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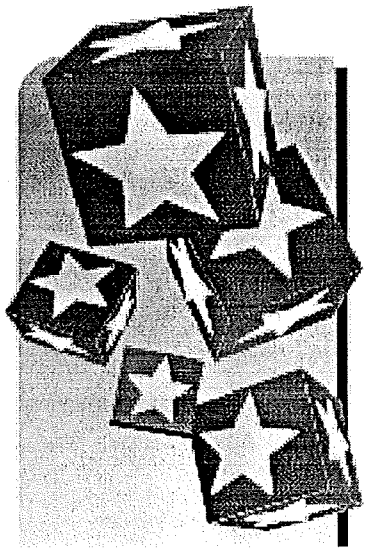
PARTNERSHIPS IN PRACTICE

Creating Online Education Initiatives for the Next Century



Rapport sur la conférence des 11 et 12 septembre 1997 de l'Union Européenne "Partnerships in Practice"

Introduction

Le programme de cette manifestation est joint en annexe (cf. annexe 1).
Rappelons les objectifs d'une telle conférence largement impulsée par la Commission à Bruxelles :

" The aims of the Conference were to crystallize and establish practical models for Public-Private partnerships, by:

Presenting, sharing and discussing experience of current models that work and by generating mutual understanding of key issues.

Launching the European Education Partnership to enable more effective collaboration between Public and Private sectors.

Promoting discussions to develop the new initiatives required to extend the Learning in the Information Society action plan into the next century. "

Préparation et prémisses

Dans son invite à cette conférence, Mme Edith Cresson a été on ne peut plus explicite :

" Trop peu d'écoles en Europe disposent à ce jour des équipements multimédias et des compétences nécessaires pour utiliser vraiment toutes les ressources pédagogiques. Les raison de ces retards sont de diverses natures : le niveau élevé des dépenses pour le budget des écoles, la formation insuffisante des enseignants et l'inadaptation des 'contenus' multimédias.

En lançant son Plan d'action "Apprendre dans les sociétés de l'information", la Commission européenne a décidé de toute mettre en oeuvre pour faciliter l'entrée des écoles dans cette société de l'information et accélérer la constitution d'un véritable marché du multimédia éducatif européen.

Mais il est clair que la pleine réussite de cette initiative repose sur un engagement conjoint de l'ensemble des acteurs concernés: responsables public, pédagogues, et industriels. Toutes les expériences menées à l'étranger démontrent en effet que cette forme de collaboration est une des premières clés du succès.

C'est dans cet esprit que la Commission apporte tout son soutien à la conférence sur le partenariat pulic/privé organisée par l'association "European Education Partnership" fondée par des industriels du multimédia.

Elle réunira, les 11 et 12 septembre, à Bruxelles, des représentants de l'industrie, des milieux éducatifs et des responsables politiques au plus haut niveau. Son objectif et de mettre en évidence les modalités pratiques qui permettront de mener à bien ces partenariats et de définir une plate-forme de coopération basée sur une large diffusion des expériences au niveau européen.

Elle sera enfin une excellente occasion d'approfondir la réflexion sur le rôle d'une organisation européenne, de type 'Fondation', chargée de promouvoir l'intégration des nouvelles technologies de l'information dans l'éducation.

Votre contribution apportera à cet événement tout le succès qu'il mérite.

Edith Cresson
Membre de la Commission
Responsable de l'Education, Formation et Recherche"

Intervention de Madame Edith Cresson

La responsable de l'Education, Formation et Recherche pour la Commission a souligné :

- l'importance d'une pédagogie en renouvellement
- l'accompagnement de l'évolution des acteurs connus
- le plan d'action de la Commission
- l'importance de renforcer les partenariats
  (l'intégral de son discours est dans l'annexe 2)

Intervention de Madame Hennicot-Schoepges

Le ministre luxembourgeois de l'éducation, présidente du conseil des ministres de l'éducation de l'ensemble de l'UE a très bien décrit avec l'histoire du "mouton de Bettina" le thème de son exposé "The priorities and imperatives". Elle a ainsi mis en évidence que l'ensemble des responsables de l'éducation de l'UE place les questions de la formation et des TIC (Technologies de l'information et de la communication) comme LA PRIORITÉ de leur gouvernement respectif. Cette évolution lors des 18 derniers mois est inimaginable et incroyable, les mesures d'accompagnement décidées
ou en cours de décision sont absolument stupéfiantes et parfaitement en accord avec le plan d'Action "Apprendre dans une société de l'information" de la Commission (cf. Annexes 3, 4 et 5). C'est la suite logique de l'étude "Livre vert sur l'innovation" (cf. Annexe 6).

Autres interventions

En annexe sont joints quelques exposés (cf. annexes 7, 8, 9 et 10) particulièrement appréciés.
Les débats dans les groupes de travail sont rapportés sur le site de la conférence :

http://www.edon.org.uk/eep/

Intervention en conclusion de Monsieur Michel Richonnier

Le thème annoncé "The Way Forward" a été captivant et surtout très éclairant sur le futur immédiat des objectifs des programmes à venir (cf. annexe 11).

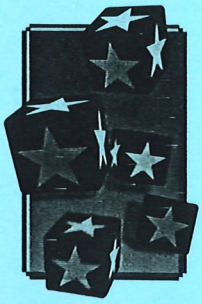
Considérations helvétiques

La liste des participants est jointe en annexe (cf. annexe 12).
D'autres références recueillies en "bordure" de cette conférence accompagnent ce rapport (cf. annexes 13, 14, 15, 16).
La dynamique à la veille des Netda@ys'97 est extraordinaire et depuis les plans d'actions nationaux sortent à un rythme soutenu qui contraste énormément avec les projets en cours en Suisse (p. ex. Frs 9'300.-- pour le budget 98 pour créer un concept de formation continue avec le groupe de travail AITIC du partenariat CTIE-CPS). Depuis, les premiers textes pour le 5e plan-cadre sont déjà en circulation pour examen. Il devient urgent qu'une prise de conscience soit provoquée au niveau des décideurs en Suisse et qu'elle s'accompagne d'un plan d'action avec les ressources nécessaires pour rester un pays développé.

R. Morel
Directeur du CIP
23 décembre 1997

Annexes : mentionnées

Annexe 1



PARTNERSHIPS IN PRACTICE

Creating Online Education Initiatives for the Next Century

Partnerships In Practice

Creating Online Education Initiatives For The Next Century

The Swissôtel, Brussels

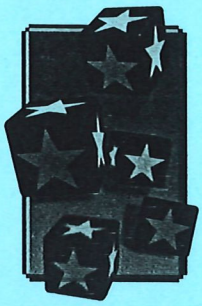
Thursday 11th - Friday 12th September 1997

Apple

Deutsche Telekom

ICL

Sun microsystems



Partnerships in Practice

Creating Online Education Initiatives for the Next Century.

The Swiss Hotel, Brussels, Thursday 11 Sept - Friday 12 Sept 1997

Conference Announcement

This major conference will draw together the leaders from European Computing, Telecommunications, TV Media, Publishing, Software and Education Supplies Industry with senior National delegations of Public Authorities and Education.

The Conference is being organised with the full support of the European Commission and of the companies forming the European Education Partnership.

The Conference aims to crystallise and establish practical models for Public-Private partnerships, by -

- Presenting, sharing and discussing experience of current models that work and by generating mutual understanding of key issues.
- Launching the European Education Partnership to enable more effective collaboration between Public and Private sectors.
- Promoting discussions to develop the new initiatives required to extend the Learning in the Information Society action plan into the next century.

