e-gateways

Sonia Liff and Peter Watts, Warwick Business School, Warwick University and Fred Steward, Aston Business School, Aston University, UK<sup>9</sup> (edited by Claire Milne for inclusion in this volume)

In March 2000 the European Council held in Lisbon endorsed the eEurope initiative which aims to bring 'every citizen, home and school, every business and administration online and into the digital age'. This was seen as a key requirement to allow Europe to become a leader in the new economy and that this occurs in a way which is socially inclusive. In the new economy it is anticipated that access to goods, services and information, to say nothing of employment and ways of communicating, is increasingly dependent on one's ability to use information technology and the internet.

To realise this vision it is recognised that people must learn how, and want, to use the internet and the new services available. For young people this is expected to occur through the education system but for adults the expectation seems to be that a combination of cheaper and quicker internet access, a greater diversity of access devices (particularly set top boxes for TV and new generation mobile phones), and a more attractive range of e-commerce provision will together provide the necessary stimulus. However there are reasons for doubting whether such a scenario is plausible in the short or even medium term. Universal high speed internet access looks unlikely in rural areas or on inner city estates. The extent of functionality on new access devices is not yet clear and meanwhile the cost of computers, modems, links to an internet service provider and / or telephone charges remains a substantial investment for many. The effective use of technology also requires appropriate skills, knowhow and information services in addition to access itself.

In this context fears have been expressed about the creation of a group of 'information poor': that section of the population excluded from the information society. Such social exclusion is not simply a consequence of lack of money. It may also occur because of an absence of training and other support networks to learn about the potential of the technology and to provide a context in which people feel comfortable using it. It can also come about from an absence of services tailored to the needs of particular groups or to the ways in which they want to access information. As with other areas of social exclusion the consequences are not just a lack of material goods but an impoverishment of a range of social interactions normally associated with being a member of a community and a citizen.

#### **New Types of Public Access Facilities**

The dominant individualised notion of universal infrastructural provision with households choosing what services and facilities to purchase or subscribe to can be contrasted with a

<sup>&</sup>lt;sup>9</sup> This chapter draws on research carried out as part of a project entitled 'Gateways to the Virtual Society: Innovation for Social Inclusion' carried out by the authors. The research was funded by the UK Economic and Social Research Council (grant no. L132251022) as part of the Virtual Society? research programme. Details of the programme are available from www.virtualsociety.org.uk

public sector model with institutions providing access and training. Increasingly traditional sites of learning and information provision such as schools, colleges and libraries are seeking to fill this role for adults as well as children. Useful as these provisions undoubtedly are there must be questions about their ability to attract those who are not already strongly motivated to learn or those for whom such facilities have negative associations because of past failures or lack of familiarity. A different approach is evident in the emergence of new types of innovative organisation. These seek to fill the gap between the wider public and private responses to the problem of providing public access to computers and the Internet. Two of the most prominent of these organisational innovations are known in the UK as cybercafes and telecottages. There is no firm definition of either but cybercafes tend to be found in urban settings, are likely to be private sector operations, and to provide computer and Internet access on a commercial basis alongside café or restaurant provisions. In contrast telecottages are more likely to be in rural locations, may be run on a voluntary sector basis often with public support, and may offer subsidised training and access linked to community facilities.

# Why e-Gateways?

We have used the term *e-gateways* for telecottages, cyber cafes and similar organisations to highlight their common role in supporting access to the information society in a social place different from work or home. Like the technology whose use they are supporting, these organisations cross the traditional boundaries between learning, information retrieval, and communication. Organisations which focus on only one of these aspects risk missing the breadth and significance of the information society. The hybrid names cyber-café, telecottage and electronic village hall also show their role in bridging between familiar social locations and the virtual world.

The provision of access to technology is important for many. However these organisations go beyond what could be achieved by unstaffed kiosks. They provide an environment that addresses motivation, fear, and the need to learn new social and creative skills as well as technical ones. Learning the potentialities of the information and communication technology may be a bigger barrier for new users than lack of technical access.

Little is known about the ability of these types of organisation to support public access: for example how extensively are they used, by whom, and for what purposes. Nor is it clear the extent to which those running these facilities see extending access as part of their objectives and, if so, how they think this can best be achieved. To begin to answer these questions a tripartite research initiative has been undertaken:

- A database has been compiled of over 300 e-gateways in the UK, and in 1998 a survey was carried out which brought in replies from 148 of these.
- More in-depth studies were made of different kinds of e-gateways around the UK. Detailed case study research included interviews with staff, observation of the site, discussions with clients and funders, and analysis of completed questionnaires from around 300 users and 200 non-users of gateway sites. In addition short visits were paid to many more sites than could be studied in depth.

• Field trips took place to the Los Angeles area in the USA and to Finland. In both locations a wide range of sites providing public internet access were visited, including community projects and libraries.

Some detailed findings from the UK parts of the study are supplied as an annex to this paper. The following discussion and provisional conclusions have been shaped by our research taken as a whole, with the international comparisons proving especially valuable.

In brief summary, we argue that the government strategy for access and social inclusion should positively embrace those innovative e-gateways through policies for appropriate resourcing, partnership with colleges and libraries, and diffusion of entrepreneurial knowhow.

Overall, the research findings support the view that increased access to technology in the home or elsewhere will not diminish the need for this type of provision.

#### **Routes to Inclusion**

The research identified a number of innovative features shared by many e-gateways which are important for supporting inclusion.

- A social means of attracting and involving new users. The provision of IT and internet access in an unexpected social place, such as a café or community centre, means that people who have just come in for a coffee or advice may see a computer and get curious about what it can do. They don't need to sign up for a course, have a specific reason for using it, or have even thought that they were interested in the internet. In other cases people are drawn in through the strong links which an organisation has through the individuals who work there, management committees, or shared locations to other groups in the wider community.
- ➤ A significant role for social entrepreneurship. E-gateways may be run as small businesses or within the voluntary sector. In either case they tend to be run by people who have an enthusiasm for the use of computers and the internet, but are also close enough to their users to understand their anxieties and to know how to put people at their ease. This helps to realise their strong commitment to extending access to new users.
- ➤ A new mode of participatory learning. E-gateways provide a supportive and stimulating social context in which people can experiment with new technologies, experience their potential and learn. They recognise that becoming a confident user involves people trying things out, sharing problems and seeing what other people are doing, as much as it does formal training.

Nevertheless there are important differences between different types of e-gateways. Distinctions are often made in terms of principal activities – such as a focus on work, training or community activity. This research suggests it is more useful to contrast different modes of engaging users.

#### **Shop Front E-Gateways**

These e-gateways tend to be prominently located, and aim to serve passers by or those who have come to the site for a specific service. The people who use them may not have much in common with each other. Internet cafes most obviously fit this model. Success rests on the creation of a new network of users focused on the organisation.

There are different types of shop front facilities. One major distinction is whether they promote themselves primarily as a place to access IT or primarily in terms of the café or other services they offer. McNulty's Internet Café in Newcastle, for example, has a café focus with many customers just coming in for coffee. New users may find such places relatively easy to enter since they can come in and see what's happening without any commitment to use the computers. Places with a more obvious IT culture, such as Quarks Internet Café in Guildford may seem more intimidating to new users initially. But they can be associated with a stronger social culture linking individual users.

Another difference is how much help users can expect. In some places the computers are just one of several available services and people are expected to know how to use the equipment. Consequently such places are likely to attract experienced users primarily. In others basic help is available, but this is likely to be very time limited, either from financial considerations or through conflicting commitments. Anyone needing more help will probably be referred to a training course.

There are some shop front gateways where very high levels of one-to-one help and support are available. This is not usually in the form of a pre-defined training course, but rather the amount and style of help given is tailored to the needs and interests of the individual involved. Tea House on the Net in Anaheim, near Los Angeles took this approach. In the UK our survey of users of e-gateways showed that staff support was highly valued. However it is an expensive provision which, if provided, needs to be covered either by the user, through subsidies, or absorbed by the gateway in terms of lower wages or profitability.

#### **Community E-Gateways**

A different model is where e-gateways aim to attract those from a particular community, predefined according to geography, ethnicity, age etc. A successful gateway will have a range of links to this community and so users can be targeted directly. These sites rely on users who already know what they do and feel comfortable about entering, and so are often in less obvious locations than the shop front varieties. Some of the buildings contrast starkly with pictures of shop front facilities. Success draws on existing networks of relationships with members of a community.

As with the shop front gateways some of the community gateways are more IT focused than others. In some the IT is just one part of a wider facility, computer access being seen as a tool which can help to achieve broader goals. In two UK examples, Project Cosmic in Ottery St Mary Devon and Castle Douglas Community IT centre in SW Scotland, there is a greater focus on the computer provision in the form of a separate organisation, although both share premises with other community facilities. In either case people will probably come and use the facilities because they feel part of the specified community, and share certain social goals with the organisers and other users. In the Los Angeles examples of Cyberhood and Breakaway these strong social ties allowed them to attract people in areas affected by exceptionally severe problems of social exclusion.

Community gateway users are more likely to be involved in formal training than in using the facilities for non-specific access. This distinguishes them sharply from those using shop front gateway. Teaching may be delivered to a group - although usually with everyone having a computer and opportunities for practice - or can be in the form of supported self learning,

where people work at their own pace from computer-based or printed courses, with a trainer available to answer questions.

#### Which Route to e-inclusion?

The two main approaches identified – the shop front and community gateways have their different strengths in terms of e-inclusion. Awareness of the difference and a clear positioning is likely to be important to ensure a successful start up. Beyond that there may be aspects that each could usefully learn from the other to build on their current approach to attracting users. This could allow both to attract a wider range of users than they do currently.

Similarly the distinctiveness of the e-gateways lies in the provision of IT access in a social context. In the light of this the key issue is not whether, say, the café part is dominant or the IT part (although it will make a difference to forms of inclusion). More important to maintaining the advantages of this type of organisation for e-inclusion is that neither activity becomes too marginalised.

#### **Approaches to Training and Learning**

Different approaches to training were being used successfully in various locations. Each has its enthusiasts and arguments can be made to support its value. The difference between approaches in community and shop front e-gateways is largely a result of funding requirements rather than differing assessments of the approaches.

More significant findings related to how people felt they learned and what helped them to do this. Over half of all users surveyed in the sample of UK e-gateways (most of whom had not attended courses) said that their visits had increased their knowledge of and ability to use computers and that they felt more positive about their ability to learn. Sixty-four per cent attributed this to help from staff and 61% to a relaxed atmosphere. Nearly half the users mentioned the opportunity to learn at their own pace. For a third of users the opportunity to use equipment to which they had no other access was also an important element supporting learning. Most had a positive attitude to IT before visiting the gateway, nevertheless a majority felt more positive as a result of their visits.

This emphasises the importance of 'learning by doing', and individual mentoring. There is a fuzzy boundary between 'learners' and 'users' with competence seen as relative and not absolute. It stresses the importance of staff providing support on a continuing basis and the significance of the social context provided by the gateway organisation as an aid to learning.

#### What sort of Inclusion in the Information Society?

E-gateways span the boundaries between the conventionally separate spheres of work, education and leisure. They emphasise the role of the individual as an interactive citizen rather than simply a consumer. Some are beginning to encourage individuals and groups to be content creators as well as users.

Communication is the major form which virtual participation takes and one which fits well with the social context of e-gateways. This takes a variety of forms including e-mail, bulletin

boards and chat rooms. It can be a way of keeping in touch with friends or family or of making new contacts based on communities of interest.

Both shop front and community gateways used their web sites to guide users to areas which they thought would interest them. These often included local information but could also be more broadly focused on issues seen as relevant to their users - e.g. youth sites, or even just favourites of the people working there. This is an important dimension of access. It is a way in which gateways are giving their users at least some initial signposts into information and services available on the internet.

Some gateways go further and create information on their local communities and show groups and individuals how to create their own sites. Neighbourhood Knowledge for Los Angeles helps communities identify areas which are in danger of urban decay by organising available financial and housing data. Project Cosmic in Devon works with voluntary groups and small businesses to create web sites and hosts them on a common site with other local information. Breakaway in Los Angeles brought together members of the voluntary sector for training and web development courses at the end of which a group of web sites were launched. These sites show evidence of considerable work and creativity.

Despite this initial enthusiasm many of these web sites do not appear to be maintained actively. This suggests that people may need on-going support after the initial training to maintain a live web presence. A Finnish project, Locality in the Global Net, worked with a community to create local web content in a way analogous to a local newspaper. This may be a more sustainable approach but finding funding may also be more difficult than for a one off training session.

#### From Start up to Sustainability

Current policy measures are poorly suited to fostering the sustainability of e-gateways. Innovative approaches are needed to facilitate learning and diffusion of their novel socially inclusive characteristics through partnerships with public sector organisations such as schools and libraries and through network and capacity building at a national and local level. Rigid boundaries between public and private initiatives and between the remits of different government departments inhibit these developments.

Differences in approaches to funding means that shop front and community gateways tend to reach sustainability crises at different points in their life cycles. The provision of access does not seem to be commercially viable on its own. Shop front organisations tended to have either a non-IT income stream such as an independently successful café or additional IT-related business such as web design, business consultancy / training or being an ISP. After an initial period of public funding community gateways may move to teleworking and business support or to a reliance on training activities in an attempt to become self-financing.

Each of our major types had its own inherent "route to market" – either the shop front, capable of attracting passers-by, or an existing community base. Ventures lacking both of these would need to develop alternative means of making their existence known and attracting users, and would naturally incur additional costs in doing so.

For both our types of e-gateways these combinations of activities developed in pursuit of sustainability require choices to be made about the allocation of equipment and staff. This

may compromise their non-directive public access role. Virtually all gateways had a strong commitment to extending access to new users. However government schemes which aim to widen access or deliver public services electronically tend not to recognise the role that such organisations could play or expect them to provide it without any public support. E-gateways deserve a more prominent role in government policy to promote e-inclusion.

Active links between those running e-gateways were limited, particularly between shop front organisations. Access to relevant technical and management training was often also limited. This adds to the difficulties of creating sustainable organisations, building up the skills of others in the organisation and providing support to those setting up new ventures. This is likely to compromise the sustainability of the sector as a whole. In the USA there has been significant national funding for CTCNet an organisation which supports community technology centres (community e-gateways). There are also US examples of funding for sustainability from the private sector. The Computers in our Future project in California, funded by the California Wellness Foundation, supports shared organisational assistance as well as centres themselves. This project also provides funds for Compumentor, a not for profit organisation, which supports the access centres by providing volunteers with technical expertise for community projects.

# **Key Points**

- Diversity and innovation are needed for broad social inclusion. The variety of types of egateway support different routes to inclusion. These approaches are likely to attract different sections of the population and the continuing plurality of approaches is likely to ensure the widest range of users.
- Social inclusion is not just about access to hardware. It involves learning a range of new skills in a social context. Many users can and do access computers in other locations. They use e-gateways not just for the availability of equipment. They also value the social environment and the support they get from staff and other users. This questions the value of attempting to extend access via unstaffed kiosk provisions.
- Learning does not stop once one has completed a training course. Knowledge about, and ability to use, computers also develops through use. The experience of visiting e-gatways makes users more positive about their own skills and about IT in general. Funding regimes need to find ways to recognise and value this area of activity.
- E-citizenship and e-creativity are important goals for these organisations E-gateways do not only teach people how to use a computer or the internet. They also provide guides to web sites and may help people create their own web presence. However users seem to need more help than is currently available to maintain an active web presence.
- ➤ The skills of social entrepreneurship associated with e-gateways need to be nurtured, enhanced and diffused. There is scope for public policy to assist the building of collaborative learning networks to this end.
- There is a need to provide support for those running successful e-gateways to develop their own skills and those of their staff and to share experiences with others developing similar initiatives. There is also scope to provide pooled services to groups of gateways.

#### **Detailed research findings**

#### The survey

The research attempted to create a comprehensive list of cybercafes and telecottages operating in the UK at the time of the research (1998/9) and to gather data on the their facilities, users and approach. A survey using e-mail and where necessary telephone or fax, was carried out of all facilities identified in Spring 1998. The sites were identified via membership of associations or appearance on particular web sites.<sup>10</sup> As such organisations were self identified as of one type or the other and in part the survey provided a basis for telling whether such organisations are distinctive in practice. This part of the research preceded the development of the shop front / community e-gateway classification described in the main part of the chapter. Some of the organisations initially identified were no longer in existence or were not yet operating.<sup>11</sup> These were removed from the list leaving 90 cybercafes and 146 telecottages. Of these 62 responses were received from cybercafes (69% rate) and 86 from telecottages (59% response rate). The questionnaire was directed to those running the facilities but requested information about both the facilities offered and those who used it.

# Cybercafes and Telecottages are committed to encouraging new users of computers and the Internet

The vast majority (around 90%) of those running both types of organisation said that their goal included providing access to information and communications technologies to new users. This included providing the necessary training and support. Both were more orientated towards individual users rather than business use and telecottages were more likely to stress that their provision was orientated towards people who lived locally. They had different ideas about what would attract such people. Telecottages most commonly said that the availability of equipment and facilities to which users would not otherwise have access was their main attraction to new users. In contrast cybercafes were more likely to stress their management style and their ability to create a distinctive and attractive environment.

Only a minority of cybercafes and telecottages (around 30%) set out to attract specific groups of users. Of those that did target it was not necessarily towards the groups over whom concerns about exclusion have been expressed. For example, a number of cybercafes specifically mentioned young people - a group less usually seen as having problems learning about computers but for whom access may still be difficult. Telecottages were most likely to mention businesses and business users, although job seekers were also referred to. This finding probably needs to be seen in terms of the rural location of most telecottages where the owners of small businesses, including shops, which are a key part of the local economy, may

<sup>&</sup>lt;sup>10</sup> Telecottages were identified from the websites of the Telecottage Association, the Telefythnnod Cymru, the Scheme for Introducing Modern Technology into Rural Areas (SIMTRA), and the Rural Area Training Information Opportunities (RATIO). Cybercafes were identified from lists published by Cyberia and the Cyber Café search engine.

<sup>&</sup>lt;sup>11</sup> It is clear that there is a fairly high turnover among such organisations, as indeed there is among any group of small businesses. However it is not possible to identify this accurately since the proportion of those appearing on lists but no longer in operation is in part a function of how frequently and effectively the lists are updated. Around 17% of the cybercafes and 28% of the telecottages originally identified were no longer, or not yet, in operation.

find it difficult to learn about and gain access to computers and the Internet. It may also be a consequence of the priorities set by those funding such ventures.

# Cybercafes and telecottages are successful at attracting a wide range of inexperienced computer and Internet users

Both types of organisation are achieving their objective of reaching people not yet fully competent with the new technology. 56% of cybercafes and 77% of telecottages said that half or most of their users were inexperienced with PCs. The comparable figures for the Internet were 67% of cybercafes and 87% of telecottages. This mixture of experienced and inexperienced users may create a novel environment in which people can develop their skills.