Main sponsors of the Conference already committed are
Apple Computer, Deutsche Telekom, ICL and Sun Microsystems.

EDITH CRESSON

MEMBER OF THE EUROPEAN COMMISSION

RUE DE LA LOI 200 - B-1049 BRUXELLES
WETSTRAAT 200 - B-1049 BRUSSEL
TEL. 02/296.66.01

Today only a minority of schools in Europe are properly equipped with multimedia tools and have the right skills to use their equipment as a pedagogical tool. Moreover, most of the schools in Europe have not started the journey yet.

There are multiple reason for this information gap : high cost implications for the schools budgets, insufficient teacher training regarding the use of multimedia in the classroom and lack adequate educational IT content.

By launching the "Learning in the Information Society" action plan, the European Commission is using all necessary means to integrate the schools into the Information Society and to accelerate the growing market of multimedia for education in Europe.

Clearly this is to be a joint effort with several players : public authorities, pedagogic staff and the industry. Many excellent examples outside Europe clearly show that collaboration is the primary key to success.

This is why the European Commission is giving its full support to this conference on public-private partnerships, organized by the "European Education Partnership"; a partnership founded by the multimedia industry.

On September 11 and 12, high level representatives from Industry, Education and Public authorities will meet in Brussels. Their goal is to establish practical rules for the creation of a successful partnership and to define cooperation models based on a large number of best practices in Europe.

It will also be an excellent opportunity to give a closer look at the role of the future "Foundation", a European organization soon to be responsible for the integration of new Information Technologies in Education.

Your contribution to this conference will be key to the success of the event

Edith Cresson

Formation of the European Education Partnership

To all Companies and Organisations supporting the aims of the EC's 'Learning in the Information Society' Action Plan:

We, the undersigned Companies, intend to form the European Education Partnership and to become founding members on its successful establishment.

The EEP will be a Europe-wide, open, inclusive organisation, for commercial companies and other organisations involved in the supply of information and communications technology, content and training to the educational community. The EEP will ensure appropriate involvement of educational and publicly funded organisations, such as public sector broadcasters, necessary to the public-private partnerships through which the aims will be achieved.

The aim of the EEP will be to accelerate the implementation of the information society in Europe, by means of developing programmes and projects and forging public-private partnerships, which coincide with the aims of the European Commission's Learning in the Information Society Action Plan.

Current priorities will be -

- to connect every school, public library and information resource in Europe to networks so they can find the necessary pedagogic tools, contacts and information for their specific needs.
- to provide these educational establishments with the necessary multimedia equipment.
- to create a wide range of educational software for the curriculum.
- to train teachers and lecturers on how to use the new technology in the classroom and at home to perform their tasks
- and to ensure this is done in a fully interoperable, cross-platform, environment based on open standards that enables access by all schools and learners and communication between them.

The EEP will be constituted as an independent, non-profit making organisation, responsive to its members and ultimately controlled by a Board of Directors composed of senior staff from sustaining member Companies of the EEP. We invite other Companies to join with us in forming the EEP and to become members on its successful establishment.

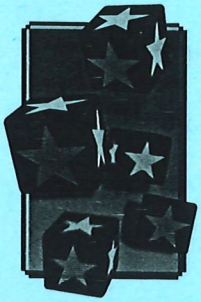
Signed by:

Apple Computer
Averbode
Belgacom
Cisco
Deutsche Telekom
France Telecom
ICL
Oracle
Schoolsoft
Sun Microsystems
Portugal Telecom/CET

This letter has been issued on behalf of the above Companies, by Broadie Associates Ltd, Independent Consultants Co-ordinating the Formation of the EEP.

Full copies of the original proposal to create the EEP, its intended aims, constitution and principles of formation, and a full list of Companies who have already expressed interest in joining the EEP are available from Broadie Associates. Please contact Roger Broadie to add your name to the list of interested companies or the general EEP mailing list.

Roger Broadie, Director, Broadie Associates Ltd, 99 High Street, Chatteris, Cambs, PE16 6NP, UK.
Tel/fax: +44 1 354 695583. Email Roger@Broadie.Demon.co.uk.



Partnerships in Practice Conference Programme

Day One

Thursday 11th September 1997

10:30 **Conference opening.**
Robert Verrue, Director General, DGXIII.

10:35 **"Multimedia, School Networking, Public-Private Partnerships: the ingredients for modern Education beyond 2000."**
Mme Edith Cresson, Commissioner.

11:10 **"The Priorities and Imperatives."**
Mme Hennicot-Schoepges, Luxemburg Ministry of Education.

11:40 **"The Impact on Education of Convergence."**
Stephen Heppell, Professor of IT in the New Learning Environment and Director of Ultralab, Anglia Polytechnic University.

12:10 **"Promoting Industrial Partnerships in Education: a necessity!"**
Nigel Turner, Vice President, Marketing, Apple Computer Europe. Representative of the European Education Partnership.

12:30 **Buffet Lunch.**

Presentation and discussion of public-private partnership examples and issues.
20 minute presentations followed by 20 minute discussion in each session.
Chairman Roger Broadie, Director, Broadie Associates, Co-ordinator of the formation of the EEP.

13:45 **"Public-Private Partnership to develop education and community awareness and action through NetDays."**
John Gage, Director, Science Office, Sun Microsystems.

14:20 **"New pedagogic approaches in an education system using ICT."**
Diego Piacentini, General Manager, Apple Computer Europe.
Prof. Diéudonné Leclerq, University of Liège.
Mr Albert Leroy, Institut St. Berthuin de Malonne.

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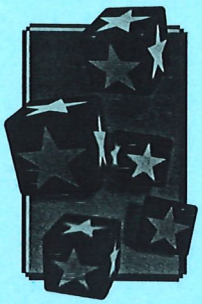

Partnerships in Practice Conference Programme

Day Two

Friday 12th September 1997

09:00 **Plenary, aims of the day and the working sessions.**
Roger Broadie, Director, Broadie Associates.
Co-ordinator of the formation of the EEP.

09:30 **Split into 3 parallel sessions, each on a specific topic.**
Panels of 4 people will give views for 20 to 30 minutes followed by questions from the floor/debate for 45 to 55 minutes.

Panels will contain representatives of both public and private sectors.

Rapporteurs will distill areas of agreement, public and private sector issues which inhibit action and novel suggestions considered worthy of development.

A) **Networking schools, local connection and equipment.**
Rapporteur: Timothy Fenoulhet, DBXIII.

B) **Developing awareness and understanding, national NetDay approaches.**
Rapporteur: Jim Ayres, Multimedia Ventures.

C) **Using Internet approaches to aid learning and teaching.**
Rapporteur: Peter Looms, Radio Denmark.

10:45 **Coffee Break**

11:15 **Split into 3 parallel sessions.**

A) **Networking countries and Europe, education national grids.**
Rapporteur: Timothy Fenoulhet, DGXIII.

B) **Using Digital Broadcast approaches to aid learning and teaching.**
Rapporteur: Peter Looms, Radio Denmark.

C) **Teacher training and support in an online and digital broadcast world.**
Rapporteur: Jim Ayres, Multimedia Ventures.

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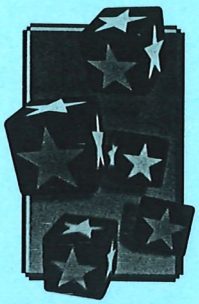


Partnerships in Practice Conference
11th - 12th September 1997
Brussels

Issues That Might Arise In Discussion

This conference is designed to provide considerable opportunity for comment and discussion amongst all the delegates. The afternoon presentations on Thursday will each have time allowed for questions and discussion. On Friday, the whole morning is the working Panel Groups, where the initial thoughts from the panel are just to get discussion going and most of the time is for discussion amongst the whole group.

Our main aim at this conference is to identify what delegates feel are the main issues we must address if we are to have strong, successful and long-lived public-private partnerships. This means that we must have the courage to tackle issues that may be difficult. Below are some thoughts about the sort of issues which may arise in discussion, though we hope you can think of many more that you want to raise and discuss.

Private Sector Issues:

- If we are to network all schools, there must be a fully commercial basis to initiatives.
- Marketing is vital to companies. Company messages must be promoted in collaborative initiatives.
- Continuing funding for schools is necessary to make ICT and Networks a realistic market for companies.
- Many European cultural areas are too small to be commercially viable markets. Public sector support and funding will be necessary to create educational materials for them.
- Training teacher to make effective use of computers and networks is a massive task. The cost of this for all teachers cannot be subsidised from the decreasing margins on hardware and software.
- Schools must be able to afford to connect to the Internet without worrying about the cost of telephone calls. Will the changes to the telecoms regulatory environment proposed be sufficient?

- Teachers having their own computers is key. How can this be promoted, individually or through schools?

- How can schools be funded to employ good network managers or to buy-in management services?

- Junior and Primary schools in many countries are funded less well than secondary schools.

- The speed of development of the Internet and networks worldwide is very fast, yet the public sector is often slow in deciding to act.

- The skills increasingly needed by global industry are not well covered by current school curricula. How can the school curriculum be developed faster?

Public Sector Issues:

- Obsolescence of equipment and rapidly changing proprietary 'standards' make it very hard for schools to afford and manage ICT equipment.

- Schools need to be able to have software and materials tailored to their own language and culture, and not have to accept resources designed for others.

- School budgets are generally low and investment in ICT cannot be justified as it is in industry by increase in productivity. How is the money to be found or how can equipment and connection be made cheaper?

- The speed of change and the imperative to introduce networks and computers is not allowing time to be sure of the learning benefit. An act of faith that ICT aids learning seems necessary.

- Managing ICT in schools is difficult; teachers must concentrate on teaching not technicalities. Who will manage the systems?

- Education needs standards that enable all learners and schools to talk to each other, regardless of the age of machines they have. They also need standards for educational aspects of ICT.

- How can those countries that have already invested in ICT be rewarded for helping others to progress?

Bringing worldwide experience to support European development of ICT in Education

Apple is the market and technology leader for educational computing world-wide and is also the largest educational systems company in the world. This has been achieved by working very closely with Education and Apple has long experience of collaborative public-private partnerships.

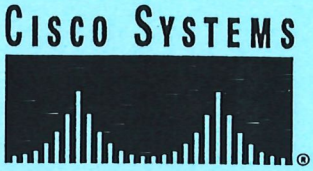
Apple Classrooms of Tomorrow:

Apple Classrooms of Tomorrow (ACOT) is a collaborative research project that has been running for 11 years. The project was established to answer the simple question, 'What happens to learning if teachers and students have ready access to computers?' Many schools have been equipped with systems and Apple has collaborated with independent researchers who have analysed changes in educational practice.

There are currently three ACOT schools in the USA, two in Australia and three in Europe (Belgium, Scotland and Sweden). The project has amassed 11 years worth of research data and is probably the leading source of primary research data in the world on classroom practice for schools using computers. Several books have been published documenting ACOT research and Apple produces a CD-ROM of research reports, available on request from Apple (European Education Marketing, UK - tel: 44 181 569 1199). More information on ACOT is available from the following Web site: http://www.research.apple.com/go/acot/

Development Of New Models For Teaching And Learning:

ACOT research has made a major contribution to the development of new ideas on classroom practice and teacher development training. These ideas have evolved over time, starting with a technology intensive approach that appealed strongly to technically oriented people and developing to encompass delivery of the curriculum interactively, but often also passively. ACOT schools have developed more effective ways to use computers for active learning projects in which multimedia is used to collect, manage, analyse, understand and present information in team learning projects. Multimedia is used for modelling and communication, including the Internet. The role of the teacher in these active learning projects becomes that of a leader, collaborator and quality assessor, who may not necessarily be as adroit with the computer as the students. ACOT reports have documented the progress of students of all ages, in terms of their academic development and results and in terms of their skills development as recruits into the information society.



Cisco Systems

Much has been written about the benefits of Information Communications Technology (ICT) in schools. However, Cisco believes the issue is much wider - ultimately whether a country embraces the use of technology in general, and the Internet in particular, will determine that country's long term success in the global economy. In the next millennium the internet will have a profound impact on business with many of the traditional equations of geographic location and distribution to marketing being dramatically altered. Competitors will be able to enter markets around the world at a fraction of the normal costs and time.

The ability to attract foreign investment is being influenced by the availability of a suitably skilled workforce, which increasingly means IT skilled. Cisco, with an annual growth rate greater that 50% per annum, is already observing this issue as we find recruiting appropriately skilled staff increasingly difficult.

The need for teacher training and educational content are often cited as barriers to the adoption of ICT in schools. While these are valid concerns which need to be addressed, they should not be used as an excuse not to adopt ICT.

The current developments, especially in the internet, are fundamental. The value of the internet is as much in the empowerment it gives schools as publishers, and the ability to communicate for both educational and teachers professional development, as it is in content. The internet has grown in an essentially anarchic way, and much of the technique to learning how to best use the internet occurs in a similar fashion. The internet is much more than a giant electronic library, and therefore learning will be a re-educating experience best accomplished by exploration and a building of experience and understanding. A strong case can therefore be argued for a "leap in faith" to provide schools with the internet connection and infrastructure they need and allow them to learn and adapt to the new possibilities it affords.

Looking to the future, ICT faces many exciting developments, some of which can be predicted and much of it as yet unimagined. Internet multimedia brings many exciting possibilities for schools to communicate with one another : sharing culture and working collaboratively. Networked multimedia developments, much of which Cisco is pioneering, will bring high quality video broadcast and interaction to the Internet. This will not only include "traditional" video conferencing, but also virtual reality and immersive environments.

Cisco Systems Inc. (NASDAQ:CSCO) is the worldwide leader in networking for the internet. News and information are available at: http//www.cisco.com.

France Telecom

France Telecom

France Telecom has assessed the considerable political, economic and social implications entailed in the introduction of new communication technology in teaching. Preparing young people for their future living and working environment is a challenge which naturally has to be faced today by teachers and trainers, but also by firms which are involved in public service missions or are simply aware of their civic responsibilities.

The experimentation phase is now coming to an end and France Telecom has decided to add its contribution to the creation of a School for the 21st Century, since it considers that it has a vocation for this future venture.

Its policy is based on three main principles:

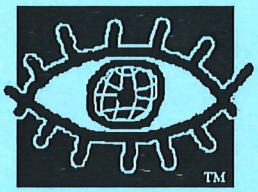
- a strong commitment to accelerating the connection of French schools to the internet
- the establishment of long term partnerships with all the players involved, including local communities, educational authorities, information industries and content publishers
- opening up on an international scale, with special attention paid to Europe and French speaking communities

A number of actions have already been underway for several years, particularly in the field of tele-teaching for higher education, professional training and research. France Telecom and its subsidiaries are involved in the engineering of educational services and have also participated widely in the French programme "Information Highways". However, last year France Telecom decided to step up its activities and introduce an extensive campaign in co-operation with the educational system and regional authorities to help schools to become a part of the information society as quickly as possible and develop the educational applications of on-line services and networks.