In terms of demographic characteristics, both types of organisations attracted a wide range of people. Around half of both types of organisation reported that they had equal numbers of male and female users and a third of telecottages reported that they had more female than male users. In contrast the *Which? Online Annual Internet Survey 98* reports that only 35% of UK internet users are women. Those cybercafes that reported an imbalance were most likely (37%) to say that they had more male than female users. In terms of age, the *Which?* survey reports that 58% of UK Internet users are in the 15-34 age band, 35% are aged 35-54, and only 7% are over the age of 55. Again many of the organisations contacted in our survey appear to be reaching a different and more varied clientele. So 40% of telecottages reported that most of their users were in the 36-50 age group and 10% that most were over 50. Nearly three-quarters of cybercafes did report that most of their users were in the 18-35 age range (as did a quarter of the telecottages) and 15% of cybercafes said that most of their users were under 18. But it was rare for either type of organisation to be overwhelmingly dominated by one age group. Only 11% of cybercafes and 7% of telecottages said that they had most of their users from one age band and few from all other groups.

Somewhat more surprising, in terms of the type of person who might be thought to benefit most from such provisions, was that 47% of cybercafes and 24% of telecottages reported that most of their clientele were in paid work (rather than in full-time education or unemployed or retired). At least some of this group might be expected to encounter information technology in their workplace, and have the resources to purchase equipment for their home. This raises a question for further research of whether there are a significant proportion of users of such facilities who do, or could, gain access to such technology elsewhere but who still value aspects of what cybercafes and telecottages provide. Again few organisations seem to have a homogeneous clientele in terms of economic status. Instead those looking for work, those in work and those in education, with domestic commitments or retired have more than a token presence in most organisations.

Both types of organisation tend to offer facilities on a relatively small scale. Nearly twothirds of telecottages reported that they had less than 5 computers connected to the Internet. Cybercafes had slightly more facilities on average, being most likely to report that they had between 5 and 9 Internet connected machines. There was a larger difference in terms of the number of daily users. 45% of cybercafes reported 30 or more users per day whereas 42% of telecottages reported having between 1 and 6 users per day. The majority of both types of organisations operated throughout normal office hours. 42% of telecottages and 89% of cybercafes reported some level of weekend or evening opening, usually in addition to full office hours.

# Cybercafe and Telecottage facilities are used for a wide range of activities: both work orientated and social

Both types of organisation reported their facilities being used for a wide range of activities. They were asked to rank the following types of activities in terms of their importance to those using the computer facilities: work / employment related activities; educational and training; community / voluntary related; personal use / socialising; and networked game playing. The use of computers and the Internet for socialising and personal use was mentioned as one of their top two activities in 65% of cybercafes. In contrast only 16% of telecottages gave it this prominence. Work / employment and education / training were of greatest importance to telecottages with around 60% of them placing one or both in their top two activities. These activities were also important in cybercafes being mentioned by more than a third of the sample. Community activities were one of the two most important activities for 28% of telecottages but only 13% of cybercafes. Networked game playing was in the top two for 31% of cybercafes but only 6% of telecottages.

These differences are broadly in line with differences in the types of organisation. Cybercafes, as the name suggests, are usually linked to food and drink provision encouraging drop-in or casual use. They stress their social environment and some are linked to other social or cultural facilities such as arts centres. Telecottages have aimed to provide work and training opportunities for those in isolated locations and some are linked to established community centres. The different type of use also seems to be in line with the slight differences in demographic characteristics of users of the two types of facility.

These different types of social location and the variation in use made of the computer and Internet facilities may also explain, at least in part, the greater number of people who seem to visit cybercafes. The location of cybercafes facilities both in an urban environment and associated with food and drink is likely to mean that there will be a substantial number of passers by who may be tempted to drop in. In addition the emphasis on personal and social activities - a key element of which is e-mail - is more likely to be of short duration than the work and educational uses which are more important to telecottages. We did not ask detailed questions about charging but this may also be a factor in the amount of time an individual user spends in a telecottage or cybercafe.

# National and Local Government could provide a range of different types of support to sustain cybercafes and telecottages

Cybercafes and telecottages, as other small organisations, seem to have a high turnover rate. If, as appears, they are providing a valuable service then it is important to understand what factors might reduce that vulnerability. The majority of respondents from cybercafes thought that it was in their own hands, arguing that a flexible commercially orientated approach was what was needed to keep such organisations viable. This is not simply an issue of how much is charged for facilities but also of what is provided in what sort of environment. About a quarter of telecottage respondents agreed with this view suggesting that some at least think there is a way to survive without subsidies. However a third of telecottages thought sustainability depended on more stable and freely available public funds or other types of subsidy. This may reflect a lack of experience with other ways of operating since it was a view rarely expressed by the cybercafes. Alternatively the mix of activities they are offering, or the population they cater to, might make this a less viable approach for them.

In response to a question about what National and Local government could do to support them some cybercafes said they should do little more than leave them alone. Some described public sector subsidised provision of Internet access via libraries as unfair competition which threatened their survival and should be stopped. More positively, around a sixth of both cybercafes and telecottages suggested that local government could support them, and promote wider access and training, by buying services from them on behalf of particular groups - a model akin to that of schools' purchase of leisure centre or swimming pool provisions. However a substantial minority of both telecottages (42%) and cybercafes (29%) would favour more direct subsidies either in the form of funds or tax relief of some sort. The model of rate rebates, applicable already to some village shops, might be appropriate here.

#### The case studies

In the UK case studies were carried out at 4 locations. These were not randomly selected but were instead chosen to represent different types of location and types of organisation and to be examples of successful inclusion of either particularly excluded groups or a mix of users. Data collected on users at these sites can therefore not be taken as necessarily representative of all such organisations.

Nevertheless the findings did seem broadly in line with the collective data on users supplied by those running the facilities to the survey questionnaire reported above. Shop front egateway users were more likely to young and male than were community e-gateway users. Around a half of all users were in paid employment with shop front e-gateways being successful at attracting those in full time education and community e-gateways those who had retired.

Users of shop front e-gateways were more likely to use the internet than those at community e-gateways, both for searching for information and for e-mail communication. Many community e-gateway users were learning more conventional computer skills such as word processing and spreadsheets. 18% of shop front and 9% community users had set up a web site for themselves or others.

Over three-quarters of users of both types of e-gateway said that social factors were very or fairly important issues in their decision to use facilities there. They were also affected by practical issues such as location, opening hours and cost. The majority said that their ability to use computers had increased and said that they felt more positively about IT than before their visit.

As part of the case study research those not using the facilities but close enough by to do so were surveyed to find out whether they had any interest in learning about computers and the internet from such a location. This found that the majority were aware of the nearby computer access but only 10% had tried it. For around half the reason appeared to be that they were confident or enthusiastic users of computers elsewhere and thus had no need of the e-gateway. The number who said that they had no interest in using computers or the Internet was very small at 7% of all non-users.

Over a quarter said that while lacking confidence they felt they should learn about computers and over 1 in 5 of total sample were not computer users, but said that they would use the gateway if there was encouragement to do so. The types of things that they felt would be useful were:

- A free trial/training session
- More information about what was available
- An informal drop-in session to see what went on
- One-to-one help from staff

This suggests that e-gateways are not only providing a valued service for their current users but could play an important role in introducing a substantial section of the population who are currently non-users to the internet.
# CHAPTER III

# **ROLES OF KEY PLAYERS**



# The provision of publicly accessible information services: a political priority<sup>12</sup>

Jose Dias Coelho, President, Mission for the Information Society, Lisbon

The Portuguese people and their government have recognised the central importance to their society and economy of the new information and communications technologies (ICT). They are determined to take all necessary steps to ensure that the full potential of these technologies is realised, while minimising threats such as those to security or social inclusion.

The 1997 Green Paper was ahead of its time in setting out a comprehensive framework of action plans to achieve these goals. Although now three years old, it is still a valuable source document. This paper outlines some of the thinking behind the Green Paper and progress made since 1997.

Importantly, the Green Paper was the product of a consensus process involving many sectors of Portuguese society. Symbolic of this is the cross-ministerial structure of the Mission for the Information Society, one of whose early outputs was the Green Paper. Chaired by a representative of the Minister for Science and Technology, it includes a representative of each of the other Ministries, plus three specialists.

#### Exhibit 1: Achievements of Portugal's Mission for the IS

New regulatory environment for the telecom industry

- New Telecommunications Law (1997)
- Liberalisation Framework (1997)
- Cable TV Operators Law (1997)
- New regulation for the fixed voice telephony service (1997)
- Liberalisation of Alternative Infrastructures (1997)

Science, Technology and Society Network

- Schools on the Net: all 1600 schools (level 5-12) are now connected via ISDN (1997)
- All public libraries connected (1997)
- R&D network upgraded (1997)
- R&D Programme for IS development (1998)

Government - on - Line

- Official Journal on the Net (1997)
- Declaration of Income Tax IRS (1997)
- "Information to the Citizens" programme
- 'Lojas do Cidadão (1998) ('Public Services Mall')
- All public information on the Internet (July, 1999)

<sup>&</sup>lt;sup>12</sup> This short paper edited by Claire Milne summarises key points from the paper presented by Professor Jose Dias Coelho, President of the Mission for the Information Society (Lisbon). Its Annex reproduces in abbreviated form all 72 Measures put forward by the 1997 Green Paper which is referred to in the text. The full Green Paper and much supporting material are available at the website of the Portuguese Mission for the Information Society, <u>http://www.missao-si.mct.pt</u>.

Computers for all

- Lower tariffs for Internet access (1997)
- Tax reduction for the purchase of domestic PCs: 20% of retail price up to 30 000 PTEs/year (*January 1998-End 2001*)

1998 - Multimedia Year

• A programme to promote Portuguese multimedia industry

National Initiative for Citizens with Special Needs in the IS

- A programme to promote the integration of citizens with special needs in the information society (July 1999)
- Accessibility to public information (July 1999)

#### **Digital Cities**

- Aveiro A comprehensive digital city
- Bragança, Guarda To fight interiority
- Marinha Grande To promote global competitiveness
- Metropolitan Lisbon Area To prevent info-exclusion for the integration of ethnic minority groups

#### The Year 2000 Bug

- Year 2000 compliance
- To accelerate public acquisition of goods and services for solving year 2000 problem
- Year 2000 Task Forces in every Ministry
- Reports every 3 months

National Initiative for Electronic Commerce

• A programme launched to promote electronic commerce (August, 1998 and July 1999)

Approved legislation

- Legal framework for digital signatures (July 1999)
- Recognition the legal value of documents in electronic format (July 1999)
- Legal recognition of electronic invoices (July 1999)

Exhibit 1 outlines some relevant key achievements of the various actions plans pursued since 1997. The rest of this paper gives more details on three topics from this exhibit of particular relevance to our current theme: the initiative for electronic commerce, the initiative for citizens with special needs, and the drive for public access in the context of universal service.

#### Initiative for electronic commerce

Today it is widely recognised that electronic commerce (EC) is critical for the competitive development of Portuguese companies and there is growing willingness to establish a favourable environment for its development

The overall objectives of the 1998 initiative were to:

- Increase the competitiveness of Portuguese companies in the world market
- Integrate enterprises in the future digital economy
- Benefit from the Euro
- Fight Portugal's peripheral location
- Improve accessibility to interior regions
- Create jobs and wealth

The underlying principles of the initiative are summarised below.

- P1 The development of EC should be based on private sector initiatives
- P2 A favourable legal and regulatory framework that pulls down the barriers to the development of EC
- P3 No discrimination in taxation for electronic transactions
- P4 The guarantee of free access and circulation for encryption techniques
- P5 The rejection of any censorship whatever of Internet contents
- P6 Support for a transparent management system for domain names on the Internet
- P7 The creation of a commercial environment favourable to the development of EC
- P8 Stimulating international co-operation in the field of EC

# Initiative for citizens with special needs

Portugal was very early in recognising the importance of taking advantage of the opportunities offered by ICT for integrating disabled citizens more fully into society. The underlying principles of the initiative are:

- P1 The benefits of the Information Society are for all
- P2 Priority should be given to developing products and services for people with special needs, on economically accessible terms
- P3 To promote the 'Universal Design' concept
- P4 To ensure that research and development is carried out to extend existing knowledge and competence in connection with the integration of people with special needs into the information society
- P5 To reinforce co-operation between users and the public and private sectors in developing technologically advanced products adapted for people with special needs
- P6 To raise society's awareness on the issue of integrating people with special needs

In July 1999, Portugal became the fourth country in the world (after the United States, Australia and Canada) officially aiming to eliminate digital barriers on the Internet. The Portuguese Government, through its Council of Ministers, approved a resolution making mandatory the adoption of accessibility features for people with disabilities in the website design of government agencies and public corporations. Concretely, the design must ensure that:

- Reading can be performed without resorting to sight, precision movements, simultaneous actions or pointing devices.
- Information retrieval and searching can be performed via auditory, visual or tactile interfaces.
- A clearly recognizable symbol indicates compliance.

# The drive for public access in the context of universal service

Currently in Portugal the concept of universal service is twofold:

- It means that everyone should have the opportunity to interconnect with whomever they wish at a reasonable cost.
- It should contribute to the vision of the IS, as a democratic society.

In this context, it is recognised that:

- Services and information are necessary to allow individuals a full and fair opportunity for economic and social participation.
- Significant groups are excluded or at serious risk of being excluded from access to services due to market imperfections.

We accept that when market forces fail to provide a minimum level of access, governments should ensure affordable access to essential services for all citizens regardless of their income or geographical location.

Plainly, public access has an important role to play in assuring universal access to advanced services and information. To be meaningful, it requires more then just physical connections. For example, the following are also needed:

- Access to Information in a comprehensive form
- Access to advanced services for Schools, Health-Care and Libraries
- Awareness, publicity and training
- New education programs
- Learning on-line
- Internet sites
- Electronic delivery of Government services

In relation to the provision of public access as part of universal service, a wide range of issues must be considered. We feel confident about the answers to only some of these issues, and in the following list, many remain for the time being as open questions.

• Wherever possible market mechanisms should be allowed to play the primary role.

- Eligibility of services should be based on market analysis and political assessment of their social and economic desirability.
- How should a reasonable balance between costs and benefits be determined?
- What is essential, or so important in social terms as to justify a policy intervention about Universal Service ?
- How can those affected by low income be brought onto the net?
- How can we avoid customers having to pay for services they neither need nor use ?
- How can we avoid subsidising services which many users may be able to pay for on a normal commercial basis ?

In conclusion, in Portugal we are neither lacking in enthusiasm for the new technology, nor in political will. Now the country's ability to deliver will be put to a severe test. In pursuing our goals we must at all times have in mind the need to maintain a sensible balance between, on the one hand, the community and its social welfare, and on the other hand, the market and its capacity to generate the wealth which sustains society.

### Abbreviated summary of measures outlined in the April 1997 Green Paper on the Information Society in Portugal

#### Chapter 1 The democratic character of the information society

### 1.1 To Equip Schools for the Information Society

The goal of a multimedia computer for each classroom at basic and secondary level is targeted for the year 2000, as a minimum goal, including the connection of those computers to a local network with access to national and international networks.

### 1.2 To Equip Public Libraries and Archives with Multimedia Computers

To support initiatives leading to the development of multimedia libraries, with special priority given to products in Portuguese.

### **1.3** To Promote Citizen Information Programmes

To continue the development and improvement of the Infocid programme and others that offer information to individuals and companies through the installation of kiosks and information stands in public places with access to the public administration's electronic information network.

### 1.4 To Support Cultural Associations, Youth Centres and Cultural and Recreational Groups

These gathering places also introduce a recreational component that plays a fundamental role in expanding access to the information society.

# **1.5** To Promote Local Government Initiatives for the Democratization of Access to the Information Society

This action aims to democratize access to the information society and to improve the content of local interest that is available on the digital information networks.

#### **1.6** To Give Priority to Programmes for Integration into the Information Society

To promote programmes to integrate those with physical, visual, hearing or mental handicaps into the information society. To foster private charities that would like to develop integration programmes for these handicapped citizens, as well as university or scientific research institutions that put themselves forward to study suitable solutions.

#### Chapter 2 Open government

#### 2.1 Heading for the Electronic Public Administration

To give high priority to the public administration's use of a network of computers communicating with each other via electronic networks, accompanied by administrative simplification and the use of mobile phones, thus improving service quality.

#### 2.2 Open Government for the Citizen and Industry

To create conditions for citizens and industry to make inquiries of the public administration and have access to public records electronically.

#### 2.3 To Foster the Re-use of Administrative Information

To eliminate the need for the public administration to repeat requests to individuals and industry for information, subject to preservation of privacy rights.

#### 2.4 To Classify Public Information

To define the status of the public service information available, distinguishing between "information for citizens" (that should be universal and free of charge), "development information" (at a symbolic price - nominal or possibly free) and "value-added information" (available at market prices).

#### 2.5 To Universalize Electronic Payment

To accept electronic payment for all transactions requiring payment to or by the administration. In particular, payment via Multibanco (debit card) will be extended to cover all tax obligations and contributions to the Social Security.

#### 2.6 To Promote Electronic Data Transfer

To modernize the legislation covering electronic data interchange (EDI), basing it on European and United Nations standards. To define the legal regime for the use and authentication of electronic documents, so as to lay the foundations for electronic notary services.

#### 2.7 To Promote Electronic Data Interchange in the Public Administration

To make increasing use of electronic data interchange within the public administration and in its relations with the rest of the society, so as to reduce costs, speed up and de-bureaucratize electronic payment of social benefits.

#### 2.8 To Promote the Development of a National Geo-referenced Information Infrastructure

To integrate digital cartographic information into the National Geographical Information System and, in particular, into a digital cartographic base on a scale of 1:25 000, to serve as a support for urban and regional planning and environmental protection.

#### 2.9 To Publish the Diário da República Electronically

The Diário da República will be published electronically, in parallel with its publication on paper.

#### 2.10 To Create Databases on Legislation and the Legal System

To develop databases of specialized legal information (e.g. consumer rights, the environment, minors, social security, employment, education and work) and information on the legal system.

#### 2.11 Improving Security in the Electronic Transfer of Information.

To publish new security regulations for the electronic transfer of information, the encoding of messages and electronic signatures, after consultation with the public administration, telecommunications and services operators, regulatory bodies and scientific research institutions.

#### 2.12 Evaluating the Social and Political Implications of Electronic Democracy

To study the implications of new electronic forms of consulting the people and of their relating with the political powers through electronic networks.

# 2.13 To Ensure that the Human Resources in the Public Administration are Qualified for the Information Society

To retrain public administration staff, so as to ensure that they have all necessary technical skills, and full awareness of the potential of information-society related technologies.

#### Chapter 3 The knowledge available

#### 3.1 The Science, Technology and Society Network

A fundamental priority is to consolidate the national academic and research network. This will be strengthened and extended to a wider community.

#### 3.2 The Worldwide Network of Portuguese-Speaking Communities

To create a network of Internet servers with the means for information research and organization, specially directed towards Portuguese culture, as a positive contribution towards a real Portuguese-speakers' network.

#### 3.3 To Support the Development of the Multimedia Industry related to Cultural Content

To contribute to the development of a Portuguese multimedia industry with cultural and artistic content to improve the population's access to culture.