This new policy has already been developed into tangible measures, with the provision of ISDN access at preferential rates to secondary schools in 1996, followed by the launch in April 1997 of a specific offer to access the internet via Wanadoo, the France Telecom internet access service and the start of a policy to support innovative projects initiated by schools.

These measures are preliminaries to a more ambitious policy which is to be announced at the beginning of the school year in September : in co-operation with the French Ministry of Education, France Telecom is working on the development of a specific, preferential national offer, based on affordable and predictable annual charge, to encourage primary and secondary schools to link up to the internet and on-line services.

These measures go hand in hand with the development, in partnership with content providers, of on-line educational services and the introduction of a French educational on-line service guide called "Mirandole" at the end of 1996.



CyberSkills™
WORKSHOPS

ICL

The Skills for the Future

CyberSkills™ are the skills that every individual will need throughout life to access, shape and gain competitive advantage from the global information superhighway. People who know what the options are, and how to make use of them, are in the best position to manage change and to maximise the benefits of the Information Society.

Acquiring CyberSkills

The ICL CyberSkills programme is the world's most successful model for empowering individuals, communities and organisations to take control of and manage their future. This model was created and developed by South Bristol Learning Network in partnership with ICL Interactive, and was initially funded in 1993 by the UK Government Department of Employment TEC challenge.

The CyberSkills brand is owned and marketed by ICL Interactive Learning, and the programme is delivered by a rapidly expanding international network of licensed CyberSkills Development Agencies. These include:

Amersham and Wycombe College, UK
Ashfield College, Kirkby-in-Ashfield, UK
AZTEC, London, UK
Barnet College, West London, UK
City and County of Cardiff, UK
Denbigh College, North Wales
East Berkshire College, UK
Enterprise Ayrshire, UK
Kuovola Region, Finland
Llandrillo, North Wales
Manchester College of Arts and Technology, UK
Manchester Technology Management Centre, UK
Milton Keynes, UK
Northern Informatics Applications Agency, Sunderland, UK
Old North End Community Technology Center, Burlington, Vermont, USA
Reading College of Arts and Technology, UK
Reading Learning Network, Reading Borough Council, UK
Ridge Danyers College, Stockport, UK
Skelmersdale College, UK
South Bristol Learning Network, UK
Synergy, Belfast, Northern Ireland
TASE, Logan City, Queensland, Australia
Wirral Metropolitan College, UK
Worldgate Ltd., Stoke, UK
WREDO, Footscray, Melbourne, Australia

CyberSkills Workshops

CyberSkills Workshops are designed to raise awareness, via practical experience: they are focused on individual needs and require no previous knowledge of technology. Workshops introduce a wide range of new interactive technology and provide "hands-on" experience for each participant to explore ways of utilising it: the environment is one of challenge, high support and early success. The critical and most valuable part is the period of human networking at the end of the workshop: the participants discuss the impact of the Information Society on them as individuals, as communities and as organisations, and develop action plans. Thousands of people in the UK, Europe and North America have already benefited from CyberSkills Workshops.

Benefits

Nearly everyone knows that new interactive information technologies are available; but relatively few know what they can do with them. It is vital to spread this knowledge to all sections of the community. What will your organisation gain from getting involved and becoming a CyberSkills Development Agency?

A community prepared for the Information Society
You can provide your community with a new generation of skills that will give them personal satisfaction and empowerment, both personally and professionally.

Partnership with like-minded organisations
The CyberSkills environment is highly supportive. Not only do you enter a relationship with ICL, but also you join a global club: the CyberSkills Association (CSA). The CSA promotes, supports and develops the CyberSkills activities of its member organisations through constant communication, planning, quality and assessment. It works with its members to create a sustainable model of Information Society programmes for all stages in the CyberSkills process.

Opportunities to influence future developments
Through membership of the CSA, you can participate fully in discussions and developments about the CyberSkills Programme. The CSA provides both a human network and an electronic network, accessible to all members. The electronic network, the CyberSkills Xchange, enables members to share and disseminate materials, information and expertise.

Confidence in your programme
The CyberSkills brand is protected as a registered trademark, to assure high standards and the quality of awareness-raising workshops wherever the CyberSkills Workshops logo is used. You will be making a proven and internationally recognised programme available to your community.

New sources of potential revenue
Offering CyberSkills Workshops will give you access to new markets both in your immediate community and outside. With this access will come new sources of income.

Ability to implement change
The CyberSkills environment is itself a vehicle for effecting and managing change in your organisation and community. It enables you to discuss, analyse and assess the impact of changing technology, and then take informed decisions.

Improve people's prospects
The most highly valued resource in any organisation is its people. By establishing your organisation as a CyberSkills Development Agency, you can improve their prospects and their value. The benefits multiply through the community and beyond.

An enhanced reputation
Implementing CyberSkills will give you a reputation as a forward-looking and people-oriented enterprise.

The next step

To participate in the ICL CyberSkills Programme, contact:

Trish Watkins
ICL Interactive Learning
Computer House
127 Hagley Road
Edgbaston
Birmingham, United Kingdom

Telephone: +44 (0) 121 623 3353
Fax: +44 (0) 121 455 0358
email: Cyber.Skills@iclnet.co.uk

ICL is a leading information technology company specialising in systems and services in selected markets. ICL has a European headquarters, operates in more than 70 countries with 19,000 employees, and generated revenues of $4.6 billion in 1996. ICL is a member of the Fujitsu group of companies. ***www.icl.com***

Discovering the vision through collaboration

There is still much to learn about how education and students will benefit from networked schools, but it is acknowledged that ALL must have access. Just as Companies worldwide are installing enterprise networks for all their staff, because it can dramatically increase their productivity, so schools must give access to all students. If we wish children to be literate for their world, and able to communicate in the multimedia culture of the next century, schools and colleges too must be properly equipped.

An example of the way Sun is collaborating with Education in finding the best approach, is the project to put to put Sun's JavaStations put into service in Amsterdam schools.

In April this year the City of Amsterdam made the strategic decision to start the wide scale implementation of network computers for education. A project has been started up in collaboration with the Stichting Academisch Rekencentrum Amsterdam (SARA) and Sun Microsystems under the name CIAO (Computers In het Amsterdamse Onderwijs). Amsterdam has opted for Sun's JavaStations because of Sun's role as an advocate of network computing and creator of Java.

The first six schools were connected to Internet at the beginning of May using Sun's Netra-j and the JavaStations. At the same time a start has been made on the development of software written in Java specifically for educational purposes.

This year the total number of JavaStations is set to reach the 90 mark. The intention is, that between now and 2005 over 200 schools will each have some 150 JavaStations at their disposal.

Jaap van der Aa, Councillor for Education, says, that as far as he is concerned, it is no coincidence that Amsterdam is currently involved in this project: "Our aim in Amsterdam is that the education we offer pupils prepares them well for successful entry into society. All the developments surrounding the electronic highway and the Internet give a clear indication that computers are essential if education is to be meaningful. We are convinced that with Java and the network computer we will have provided schools with the very best equipment for the 21st century."

According to the councillor, a stand alone PC has many disadvantages and the network computer is the computer of the future. "Not only is the network computer cheaper, it is also much easier to operate. Children and teachers must be in a position to use computers just as easily as they would use a blackboard and chalk. The network computer is ideal for this. The most recent information and software is always available for retrieval from a centrally managed server."