#### 3.4 To Computerize Historical Records and Portugal's Cultural Heritage

Systematically to computerize historical records and our cultural and artistic heritage for easier use and simpler processing.

#### 3.5 To Promote the Development of Digital Libraries

To develop digital libraries with bibliographical information and access to historical and cultural records.

#### 3.6 To Create a Database for Doctoral and MA Theses in Portuguese Universities

To create a database which is available via digital networks and which contains relevant information on the doctoral and MA theses produced in Portuguese universities.

#### Chapter 4 Connected schools: learning in the information society

# 4.1 To Install a Multimedia Computer connected to the Internet in the Libraries of all School Establishments covering the Fifth to the Twelfth Grades

To equip all the libraries of school establishments covering the fifth to the twelfth grades with a multimedia computer connected to the Internet.

# 4.2 To Create Content and Information Services on the Network as a Support for the School Population

To develop educational and cultural content as well as the means for back-up and research in order to support teaching activities and the learning process in schools at all levels of education.

#### 4.3 To Develop School Projects in Educational Telematics

Along with equipping schools with computers, to outline an investment philosophy in educational telematic projects to raise the quality of the educational system.

#### 4.4 To Promote Teacher Training for the Information Society

To create skills in information and communication technologies in initial and further teacher training programmes.

#### 4.5 To Promote the Revision of Curricula in the Light of the Information Society

To review and adapt school programmes, taking into consideration the study of subjects related to the information society.

#### 4.6 To Assess the Impact of Information Technology Programmes

To evaluate information technology programmes being used, assessing the impact at different stages and possibly adapting the activities programmed.

#### 4.7 To Promote the Portuguese Language and Portuguese Culture Abroad

To promote the use of information and communications technologies to spread Portuguese culture and to teach the Portuguese language abroad, specially to the diaspora and in Portuguese speaking countries.

#### Chapter 5 The business enterprise in the information society

#### 5.1 Promoting Telework in Business and in Public Administration

To frame legislation and draw up an organisational framework to recognise and promote telework. To promote the introduction of telework practices in the public administration in those fields of activity where this is possible and desirable, either to rationalise resources or for the demonstration effect they allow.

#### 5.2 Making Electronic Commerce Viable and Dynamic

To revise tax systems to protect the state's interests in the face of the growing number of electronic commercial transactions. To foster particular investments with large potential payoffs, such as reducing the large price differences between the producer and consumer of agriculture products; increasing national control of income from tourism; or improving the position of Portuguese industry in marketing its products.

# 5.3 Supporting an Increase in Competitiveness and the Capacity of Domestic Companies to Internationalize in the Context of the Information Society

To create favourable conditions for Portuguese companies to have access to high-speed telecommunications networks in relations with foreign customers as a way of reducing the disadvantages that result from our peripheral position.

### 5.4 Modernizing the Country's External Image

To find effective ways of relaying the image of Portugal abroad as a modern state, active in the information society, through the intervention of diplomatic missions, the ICEP and other entities responsible for promoting the country's image.

#### 5.5 Harmonising the VAT Rate for Multimedia Products

VAT on digital products should be the same as for those in analogue form or on paper.

#### 5.6 Promoting the Creation of Networked Technological Parks

To foster co-operation between companies, research centres, and advanced teaching institutions through networked technological parks, made possible by information and communications technologies.

#### Chapter 6 Employment in the information society

#### 6.1 Monitoring Developments in Working Conditions in the Information Society

To create, within the Strategic Social Pact of 1996/1999, a commission on the influence of the information society on working conditions, to monitor developments.

#### 6.2 Extending Mastery of the New Information Technologies

To support initiatives for users at public administration and company level to take full advantage of information and communications technologies.

#### 6.3 Adapting Labour Legislation to Telework

To revise existing labour legislation to encompass telework, thus modernizing the contractual framework of working life.

#### 6.4 Fostering Distance-Learning Programmes for Occupational Training

To promote programmes for distance teaching, based on information and communications technologies.

#### 6.5 Entry of Older Workers or Handicapped Citizens into the Job market

To foster the use of information and communications technologies to support the entry of older workers or handicapped citizens into the job-market.

#### 6.6 Making Information About the Job-Market Available

To support the development of electronic services to provide access to the information available on the job market.

#### 6.7 Promoting Pilot Studies in the Area of Telework

To launch pilot projects in the area of telework and telework networks, as well as projects to improve the conditions of life at work and to raise the efficiency of companies through the use of information and communications technologies.

#### Chapter 7 The market and the information industry

#### 7.1 Vitalizing the Content, Software and Audiovisual Industries

To create mechanisms to promote investment in the national content, software and audiovisual industries.

#### 7.2 Supporting the Establishment of Partnerships between the Public and the Private Sectors

To dynamize the establishment of partnerships between the public and the private sectors, particularly through programme contracts for innovative developments.

#### 7.3 Medium-term Programming of Large Public Acquisitions in the Field of Information

To programme, in the medium-term, large acquisitions from domestic industry and the use by the public administration of typical information-society products.

#### 7.4 Facilitating Co-operation between National Companies and International Partners

To use political and diplomatic influence for involving Portuguese companies in international alliances promoting products relevant to the information society.

# 7.5 Supporting the Creation of Innovative Micro-Enterprises in the Domain of the Information Industry

To provide incentives for capital investment in micro-enterprises with the potential for innovation in the information industry sector, as a way to link entrepreneurial experience to the initiative of young entrepreneurs.

# 7.6 Capturing Intensive Investment in Advanced Technologies under Conditions Favourable to their Internalisation

To support foreign investment by small investors with extensive know-how in order to facilitate the adoption of innovative technologies by the home scientific and entrepreneurial systems.

# 7.7 Supporting the Process of Modernizing the Information and Communications Technologies Production Sector

To continue assuring the application of PRATIC (Programme for the Vitalization of Information, Electronics and Communications Technologies).

#### 7.8 Developing Diversified Forms of "Risk Capital"

To create the instruments to promote Portuguese companies' access to diverse forms of risk capital (seed, investment, development and re-dimensioning).

#### 7.9 Reviewing the Current Classification of Economic Activities

To review the current definition of the CAE - Códigos de Actividade Económica so as to encompass new components of the information industry, particularly audiovisual and multimedia components, software and content publishing.

#### **Chapter 8 Social implications of the information society**

#### 8.1 Reviewing the Legislation for the Protection of Personal Databases

To revise Portuguese law on the protection of individual data so as to allow better use of the potential of electronic networks.

#### 8.2 Defending the Consumer in the Information Society

To evaluate the impact of the new relationship between the citizens and business on consumer rights and to propose suitable legislative changes.

#### 8.3 **Promoting Computer Literacy**

To promote extra-curricular and occupational training programmes, to spread the knowledge which is the threshold of the information society. These programmes may take advantage of the facilities and equipment available in schools, at work or in special centres.

#### 8.4 Supporting the Fight Against Info-Exclusion

The state will give preference in all information society programmes to contributing to the fight against infoexclusion, and particularly to access to the benefits of the new technologies for socially less favoured groups.

#### Chapter 9 The legal implications of the information society

#### 9.1 Revision of Article 35 in the Constitution of the Portuguese Republic

The clauses in Article 35 of the Constitution must be revised so as to affirm every citizen's right of access to electronic networks and the state's duty to promote universal access.

#### 9.2 Updating Copyright and Intellectual Property Legislation

To adapt the legal framework for copyright and intellectual property in the digital world to that of International and Community Law.

#### 9.3 Examining the Legal Framework of Human Rights Violations through Electronic Networks

To evaluate the legal problems arising from the need to reconcile the freedom of speech and access to networks with the need to combat human rights violations and crime against minors.

#### Chapter 10 The national information infrastructure

#### **10.1** Liberalizing the Telecommunications Sector

To establish a timetable and legislative framework that in a sustained manner will dismantle regulatory barriers to investment in all segments of the telecommunications and information business.

#### 10.2 Adapting the Principle of Universal Service to the Context of the Information Society

To create conditions permitting the extension of the present framework of universal access to the new basic services characteristic of the information society.

#### 10.3 Stimulating Access to the Internet and to the New Services of the Information Society

To develop a graduated tariff model for telecommunications services within a framework of commercial offers, to give the population greater access to the benefits of the information society, particularly access to the Internet.

#### **10.4** Reformulating the Legal Framework for the Supply of Interactive Services

To suppress the restrictions imposed by present legislation on the supply of new interactive services over existing telecommunications infrastructure, particularly cable TV networks.

#### 10.5 Vitalizing Market Entry for New Service Providers and Information Suppliers

To develop a proper regulatory framework to ease entry to the telecommunications market for new network operators, service providers and information suppliers in the areas of the services and infrastructures already liberalized.

#### 10.6 Promoting Digital Radio and Television

To permit rapid licensing for digital television and radio broadcasting services, including suitable public interest requirements, as well as the necessary conditions to stimulate the range of products and services on offer.

#### 10.7 Vitalizing the Creation of Regional and Local Resource Centres

To promote the creation of regional and local resource centres, as well as the development of regional and local community networks that allow shared use of infrastructure and human and technological resources.

#### **10.8** Ensuring the Protection of Personal Data in the National Information Infrastructure

Preventive procedures and techniques must be defined and made known and the legal framework of cryptography must be carefully considered.

#### Chapter 11 Research and development in the information society

#### 11.1 Creating a National R&D Programme to Support the Development of the Information Society

To create a national R&D programme to support the implementation and development of the information society in Portugal, co-ordinated with international R&D programmes, particularly those of the European Union and G7.

### 11.2 Creating a Sub-Programme for R&D to Support the Development of Open Government

To stimulate central, regional and local public administration bodies, along with R&D companies and institutions, to launch initiatives that contribute to the rapid and effective implementation of open government.

**11.3** Access to Databases of a Public Nature for R&D Purposes To create conditions of free access for R&D activities of public and educational interest to databases of a public nature, particularly those containing statistics or other information produced or gathered by public institutions.

# Local and regional Information Society: policy frameworks for local and regional authorities in Europe

# Risto Koivisto, Mayor of Pirkkala, Finland

The main body of this paper consists of four examples of existing policy frameworks at various levels of the European local and regional information society. A theme addressed by the Congress of Local and Regional Authorities of Europe of the Council of Europe in 1999.<sup>13</sup>

But first, let us address the fundamental question: why is awareness about the potential of the information society so important for local and regional decision-making? Three important facts contribute to our answer.

# **Employment and economic development**

Fact number one: the local and regional information society has become an essential element in planning for employment and economic development. The information industry is the fastest growing business sector in terms of new jobs. Most of these jobs do not depend on the location. We already have wonderful examples of people living in remote European areas and working for enterprises of the densely populated American regions, often during Europe's daytime when it is night in the United States, and it would be quite expensive to employ local people at night rates.

It is also easier for the information industry, compared with traditional industry, to take rapid decisions concerning location of business. At the local political level, it is much more realistic to dream about a new Silicon Valley than about a new car manufacturing plant or paper mill.

# Local content

Fact number two: both citizens and enterprises need local content in the information society. It is evident that global actors will be the major players in the entertainment sector. The future of national large scale media does not seem very rosy. But everybody wants to know what is happening in the neighbourhood. Also for most small and medium enterprises, the local market is and will remain the most important one. Local and regional Internet portals have a great potential for both the media and electronic commerce.

# Responsibility for education and training

Fact number three: local and regional authorities are in charge of human development in their respective areas. In the future, the information technology skills and know-how of the people and enterprises will be crucial. This is particularly true when we speak about regions that are highly dependent on one or two business sectors, like many touristic areas. This is another reason why education, training and awareness-raising, both within and by local and regional authorities, is important.

<sup>&</sup>lt;sup>13</sup> See Recommendation 54 (1999) at <u>http://www.coe.fr/cplre/textad/rec/1999/rec54(99)e.htm</u>

Other facts could be added, but these three are enough to make the case that the information society has become an important part of the daily life of local and regional politicians.

There are many policy frameworks for promoting the local and regional information society. To illustrate the situation, four of them are described below, each representing a different type of activities.

# ELANET<sup>14</sup>

The European Local Authorities' Telematic Network Initiative (ELANET) is a transnational network specialising in the European Information Society and operating under the umbrella of the Council of European Municipalities and Regions (CEMR).

At present, ELANET has representatives of the National Associations of Local and Regional Authorities from 14 countries of the European Union and Norway, as well as selected IT and/or telematic companies and public information institutes supporting the emerging local and regional networks based on the new information and communication technologies.

The initiative was launched in Rome in March 1996. The mission of ELANET can be divided into the following objectives:

to inform, coordinate and assist European local governments, in particular the emerging local and regional networks in which they participate, so as to help them play a significant role in the information society at the local level;

**to allow** local and regional authorities, their associations and the Council of European Municipalities and Regions (CEMR) to channel their views in this field to the European Union institutions and to other pan-European organisations;

to expand the number of local authorities participating in transnational information society projects by launching "mainstream initiatives" that become a catalyst for new actions at the local level.

ELANET stands for the use of ICT as:

- a key instrument for local development and local democracy,
- an important tool to monitor the environment and implement a pro-active environmental policy, and
- a valid platform to promote European citizenship and cohesion.

All three are basic prerequisites for improving the quality of life as well as for developing a competitive and more transparent European market within the global market.

The first activities of the network have been quite successful. Several mainstream transnational projects born within the framework of ELANET have been approved in recent years by the European Commission within the Framework Programme of Research and Technology Development.

ELANET also organises the EISCO conferences, held in October 1998 in Brussels and in Malaga in February 2000.

Membership in ELANET is not subject to the payment of any fees, since its activities have mainly been projects funded by the participants and the European Union. It is open to all national actors in Europe, including outside the European Union.

# Eris@ European Regional Information Society Association<sup>15</sup>

The main objectives of the European Regional Information Society Association eris@ are:

• to promote universal access to ICT-based services and applications in the regions with a view to generating new job opportunities, improving quality of life and addressing the challenges of structural adjustment, social inclusion, economic cohesion, democratic decision-making and sustainable development in less favoured regions

• to enhance the economic and social development of member regions by implementing new ICT-based applications and services, through sharing good practices in benefiting from new opportunities and reducing risks

• to provide a platform for the exchange of information and experience with other member regions of the Association involved in developing the Information Society

• to provide a forum to discuss policies of relevance to regional development and the Information Society.

Eris@ has established several working groups concerning:

- Healthcare
- SME
- Social affairs
- Rural areas
- Public administration
- Education and training
- Good practice

Membership is open to all European regions, including regions outside the European Union as from the year 2000. The annual membership fee is 5,000 Euros.

<sup>&</sup>lt;sup>15</sup> <u>http://www.erisa.be</u>

# Local and regional information society LOCREGIS II<sup>16</sup>

The LOCREGIS II project builds upon the results, experience, recommendations and methodology of its predecessor LOCREGIS (LOCal and REGional Information Society), a project initiated by the European Commission under the supervision of Directorate General XVI.

The target areas of LOCREGIS II are in the first place the Objective 1 and 6 regions in Austria, Finland and Sweden, and then the Objective 1 regions in other EU countries and regions in the applicant countries. The project started in January 1999 and will last for 16 months.

LOCREGIS II continues to develop the tools which were created during the first project: a database, a network, analytical capacity, and dialogue on ICT policy between practitioners and regional policy-makers, at regional, national and EU levels.

On the basis of these elements, LOCREGIS also develops tools to analyse the information society and project ideas for local and regional decision-making:

- in support of the design of larger and more ambitious ICT actions at the regional level which can lead to tangible structural changes,
- in support of the definition of priorities in the planning process, monitoring and evaluation for the next generation of Structural Funds programmes in particular by identifying the profile of each participating region in ICT and providing benchmarks for best practice,
- to help project developers to improve the design or develop the monitoring and benchmarking of the projects.

One of the key objectives of LOCREGIS is to promote networking. This also includes regions outside the target countries and outside the European Union. LOCREGIS has also active co-operation with other organisations and projects at the European level.

# The Finnish local information society spearhead project<sup>17</sup>

The last example is the most concrete policy framework, coming from Finland. It is the only country I know of using this kind of structure to try to improve the level of know-how and networking in its regions.

The Finnish information society strategy is aimed at promoting seven spearhead projects which will start during year 2000:

- 1. Cultural and information products and services
- 2. Electronic transactions and service processes
- 3. Personal navigation
- 4. Electronic learning environments

<sup>&</sup>lt;sup>16</sup> <u>http://www.locregis.net</u>

<sup>&</sup>lt;sup>17</sup> http://www.sitra.fi/tietoyhteiskunta/english/st5/eng01.htm

- 5. Knowledge-intensive work
- 6. Business networking and teleworking

Last but not the least is the number **seven:** local and regional information society, since the information society cannot be built without active work at the local level. It is there that the information society gets flesh around its bones.

The aim of the local information society project is to collect and develop good practice in implementing regional and local information societies, and to promote regional cooperation and interaction with a view to improving services and consolidating democracy. The project promotes the pooling of resources with a view to developing generally applicable solutions.

In addition, the project produces information about best practice and provides support services for local and regional actors.

\* \* \*

Two general points are worth making in conclusion.

First, it is important to work simultaneously at different levels. If we only work at the European or national level, we will not be able to create an information society which meets the needs of the citizens as well as small and medium-size enterprises. But it is important to work at the European and national level so that the regional and local actors know the potential of the information society and become familiar with the different tools and best practices.

Second, we must keep the information society in perspective. The information society, as such, is no heaven. In fact this societal change also means unemployment and other structural problems. Local and regional decision-makers must recognise the real situation and draw the right conclusions. At the European political level, we must acknowledge that from the regional point of view, there may be many more important questions than the information society.

# IT systems in support of local government - developments in Malta

Austin Gatt, Minister of Justice and Local Government of Malta

# Background

On 11 October 1999 the Prime Minister of Malta announced that the Cabinet had approved a wide-ranging initiative to be managed by the Ministry for Justice and Local Government, which consolidates our efforts for the next three years on delivering quality services to the public using a wide variety of delivery mechanisms. These range from the Internet to public access kiosks and 'One Stop Shops' located within communities.

In order to appreciate the current developments, one needs to step back and view the holistic nature of the actions being undertaken.

Since 1987, the Administration has recognised the importance of Information Technology both within the operations of the Public Service and also in education and industry. It has spared no effort to pursue the development of Malta's Information Society by putting in place the necessary building blocks.

These can be highlighted as follows.

- **Government Agencies**. There has been a consistent programme of introduction of Information Technologies within Government agencies. During the last ten years this programme has amounted to a total investment of over Lm100 million. It has included many important projects such as the establishment of the Malta Government Network, which provides high speed links between all Government Departments, and the introduction of key systems in all aspects of Malta's Public Service operations.
- **Telecommunications Infrastructure.** There has been a heavy and committed investment in Malta's telecommunications infrastructure and in the introduction of new user-oriented services and technologies. This has resulted in the current situation where we are not only looking towards broadband connections, but also possess the necessary infrastructure for wireless data transmission, GSM mobile telephony, cable television and data services and a digital, state-of-the-art telephony network. Together these will offer a solid platform upon which a wide variety of business concerns can compete in a liberalised yet regulated market.
- **Public Sector**. The necessary structures and platforms within the Public Sector have been established to manage and develop change and technology. The Government believes in synergies, and has therefore set up the Central Information Management Unit within the Office of the Prime Minister. This will co-ordinate all efforts contained in its Information Systems Strategic Plan for 1999 to 2001 and beyond, and will introduce and monitor all standards and practices.

# New major projects

These actions were only the beginning.

The Government has realised that people have to be served within their communities, and in so doing has strengthened the role of Local Councils (which were originally established by the Administration in 1993), by giving them more responsibilities. They are often in a position to discharge these in a more effective and efficient manner than any centralised entity.

In recognition of this, during the course of 1999, four major projects have been initiated by the Ministry of Justice and Local Government, and these are currently in the process of finalisation.

## **Connection to MAGNET**

The core application is the connection of all 67 Local Councils to the MAGNET (the Malta Government Network). This innovative project allows the establishment of the necessary infrastructure for the necessary data and application sharing among Local Councils and between Local Councils and public sector entities.

This has an added bonus: since all Local Councils will automatically have the possibility to access Internet and electronic mail services if required, it allows the development of not only Local Council web-sites but also of Local Council-based Internet access points for the general public.

### Customer Care

The Local Councils Customer Care Application is a workflow-based application designed to link Local Councils with Government Ministries. Its aim is to provide the public with a secure method of lodging complaints or information requests. Through this system, the public may lodge requests to any Local Council, and would immediately receive either a response or a receipt plus a guaranteed response within a determined time-period.

This system has been designed to accept requests in writing, by telephone, by fax or in person and will be extended to cater for the electronic lodgement of requests over the Internet or from public kiosks.

The system is designed to handle requests from Local Councils up to Ministries. A number of initiatives are also under way within individual Ministries and Departments in order to integrate their own Customer Care networks within the framework of this Initiative. The aim is to establish a truly holistic National Customer Care Network Infrastructure. This will allow the centralised monitoring of trends, types of complaints, lead-times for replies, etc., in order to establish benchmarks and best practices in customer care which can then be adapted service-wide.

# Local Enforcement System

The Local Enforcement System is a revolutionary approach to instant enforcement of regulations of various kinds, for example relating to traffic and parking.

The system will link together 67 Local Councils in 10 groups, 10 Warden Services Contractors, 10 Locality Tribunals, a wide variety of agencies and over 150 Local Wardens. It requires a tightly integrated solution based on the process rather than the individual functions.

For this purpose and following extensive research on international practices and technologies, the Local Councils Department issued a comprehensive tender. It specified a system which would be managed by the same contractor supplying the software. This unique feature allows for the long-term operation of the system and allows for a rapid response time in case of any amendment or new service.

In the system being developed, Local Wardens will be supplied with heavy duty Windows CE based hand-held computers having an infra-red link to portable printers and a GSM link to the central servers. This will allow them real-time access to Geographic Information Systems, the Common Database of all people resident in Malta, the Vehicle Licensing Application and the Local Enforcement System itself.

This allows for a real-time, paperless process to be instituted, from the moment a charge is issued, up to the point when it is either paid by the offender or a final judgement is passed by the Tribunal. In the case of reports, these are automatically relayed to the proper agency or Council and full accounting is made on the outcome necessary. The system relies heavily on audit trails, real-time positioning of wardens, spatial (GIS) based reporting and extensive management information.

# The Trade Licensing Application

The Trade Licensing Application is an ambitious project whose aim is to facilitate the process of obtaining and renewing licences for the operation of trading concerns. It offers a 'One Stop' solution at Local Council level, whereby a trader fills out one single form and, through IT, the back end processing is carried out by the various issuing authorities.

Considering Malta's size, it is perhaps remarkable that there are 34 issuing agencies for a wide variety of permits necessary for all forms of business activity. Currently, for example, a hotel may require a total of 30 different licences issued individually by different organisations. The time taken and the general frustration in renewing licences is a tangible cost. Under the proposed scenario, one single form filled at the local office where the hotel is located would solve all problems.

All these projects became operational in the first quarter of 2000. They have one aim in mind: serving people better within communities by streamlining and re-engineering business processes, supported by the appropriate technology.

# **Quality of Service Delivery**

In the wider context of the Government's vision of public sector reform, the focus has shifted drastically towards the quality of service delivery. At the end of the process, it is whether or not the public is served well, within acceptable service limits and in the light of personal circumstances, that should be paramount.

Traditional approaches based on organisational boundaries have to be re-thought, and a way has to be found for process-related solutions, which will amalgamate groups of services in order to eliminate costly duplication where possible.

# **Future planned developments**

It is in this spirit that the Government launched on 11 October 1999 its vision for the next three years: Locality Technology Initiatives.

The backbone of this initiative is the Quality Services Charter initiative, whereby all Government Departments and Ministries will undergo an extensive review of their services, and an exercise aimed at re-engineering and streamlining services whilst identifying newer, more effective delivery options such as:

- online through the Internet and Public Access Information Kiosks, and
- through 'One Stop Shops' at Locality level.

In all cases, services and their constituent parts (including forms, instructions, customer care, etc) will be redesigned in order to improve their effectiveness and user-friendliness.

Supporting this from the centre the Government will:

- undergo an extensive evaluation of its corporate intranet, in order to provide to all its employees and Local Councils all the necessary tools and information to deliver the best quality services to the Public;
- publish electronically and in print guidance booklets about services connected with life-events (births, marriage, death, employment and so on) which are normally only available in separate parts from several different departments.

One-Stop Shops will have personnel appropriately trained in customer care and information, directly sourced from the Public Service. The staff will be given non-cash incentives such as flexi-time, the possibility to work closer to home and other innovative employment conditions on a time-limited contract. This would be renewable only should the overall performance of the individual be within certain specified standards.

The technology platforms have been identified, and will rely heavily on giving value to existing systems by linking them to web-based applications, workflow and intranet/Internet development solutions. This will ensure that the investment made would be minor in comparison to the development of systems from scratch.

The Government's goal is to accomplish all this over a three year period. The potential of over 200 services which can be brought to communities in the manner described above has already been identified. Together with the management of the various departments and ministries, the Ministry of Justice and Local Government will do its utmost to make this happen.

The Ministry is also building a legal framework for Data Protection, Computer Misuse and other related technological issues which shall allow us to participate fully in the development of the digital age in Malta.

There are issues to resolve mainly related to the penetration of the Internet in Maltese homes and business. The Government believes that the possibility of having Internet access points in Local Councils and via public kiosks will help address this issue, but much work needs to be done by all players - public and private - in order to ensure that enough reasons are given to the public to access an affordable Internet service.

# Conclusion

We are in an exciting age where change does not occur over generations but rather over the span of a few months.

Malta is undergoing rapid change in view of its EU aspirations, yet our enthusiasm is not at the expense of quality. We have analysed carefully the developments of reform and technology in Europe, Australia, Canada, New Zealand and the United States. We are confident that what is being done in Malta can serve as a guide for change which should occur in larger partner countries.

We would like to develop two important types of partnership:

- with technology developers and providers. The Maltese Government is interested in new technology and would be extremely pleased to co-operate in the establishment of show-cases of technology implementation, particularly in the public service and in the delivery of services to the public.
- with European partners. The Maltese Government is ready to assist its European partners by sharing its experiences and in testing applications here in Malta. It is also ready and willing to learn on how it can deliver better services to its public.

Malta served a millennial function as a port of safe haven. Today's Malta can serve as a hub of technological experimentation, a live test-bed of technology, particularly those technologies which have a direct bearing on communities.

# Training and education for wider access to new communications and information services

Lilla Voss, Ministry of Education, Copenhagen

## Familiarity with new technology - a process

A sign has recently been removed from a Swedish hotel room. It dates probably from the turn of the century. The text reads (translation into English): "This room is equipped with electrical light. Do not try to light it with a match. Just turn the knob near the door."

Today this sign is perhaps laughable, which was probably why it appeared in a newspaper a few months ago (Politiken, 21 September 1999). It simply demonstrates that learning is needed for all types of new equipment. It was the case for electricity and for television and video. Now it is the case for ICT.

At the beginning, everybody has to learn; then new generations grow up, who are used to the technology from the start, and after several decades it is difficult to comprehend how it was a problem to handle this type of technology.

Maybe handling ICT is different. Not handling the technology as such, but handling the content that the technology transports and using it in a methodological and critical way. The same could certainly be said for radio and television. But there still is a difference because of the anarchistic way the Internet is organised and the over-abundance of information it provides.

# **ICT in education and training**

ICT has started to make an ever growing impact on our lives and it is evident that ICT should also be integrated in education and training. It should be so for at least 3 different reasons:

- 1 ICT is penetrating society. Therefore, pupils should be prepared in schools for this ICT-based society. ICT will soon be considered as the 4th general competence (the other 3 being reading, writing and arithmetic).
- 2 Most jobs are and will in the future be based upon ICT. Therefore, we must prepare young people for working life.
- 3 In a democracy there should be equal opportunities for all children. Therefore, the school should provide all children with access to ICT in order to try to avoid wider gaps in society between the "Haves" and the "Have Nots".

The political approach to implementing ICT in education and training varies from country to country. Generally it consists of three steps:

- 1 Putting the technological infrastructure in place. That includes networks (including local area network), computers, software.
- 2 Developing and offering courses for both pupils and teachers to start learning to use the technology.
- 3 Starting to adapt the school as an organisation and the curriculum both content and the way content is organised to ICT-based learning styles where ICT becomes the tool of the learner instead of the tool of the teacher.

This paper will mainly discuss items 1 and 2.

Questions 1 and 2 - the infrastructure and course development - must be looked upon as intertwined. There is no use putting technology on a large scale into schools unless both pupils and teachers are able to use the equipment correctly.

Government approach and government involvement in this process can vary. Some countries set up funds to equip schools with computers and provide Internet access - Sweden and Portugal are following this approach. In Denmark, the government has established a national education network and paid almost all costs for the first two years, on condition that the local authorities fund local area networks and equip schools with computers. The result is that, by the end of the century, close to 100% of all Danish schools, from universities to primary schools (the latter only 75%), will have an up to date network with high speed connections, local area networks often with an Intranet, and with most institutions being very well equipped with computers. Surveys in Denmark have showed the following average rates of pupils per modern computer in schools:

# Number of pupils per modern computer: Denmark

school type	Number of pupils per modern computer
primary and lower secondary	14 (97/98)
general upper secondary	6.6 (98/99)
Vocational	3.0 (98/99)

Other countries have just started the process, but awareness about the need to bring ICT into schools is rising all over Europe.

Connected to the implementation of ICT in schools is the development of major teacher training programmes to teach teachers to use ICT in their teaching practice. Programmes can award a general PC "driver's licence" or, as in Denmark, a specific pedagogical ICT "driver's licence". For the latter, the importance of integration of ICT in the lesson is underlined, of course still combined with drill in the effective use of hardware and software.

## From recurrent education to life long learning

In years to come, the upcoming young generation will have grown up with computers. Computers will be a natural part of their daily life, and most children will already be well acquainted with ICT when they enter school. Most homes with children will have computers and Internet access, and TV, Internet and PCs will be mixed in many different combinations.

This upcoming generation will also approach learning in a way which is quite different from earlier generations. They can "read" pictures in a way few adults can, and they are able to use a number of information sources at the same time. They can watch five to ten TV programmes simultaneously - and they can report the main content in them all! They have a kind of media competence most adults lack. This new competence should in the future have an impact on the way we teach and how they learn. Their natural access to information is not linear. To today's adults it often seems a bit chaotic.

The massive penetration of ICT in every day life will be the reality in most European countries in the next decade. A few countries are already close to that situation, especially the Nordic countries, for instance Finland and Denmark. The latest Danish survey shows that more than 60% of all households now have one or more modern computers at home. 90 % of all schoolchildren now have access to ICT on a daily basis - in home, schools and public libraries.

This underlines the importance of teaching pupils how to access and analyse the massive amount of information available on the Internet, both for school life, and also as the necessary basis for life long learning.

ICT targets will be needed in school for different age groups. Below we provide an example of how this might look.

Grades	Achievements	
1-3	- can use word processing and drawing programmes	
	- have knowledge about spreadsheets and how to use e-mail	
4-6	<ul> <li>be very familiar with word processing and drawing programmes</li> <li>should use spreadsheets and communication programmes</li> <li>have knowledge about IT- based presentations, IT based information sources, video- and sound handling</li> </ul>	
7-9	<ul> <li>pupils should be very familiar with all the programmes mentioned above</li> <li>be able to choose to use or not to use ICT, based on the character of the problem</li> <li>be able to select the best programme for a certain problem</li> <li>understand that computers can be used to solve many different problems depending on specific choice of programmes and external units</li> <li>understand the implication of the use of ICT both for the work process and for the result</li> <li>be able to analyse and have a critical approach both to their own and to others' use of ICT</li> </ul>	

10-12	- be able to search structured and critical information in ICT-based sources of information, and elaborate the retrieved information to be used in projects.
	The pupils should have some knowledge on copyright issues
	- be able to use ICT for communication purposes - both mail and discussion
	fora; understand the communication process and the way it influences choice
	of media, content of information, etc.
	- know ethical and legal rules for the use of networks
	- be able to use modelling and simulation, for instance in connection with
	economic and biological phenomena

The overall goal is that all pupils should be able to leave school not only with a solid basis for practical use of ICT technology, but to have quite a high level ICT "driver's licence". More important is the increasing stress on a methodological and critical attitude to the information content transported via ICT. The goal is that when pupils leave school to start in universities or enter the job market, they should have a very good basis for life-long learning. They should be equipped with critical tools so that they can handle their own learning situation for the rest of their lives.

This is part of a wider change in educational attitudes. Traditionally, education focused on teaching facts. Now, the sheer volume of fact and the pace of change are such that a new emphasis is needed on methods of finding information and a critical approach. This will give the younger generation good tools to handle information, to select trash from quality, and to handle improper material according to their moral and ethical values.

# ICT education and training for adults

Most adults over the age of 25 have not met ICT in school. Many, though not all, of them will be familiar with ICT in their workplace and from company programmes to offer home computers. In Denmark, as in many other countries, home computers are offered on condition that the employee passes the whole or part of the PC "driver's licence" within a limited period of time. This will provide them with qualifications for proper use of the equipment. However, they quite often have to acquire a critical approach to the Internet information flow in another way.

For adults with an extensive educational background, this qualification will probably already be an integrated part of their job function. But quite large groups of adults with a lower educational background will probably not have had the critical and methodological training and will therefore be rather vulnerable to the Internet information flow.

Today, lots of ICT courses are offered to the public, and they are very popular, not least among senior citizens who are retired and did not use ICT in their working life. Most of the courses concentrate on giving the students "hands-on" qualifications. These qualifications are, as mentioned earlier, the basis for later active and critical use of ICT, but on their own they are not enough. Solutions to this problem based on formal education and training programmes are not apparent in the foreseeable future.

# Hybrid-mail: the Italian experience with e-mail access through postal services

## Marco Barbuti, Poste Italiane, Milan

## The importance of low-cost access

This paper is about a new experiment we are carrying out at the Post Office in Italy. We will refer to two important recurring themes of this volume:

- It has been said more than once that Internet access is first of all a matter of money. Nowadays in Italy Internet access is practically free. Big ISPs are using free access as a competitive tool to get and keep subscribers. This is bad news for the small and medium ISPs but of great value for the Italian citizen.
- But the information society is also a matter of content, as has also been said, and of the services that people can find on the Internet.

Exhibit 1	Basic figures about Italian Posts		
Volumes			
Mail	over 3	bn. pieces/year	
Press	over 2	bn. pieces/year	
Cert. Mail	over 3	50m. pieces/year	
Telegrams	over 2	0m. pieces/year	
Parcels	over 5	0m. pieces/year	
Payments	over 7	00m. operations/year	
Employees	190.00	00	
Post Offices	14.000	)	
of which online:	1.200	0	
Revenues (m. Euros)	6.000		
of which, postal servic	ces: 3.200		
of which, financial ser	vices: 2.400		
of which, telecom serv	vices: 120		
Operating Profit (m. Euros	(1.200)		
Quality of convice			
Quality of service	Italv	EU average	
Ordinary mail delivery (in	J+2) 70%	90%	
Ordinary parcels delivery (	(in J+4) 60%	80%	
Mail/per capita (per vear)	111	250 (D) - 410 (UK)	
Mail volume trend (1991-9	-25%		
Dissatisfaction of custome	rs 90% (c	90% (on efficiency)	
	× ×	• *	

## Italian posts – in need of reform

Exhibit 1 displays some basic facts and figures about the Italian Post Office. Until 1998, the Post Office was just a public administration body with rather a large number of employees - 190 000 people, and a very large number of post offices - 14,000 (but only 1,200 of these were on-line). Revenues were high, at 6 billions of euros (mainly from postal and financial services), but labour costs were even higher, leaving an operating loss of 1.2 billion euros. This was the situation until the end of 1997. At the same time performance was very poor - both mail and parcel delivery were much below the European average. Italian people were not so fond of using postal services, their per capita usage being one half of that in Germany and less than one third of that in the United Kingdom, for instance. Also the volume was decreasing quite rapidly, and customer dissatisfaction was at 90%, because post offices were dirty and inefficient with unmotivated staff.

# A new business model for the Italian Post Office

In February 1998 the government incorporated Italian Posts as a public company. In September the new management presented the corporate plan for the next three years. Objectives were:

- within three years to close the quality gap, and to perform postal services at the quality standards prevailing in the European Union.
- a strategic repositioning of the post office versus the competitive and the liberalised market, because within a few years the overall market will be liberalised.
- to rebalance economic performance so as to show a profit.

The new management team put in place a new organisational model and an almost completely new management team - out of 20 top directors, 19 were new or in a new position. The objective is no lay-offs, but to achieve profits by increasing revenues by 1,200 m euros and by cutting costs by 600 m euros, while at the same time drastically improving service.

# Some early achievements

In a few months we have already achieved some impressive improvements. For instance, 44% of standard international mail was delivered within three days of posting, and this has now risen to 90%. This is the result of a complete reconstruction of workload and workflow in post offices. But this is just one out of 100 strategic projects put in place in 1998 and 1999. Another example is the newly introduced service of priority mail, that is next day delivery. At launch our target was 70% achievement, rising to 80% by the end of 2001. Already in September and October 1999 we achieved the 80%. That is something that Italians could not imagine a few months ago. It is a sign that something is changing.

Other strategic projects of particular interest include:

- Acquisition by the Post Office of an express courier (SDA).
- All 14,000 post offices to be on-line by the end of 1999.

• Training for 70,000 people. Within 3 years we shall deliver 1.5 million days of training to Italian post office people. We hope this will provide added value through trained people getting on-line during their leisure time with their families and in their communities.

# Hybrid mail – from a business to a consumer service

One of our strategic projects is the Internet service for which I am responsible. We started by analysing what was going on abroad, and we found that all over the world – for example in the USA, Canada, Australia and the UK - post offices were launching similar projects. The relative importance of the standard mail is reducing, and after the telephone and the fax the future is of hybrid mail and E-mail.