For SARA this service is also a logical step in extending its activities to the non-academic world. Dr. Rik Leenders, overall project manager of CIAO: "SARA wants to continue to make its expertise available to clients and users who are not involved with a university. We currently have so much knowledge and skills in house, particularly in the area of Internet that we are in an excellent position to provide an good service to the business world. The project with Sun and the City of Amsterdam is also interesting because we are looking here at one of the very first large scale applications of JavaComputing in junior education."

Sara (Stichting Academisch Rekencentrum Amsterdam) is the joint computer centre of the two Amsterdam universities (UvA and VU), and is also the location of the national supercomputer. For over 25 years SARA has focused on the application of computers in research and education.

While across Europe we must of course concentrate on getting schools that have not yet started get connected, we must also help them to see the vision of where they should be heading.

We must surely envision a time, not many years from now, when every school has a fast internal network, big servers, and sufficient network access devices for students to be able to choose to use ICT, whenever they need to.

If our vision is less than this, we are failing our children.

Partnerships in Practice Conference
Thursday 11th and Friday 12th September 1997

Panel Working Groups - Choice Sheet

To help us allocate rooms, we need to know which Groups will be the largest.
Please tick the boxes for the Panel Working Groups you will attend at each time.

Session 1 - Friday 09.30 - 10.45

A **Networking Schools, Local Connection And Equipment** ☐

Rapporteur - Timothy Fenoulhet, DGXIII
Panellists - Rickard von Horn, Sun Microsystems; Peter Plett, BMDF/Schulen ans Netz; Liisa Lind, Finnish National Board of Education; Lisa Dubernard, Schoolsoft.

B **Developing Awareness And Understanding, National Netday Approaches** ☐

Rapporteur - Jim Ayre, Multimedia Ventures
Panellists - Mike McKeown, Cisco Systems; Christiane Payan, France Telecom; Jimmy Jamar, DGXXII; Chris Lowe, European Secondary Headteachers Association.

C **Using Internet Approaches To Aid Learning And Teaching** ☐

Rapporteur - Peter Looms, Radio Danmark
Panellists - Harald Melcher, Bildung Online/Cornelson Software; Guus Wijngaards, Context; Albert Leroy, Inst. of St Berthuin, Malonne; Ulf Lundin, Education Counsellor, Swedish Education Ministry.

Session 2 - Friday 11.15 - 12.30

A **Networking Countries And Europe, Education National Grids** ☐

Rapporteur - Timothy Fenoulhet, DGXIII
Panellists - Pedro Carvalho, Portugal Telecom/CET; Robert Liddington, ETIS; Dick Hill, ICL Interactive; Ragnar Heldt Nielsen, Danish National Centre for Technology.

B **Using Digital Broadcast Approaches To Aid Learning And Teaching.** ☐

Rapporteur - Peter Looms, Radio Danmark.
Panellists - Didier Lecat, Association des Televisions d'Education; Lucia Jones, BBC Education; Robert Winter, European Broadcasting Union; Fotilas Panagiotis, Antenna Broadcasting.

C **Teacher Training And Support In An Online And Digital Broadcast World** ☐

Rapporteur - Jim Ayre, Multimedia Ventures
Panellists - Per-Olow Danielsson, Telia; Christina Preston, Mirandanet-Active for Teachers; Andrea Schlepper, Schulen ans Netz; Phillipe Lemmens, Apple Computer.

Please hand this sheet in when you leave the room for coffee at 15h00

Company Background

Education Online, organiser of the Partnerships in Practice Conference, is expert in the application of public private partnerships to online learning projects.

The Company

Education Online is a non-profit organisation registered as a UK company limited by guarantee, Edon Ltd. The company was formed through the partnership and support of Apple Computer, the Acorn Group, Dial Solutions and Xemplar Education. The company operates with the close co-operation of many organisations that provide a wide range of resources and expertise. Education Online offers consultancy in the field of online education and support for the development of innovative web based learning materials.

Company Objects

To stimulate the development and application of information and communication technologies to improve learning.

To promote innovative uses of online technologies through partnership and appropriate open standards.

To encourage participative learning through co-operative projects.

Management

The Managing Director is Mike Collett supported by Sparrowhawk & Heald, Mediation Technology, Broadie Associates, Doyen Media and The Netherhall School. Education Online contracts or co-operates with appropriate people and organisations to undertake specific projects.

Projects

Consultancy is provided to publishers, educational organisations and businesses with an interest in innovative online learning. Education Online has access to the technical, educational and commercial skills required to implement effective strategies with global information and communication technologies. Education Online manages the production of web based materials and online related resources for publishers. The group of consultants and companies associated with Education Online cooperate to bring combined skills to innovative online projects.

Education Online is actively involved with D&T Online, Education Extra, the Educational Object Economy, the European Education Partnership, the European SchoolNet EUN, Netday initiatives, Project Miranda, TeacherNet UK, Technology Colleges Trust and the Web Worksheet initiative.

Recent contracts have come from the European Commission, Hobsons Publishing, Incpen, SCAA, and Sun Microsystems.

For further information on the consultancy services on offer please contact us

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SPEECH/97/173

Intervention de Madame Edith CRESSON

à la Conférence Partnerships in Practice

Bruxelles, le 11 septembre 1997

Je voudrais tout d'abord remercier les entreprises (Apple, Deutsche Telekom, France Télécom, ICL, Sun) qui ont pris l'initiative d'organiser cette conférence. Elle annonce en effet un tournant décisif de la coopération indispensable entre les secteurs privé et public pour le développement de l'usage du multimédia éducatif.

Nous entrons dans une société de plus en plus marquée par la globalisation des économies et la dématérialisation des activités. La rapidité des mutations technologiques et économiques en cours est sans précédent dans l'Histoire. Si l'on n'agit pas rapidement, le risque serait grand d'assister à un décalage croissant entre ces changements structurels et les capacités d'adaptation des individus.

Préparer les Européens à la société de l'information du XXIème siècle est donc une priorité.

Dans cette révolution, l'école a un rôle central à jouer. Elle ne peut vivre désormais sans connections avec les réseaux modernes d'information et de communication. Sa mission est en effet d'accompagner l'évolution de la société en préparant les jeunes générations à vivre et à travailler dans un environnement où elles devront maîtriser ces nouveaux outils du multimédia.

I - Une pédagogie en renouvellement

Mais cette technologie, aussi perfectionnée soit-elle, n'est qu'un moyen qui doit être mis au service de la société et de l'éducation de ses citoyens. Nombreux sont ceux qui au cours de ces dernières années se sont interrogés sur sa valeur et sur ses applications. Aujourd'hui les nombreuses expériences pilotes réalisées nous montrent clairement que le multimédia offre un apport pédagogique réel, complémentaire des autres modes de transmission du savoir.

Les évaluations réalisées aux Etats-Unis (Office of Technological Assessment), au Royaume-Uni (National Council for Education Technology), en France (Centre National d'Education à Distance) ou par les industriels eux-mêmes ont confirmé l'amélioration des performances scolaires des élèves comme des enseignants qui utilisent les technologies multimédias.

Certaines fonctions, comme la reconnaissance vocale, qui permet de dicter ses textes à son ordinateur, offrent des utilisations inédites, notamment pour l'éducation des enfants ne maîtrisant pas l'écriture ou pour des personnes handicapées s'accommodant mal du clavier. Parmi les expériences pilotes, citons celles conduites par Apple (Apple Classrooms of Tomorow), IBM (Teaching and Learning with Computer), ICL (Cyberskills) ou Research Machine.