In Italy, we have historically had great success in hybrid mail. This has been a special service for very big customers with huge quantities of mailing. A dedicated company handles electronic data and prints them out in one of the many printing sites all over Italy. The Internet is not involved. In this service we have been ahead of other countries.

In Internet use, Italy is still a little behind other European countries, but is developing very fast. During 1999 we shall have 3 million consumers accessing the Internet, and this will be trebled by 2002. Also we have in 1999 over 2 million business people accessing the Internet, which we expect to rise to 3.5 million by 2002. Thus we already have around 8% to 10% penetration - below European averages, but with a rapid growth trend.

To convert the Italian Post Office into a leader in the Net economy, we have three aims:

- First, to build a company which itself makes full use of electronic services. This means extending the intranet to all our post offices and automating all our basic services.
- Second, to develop new businesses and services, taking advantage of the possibilities opened up by the Internet.
- Third, to meet our responsibilities to citizens. We aim to provide e-mail for all Italians, Internet access at Post Offices, and possibly also assistance and training for people not able to get them otherwise.

In support of the third aim, in 1999 we have launched a project group for on-line services. Our first service is "InterPosta", hybrid mail for consumers. Our new company, Postecom, will be devoted to Internet services. In September 1999 Postecom launched three important projects: electronic mail, Internet banking and certification authority.

# New on-line services for consumers

We want to deliver not just simple email, but also enhanced services such as secu-mail and ad-mail solutions.

In banking, the post office is already one of the most important payment tools for Italians we perform 700 million payments per year. We plan to improve and expand this service by putting it on the Internet. We shall have a certification authority for digital signatures, we shall develop electronic payment for deliveries from shops and businesses on the net, and we shall also provide electronic versions of standard postal services. These will be delivered to customers through an informative portal site. This will offer personalisation and a sense of community for our customers. For people without home internet access, we shall have self-service kiosks in post offices.

Of course, as the basis for all these services we need to develop a very strong and secure underlying platform. In July 1999, we launched our new website. Before this, the Italian Post office did not have a standard website. Now, available tools include:

- Searching for the closest post office
- Searching for area codes
- Tracking and tracing express mail
- Ordering stamps
- General Internet access with search engines
- Hybrid mail.

# InterPosta hits the headlines

Hybrid mail, known as "InterPosta", is the new way for people with Internet access to send a single letter through the web. The address and area code can be selected from a very big file that we have, and users can also keep an archive of letters sent, develop a personal address book and receive a notification if delivery fails. At present payment is by credit card, but we plan to offer other payment options such as pre-paid cards or post-office credit accounts. After registering yourself on the home page you prepare a letter on-line, then check how it comes out, and if you are happy you can send it. Immediately, the receiving post office will print it, put it in an envelope and bring it to the end user.

This service aroused a lot of Press interest. Within two months of launch, we had 20,000 registered users who had sent 30,000 letters. We also had a marketing agreement with a commercial portal site *Il Sole24ore* and had sold 100,000 letters to each of Infostrada and Albacom.

# Looking to the future

This is just the beginning. Now Postecom plans to enlarge the website to develop a virtual post office. Within a few months we shall launch:

- Postal E-mail boxes for all Italians
- Digital signatures using personal smart cards. In Italy this has already legal validity. Certified email opens up possibilities of new secure applications like declaration of taxes.
- Internet access to postal credit accounts and to postal bill payments, to convert and further increase the 700 million bills that Italians already pay at the post office.

• Trial Internet kiosks at post offices, to assess customer reactions.

The explosive success story of mobile phones in Italy is already well known. Nowadays we have 25 million mobile phones in Italy -50% of the population. Although they are expensive, people find mobile phones simple to operate and they love them. Now we are looking to achieve something similar for the Information Society.
# The potential synergies offered by universal access to Internet services for the public and private sectors

Bernard Vergnes, Chairman, Microsoft Europe, Paris

# Introduction

This paper covers the potential synergies between the public and private sector in establishing universal access to Internet services. We also consider the challenges involved, which include:

- the very rapid evolution of technology
- the cost
- where the money can be found
- how the cost issue is evolving
- the psycho-sociological acceptance of the new technologies.

The question is not only whether you have money to go on the Internet, but also whether you are mentally equipped and ready to go on the Internet.

This paper also covers what Microsoft calls the 'Road-ahead Programme', which is a sort of community affairs initiative.

## Rapid adoption of the internet in the USA and Europe

It is fair to say that never before has any technology been accepted, popularised and promoted as fast as the personal computer and the Internet in its current generation as a web.

- It took nearly 100 years for the telephone to cover 90% of the American population. The PC will reach 60% of that population in less than 25 years.
- The cellular telephone in Europe is growing even faster than that in terms of penetration of the population.
- The number of people who connect to the Internet doubles every 100 days in the US. Europe is slightly behind in this.
- In the US about 55% of people at work have a PC on their desktop, while 35% have a PC in the UK, in Germany, and in France.
- The Nordic countries have embraced the technology faster than the rest of Europe and in most instances almost as fast as the US. In Sweden, Internet use is higher than in the USA. Italy and Southern Europe are behind them.
- More than 50% of households in the US have access to a PC and potentially to the Internet (they do not all connect but they could).

• In Europe, lower but still substantial percentages of households have access to a PC – in the UK around 35%, in France and Germany just over 20%, and in Sweden 40%.

### New devices for internet access

The basis of this huge growth has been the evolution of the power of the microprocessor. This is doubling every 18 months at constant cost, as it has been for 20 years and will most probably continue for the next 10 to 15 years. The cost of acquiring a PC and data processing power is going down, and the number of PCs is exploding.

We are entering a new era where it is not only the use of PCs that is increasing. With the evolution of the microprocessor and miniaturisation, people now have more power in a smaller package and there is diversification in the equipment involved.

- When you have a cellphone in your hand you potentially have a PC. You can now buy one that allows connection to the Internet. It will be popular and affordable probably in the next twelve to eighteen months.
- The television is becoming an Internet appliance, at the moment more in the US but it will soon come to Europe.
- Small computers and pocket calculators are also becoming Internet appliances.

The ability for everyone to have access to equipment that allows them to connect to the Internet, exchange E-mail, look at data and find information is evolving at an incredible rate.

## **Pipes and Wires**

The pipes and big communication links are also evolving at a tremendous rate. While the power of microprocessors doubles every 18 months, the capacity of Internet pipes is doubling every 9 months and the cost of connection is halving every 9 months. This rapid change makes planning of any kind extremely difficult.

The necessity for increased size of Internet pipes is largely because of increased demand for video transmission. Two years ago people were satisfied with data characters, text and sound images. Now they are not happy if there are no colours, animation or sound. Good quality of sound is available with the current equipment that is in homes or schools today. But video is the way for people to see each other and talk to each other. If a good quality video is required, then it is necessary to upgrade connections to schools, homes and businesses, possibly using cable TV or new ADSL technology that will be supplied by the telecommunications companies.

Something that will come in the next two or three years and will be very popular is the wireless network. A wireless network will enable a school, house, or business to connect together various Internet appliances, whether they are PCs, cell-phones or terminals, without wires – using radio, or possibly the telephone or electricity wiring that is already in every building. The need for recabling will be eliminated.

## **Plugs and Interfaces**

Another new technology which will come in a few years' time is the universal plug. This is a technology that will allow the automatic detection of all the equipment that comes into the wireless networks discussed above. It will be able to recognise and explain what each item is - whether, for example, it is simply a printer, or a PC that is connected outside to the Internet, or a PC that just connects on the network, or a cellphone. As this plug technology evolves, the cost of building the networks inside a building will come down.

The other big advance to take place soon will be the user interface. At present a PC is difficult to use. We expect major developments in at least two areas:

- Interface technology will enable PCs to see. They will recognise the user in front of the screen, and will automatically display the user's environment, the last web site he looked at and all the applications he was working with. This will be particularly useful in a universal access setting where a number of different people use the same PC.
- In future, the user will be able to speak to the computer and it will listen, understand and speak back. Within the next two years it will be a standard feature of new equipment to be able to recognise your voice, accept commands, probably accept dictation, talk back to you and translate. This translation feature will be key to opening up the Internet, where most information is in English, to the majority of the world's population who do not speak English.

One of the big leaders of this interface technology development is a Belgian company named Lernout and Hauspie.

\* \* \*

In summary, we see that the need for more technology and more infrastructure exists. Technology will continue to evolve extremely fast. Old technology becomes antiquated very fast. After becoming accustomed to the latest technology it is difficult to go back to the past.

Obviously, all this new technology costs money. But when looking at the cost equation, it is important to remember that, because the Internet enables businesses to link together and exchange communication very efficiently, productivity is increasing very rapidly. So using the Internet equals savings.

This works for businesses and it should also work for administrations. Administrations will be able to save a lot of money, which they can reinvest in the technology and find ways to give universal access.

## Savings at Microsoft

Microsoft uses its own products. It has 30,000 user employees at 300 locations around the world, exchanging 3.5 million E-mails every day. Over the last 18 months the company has moved a number of internal processes entirely onto the Internet.

For example, the companies we need to place orders with have a web site that they manage on Microsoft's computers. If I want to buy 10 pencils, a computer and a chair I go to the internal web site of Microsoft, select the types of equipment I want to buy, and place the order.

Automatically the supplier will recognise who I am and whether I have the seniority to place that order. If I don't have the seniority, he will send an E-mail to my boss asking for the acceptance of the order. This entire process is electronic, and the cost of placing an order at Microsoft has gone down from 60 dollars to 5 dollars.

The same thing is happening for invoicing and expenses.

- When people send us an invoice it comes to Microsoft electronically, it is checked electronically and signed electronically by whoever is responsible. The cost has gone down from 30 dollars for every invoice to 6 dollars.
- There were 30,000 people sending expense reports twice a month. The price has gone from 21 dollars in paper form to 3 dollars electronically.

The use of paper for these three processes has been reduced by 97%. Today Microsoft only uses 3% of the paper it was using before to undertake purchase ordering, invoicing and expense reports. And these are just three examples of types of operations found in every business and every administration. So the savings are huge, and that money can be reapplied and reinjected somewhere else.

# Cheaper all the time

A number of factors have been reducing the cost of PC and Internet technology. For example:

- **Tax breaks:** It has been much cheaper to acquire a PC in Sweden than in any other country in Europe because the Government decided to have tax rebates for companies which supplied PCs for their employees. That is the reason Sweden is at the same level of equipment as the USA, at home, at school and at work.
- **Telecommunications deregulation:** for the first time in Europe real competition is bringing down the cost of telephone calls. Communication costs are still too high, but they have decreased a lot and we are starting to see subsidised costs for community services (schools, hospitals.) The idea that local calls could be free is now entering people's minds.
- Advertising: If people are prepared to allow advertising to be put in front of them, then they can have free Internet connection. In a number of cases all over Europe, people can even get a free PC. If you accept this PC and the free Internet connection, which is usually signed up for at least three years, you will be bombarded with attempts to get your money another way. People lacking access to technology because they do not have enough money are often, unfortunately, not that well educated or equipped to make sound decisions. It is potentially dangerous to give them a free PC and a free Internet connection, as this exposes them to temptations of all kinds.

## Social change and the Internet

We are entering 'the Internet generation'. People over 40 years old need to adapt. The Internet is accelerating everything. An Internet year is something like three months.

For young people, acceleration is a normal part of life. They understand speed and the fact that everything goes faster and faster. They understand that in order to do something in this environment, probably the commando approach will work best.

Information access has to be open. You can no longer manage a company, keeping all the information to yourself. You have to give your employees access to information.

The role of the manager or the supervisor has changed dramatically in the last three years. Before, the manager gave information and he was the one who knew most. Now he needs to give the reasoning behind information that is freely accessible. He is supposed to give meaning to work and make sense of the information, which is much more difficult than previously. When you are 45, 50 or 60 you have not been trained that way and it is hard.

Hypertext reasoning happens when you are on the net: you just jump from one site to the next and the mind does not go linearly any more. It drives from one idea to the next and you put the ideas together. Intuition and making decisions intuitively is becoming more and more important. It is more in line with the Anglo-Saxon way of making decisions than with the Latin or German way. It is therefore not a surprise that this technology is more accepted in the Anglo-Saxon world.

The zapping culture - where people zap on television, zap on the Internet and are starting to zap in business - is growing, so the way you run your business, and the way you live in your professional life is evolving very fast. Some people will be able to adapt to the new culture and others will not, and will have problems.

# **Employment Opportunities**

There is a paradox between a high unemployment rate, and an IT skills gap. At the end of 1998 there were about 320,000 unfilled IT jobs in Europe. These are jobs for which qualifications are needed. Because people are not trained, Microsoft could not find people to fill its vacancies. It therefore commissioned a study with ITC, which was presented to the European Commission in Brussels.

Over 4 million IT jobs will be created in the next 4 years, and if nothing is done about training, 1.6 million of these will remain unfilled for 3 years. It is an area where industry needs to act, working together with governments and education boards.

# Legal Issues

There is also the issue of the legislation and regulation attached to the Internet and to this new world. Co-operation is needed between Governments and with industry and users to achieve two important goals, between which there are some tensions:

• not to stifle the imagination of users, so that they can still invent and keep this evolution continuing;

• to increase security, so that for example credit card numbers will not be stolen.

## Microsoft's 'Road-ahead Programme'

Microsoft's 'Road-ahead Programme' is the umbrella for all the community affair programmes that it runs in Europe.

Four years ago, I took a decision to leverage our position as a leading technology supplier, which enables us to talk to many different companies and organisations – for example hardware suppliers, software developers, training organisations or local authorities.

I was shocked to see some of my friends turning 50 and losing their jobs because they had never been retrained by their employers and suddenly they were too old and not useful anymore. The focus of the programmes has been on developing employees' lifelong working abilities.

Microsoft's Scholar Programme is in its fifth year. It is active in eleven countries, and has involved nearly 100,000 people, who were unemployed IT professionals.

It is possible to be an IT professional and, in spite of the IT gap, not find a job. If all you know about is Cobol programming, nobody wants you. Companies look for people trained on Microsoft, Oracle, IBM, the internet technologies.

We work with the employment authorities to identify people. We pay for their training and their certification as Microsoft engineers at any of four or five different levels. 100% of those people get back into work, 93% within 30 days and the rest in 60 days.

Some examples from different parts of Europe:

- **Dublin.** In Ireland, there are no unemployed IT professionals because of the high level of employment there. We have worked with young people between 18 and 25 that had left school, were untrained and had never worked. We worked with the local authority to build up a curriculum that, over a period of 2 years, could bring them to the first level of Microsoft engineer. Of the first group of 25, 24 qualified and after two years, 18 founded their own businesses to supply technical expertise to local businesses. Of the third group of 25, all the people found a job.
- **Belfast**. Microsoft is now working on a programme aimed at encouraging unemployed women to do the same thing. It involves a mixture of both Catholic and Protestant women and we hope we can help them to achieve a balance of understanding.
- **Portugal.** In Portugal we had a project employing handicapped people to supply the technical support for Microsoft. We worked with Portugal Telecom to link people from home, with a number of partners to supply them with special keyboards and PCs, so that they can work effectively and be retrained. We have more than 20 people who supply technical support in Microsoft who are handicapped and are basically working from home. We also have a very similar project in the Czech Republic.

# **Connected Learning Communities**

A connected learning community consists of schools and universities at all levels that connect outside and do something educational on the Internet, technology thereby benefiting society.

Microsoft's work with connected learning communities projects involves asking primary schools to submit projects on how they would use the Internet to help their school. Eight countries are involved. In 1998 1,400 project ideas were received. A selection board in every country assists Microsoft with the applications. Sometimes the projects from different countries are very similar.

In one of the big projects the kids and the teachers decided to use the Internet to understand the diversity of culture and the problem of racism. We have seen this project in France, the UK, the Netherlands and Portugal. In the schools links are being made with the countries of origin of the kids. They are trying to understand each other better.

# **Other Projects**

A number of small local projects, 'graines de multimedia' are taking place in France and in the Netherlands.

One interesting project involved working with children in hospital with long illnesses, supplying them with PCs with an ISDN connection and a video camera, so that they could keep in touch with school. The result of that experiment has been amazing - it is continuing in the participating hospitals, with a very positive effect on many of the children.

A Skill 2000 Programme is taking place in many countries. It involves spending or investing \$15-16,000 over three years to train teachers and mentors and to develop courses so when PCs get into schools people understand how to use them. Having the teacher trained, and having people available to help the kids, is important.

In Sweden Microsoft set up public laboratories with programmes specifically for elderly people. They were helped to get access with partners who got them the PCs and other equipment.

In the UK project work is being targeted at disabled people, so that they can effectively get access to the Internet using specific equipment.

Microsoft is very proud of its Kosovo project. When the Kosovo crisis erupted a number of employees volunteered to do something. We contacted the UNHCR and in about 3 weeks we were able to work with a number of suppliers to find a company that specialised in taking pictures and creating identity cards using PCs. About 80 Microsoft employees spent two and a half to three years on site in Kosovo, training people and taking pictures of refugees and supplying them with identity cards.

## Conclusion

The future is basically what the public and private sectors will be able to invent. Everything is evolving very fast. The more we work together, the better our future will be.



# CHAPTER IV

# SUSTAINABLE ENLARGEMENT OF PUBLIC ACCESS



# Sustainable provision of public internet access

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#### 1 Introduction

In recent years, rapid movement towards the Information Society has become part of the rhetoric of governments all over the world. Official studies and declarations of intent are proliferating, and increasingly these are being backed up by concrete plans and actions<sup>18</sup>. Highly relevant to us in Europe is Romano Prodi's eEurope initiative, announced in December 1999 and discussed by Member States of the EU in March 2000. The statement<sup>19</sup> begins:

"The objective of the eEurope initiative is ambitious. It aims to bring everyone in Europe – every citizen, every school, every company – online as quickly as possible".

It goes on to discuss ten action areas and gives 50 or more detailed targets, of which two are especially relevant to this paper:

"By the end of 2001, access to Internet and multimedia resources in public centres shold be made available to all youngsters, including in less-favoured areas"

"By the end of 2000, Member States and the Commission should ensure that citizens have two-way electronic access to basic interactions (eg tax forms, applications for funding etc) which enables them both to receive information and submit returns"

Most European countries<sup>20</sup>, if they commit themselves to anything resembling these goals<sup>21</sup>, will need to devote greatly increased efforts to providing public internet access, and will need to deepen their understanding of how best to proceed. This volume aims to contribute to that understanding.

Public internet access is a new and dynamic area of activity. As yet there is little "received wisdom" on the subject, and it is premature to draw conclusions on the success of many young ventures or the merits of the approaches underlying them. However, this chapter aims to round off the volume by illustrating a variety of options and highlighting some of their key features.