Dans tous ces cas, on constate que l'amélioration des résultats scolaires est probante, que la capacité d'assimilation et la motivation de l'élève augmentent. L'introduction maîtrisée de ces nouvelles technologies dans l'école constitue donc un moyen complémentaire de lutte contre l'exclusion scolaire.

Outre le caractère interactif et la possibilité accrue d'éducation 'sur mesure', ces technologies permettent, grÂce aux réseaux électroniques, comme Internet, d'élargir l'accès aux sources d'information et de culture.

Enfin, ce type d'outils est particulièrement favorable au renforcement de la dimension européenne de l'éducation, par exemple pour l'apprentissage des langues, des sciences, des arts et pour amplifier les échanges pédagogiques.

II - Accompagner l'évolution des acteurs concernés

Le multimédia, toutefois, n'est pas une baguette magique. Les performances didactiques bien réelles que l'on a pu enregistrer reposent largement sur une pédagogie qui suppose une participation accrue de l'élève. Loin d'être dévaluée par l'introduction de ces outils, la mission fondamentale de l'enseignant s'en trouve donc renforcée.

Le potentiel pédagogique des outils multimédias est encore mal perçu des utilisateurs potentiels. L'information sur les multiples ressources d'Internet est aujourd'hui trop abondante pour leur être systématiquement utile. Il est donc indispensable de leur fournir des points de repères fiables :

- pour susciter leur intérêt et lever leurs appréhensions, les résultats des évaluations sur les techniques et les contenus éducatifs disponibles, ainsi que leur condition de financement devront être largement diffusés;

- l'utilisateur qui souhaite exploiter les ressources pédagogiques d'Internet doit également pouvoir bénéficier d''une carte et d'une boussole' pour accéder rapidement et au meilleur coût aux bonnes ressources multimédias.

Force est de constater que, dans leur grande majorité, les écoles de la Communauté restent encore, en moyenne, à l'écart de la société de l'information.

Malgré des progrès rapides, peu d'écoles disposent à l'heure actuelle des équipements multimédias nécessaires en nombre suffisant.

Seulement 10 % des écoles en Europe disposent d'un accès à Internet, contre plus de la moitié pour les écoles publiques aux Etats-Unis par exemple (les 2/3 des écoles secondaires).

Le pourcentage de classes équipées d'une ligne téléphonique pour se connecter est même inférieur à 2 % (15 % aux Etats-Unis).

Les enseignants ne sont pas formés systématiquement au maniement des nouveaux outils en liaison avec leur pédagogie.

Enfin, les produits éducatifs véritablement multimédias et réellementinteractifs sont encore insuffisants sur le marché européen.

Le défi auquel nous sommes confronté aujourd'hui est de dépasser le stade de l'expérimentation pour généraliser l'usage de ces outils dans les écoles.

III - Le Plan d'action de la Commission

Le plan d'action 'Apprendre dans la société de l'information' dont s'est doté la Commission en octobre 1996 a l'ambition d'aider les écoles en Europe à accéder au plus vite aux nouveaux outils multimédia. Il repose sur les actions où la valeur ajoutée communautaire est la plus forte, en s'appuyant sur les nombreuses initiatives locales, régionales et nationales.

Citons par exemple les initiatives 'Schulen Ans Netz' en Allemagne, 'Superhighways in Education' au Royaume-Uni, 'Autoroutes électroniques' en France, 'Info 2000 IT&T Action Plan' au Danemark ou encore 'Education, training and research: a national strategy' en Finlande.

Il s'agit de soutenir ces initiatives en les mettant en relation, de leur ajouter une dimension européenne et d'accélérer la constitution d'un véritable marché du multimédia éducatif européen. La dimension internationale des réseaux d'information et de communication nous pose en outre des problèmes qui ne peuvent être réglés au seul niveau national; que l'on songe à la protection des mineurs vis-à-vis de contenus illicites ou préjudiciables disponibles sur Internet ou encore à la protection de la vie privée, et de la propriété intellectuelle.

En pratique, quatre lignes d'action ont été tracées afin de créer un véritable espace éducatif virtuel en Europe :

- Aider à l'organisation d'un réseau européen d'écoles à partir d'Internet, en facilitant l'interconnexion des réseaux existants, et sans oublier les écoles isolées ou défavorisées.

- Encourager la coproduction et la distribution au niveau européen de 'contenus' multimédias et audiovisuel d'intérêt pédagogique, sur la base d'une coopération étroite dès leur conception entre les producteurs (industriels du multimédia et audiovisuel) et les utilisateurs.

- Former les enseignants, pour qu'ils soient capables au plus vite d'intégrer les nouveaux outils dans leur pratique.

- enfin, sensibiliser et informer l'ensemble des personnes concernées (enseignants, responsables pédagogiques, parents, élèves..) sur les opportunités pédagogiques des nouveaux outils.

Ces quatre objectifs sont en bonne voie de réalisation.

Le réseau européen des écoles sur Internet sera inauguré avant la fin de l'année 1997 avec un ensemble de services d'information et d'assistance pédagogique pour les enseignants, les élèves, les parents.

Un groupe de représentant du secteur de l'audiovisuel, du multimédia et de l'éducation s'est constitué pour explorer les pistes de coopération au niveau européen pour le développement et la diffusion de contenus éducatifs.

Tous les gouvernements de l'Union sont résolus à former de manière systématique et continue les enseignants à l'utilisation des nouvelles technologies comme support de cours.

La sensibilisation des acteurs de l'éducation aux nouvelles technologie est essentielle. A travers toute l'Europe, du 18 au 25 octobre 1997 se dérouleront les premiers Netdays européens. Ces journées s'annoncent déjà comme un tournant dans l'utilisation d'Internet dans les écoles, compte tenu de la forte mobilisation des autorités publiques et des industriels partout en Europe. Plus de 300 projets pédagogiques multimédias sont prêts à être échangés entre les écoles avec le soutien des entreprises des technologies de l'information et des communications.

IV - Renforcer les partenariats

Faire rentrer les écoles dans la société de l'information exige un effort de tous. Les partenariats entre les secteurs public et privé constitueront en effet la clé du succès de l'initiative. Aujourd'hui dix entreprises du secteur multimédia se sont donc organisées dans un vaste Partenariat Européen pour l'Education (European Education Partenership) et mobilisent leur ressources en faveur des écoles avec le soutien des autorités publiques.

La Commission apporte bien sûr tout son soutien à cette initiative et souhaite encourager le montage de partenariats privé-public au niveau européen, au sein d'une Fondation de type privé, regroupant les entreprises du secteur multimédia et des télécommunications, les administrations locales ou régionales, les responsables de l'éducation. Celle-ci jouera le rôle de pôle de référence et d'échange entre les acteurs pour la diffusion des 'bonnes pratiques'. Elle aura pour but de favoriser la création de nouveaux partenariats dans les Etats membres et les régions, et de mettre en relation les associations déjà constituées au niveau local ou national. Elle jouera un rôle actif dans le parrainage de projet de connexion d'écoles aux réseaux de communication.

Conclusion

La conférence qui nous réunit aujourd'hui est essentielle dans la mesure où elle permettra de dégager des orientations communes entre les acteurs privés et publics du multimédia sur la mission d'une telle Fondation. L'enjeu n'est rien moins que de transformer la société de l'information en une société de la connaissance, proche de chaque citoyen européen, quelque soit sa langue et sa culture. C'est en s'appuyant sur l'intelligence, en la libérant, que l'Europe a connu un développement économique et un progrès social qu'aucun continent n'avait connu auparavant. C'est en puisant à la même source, en s'appuyant sur la formidable capacité des nouvelles technologies qu'elle peut espérer faire face à l'avenir. Il est très stimulant de constater à quel point les Etats membres, les régions et les entreprises s'engagent ensemble pour relever ce défi majeur du XXIème siècle.