<sup>&</sup>lt;sup>18</sup> For example: Annoucement of more funds for Australia's Networking the Nation programme, February 2000, at <u>www.dcita.gov.au/rtif.html</u>. New US budget proposals, February 2000, at <u>http://digitaldivide.gov/2000-02-02.html</u>. Report *Achieving Universal Access*, Booz Allen Hamilton, March 2000, at <u>http://www.number-10.gov.uk</u>

<sup>10.</sup>gov.uk <sup>19</sup> eEurope – An Information Society for all. Communication on a Commission Initiative for the Special European Council of Lisbon, 23 and 24 March 2000. An interactive site to track progress is at http://europa.eu.int/comm/information\_society/eeurope/index\_en.htm

<sup>&</sup>lt;sup>20</sup> Intending EU members, and other members of the Council of Europe, seem determined at least to match the pace of the EU. Excellent examples are the Strategy and Report on Information Society development in the Republic of Bulgaria (October 1999), available at <u>http://www.cpt.bg</u>

<sup>&</sup>lt;sup>21</sup> At the time of writing it seemed that the Lisbon Council had accepted the first target as it stands but delayed the date for achieving the second until 2003.

Several interwoven strands seem to be essential to a sustainable, successful public internet access project. At a high level we identify the following, each of which we discuss below:

- Sustained leadership and co-ordinated management.
- Sound, continuing funding.
- Balanced attention to different user needs.
- Community roots.

**Sustained leadership and co-ordinated management** at both national and local levels are of the first importance. The vital role of central government in articulating a national vision is well recognised<sup>22</sup>; government has also to lead by example. By co-ordinated management we mean information sharing and partnership among all concerned in different initiatives. This is the way to avoid three similar facilities being provided in one area and none at all in another, where the needs may be even greater. A degree of central planning is needed<sup>23</sup>, which at the same time respects and nurtures local enterprise. The mutual support provided by networking among telecentres in a region, or with common interests, can also make a big difference.

**Sound funding** is not the whole story in getting public internet access off the ground. However, it is essential to success. And funding goes well beyond money, into the realms of control and relationships – the English proverb "he who pays the piper calls the tune" doubtless has its equivalents in all European languages. Our discussions below are largely structured around different sources of funding. A recurring theme will be partnership, often three-way – involving the public sector, the private sector and the community and voluntary sector.

**Balanced attention** to a range of user needs is equally essential. Providing suitably housed and connected **equipment** is a start, but it is not enough. Users will be attracted to the facility not by the equipment but by the **content** to which it gives access. This content has to be relevant to their lives. Most users will need human **support** and **training**, and the facility and equipment will certainly need ongoing **maintenance**. If provision for any one of these needs is out of step with the rest, the whole project can fail. Keeping up momentum after the initial enthusiasm has worn off is a special challenge.

**Community roots** have been found to underly the success of many projects. The best project leaders are often **local champions** who understand local needs and whose enthusiasm inspires others. And the strongest projects grow with community **participation** and support. These are often existing communities – maybe a village or a club – but equally, new communities of interest may be fostered by the facility itself.

<sup>&</sup>lt;sup>22</sup> From many possible good examples of central government leadership we point to those of Portugal (see paper by Prof. Dias Coelho above at p. 71) and Bulgaria (see footnote 20 above). In Switzerland, by contrast, leadership is left to the cantons.

<sup>&</sup>lt;sup>23</sup> Few estimates have been made of the number of public internet access points (PIAPs) that will eventually be needed. In Canada, one per 10,000 population is suggested. Applying this to the UK would result in fewer PIAPs than post offices but more than public libraries.

The main part of this chapter consists of a series of examples within a conceptual framework, both illustrating current practice and pointing to likely future directions. This is presented below. But first we discuss a few basic ideas:

- What do we mean by the term "public internet access"?
- What are the functions of public internet access, and is it a transitional phenomenon?
- The importance of the access environment and social context.

# 1.1 The meaning of "public internet access"

This paper uses the term "public internet access" to mean a physical location where any member of the public can gain general access to internet resources for at most a moderate charge. This excludes, for example, a large proportion of educational access provision, which although in a public institution is accessible only to the students of the institution concerned and not to anyone<sup>24</sup>. "General access" here excludes certain special-purpose systems, which although physically accessible to the public provide limited information, for example only on government services<sup>25</sup>.

In keeping with the inclusive philosophy of public internet access points, there will normally be an intention to make the facilities equally accessible to people with disabilities<sup>26</sup>. Of course, it must be recognised that by the nature of their disabilities some disabled people will be much better served by access in their home or in another place which they visit regularly.

Note that our definition of public internet access does not refer to public purposes or public funding. Indeed, as we shall see below, we expect much public internet access to be provided with the help of commercial funding. Also, our definition is in terms of physical access rather than of content. We acknowledge and will return to the vital role of appropriate content in making physical access meaningful or worthwhile; equally, however, content without physical access is useless.

# **1.2** The functions of public internet access

The obvious current function of public internet access is, by analogy with public telephones, to provide access for individuals who do not have it otherwise – whether at home, or at work or school – or who are temporarily unable to use their usual place of access, maybe because of travel or school holidays. The rapid growth of home and workplace internet access may make the first function seem unnecessary, or at best a transitional and probably short-lived requirement. Similarly, the spread of sophisticated internet-capable mobile phones may make the second function seem equally transitional.

<sup>&</sup>lt;sup>24</sup> Increasing numbers of schools and colleges are now making their access resources more widely available, which may move them into the "public access" category.

<sup>&</sup>lt;sup>25</sup> It is not however intended to imply that all internet content must be available. For example, the use of filtering software in a public library to satisfy local preferences on taste and decency would not mean that this was no longer public internet access.

<sup>&</sup>lt;sup>26</sup> See paper by Daniel Dardailler, above at p. 49. Other useful references: the Portuguese legislative framework at <u>http://www.missao-si.mct.pt</u>, including the pioneering Council of Ministers Resolution no 96/99 concerning the accessibility of public administration websites for citizens with special needs; and the papers from Technology and Disabilities conferences at <u>http://www.csun.edu/cod/</u>

We argue, however, that public internet access is likely to be here to stay – though its size and shape will change as fast as the internet phenomenon itself changes. We assume a continuing fast growth of internet applications in many areas of life which affect everyone, including commerce, government, education and leisure. The reasons for continuing public access include:

• **Training:** Good public internet access points supply not just physical access for those who already know the ropes, but staff and colleagues offering tuition and support for those who are new to the internet. The demand for such "induction training" may be expected to peak and then gradually fall away, as the majority of interested adults become internet-literate, while all young people will receive such training as part of their formal education. However there will be a continuing long-term need for both refresher and update training, for a wide audience, to handle new features and techniques. Such training will appear in various forms (self-tutorial, formal classes etc) but a personal approach offered at a convenient local centre will be attractive to many. Exhibit 1 demonstrates the warm reception given to induction training in Malta, and how it lays a foundation for branching developments.

#### Exhibit 1: Community Empowerment Centres (CEC) in Malta

The idea is to set up centres in community spaces that stimulate and motivate the community to come in and learn ICT skills. The community is then urged to go back and assist in community building by using their ICT skills. The inspiration for this was the US Community Development Corporation concept from the Kennedy administration in the early 1960s. Corporations were challenged to partner with inner city communities encountering social and economic problems, and together develop projects that help to uplift the particular community.

My concept is that CECs are initially used as learning centres, then skills acquiring centres and ultimately they can also be used as opportunity centres for teleworking and telebusiness initiatives.

The first CEC in Malta was set up in Fgura (Pop. 12,000) in 1996. In a period of about 15 months over 450 people underwent ICT awareness courses. The ages varied from 5 years to 76 years. We also did morning sessions for housewives, and a special programme for disabled people. In view of the interest generated during the housewives' sessions I went further and developed a programme called Women Empowerment Initiative. The programme was directed to raise ICT awareness among women. 45 women attended and this was very successful.

I then opened another Centre in Bormla (Pop. 7,000); around 100 people attended here. Once I did another two villages a national epidemic started and today over 45 local councils (out of a total of 67 in Malta) have conducted ICT awareness courses, with over 3,300 people having attended. In a telephone survey we conducted after the Fgura experience we found that 25% of the attendees purchased a computer and 75% went on to attend more specialised courses.

The overall objective of the course is first to help people overcome their fear of technology. Secondly we help them to understand that this is not rocket science and that they can do it too. Thirdly we expose to them some tools which they can use for learning, working, doing business or plain leisure. The attendees are asked to participate in a very informal environment. The sessions have facilitators not teachers or lecturers. I like to think that we are facilitating their entry into cyberspace and giving them some basic tools to explore and discover themselves. It is a very simple hand holding exercise...which works.

We promote the courses through a flyer which is distributed door-to-door. We use other sources too. For example in Fgura because the parish priest supported the programme he would announce it during mass every Sunday. The programme is very well liked by the media too and politicians have visited the programme on various occasions.

Funding is mainly part organisers and part course attendees. The Local Council provides the premises. The companies provide the hardware, software and courseware. The attendees pay Lm 16 (US 2.65 = Lm 1) for 10 hours.

Source: Adapted from material supplied by Joseph G. Woods, WOODCO Ltd, Valletta, Malta

- **Technical facilities:** Public internet access points may continue to offer technical facilities that are a step ahead of what most individuals have at home, and much better than the older equipment which less-well-off households are likely to have<sup>27</sup>. Currently, for example, this could mean fast access through a high bandwidth connection, and a large, clear screen display. Coming soon will be smart card readers and full two-way video. In future we might envisage "virtual reality" facilities which envelop the user in an alternative environment and who knows what else? People who have had the chance to try out better facilities will be more likely to upgrade their own installations, so there will be strong commercial motivation to make the latest technology available for "test driving".
- **Backup capacity:** Even in an era (whose arrival is at best uncertain) of universal home internet access, we should expect a demand for complementary public access. Home systems may fail, or be required at the same time by more members of a household than can be catered for. People who are used to home access will want the same when they are away from home, and may not possess a mobile terminal, or may prefer the quality of a fixed installation to that of a mobile. And for as long as home access is not universal, public access will remain the primary access option for many.
- **Group and community use:** Some internet activities are by their nature individual and best carried out in private for example this applies to much work, much study, and to most transactions. However, there are also unending possibilities for peer support, team projects, group entertainment, and so on, which are by their nature suited to shared access points<sup>28</sup>. Such surroundings will stimulate immediate interaction and debate. One of the most exciting aspects of the internet is the new scope it offers for community initiatives, and we may expect continuing growth in group uses for the internet, with a corresponding demand for appropriate premises and facilities.

Support for the view that public internet access will continue to be needed comes from a recent Danish study<sup>29</sup>. This observes that Scandinavia saw the earliest telecentres (in the 1980s), but their number has declined in Denmark and Norway in the face of very high

<sup>&</sup>lt;sup>27</sup> This is especially likely to be true with the rise of recycling cast-off business computers for use by low-income households.

<sup>&</sup>lt;sup>28</sup> The social context will be vital for successful group use. We draw here and elsewhere in this chapter on the useful research on cybercafes and telecottages carried out by Sonia Liff, Peter Watts and Fred Steward in the UK, the USA and Finland. See project "Gateways to the Virtual Society" at <u>http://www.brunel.ac.uk/</u> research/virtsoc.

<sup>&</sup>lt;sup>29</sup> See *Models for multi-purpose community information centres*, by Morten Falch, CTI Working Paper 49, September 1999, Technical University of Denmark. This useful study includes information from many different countries.

penetrations of personal computers in private homes. However, in a recent public hearing in Denmark, establishment of public IT centres was given top priority among private citizens.

# **1.3** The access environment and social context

Closely related to the point above about group use is the question of the environment and social context for public internet access. To achieve sustainable funding, a public access centre must have a reliable user base. Educational institutions have captive user bases, but nobody is compelled to use any particular public internet facilities. The success or failure of a public internet access point depends on the public that it attracts, and this in turn is greatly influenced by its location and the environment that it offers.

Assuming equal awareness of both, young people may gravitate towards a café atmosphere with background music chosen by their own generation, while a different group would feel much more comfortable in the public library. People responsible for small children may only be able to use internet facilities that are co-sited with a creche. Members of existing community or religious groups may be happier to experiment on these groups' premises than elsewhere; and so on.

The content that people expect to find interacts subtly with the environment and social context. For example, the Austrian government now makes available a large body of Austrian law online<sup>30</sup>. Many citizens may prefer to use this in a "serious" environment, such as an advice centre with qualified support staff available. Internet chat or entertainment may however feel more appropriate in a "club" atmosphere.

Creating awareness is itself a costly challenge, which may be achieved for example by a cybercafe's city centre shop window, by advertising, or by going through the channels of an established affinity group<sup>31</sup>. Concerted IT awareness campaigns concentrated on a few days are becoming increasingly popular<sup>32</sup>. As well as getting a message to the public, they may bring new business partners into play, who are initially only prepared to open their premises for a day, but could eventually extend their contribution.

# 2 Conceptual framework

Before introducing examples, we consider the range of sources of finance for public internet access, and the motives that each source may have for devoting resources to this end. For clarity it is worth distinguishing these, but in reality most projects are funded from more than one source and for a mixture of motives. There are good arguments that mixed funding is not only often necessary but also desirable, leading to broader-based support and greater stability than single-source funding. It is no accident that a major UK initiative for online communities calls itself Partnerships Online<sup>33</sup>.

<sup>&</sup>lt;sup>30</sup> The Legal Information System (Rechtsinformationssystem or RIS) of the Republic of Austria, at <u>http://www.ris.bka.gv.at</u>, contains 92% of federal law, the Federal Law Gazette since 1983, and laws from all 9 states.

<sup>&</sup>lt;sup>31</sup> See work of Liff et al for further discussion, above at p. 57.

<sup>&</sup>lt;sup>32</sup> Good examples include the Estonian "Tigrituur" roadshow and the Bulgarian 3-day Fiesta.

<sup>&</sup>lt;sup>33</sup> See <u>http://www.partnerships.org.uk</u>

The main sources of funding that we distinguish are:

- **Governments**, and governmental organisations, at all of their various levels: local, regional, national, and international. Local government has taken special initiatives in a number of areas, such as Pirkkala in Finland<sup>34</sup> and Manchester in the UK<sup>35</sup>. International seed funding, such as from the EU in Europe and from the ITU in developing countries worldwide, has been especially influential in recent years. A good example of national government funding is that of Canada<sup>36</sup>.
- **Private sector commercial organisations**, with direct or indirect interests in public internet access. Microsoft<sup>37</sup> is an example of a company with resources and influence exceeding those of many countries. Exhibit 2 shows some of its current activities with partners in the US. At the other extreme, there are some small internet service providers whose offices may double as public internet access points.

#### Exhibit 2: Corporations fund US youth access

A partnership called PowerUp will align rivals America Online and Microsoft, sports-snack maker PowerBar and Gen. Colin Powell in a multimillion-dollar initiative to combat the growing gap between the digital "haves" and "have-nots." The partnership will work closely with America's Promise: Alliance for Youth, Gen. Powell's much-publicized program to try to improve the lives of children. The private-public partnership aims to bring computer access to every child in the nation by creating thousands of technology centers in poor communities over the next few years. It is the largest such program to date. The Case Foundation is providing an initial \$10 million grant; half will go to staff salaries, and the remainder for community programs. Gateway is committing 50,000 computers and AOL will give away 100,000 accounts. Microsoft and Sun Microsystems will sponsor sites in their hometowns. Nonprofits such as the YMCA and the National Urban League are lending classrooms and outreach while the federal government will loan AmeriCorps-VISTA volunteers to serve as trainers and mentors. Although AOL's Steve Case promised that children using the new computer centers would not be bombarded with advertisements, the initiative is unarguably a marketing boon for major sponsors since the children will be accessing the Internet through AOL accounts on Gateway computers. PowerUp plans to erect at least 250 new tech centers by this time next year. Four pilot sites opened earlier this month.

SOURCE: Washington Post, November 1999, summarised by Benton Foundation news service

- **Private sector non-profit organisations**. Many powerful organisations with substantial funds at their disposal have purposes other than profit; for example they may further charitable, educational, religious or political goals. The Soros Foundation<sup>38</sup> has been instrumental in the funding of public internet access points both in its founder's native Hungary and in Estonia.
- End users. Usually as an addition to one or more major funding source, but sometimes (on a co-operative or commercial basis) as the major source of funds, end-users' contributions are vital not just in themselves, but as a way of keeping the management responsive to its customers' requirements.

<sup>&</sup>lt;sup>34</sup> See paper by Risto Koivisto, above at p. 83.

<sup>&</sup>lt;sup>35</sup> A long list could be drawn up of many other equally good examples.

<sup>&</sup>lt;sup>36</sup> See <u>http://cap.ic.gc.ca</u>

<sup>&</sup>lt;sup>37</sup> See paper by Bernard Vergnes, above at p. 107.

<sup>&</sup>lt;sup>38</sup> See <u>http://www.soros.org</u>

We divide the motives for supporting public access into tangible and intangible. The tangible motives are relatively transparent, and apply across the board. All types of funding source seek, to varying extents, to:

- **Save costs.** For example, by enabling remote teleworking, a rural telecentre may save companies office costs and/or permit the employment of cheaper labour.
- **Deliver services more effectively.** For example, local government may be more readily accessible to its constituents through many distributed access points than though a single central office.
- **Increase their revenues, directly or indirectly.** The phenomenon of "free" internet service provision, in fact funded by phonecall and/or advertising revenues and so indirectly by consumers, is already well known in many countries. We expect a growth of analogous developments for public internet access. This motive naturally applies most strongly in the world of commerce, and we explore it more fully below.

Intangible motives are harder to identify with certainty, but are potentially important to recognise. They include, for example:

- **Idealistic motives,** for example in support of democracy, culture and education, openness of information, and equality of opportunity all widely accepted ideals. These underlie the Council of Europe's own initiative for Universal Community Service, as is made clear in the preamble to the recommendation<sup>39</sup>.
- Stimulating economic growth is a popular motive for governments at all levels. For example, seeking the largest possible markets for e-commerce could be one of the strongest drivers for public internet access in the UK<sup>40</sup>
- **Spreading ideas** that are less widely accepted than their proponents would like them to be could prove to be a potent force in internet access development. These could for example be political or religious ideas, or simply enhancing the reputation of a company or government. While such motives are not necessarily undesirable, it is obviously important to be aware of them when assessing related content.

In the light of this analysis of motives, we now look in more depth at the characteristics of the first two main funding sources identified above.

**Government funding** of public internet access appears typically to have one of two main motives:

• Spending from current account may be justified by operational savings or improved effectiveness, for example savings in providing information about benefits eligibility coupled with improved benefits delivery.

<sup>&</sup>lt;sup>39</sup> Council of Europe Committee of Ministers: Recommendation number (99)14 on universal community service concerning new communications and information services, with Explanatory Memorandum. Adopted at the 678<sup>th</sup> meeting of the Ministers' Deputies on 9 September 1999. Reproduced above at p. 17.

<sup>&</sup>lt;sup>40</sup> See report <u>e-commerce@its.best.uk</u>, September 1999, available at <u>http://www.cabinet-office.gov.uk</u>

• Spending from capital account may be seen as an investment in social equity, or more cynically in improving the government's prospects of re-election.

To make the best use of scarce public resources, government funding is often structured so as to provide an incentive for complementary private funding, for example through matching funds or tax concessions. As a side-effect this leads to shared control of the projects in question, which may be a good thing or not depending on your point of view.

**Private sector commercial funding** has the straightforward motive of realising a profit. This could contribute to public internet access in a variety of ways, direct and indirect. We expect to see more of this in the next few years. For example:

- The telecoms, IT and internet service provision industries benefit directly from increased internet usage. They have a clear incentive to foster the widest possible internet access and to grow use. In some countries<sup>41</sup> this motive has been institutionalised and the telecoms industry is required to subsidise public internet connections.
- Any company with a product or service to sell may regard part funding of public access as a useful route to market. For example, a baby food manufacturer might sponsor access for a women's group.
- The presence of an internet terminal on commercial premises may offer synergies with other sales. An obvious, if minor, example, is the coffee sales of cybercafés. In some shops, for example bookshops, an internet terminal could play a useful role in simply getting more people inside, following which they may make impulse purchases. In others, the terminal could be provided primarily to support sales of the main product (eg in a bank, for financial services, or an estate agent, to browse available properties) while offering wider access as an attractive extra facility.

An analysis of **end user requirements** is a subject too big for this paper. However we do point to its absolute necessity in each individual case. Plainly, users in an area of declining heavy manufacture will be looking for something different from those in an isolated farming village or a city centre. Traditional socio-economic classifications may not be the best basis for further analysis. As an illustration, user research carried out in London<sup>42</sup> (outside the centre, but still urban) divided users into the following categories, acording to their attitude to new technology:

- Self-styled experts
- Enthusiasts
- Future users
- Academic interest
- Necessary evil
- Technophobes

<sup>&</sup>lt;sup>41</sup> The Royal Decree of June 22, 1998 ratifying the management contract between the Belgian State and Belgacom, requires Belgacom to provide "I lines" (dedicated to internet access) at subsidised prices to schools, libraries, and hospitals. Available at <u>http://www.belgacom.be</u>

<sup>&</sup>lt;sup>42</sup> Social inclusion and the digital divide, 1999 paper by Barry Quirk, Chief Executive of the London Borough of Lewisham, circulated informally.

As is well known in development circles, misunderstanding of user needs is a quick route to wasted resources and project failure. A classic example is the provision of piped water to homes in a village. The residents continued to draw water from the well because it was the centre of social interchange.

## Anchor use and ancillary services

A great variety of products and services may usefully be provided alongside public internet access. Richard Fuchs, a telecentre pioneer, observes:

"...In Wales and Australia, the focus was on training. In Sweden it was on distance education services. In Canada it was on small business information and support. In South Africa the Mamelodi telecentre emphasizes community information, events and resources while in Senegal, the focus is squarely on telephony....it is important to have an anchor use or "major tenant" for the telecentre..."<sup>43</sup>

The exhibit below illustrates the "other facilities or services" provided at one or more of 48 Hungarian telecottages surveyed in May 1999.

<sup>&</sup>lt;sup>43</sup> Quotation from "Little engines that did": case histories from the global telecentre movement, by Richard Fuchs, online at <u>http://www.idrc.ca/acacia/engine</u>

**Facilities** Services Services continued Advertisement board Agricultural information service Public information service Computers Almanacs, catalogues, Supporting community initiatives CD-drive encyclopaedias (CDs too) Employment service Second hand book store Multimedia programs Colour printer Black printer Coffee, tea Education, training courses Phone lines **CD-ROM** rent Information desk services ISDN lines Civic service centre Computer use consulting Modem Public e-mail service Computer game Computer working Videoconference Tourist information centre Social services assistance Fax Newspaper reading room Translation service Copier Consulting Color copier Sale of books, postcards, etc. Telebanking Scanner Local adverising and information Teleshopping TV set Local homepage redaction Telework assistance Local calendar and other Video recorder Teleeducation publications Video camera Teleadministration services Video projector Local phonebook publishing Televillage centre Flipchart Local radio broadcasting Carpool and other transport Overhead projector Local cable TV redaction services Sound devices Local newspaper redaction Local information centre database Refrigerator Youth Centre Local development centre Coffee, tea machine Public Internet access assistance Minibus Office services, facilities Local development project Local stationary exhibition management Trade, business intermediation Tourist information centre Needs and offers Public administration client Local area development services service help Computer assisted school training Blood-pressure measurement Local competencies information Videoconference service

Exhibit 3 Facilities and services provided at Hungarian telecottages

Source: Hungarian Telecottages Association (http://www.telehaz.hu)

# **3** Some examples of current practice

In this section we identify five current models of public internet access point and locate them within our conceptual framework. Each is illustrated by specific examples. The five models are:

- Commercial cybercafés
- Local government access points
- Public libraries
- Community telecentres
- Public information kiosks.

These models were chosen to provide a broad picture, not a comprehensive classification. Many existing facilities are mixtures of these models – for example the "pure" commercial cybercafe model is often mixed with an element of community interest and funding. Schools are not included among the models, because their primary aim in providing internet access is always the education of their own pupils rather than the public at large. However there is plainly huge scope for school access to be extended to the wider community, under a variety of funding approaches.

Because of the European focus of this book, most of the examples have been taken from Europe. It is important however to realise that public internet access is a challenge being faced all over the world, and that many valuable resources and lessons are available from other regions. We touch on two – North America and the developing world.

# North America

North America has among the world's highest levels of home access both to telephony and to the internet. The idea of publicly supported universal access for both is widely accepted as a simple necessity, to avoid the spectre of the "digital divide", and much progress has been made in this direction in recent years.

A recent US book on universal e-mail<sup>44</sup> states "Simple access to terminals capable of supporting e-mail communications does not appear to be a serious problem. The principle of free access to public-use terminals – in libraries, schools, government buildings, social service centers, and other places – is widely accepted. Such access also appears to be fiscally and administratively feasible, since examples of such public-use terminals abound."<sup>45</sup> Exhibit 4 shows that public access does appear to be used by those without home access.

<sup>&</sup>lt;sup>44</sup> Sending your government a message: e-mail communications between citizens and government. Neu, R C, Anderson, RH, Bikson, T K. Rand 1999.

<sup>&</sup>lt;sup>45</sup> This does not however imply that there is no problem. The book goes on to consider how internet access can itself be provided at subsidised rates without undermining the competitive market.

#### Exhibit 4 Americans Increasingly Use Internet Outside the Home

As Internet use has soared over the last year, Americans are connecting to the Internet from various locations to complete more and more tasks. In addition to the 22.2% of Americans currently connected to the Internet from home, 17.0% access the Internet outside the home at places such as work, school, libraries, and/or community centers. Those groups with higher access from work tend to be the same groups with higher home usage rates, while demographic groups with lower access rates at home or work are far more likely to use the Internet at a public place.

Highlights:

- 22.2% of Americans have Internet access from their homes, while 17.0% use the Internet outside the home. Nearly one-third (32.7%) use the Internet from any location (at home and/or outside the home).
- People without home computers are almost 1.5 times more likely than home computer owners to obtain outside Internet access through public libraries or community centers.
- More than half (56.3%) of Americans who use the Internet outside the home access it from work.
- The second most popular point of access outside the home is the Kindergarten-12th grade school (21.8%).
- For those accessing the Internet outside home, 8.2% of Americans use public libraries as an access point.

Source: NTIA press notice based on report *Falling Through The Net: Defining The Digital Divide*, July 1999, at <u>http://www.ntia.doc.gov</u>

Initiatives to overcome the "digital divide", through the provision of public internet access and otherwise, also abound in the United States. The largest single organisation is probably CTCNet<sup>46</sup>, but there are many others. The Benton Foundation<sup>47</sup> provides a valuable means for sharing experience among them. As a broad generalisation, most are publicly funded<sup>48</sup> with minimal contributions requested from users, and these more to help to ration a scarce resource than to make a significant contribution to funding<sup>49</sup>.

Canada is widely thought to have the largest national programme for public internet access<sup>50</sup> of any country, both in absolute terms and relative to its population. So far around 5,000 rural<sup>51</sup> access points have been established and there are plans for a further 5,000 in more urban locations by the first quarter of 2001. This will amount to one access point per 3,000 population.

### **Developing countries**

At the other end of the spectrum, many countries in the developing world are still working towards providing basic shared telecoms access for most of their population. Public internet access points now play an increasingly significant part in universal telecoms access strategies. The same modest installation may provide the only telephone for a village, as well as the only accessible internet access and other facilities such as a photocopier. Naturally, funding is largely through international agencies - only token contributions can be accepted

<sup>&</sup>lt;sup>46</sup> Community Technology Centers' Network, with over 300 members. See <u>http://www.ctcnet.org</u>.

<sup>&</sup>lt;sup>47</sup> A foundation promoting the constructive and socially responsible use of new information and communication technologies. See <u>http://www.benton.org</u>

<sup>&</sup>lt;sup>48</sup> In part through a large industry-funded subsidy programme providing cut-price connections for schools, libraries etc ("the e-rate discount"), but also through many other channels including direct government funding at different levels.

<sup>&</sup>lt;sup>49</sup> See for example *Structuring access: the role of public access centers in the "Digital Divide"* by B Lentz, J Straubhaar, A LaPastina, S Main and J Taylor, University of Texas at Austin, 2000, at <u>http://www.utexas.edu/research/tipi/reports/full.htm</u>

<sup>&</sup>lt;sup>50</sup> Well documented at <u>http://cap.ic.gc.ca</u>.

<sup>&</sup>lt;sup>51</sup> Defined as settlements under 50,000 population.

from most users if these centres are to fulfil their social purposes. Much valuable experience in how best to run "community telecentres" is being gained and shared, for example through the  $\mathrm{ITU}^{52}$ .

# 3.1 Commercial cybercafés

The commercial cybercafé is an increasingly familiar sight in large cities the world over, and in smaller towns in wealthier countries. Primarily targeted at young people, they now even have international guidebooks enabling the backpacker to keep in touch by email from (at latest count) 132 countries. An enthusiast's website<sup>53</sup> also gives a long list (including quite a number of "cyberpubs" where the refreshments are alcoholic).

The key features by which we distinguish the commercial cybercafé model are:

- Wholly or largely commercially driven, hence often relatively expensive to use (but see below) and located in town centres with plenty of passing trade.
- Generally targeted at the already competent user support, while available on request, is not a primary feature.
- Premises clearly dedicated to internet access, with ancillary services (eg refreshments) not normally the main reason for a visit.

Exhibit 5 gives more information about easyEverything, under the same management as the EasyJet low fares airline. As explained below, pricing varies by load, and has been as low as  $\pounds 1$  for 9 hours at night ( $\pounds 1$  an hour during the day is fairly normal). The easy Everything establishments have hundreds of terminals inside and queues outside. They are rapidly opening more branches throughout central London and plan the world's largest cybercafe in Amsterdam in early 2000.

## Exhibit 5: easyEverything cybercafes

The heart of the shop is a state-of-the-art work station featuring the very latest in flat screen technology with the fastest possible access speeds making the world wide wait a thing of the past - luxuries that people can't afford at home. The screens chosen are 15 inch flat panel display

The stores have been designed to appeal to the widest possible range of customers from all age groups providing an open, clean and functional environment and avoiding the "techie" and bohemian style of cyber cafes.

easyEverything are introducing a brand new pricing scheme aimed to:

- provide you with the cheapest Internet access around, 24 hours a day, 7 days a week
- reduce the queues during the peak periods

The price now fluctuates depending upon how busy the shop is. Remember, you never pay more than your logon rate at each visit. If the rate decreases below your logon rate, you automatically receive extra time for that visit. Please see the screen at the front counter which details how much Internet access credit you receive for  $\pounds 1$ . This rate gets updated every 5 minutes.

<sup>&</sup>lt;sup>52</sup> See for example <u>http://www.itu.int/ITU-D-UniversalAccess</u>, <u>http://www.bica99.org</u>.

<sup>&</sup>lt;sup>53</sup> See <u>http://www.cyberiacafe.net/cyberia/guide</u>

Why does it work financially?

- Prime retail sites of 5-15,000 square feet are required to achieve visibility as well as the necessary economies of scale in labour and rent.
- Bulk purchasing reduces the cost of hardware and telecommunications.
- Extended opening hours and high occupancy levels reduce the unit cost (measured in pounds per work station per hour).
- Additional revenue streams will come from the coffee concession, in store and online advertising.
- The easy brand is known and trusted to give the best deal bar nobody and will make marketing more cost effective. A recent survey has shown that more than 81% of people in the Carlton/LWT area recognised the easyJet brand.

Source: Adapted from material at http://www.easyeverything.com

## **3.2** Local government access points

Recent years have seen a spate of "wired city" projects both in Europe and elsewhere. These often focus on the provision of a good user interface to local information, and the creation of a virtual community accessible from any terminal, private or public. Some projects however also include a specific public access element. The characteristics by which we distinguish this model are:

- A large role for local government, often as both prime mover and co-funder.
- Correspondingly, a high profile for local government content and applications.
- Public access may be co-sited with local government offices or in other public buildings (including public libraries, schools etc).

It is hard to pick examples from the wealth available, but Stockholm, Antwerp and Halle are all well-known<sup>54</sup>. In Antwerp, fixed public access points (more than 40 cybercafes, booths and kiosks) are supplemented by two cybercafe buses which visit schools, festivals, fairgrounds and markets.

## **3.3** Public libraries

To some, turning a public library into a public internet access centre seems a wholly natural extension of its functions, permitting a broadening of the search for information. Such a change can properly be funded from the public library budget – which will obviously itself need extension, to cover extra accommodation, equipment, staffing, and maybe opening hours. Resistance may however be met both from some potential internet users, who do not feel at home in a library, and from library staff, whose other duties or training may not allow for this extra load.

<sup>&</sup>lt;sup>54</sup> See <u>http://www.stockholm.se</u>, <u>http://www.antwerpen.be</u>, <u>http://www.halle.de</u>. Also worth a visit in this category is the municipally funded <u>http://pleven.dir.bg</u> (Pleven, Bulgaria).

Nonetheless, many libraries throughout the developed world are now offering internet access, usually free or at very low charges. Most developed countries have plans to provide public internet access at practically all public libraries.

In Norway, libraries are important public access points. Some years ago, an extraordinary grant of NOK 5 million towards improving information technology in public libraries was used to subsidise connecting to the internet. The grant was shared among the county authorities that in turn distributed the funds to a total of 136 municipalities. In addition financial support was also given in 1997 to projects dealing with the library as a meeting-place, children in a new media world and IT in the public library. NOK 2.3 million went to supporting 25 existing long-term projects, while 12 new projects were granted an overall total of roughly NOK 1.1 million. Today, libraries in 451 of the total 452 municipalities have Internet access, and the citizens can use the service for free.<sup>55</sup>

Finland, which leads the world in work, school and home internet access, also has an extensive network of public internet access points, mainly in public libraries. Some of these have succeeded in creating a non-traditional environment that attracts a wide cross-section of the public<sup>56</sup>. Exhibit 6 shows how Ireland's libraries are leading the way for public internet access in that country.

#### Exhibit 6: Internet access through libraries in Ireland

There are currently 322 branches of the public library service in Ireland together with 28 mobile libraries operating under the control of the 32 library authorities. The Department of Environment and Local Government allocates capital funding of up to 75% of approved costs of library projects. Operational costs are administered by the Local Authorities. In January 2000 there were 891 PCs available for public use, many (but not the majority) of these with Internet and email access.

The Libraries On-line project is a prime example of how certain libraries have undertaken their own successful initiatives in partnership with the private sector. This particular project involves the public libraries in Ballyfermot, Castlebar, Limerick and Dungarvan in partnership with Microsoft. In each library public access is provided to an eight computer local area network, equipped with high speed Internet access and multimedia programmes. Demand for the facilities is high and usage has run at 95% since the project was launched in December, 1997.

The case for a much-needed investment in IT in public libraries has already been made strongly in the report *Branching Out* published by the Department of the Environment and Local Government. In turn the Government has committed to providing funds for PC's and ISDN connections to be installed in every public library.  $\in 1.27m$  has been committed in the current year to provide Internet PG in public library authorities. The investment will cover the capital costs of hardware, software, communications links, Internet Service Providers and training costs associated with the provision of Internet PCs for public use. A grant of  $\notin 2,539$  has been given for each Internet PC provided for public use, plus a grant of up to  $\notin 1,270$  for adding Internet functionality to suitable existing PCs and providing training.

The number of Internet PCs to be installed as part of the first phase of this project in a particular branch will relate to the potential usage and hours of opening of the branch. The Department's guideline is shown below. Currently, 39% of public libraries are open over 30 hours per week and the trend in opening hours is upwards.

<sup>&</sup>lt;sup>55</sup> For more information, see <u>http://samson.bibtils.no/eng/info.htm</u>

<sup>&</sup>lt;sup>56</sup> Notably Helsinki (see work of Liff et al., above at p. 57).

<b>Opening Hours</b>	Internet PCs (suggested)	
0-10:	1	
10-19:	1-2	
20-29:	2-4	
30-39:	4-6	
40 + :	6-8	

Typically, the services offered by the libraries on-line are free of charge. However, there may be opportunities to enter into partnership arrangements with commercial interests to expand the provision of information and communications technology access to the general public. For the present at least, it is felt that any such arrangements should respect the principle that access to Internet and other IT facilities in public libraries should be available free of charge.

#### **Recommendations:**

- Libraries should provide the key focus in a State investment in IT Access for All.
- The speed of the roll out of investment in information and communications technology in libraries should be escalated.
- Government should allocate extra funding to significantly increase the number of access points available in libraries.
- The mobile library service should also provide Internet access points.
- Internet access in libraries should be available free of charge.

Source: Adapted and updated from discussion document on IT Access for All, Irish Information Society Commission, at <a href="http://www.infosocomm.ie">http://www.infosocomm.ie</a>

## **3.4** Community telecentres

Of our five models, what we term "community telecentres"<sup>57</sup> is the one that has acquired a sense of mission supported by an international movement<sup>58</sup>. Here, the key distinguishing features of a community telecentre are:

- A facility provided for and by a local community (usually with the help of outside funding), intended to serve both individuals and broader community purposes.
- Often in multi-purpose accommodation such as a community centre, church or village hall, or club.
- Staffed by people well-qualified to help new users.

Because of their particular appeal to small business people without their own office facilities, and their potential for enabling telework, community telecentres at present are predominantly a rural phenomenon<sup>59</sup>. However they are also increasingly appearing in lower-income urban areas in many countries<sup>60</sup>. Of course, a minimum population density is required to make a

<sup>&</sup>lt;sup>57</sup> Many other terms are in use to describe this and closely related concepts. "Telecottage" is popular and appears below.

<sup>&</sup>lt;sup>58</sup> See for example <u>http://www.partnerships.org.uk</u>, <u>http://www.tca.org.uk</u>, <u>http://www.idrc.ca/acacia</u>, <u>http://arla.rsn.hk-r.se/~engvall/ctsc.html</u>.

<sup>&</sup>lt;sup>59</sup> For example, the experiences gained in rural Wales are well-documented at <u>http://www.telecentres.com</u>.