For more information contact:

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transparent;

46. Calls for some of the appropriations resulting from the increase in the amount allocated to the current fourth RTD framework programme to be used to finance additional projects as part of the 'Education Multimedia' task force joint call for proposals of 17 December 1996;

47. Instructs its President to forward this resolution to the Commission, Council and the governments of the Member States.

1) OJ C 56, 6.3.1995, p. 97.
2) OJ C 89, 10.4.1995, p. 123.
3) OJ C 166, 3.7.1995, p.192.
4) OJ C 117, 22.4.1996, p. 37.
5) OJ C 320, 28.10.1996, p.164.
6) OJ C 364, 4.12.1996, p. 5.
7) OJ C 247, 23.9.1995, p. 1.
8) OJ C 341, 19.12.1995, p. 5.
9) OJ C 195, 6.7.1996, p. 8.
10) A4-0325/96 - OJ C - not yet published.

Annexe 3

Minutes of 26/06/97

Information society *

A4-0200/97

Resolution on the Commission communication to the Council, European Parliament, Economic and Social Committee and Committee of the Regions "Learning in the Information society: action plan for a European education initiative" (COM(96)0471 - C4-0528/96)

The European Parliament,

- having regard to the Commission communication (COM(96)0471 - C4-0528/96),

- having regard to the final report of the Task Force for Educational Software and Multimedia, (SEC(96)1426 - C4-0625/96),

- having regard to its resolution of 16 February 1995 on the G7 conference on the information society(1) ,

- having regard to opinion of 16 March 1995 on the proposal for a European Parliament and Council Decision establishing 1996 as the European Year of Lifelong Learning(2) ,

- having regard to its opinion of 16 June 1995 on the proposal for a Council Decision on a training programme for professionals in the European audiovisual programme industry Media II- Training (1996 to 2000)(3) ,

- having regard to its opinion of 28 March 1996 on the proposal for a Council Decision adopting a multiannual Community programme to stimulate the development of a European multimedia content industry and to encourage the use of multimedia content in the emerging information society (INFO 2000)(4) ,

- having regard to its resolution of 19 September 1996 on "Europe and the global information society - Recommendation to the European Council", and on a communication from the Commission: "Europe's way to the Information Society: an action plan" (5) ,

- having regard to the Commission's White Paper; 'Growth, Competitiveness and Employment' (COM(93)0700 - C3-0509/93),

- having regard to the Comission communication on education and training in the face of technological, industrial and social challenges: first reflections (COM(94)0528),

- having regard to the Commission communication to the Council, European Parliament, the Economic and Social Committee and the Committee of the Regions on a methodology for the realisation of information society applications (COM(95)0224),

- having regard to the Commission's Green Paper "Copyright and Neighbouring Rights in the Information Society" (COM(95)0382 - C4-0354/95),

- having regard to the proposal for a Council Decision for the adoption of a multi-annual programme to promote linguistic diversity in the information society(6) ,

- having regard to the White Paper on Education and Training, Teaching and Learning - Towards the Learning Society (COM(95)0590 - C4-0597/95),

- having regard to the interim report of the high level group of experts, "Building the European Information Society for Us All",

- having regard to the first annual report to the European Commission from the Information Society Forum, 'Networks for People and their Communities - Making the most of the Information Society in the European Union',

- having regard to the interim report on the European school data network presented at the informal meeting of the Council (Education) in Amsterdam on 2 and 3 March 1997,

- having regard to the Council resolution of 4 April 1995 on culture and multimedia(7) ,

- having regard to the Council resolution of 27 November 1995 on industrial aspects for the European Union in the development of the information society(8) ,

- having regard to the Council resolution of 6 May 1996 on educational software and multimedia in education and training(9) ,

- having regard to its resolution of 13 March 1997 on the information society, culture and education(10) ,

- having regard to Articles 126 and 128 of the EC Treaty,

- having regard to the report of the Committee on Culture, Youth, Education and the Media, and the opinions of the Committee on Employment and Social Affairs, the Committee on Research, Technological Development and Energy and the Committee on Women's Rights, (A4-0200/97),

A. whereas there is a great discrepancy in the rates of introduction of new technologies in schools, both between and within the Member States,

B. whereas, there is a need for new technologies to be introduced into schools in a planned manner, according to educational and social goals and not technology-led; whereas it is particularly necessary to encourage young women to familiarize themselves with and use such new technologies, an aim which could be the subject of a pilot project,

C. whereas, innovative funding solutions must be sought in order to introduce and develop the use of new technologies in schools - covering hardware, software and communication costs; whereas, from this perspective, the development of educational tools such as sites (home pages) by pupils themselves, in cooperation with their teachers, is an option which should be investigated further owing to the benefits, both educational and economic, that it would yield,

D. whereas the involvement of teachers is crucial to the successful introduction and development of new technologies in the classroom,

E. whereas there is a need for high quality, user-friendly European educational software for use in primary and secondary schools,

F. whereas there is a general need for media education in order that children and adults can make sense and critically evaluate the ever-increasing amount of information which they receive, through an enlarged range of media sources,

G. whereas there is great potential, as regards people with disabilities, for using new technologies in education and at work; whereas the costs of adapting software to disabled people is very low, provided this adaptation is done in the early stages of elaboration of such products,

H. whereas limited budgetary resources for the implementation of this action plan mean that funding will need to be carefully focussed and used for projects where maximum impact and transferable experience can be achieved.

I. whereas measures could be made more effective and planned more efficiently if the various Commission departments worked in cooperation,

J. whereas the measures cannot succeed unless they are supervised while being pursued on the ground,

1. Broadly welcomes the Action Plan, and the significance it gives to the introduction and development of new communication and information technologies in primary and secondary schools, but regrets that it was submitted to Parliament at such a late stage;

2. Notes with concern however, the tendency of the Commission to 'focus' or 're-orientate' existing programmes through Action Plans and White Papers;

3. Notes that good results have been achieved in a number of Member States with projects such as 'Schulen ans Netz' and trusts that such efforts will be intensified and developed in the context of Member States' jurisdiction over cultural and educational matters;

4. Welcomes the Commission's increased efforts to coordinate programmes and financial instruments in the area of the information society and education;

5. Urges the Commission to make use of 'calls for proposals' issued jointly by several directorates-general so as to achieve an economy of scale to boost the available budget;

6. Congratulates the Commission on the work carried out by the Task Force on Educational Software and Multimedia, and notes its recommendations;

7. Is convinced that the ability to use information and communication technologies will be a crucial requirement for full participation in employment and social life in the future; calls for the teaching of at least some knowledge of the use of information and communication technologies throughout compulsory education, irrespective of the type of school and level of qualification, to prepare young people for the future demands of the labour market, to maintain equality of opportunity and to prevent social exclusion;

8. Refers to the importance of the provision of information and communication technologies throughout the EU, including remote and sparsely populated regions, for the maintenance of economic and social cohesion; reiterates, therefore, its call for schools to be given access to information and communication technologies on special terms as part of the universal telecommunication service; also calls for permanent access to distance teaching through this service; regrets the fact that the

Commission's current education programmes focus in particular on young people, whereas it is precisely lifelong learning to which priority should be given in the information society; calls on the Commission to pay greater attention to training and education initiatives by means of which adults who have not grown up with information and communication technologies can be taught how to cope with the new technologies and sources of information;

9. In this regard, requests that the Commission's action plan recognize that schools, libraries and neighbourhood centres can provide learning bases for whole communities, including young people and adults from disadvantaged groups who have no private access to information and communication technologies;

10. Points out that, if there is to be a socially just information society, people of all ages and backgrounds must have access to information and communication technologies; draws attention to the increasing gap between 'those who know and those who do not know' how to use information and communication technologies and requests that priority be given to those who have the least opportunities to gain access, familiarity and skills; suggests, further, that the exchange of knowledge of the use of information and communication technologies between pupils and parents should be encouraged;

11. Calls on the Commission to encourage Member States to establish quantitative goals regarding the provision of, and access to, new technologies in schools, in line with the recommendations of the Task Force;

12. Welcomes the Action Plan's focus on primary and secondary education in recognition of the importance of familiarising children with new technologies at an early stage;

13. Takes the view that there is a risk that the information society will exacerbate the division of society in general and in the labour market, unless in the early stages of education all children are provided with access on equal terms to training in the information and communications technologies, and such access is made easier for girls and young women in particular;

14. Believes that fear of contact with information and communication technologies can be dispelled at an early age through play with these technologies; in this way, different starting conditions as between girls and boys can be avoided and a fundamental contribution made to changing the dominant image of girls as 'lacking an understanding of technology';

15. Calls for support for positive action measures in particular in developing multimedia content and teaching methods which:

- avoid gender stereotypes in society and in the workplace;

- empower girls from an early age to make use of information technology;

- provide positive role models for girls to take an active part in shaping the development of the information society;

16. Concludes that much can be achieved through the exchange of experience in this broad area, given the range of initiatives taken to date within the Member States, at national, regional and local level; notes that such exchanges may be particularly valuable in areas such as teacher training, teaching of pupils with disabilities, language learning, illiteracy;

17. Calls on the Commission to coordinate and promote this exchange of experiences, in particular using the Internet as a tool for information about all initiatives taken and experience gained within the Member States;

18. Suggests that innovatory work should be undertaken in the action plan to encourage and stimulate the involvement of excluded children, young people and adults in the information society;

19. Calls on the Commission to continue its actions to support the development of a European software and multimedia industry, which recognises and reflects the cultural and linguistic diversity of Europe;

20. Proposes that a specific budget heading be created under the Action Plan to fund translation of the best educational software and multimedia products to be developed each year;

21. Points out that education for citizenship is a subject that could be fostered through the future new educational software and multimedia products;

22. Welcomes the Commission's proposal that the production and dissemination of high-quality teaching materials should be promoted; calls on the Commission to assist small and medium-sized firms in particular and to ensure that the teachers and pupils concerned are involved in the development of educational software;

23. Is convinced that considerable importance should be attached in teaching not only to the acquisition of technical knowledge but also to the promotion of pupils' creativity, their ability to work as part of a team and the development of their talents and initiative; calls on the Commission to take account of these aspects in the promotion of educational software;

24. Calls on the Commission and the Member States to step up the exchange at European level of information and experience on enhancing the educational use of audiovisual and multimedia material in schools and educational establishments in

order to speed up the dissemination of research findings and enable Member States and the Union, on the basis of good, positive examples, to improve the cost-effectiveness of their measures;

25. Underlines the importance of relevant initial training, continuing training and classroom support for teachers;

26. Calls upon Member States to encourage schools to form into groups and organizations to attain the benefits of scale through the ability to purchase hardware and software in larger quantities;

27. Believes that the introduction of information and communication technologies at schools must be accompanied by a thorough reform of teaching; calls on the Commission to support this reform with pure pedagogical research under the Community research policy and by assisting initial and in-service teacher training from the Structural Funds; women teachers, many of whom have been given little or no opportunity to acquire a knowledge of computers in the past, should receive particular assistance in this respect;

28. Takes the view that acceptance of the new teaching methods by parents and guardians is crucial to their success; stresses, therefore, the need to establish and develop special training schemes for parents and guardians in order to keep them informed and involve them actively in the process;

29. Calls on the Commission to encourage Member States to introduce media education into the curriculum at all levels, and in the training of teachers;

30. Notes the positive potential of using networks to link schools to other educational/cultural institutions such as libraries and museums;

31. Welcomes the initiative taken by the Member States to contribute to the implementation of the Action Plan by establishing a European school data network;

32. Suggests that a survey be compiled to identify non-governmental cultural institutions in the Member States that could provide active support to schools to help them pursue projects on the ground;

33. Calls on the Commission to encourage not only the networking of schools among themselves but also their networking with universities and the networking of universities among themselves as future places of learning and teaching for those currently in compulsory education, so that more use is made of distance teaching;

34. Calls on the Commission to increase its current efforts to prevent the new electronic media from being used to disseminate information harmful to young people;

35. Recognises the crucial role of educational and sociological research in this field and therefore welcomes the inclusion of the Targeted Socio-Economic Research Programme within the framework of the joint call for proposals;

36. Calls upon Member States and relevant authorities to encourage learning through the new information technologies, as opposed to the current predilection for learning about the new technologies;

37. Supports the Commission's principle of support for private/public partnerships and stresses the need for a code of conduct to regulate this matter so as to ensure that schools located in peripheral or socially marginalized areas are not at a disadvantage; notes that this could be a particularly fruitful area for the exchange of experience between Member States and regions;

38. Considers that EMU must be given a social dimension and that, in order to be able to safeguard the European model of free schooling in the future, action must be taken to counter the adverse effects on schools of the cuts imposed as result of the convergence criteria and the squeeze put on the funding of schools;

39. Notes that the budgetary constraints of the Action Plan should not lead to funding only for the already most technologically advanced schools, thus contributing to the creation of an élite of schools;

40. Regrets the omission from the Commission's action plan of specific references which could be used for budgetary purposes;

41. Calls on the Commission to ensure that all European Schools (*Scholae Europaeae*) are networked immediately;

42. Calls for a detailed evaluation of the Action Plan to take place, and serious consideration to be given to providing precise information on its objectives and implementation, including consideration of whether there is a need for a specific programme in this area;

43. Calls upon Member States to publish a mission statement for the continued and continuing application of information technology in schools, colleges, libraries and community centres;

44. Calls on the Commission to present the proposed communication on 'Vocational Training in the Information Society' at the earliest possible opportunity;

45. Calls on the Commission to make the financing arrangements provided by the various European research and education programmes for the networking of European Schools and the development of European educational software more

transparent;

46. Calls for some of the appropriations resulting from the increase in the amount allocated to the current fourth RTD framework programme to be used to finance additional projects as part of the 'Education Multimedia' task force joint call for proposals of 17 December 1996;

47. Instructs its President to forward this resolution to the Commission, Council and the governments of the Member States.

1) OJ C 56, 6.3.1995, p. 97.
2) OJ C 89, 10.4.1995, p. 123.
3) OJ C 166, 3.7.1995, p.192.
4) OJ C 117, 22.4.1996, p. 37.
5) OJ C 320, 28.10.1996, p.164.
6) OJ C 364, 4.12.1996, p. 5.
7) OJ C 247, 23.9.1995, p. 1.
8) OJ C 341, 19.12.1995, p. 5.
9) OJ C 195, 6.7.1996, p. 8.
10) A4-0325/96 - OJ C - not yet published.