<sup>&</sup>lt;sup>60</sup> Manchester's Electronic Village Halls are one of the best-established examples in the UK. The community telecentre model is likely to be adopted more widely in the UK – see *Closing the digital divide - ICTs in deprived areas*, a report by Policy Action Team 15, UK Department of Trade and Industry, March 2000 (available at http://www.pat15.org.uk).

community telecentre viable – it is acknowledged, for example, that they are barely relevant in remote areas of Australia, where individual household access is the only answer.

Excellent examples of community telecentres abound. Exhibits 7, 8 and 9, from Estonia and Hungary, were chosen to illustrate:

- The variety of local partners involved in funding Estonian telecottages (the primary funding source being the charitable Soros Foundation)
- The variety of different funding programmes and activities covered under the auspices of the Hungarian Telecottages Association.

### Exhibit 7: Open Estonia Foundation's Public Internet Access Points

The Public Internet Access Points (7<sup>th</sup> Internet-related competition), was announced in June 1997 as an initiative to reduce the emerging social injustice as regards to the access to information. Public Internet Access Points (PIAP) are facilities where everybody can use the basic computer and Internet services free of charge. They also provide on-line information, on-site consultation and reference materials as well as training to their visitors. PIAP projects had to fulfill the following requirements:

- 20% local matching financing
- technically competent project team
- renovated premises with easy public access (preferably in libraries, museums or other community centers, but not schools)
- training and co-operation component
- guarantee for covering the further maintenance expenses

Of the 35 projects that were submitted 16 projects were granted EEK 2,340,851 (~USD 165,000) by the board resulting in 30 PIAPs all over the country by the end of 1997; mostly will they all be in smaller towns and villages in peripheral areas. The Exhibit below shows the projects approved.

Source: Open Estonia Foundation (http://www.oef.org.ee)

#### Exhibit 8: OEF PIAP competition 1997: successful projects, with funding partners

Source: Open Estonia Foundation (http://www.oef.org.ee)

Place	EEK	Third Party Grants
Kambja and	350,000	Kambja Local Government, Ülenurme Local Government, AS Koreiko, AS
Ülenurme (5		Regio, Hoiupank, A-Finantsid, AS Ösel Foods, Jüri Ruut
PIAPs)		
Räpina (5	305,900	Räpina Town Government, Räpina Parish Government, AS ETK Räpina
PIAPs)		Leib, AS Astel, Räpina Free Education Community, Vorberg Community
		ABF (Sweden)
Elva	261,889	Elva Town Government, EENet
Chaplin Art	234,278	Chaplin AS, Pärnu City Government
Center, Pärnu		
Valga	180,000	Valga City Government
Märjamaa (7	141,555	Märjamaa Parish Government, Loodna Local Government, Märjamaa Local
PIAPs)		Government
Järva-Jaani	70,000	Järva-Jaani Parish Government
Paldiski	121,600	Paldiski Town Government
Kilingi-Nõmme	125,180	Kilingi-Nõmme Town Government
Käru County	46,223	Käru Local Government
Antsla	97,602	Antsla Town Government, Antsla Local Government
Paikuse County	80,900	Paikuse Local Government
Türi	62,000	Türi Town Government

Väike-Maarja	150,500	Väike-Maarja Local Government, Ministry of Agriculture , Ministry of
		Internal Affairs
Tamsalu	51,224	Tamsalu Town Government, Tamsalu Local Government, AS Alice, AS
		Hallik, Hoiupank, Porkuni Forest District, OÜ Vello Talu, OÜ Hilvia, AS
		Kasepuu, AS Tamsalu TERKO, AS Element, TO.RE
Lehtse	62,000	Lehtse Local Government, Ministry of Agriculture, Ministry of Internal
		Affairs

#### Exhibit 9: Ongoing and Completed Telecottage Sub-Programs in Hungary (1994-2000)

1. USAID – DemNet Network Development: In 1997-99, in four rounds of grant competitions, 31 telecottages were established. They gained further aid for their operation with American support, with a budget of about 300 million HUF (1.5 million USD). The program will continue in 2000, and by the autumn of 1999 a new call for proposals has been released.

2. OMFB (National Technical Development Committee) "Ikta", Network Development: It supported the establishment of 4-5 telecottages and a dozen satellite offices in 1997-98, with a budget of 30 million HUF (150,000 USD).

3. KHVM (Ministry of Transport, Telecommunications and Water Management) network development: In 1998-99, 42 telecottages were established with a subsidy from the former Telecommunications Fund of 110 million HUF (500,000 USD).

4. USAID, USDOL Network and Service Development: The US Department of Labor's quick-response local economy development program, in cooperation with the National Telecottage Association, established 11 telecottages in 1998-99, with about 40 million HUF (180,000 USD).

5. Services for Sub-regions, Rural and Local Economic Development, Network Expansion: The Ministry of Agriculture and Rural Development has provided subsidies of 100 million HUF (400,000 USD) in 1999-2000.

6. Social Care and Services for Village Caretakers: The program of the Ministry of Social and Family Affairs first subsidized this service in 1994, with 2,4 million HUF (25.000 USD), then again in 1998-99 with 30-40 million HUF (150.000 USD).

7. Administrational Assistance, General Public Administrational Access, "O.K. Telecottage" Sub-program: The budget of the program – within the framework of the administration-development governmental program coordinated by the Prime Minister's Office – is about 10-15 million HUF (50,000 USD).

8. Integration into Telework Networks, Intra-telework Network Development: With the cooperation of the Ministry of Economy and the Telework Public Purpose Corporation, a program is being organized, which includes the mapping out of organizations offering telework, teleworkers' network development, and the utilization of opportunities offered by the OFA (National Employment Foundation) telework grant project.

9. Job-creating Telecottages Sub-program in Szabolcs-Szatmar-Bereg County (North-Eastern Hungary): The subsidy program announced by the County Labor Center in 1999, with a budget of 60-70 million HUF (270,000 USD), can serve as a national model. It is to establish telecottages specializing in job-creation services [6-7 in the county, each with a grant of 4 million HUF (16,000 USD) for equipment, wages and supplementary costs, for 3 years].

10. Access and Maintenance of Public Information Systems by Telework: A program is being developed with the participation of the Ministry of National Cultural Heritage, the Prime Minister's Office, the Ministry of Economy, and several national organizations.

11. Development of a Telecottage Network Business Center and Franchise System: The development of businesses systems on the telecottage network and the organization of its services can be attained by incorporating private capital in order to expand telecottage services and assure their long term sustainability.

12. The Hungarian Post Office – converting small post offices into telecottages: There are 600 small post offices. The Hungarian Post Office has already organized 8 postal telecottages; within a year it will open another 20. Subsidies to date: 40 million HUF (200,000 USD) in 1998; 80 million HUF (360,000 USD) in 1999.

On May 17, 1999, Minister Kalman Katona declared in a Radio Kossuth interview that the Hungarian Post Office will convert all small post offices into telecottages.

13. Cooperation with NKÖM (Ministry of National Cultural Heritage), turning small libraries and small cultural centers into telecottages: On the basis of the past experience of telecottages, it entails the extension of telecottage-directional development for the cultural centers of small settlements. It is a program planned together with the Ministry of National Cultural Heritage for 2000 with an expected budget of 50 million HUF (200,000 USD).

14. Scientific research on the Hungarian telecottage movement: In cooperation with the Center for Information Society and Trend Research, this research is being conducted on the establishment, operation, sustainability, impact and prospects of telecottages. It aims to establish development strategies and programs – as well as training – for the telecottage network and service systems.

15. British Council Management Training Project: It includes the development of a training system for telecottage managers and staff, as an international model program under English-Hungarian cooperation (1999-2000). Its budget is about 40 million HUF (160,000 USD).

16. PHARE National Telecottage Strategic Plan and Development Projects: In the framework of a researchdevelopment program – through international cooperation and PHARE funding – it entails the development of the long-term strategy and sub-programs for the National Telecottage Programme, with special focus on the acquisition of EU funding sources and disseminating the Hungarian experience in the region. The support is about 30 million HUF (120,000 USD).

17. Urban Telecottage Sub-program: It entails the launch of model experiences in order to establish an urban telecottage network, and to search for partners and supporters.

18. Regional telecottage programs related to the development of 'intelligent' regions: In various regions – like Fejér, Hajdú-Bihar, and Nográd counties – in cooperation with county municipalities, local telecom providers and MATAV (Hungarian Telecommunications Co.), we hope to extend the telecottage network for general access endpoints.

19. Development Program for Telecottages Beyond the Hungarian Border: With the participation of national and international organizations, e.g., Mocsary Fund, British Know-How Fund, USAID, and EU organizations, we are looking to utilize our experience and contacts to establish model telecottages beyond the Hungarian national boundary.

Source: Hungarian Telecottage Association, <u>http://www.haz.hu</u>

#### **3.5** Public information kiosks

The essence of what we term a public information kiosk is that it is a stand-alone facility, normally unstaffed. These may provide free access to a limited set of information, either commercial (eg in Cyprus or Greece<sup>61</sup>, in a hotel lobby, showing local sightseeing and restaurants) or official (eg in Portugal, facilitating delivery of government information)<sup>62</sup>. Exhibit 10 describes a municipally funded kiosk project for Istanbul.

<sup>&</sup>lt;sup>61</sup> Netpoint, operating in Greece, advertises its presence through the Internet café guidewebsite.

<sup>&</sup>lt;sup>62</sup> See <u>http://www.infocid.pt</u>. More examples, mostly from the USA, are provided in *Kiosk implementation: the New York city perspective gains worldwide converts*, by Adam Parker, Metronet Communications Inc, in <u>Information, Advice and Public Service</u> (the 1997 report of the UK Exchanging Information with the Public programme). A thoughtful assessment of the scope for kiosks appears in *New services for London: the telematics programme, kiosks, one-stops and service models* by Angus Doulton in the same report. The EIP Programme reports are available from CDW and Associates Ltd, email <u>angusdoulton@compuserve.com</u>

In accordance with the developments in new CIS, Istanbul Greater Municipality has developed the City Info-Bank (CI-B) Project in order to provide information to the public on various subjects. For this purpose the Istanbul Greater Municipality is planning to place simple CI-B machines at different points of the city.

### Main Purposes of the CI-B Project

- To provide information to the citizens, a)
- b) To guide citizens in their affairs with the official institutions,
- To let them to directly communicate their requests and complaints to the Municipality, c)
- d) To inform about the social, cultural and sportive activities of the city,
- e) To help citizens about various subjects.

The CI-B machines will be placed at 150 different points of the city. The first CI-B machine was placed in July 1999. The CI-B points will be:

- in front of Municipality buildings, a)
- b) near the provincial government offices,
- in front of tax offices, c)
- d) train stations.
- ship terminal stations, e)
- f) underground and tram stations,
- g) inter-city bus stations,
- h) near city theatres,
- i) exhibition areas,
- j) shopping and trade centres,
- historical and tourism places, k)
- hospitals, 1)
- in front of palaces of justice. m)

#### About the Content of the CI-B

- $\geq$ Promotion of the activities of the Istanbul Greater Municipality
- >

	City	Lity plan and city guide		
		-	Names of avenues and streets	
		-	City plan	
		-	Places of official buildings	
		-	Historical and tourism places	
$\checkmark$	City	y agenda		
$\triangleright$	Tra	ffic guide		
$\triangleright$	Tra	vel guide		
٨	Cul	tural and spor	rtive activities	
		-	Cinemas and theatres	
		-	Exhibitions	
		-	Seminars and conferences	
		-	Sport activities	
$\checkmark$	Bur	eaucracy guid	le	
		-	Addresses and telephone numbers of the official buildings	
		-	Information about which problems can be solved where	
		-	Important telephones and addresses	
$\checkmark$	E	ducation insti	tutions	
$\triangleright$	R	estaurants		
$\triangleright$	SI	nopping centr	es	
$\triangleright$	Fa	ault reporting	services	
		-	Water	
		-	Electricity	

	- -	Natural gas Road maintenance works		
$\triangleright$	Health guide			
		Hospitals and dispensers Pharmacies on duty Important public announcements		
AAA	Weather forec News from loo Financial guid	Weather forecasting News from local administration Financial guide		
		Foreign currencies Information about banks and finance corps. Information about trade centres		
$\triangleright$	Transportation	guide		
	- - - - -	Schedule and lines of public buses Schedule and lines of minibuses Schedule and lines of underground Schedule and lines of tram Schedule and lines of trains Schedule and lines of sea-buses		
$\triangleright$	Information at	bout the city		
		City photographs History of the city Poems about the city		

If full internet access is provided, payment is likely to be required, and it cannot be taken for granted that this will amount to a commercially viable undertaking. Exhibits 11 and 12 below describe recent ventures of this kind by BT in the UK and by Telecom Italia in Italy. During the Touchpoint trial, BT appears to have sought co-operation with local authorities on both siting and information content for the kiosks, but at the time was disappointed<sup>63</sup>.

#### Exhibit 11: BT -- from Touchpoint to Multiphone with Photo-Me

In autumn 1996 BT launched its Touchpoint interactive kiosk trial. By the spring of 1997, 200 multi-service kiosks had been placed in indoor publicly accessible sites in and near London, and these were attracting 2 million screen touches a month, growing at 20% a month. The objective of the trial was purely commercial, with the initial aim of understanding the marketing and design issues surrounding kiosks.

At the end of the 18-month trial, all the Touchpoint kiosks were decommissioned. Lessons learned from the trial included the need to ensure adequate transactional traffic, and to present an inviting and fail-safe interface to new users. These lessons were to be fed into the new generation of multimedia phone boxes.

In July 1999 BT announced its "Multiphone", a phone box housing a 30-cm touch screen unit which allows 24hour access to e-mail and the internet as well as to phone calls. Over 1,000 of the machines, each costing £5,000, are to be installed at airports, railway stations, motorway service stations and shopping centres by mid-2000. The conventional keypad and keyboard appear as pictures on the touch-sensitive colour screen. New online users will be able to set up a free personal e-mail address from BT or another service provider. Websites can be surfed on a pay-as-you-go basis for 10p a minute, using a BT Phonecard or a credit card. Other facilities on the way include videophones; the ability to take, then send, a picture via e-mail; local street guides; a built-in printer; and directory enquiry information on screen.

A similar development includes a collaboration between BT and Photo-Me, the company which provides photo booths in public places. Around 1,000 multimedia booths are planned to be operational from spring 2000. Photo-Me's curtained kiosks will be transformed into hi-tech centres offering Internet access.

<sup>&</sup>lt;sup>63</sup> See articles on Touchpoint in the EIP 1997 and 1998 reports (footnote 62). Further information kindly supplied by Roger Wilson, editor of Inside Cable and Telecoms News Service (<u>http://www.inside-cable.co.uk</u>).

Source: adapted from BT publicity material, <u>http://www.touchpoint.co.uk</u> and Touchpoint: the public multi-service kiosk system from BT (in 1997 EIP report).

### Exhibit 12: Telecom Italia's kiosks

The Internet has hit the streets, and anybody can hitch a ride at Telecom Italia's new Internet Corner kiosks. If you to want to be scooped up in the Net but you do not have your own connection, or if you are out and about and need to check your e-mail or retrieve information of any nature, Telecom Italia's new public kiosks are the answer.

Internet Corner kiosks give you access to the Internet and e-mail. Using a touch screen, keyboard and processing unit you can surf the Net, access your e-mail services or create your own custom homepage. It costs just 200 lire per min. to use Internet Corner, and you can pay with any Telecom Italia pre-paid phonecard.

Telecom Italia began installing 50 Internet Corner kiosks at Milan Malpensa 2000 airport on 25 October 1998. During 1999 Internet Corner kiosks are being installed across the country in airports, major hotels, Internet cafes, barracks and many other public places.

Source: Telecom Italia (<u>http://www.telecomitalia.it</u>)

# 4 Some pointers to the way ahead

We have presented a bewildering spread of examples and options. What can be learned from these about how to go about establishing sustainable public internet access in Europe? We offer a few observations.

- It is unlikely that any one funding model will prevail, even in one country or sector.
- A variety of types of public internet access points will be needed to meet the equally varied needs of the market. Each must be carefully designed to match the requirements of its particular target segment. Funding sources will vary likewise.
- Public, private and community sectors all need to be aware of each other's potential contributions. Some of the most successful projects combine elements of all three to excellent effect.
- It is important to keep the process of obtaining funds as simple as possible, to avoid unnecessarily overburdening telecentre staff.
- Better value for money can be obtained through networked centres, which can share expertise and resources locally. Applications of this kind should receive preference when grants are made<sup>64</sup>.
- Rural telecentres, in particular, are more likely to succeed with the support of a national association of similar centres.

<sup>&</sup>lt;sup>64</sup> Based on Canadian experience.

- Public money is most often used as initial funding. In prosperous locations a well-run public access centre may possibly become self-supporting within three years; in poorer areas public support is likely to continue to be needed indefinitely.
- A great variety of other services and facilities may be provided in the public internet access centre, and help to assure its overall viability.

# Additional resources

Many valuable resources, usually including URLs, have been mentioned earlier in this paper, especially in the footnotes and exhibit sources. There is a huge and growing amount of material available relevant to our subject, and it would be neither practicable nor very useful to attempt a full list. Rather, the following selected websites are recommended for their wide coverage and links.

http://www.communities.org.uk/resource/index.htm The central resource bank for community networking, home for both European and international associations. Toolkits for practitioners, numerous valuable links including good coverage of North American developments.

<u>http://www.gksoft.com/govt/en/europa.html</u> List of central and local government websites by country throughout Europe (adjacent pages cover other continents). A remarkable resource offered by Gunnar Anzinger.

<u>http://www.netcafeguide.com</u> An online guide producd by Norwegian journalist Ernst Larsen to 2,800 internet cafes in 132 countries. Also some useful links elsewhere, including kiosk groups.

<u>http://www.arttic.com</u> Information on the EU initiative for modern and accessible local government, including public kiosk provision.

<u>http://www.challenge.stockholm.se</u> Hundreds of cities worldwide enter their electronic communication projects in this global competition.

<u>http://www.uni-muenster.de/Jura.tkr/veranstaltungen/workshop/resources\_eng.html</u> Website for recent relevant conference, containing both the conference papers and links to other resources. Especially strong on references to the need for lower priced or unmetered internet access, and the national campaigns for this.

<u>http://www.digitaldividenetwork.org</u> Hosted by the Benton Foundation – an excellent starting point for exploring US developments.

<u>http://www.dcita.gov.au/rtif.html</u> The official Australian government website for its Networking the Nation programme, includes links to case studies and practical material.

<u>http://www.pat15.org.uk</u> Recent UK government site containing relevant research and reports from 1999-2000, and also a set of case studies on community internet access. The main report on this site, dealing with provision of internet access to deprived neighbourhoods in the UK, also contains an extensive bibliography.

<u>http://www2.brent.gov.uk/links.nsf</u> Planned IT good practice guide for UK local government (currently contains local government links).

http://www.comm.unity.uk.net Case studies of UK companies' voluntary IT projects of social value.

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