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27 April 2001

REPORT

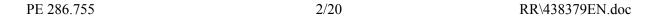
on the Commission communications on the initiative and the action plan for 2001-2004 entitled 'e-Learning – Designing tomorrow's education' (COM(2000) 318 – C5-0741/2000 and COM(2001) 172 – C5-0151/2001 – 2000/2337(COS))

Committee on Culture, Youth, Education, the Media and Sport

Rapporteur: Mario Mauro

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PROCEDURAL PAGE

By letter of 5 October 2000, the Commission forwarded to Parliament a communication entitled 'e-Learning – Designing tomorrow's education' (COM(2000) 318 – 2000/2337(COS)).

At the sitting of 15 January 2001 the President of Parliament announced that she had referred the communication to the Committee on Culture, Youth, Education, the Media and Sport as the committee responsible and the Committee on Women's Rights and Equal Opportunities, the Committee on Industry, External Trade, Research and Energy and the Committee on Employment and Social Affairs for their opinions (C5-0741/2000).

At the sitting of 15 February 2001 the President of Parliament announced that she had also referred the communication to the Committee on Budgets for its opinion.

The Committee on Culture, Youth, Education, the Media and Sport had appointed Mario Mauro rapporteur at its meeting of 18 September 2000.

By letter of 30 March 2001, the Commission forwarded to Parliament a communication entitled 'the e-Learning action plan – Designing tomorrow's education (COM(2000) 172 – 2000/2337(COS)).

At the sitting of 2 May 2001 the President of Parliament announced that she had referred the communication to the Committee on Culture, Youth, Education, the Media and Sport as the committee responsible and the Committee on Women's Rights and Equal Opportunities and the Committee on Budgets for their opinions (C5-0151/2001).

The Committee on Culture, Youth, Education, the Media and Sport considered the communications and the draft report at its meetings of 5 March and 25 April 2001.

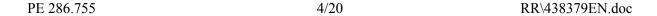
At the latter meeting it adopted the motion for a resolution unanimously.

The following were present for the vote: Vasco Graça Moura, acting chairman; Ulpu Iivari and Giorgio Ruffolo, vice-chairmen; Mario Mauro, rapporteur; Ole Andreasen, Pedro Aparicio Sánchez, Rolf Berend (for Vittorio Sgarbi), Thierry de La Perriere, Raina A. Mercedes Echerer (substitute), Lissy Gröner, Cristina Gutiérrez Cortines (for Mónica Ridruejo), Christopher Heaton-Harris, Ruth Hieronymi, Timothy Kirkhope (for Christine de Veyrac), Maria Martens, Pietro-Paolo Mennea, Barbara O'Toole, Doris Pack, Roy Perry, Martine Roure, Dana Rosemary Scallon (for Sabine Zissener), Kathleen Van Brempt, Luckas Vander Taelen, Eurig Wyn, Theresa Zabell and Myrsini Zorba.

The opinions of the Committee on Budgets and Committee on Women's Rights and Equal Opportunities are attached; the Committee on Industry, External Trade, Research and Energy and the Committee on Employment and Social Affairs decided on 24 January 2001 and 16 November 200 respectively not to deliver an opinion.

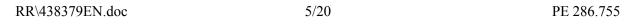
The report was tabled on 27 April 2001.

The deadline for tabling amendments will be indicated in the draft agenda for the relevant





part-session.



MOTION FOR A RESOLUTION

European Parliament resolution on the Commission communications on the e-Learning initiative and the e-Learning action plan for 2001-2004 entitled 'e-Learning – Designing tomorrow's education' (COM(2000) 318 - C5-0741/2000 and COM(2001) 172 - C5-0151/2001-2000/2337(COS))

The European Parliament,

- having regard to the Commission communication (COM(2000) 318 C5-0741/2000¹)
- having regard to the Commission communication (COM(2001) 172 C5-0151/2001²),
- having regard to Articles 149, 150 and 157 of the Treaty,
- having regard to the report from the Commission entitled 'The concrete future objectives of education systems' (COM(2001) 59³),
- having regard to the conclusions of the Lisbon European Council meeting of 23 and 24 March 2000 and the Santa Maria da Feira European Council meeting of 19 and 20 June 2000.
- having regard to Rule 47(1) of its Rules of Procedure,
- having regard to the report of the Committee on Culture, Youth, Education, the Media and Sport and the opinions of the Committee on Budgets and the Committee on Women's Rights and Equal Opportunities (A5-0152/2001),
- A. whereas, in accordance with the principle of subsidiarity, the Community's role is to encourage the Member States to meet important goals relating to the quality of education,
- B. whereas the e-Learning initiative is helping to strengthen the idea of a 'single European educational area', which complements the European research area and the European single market,
- C. whereas know-how, knowledge and information have become the driving force of our society; whereas the e-Learning project is helping to devise a different way of learning and must aim primarily to extend the wealth of human understanding,
- D. whereas too small a percentage of teachers and trainers have the skills required to use new technologies as an integral part of their normal teaching methods,
- E. whereas children's access to information and communication technologies is greatly

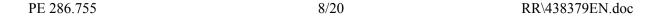
¹ Not yet published in the Official Journal.

² Not yet published in the Official Journal.

³ Not yet published in the Official Journal.

- affected by geographical, social and cultural inequalities,
- F. whereas the high cost of telecommunications in Europe represents an obstacle to the extensive use of the Internet and the development of the digital culture and poses the risk of widening the gap between those who have access to the new information and communication technologies and those who do not,
- G. whereas in terms of developing new technologies there is a gap not only between the United States and Europe but also within the European Union itself, particularly between the eastern and western European countries,
- H. whereas there is a lack of satisfactory equipment in the majority of schools (both state and private schools), universities and training centres in Europe, as regards both hardware and software,
- I. whereas the European multimedia educational software industry is under-developed and the relationship between the education and training systems and the industry has failed to generate services that actually meet educational needs in Europe,
- J. whereas the e-Learning initiative is designed to cut across various Community programmes which are already running (managed by different Directorates-General), such as Socrates, Leonardo da Vinci, Culture 2000, Media Plus and e-Content in the area of culture, education and training; the fifth and the forthcoming sixth Research Framework Programme, Ten-Telecom, TSER and Meda; and possibly also the European Social Fund and the Structural Funds,
- K. whereas the success of the e-Learning initiative will depend on the extent of the financial contributions allocated to it under each current Community programme, as well as on the financial resources made available by the Member States,
- 1. Calls on the Commission, the Council and the Member States to take account of the following points:
 - (a) Shares the goal set by the Heads of State and of Government of ensuring that all citizens have life-long access to training courses in the knowledge and skills necessary for living, working and contributing to their personal enrichment in the new information society;
 - (b) Considers that the e-Learning project must not only take account of access to the new information and communication technologies, but also guarantee e-content of quality, and training to use that content;
 - (c) Calls on the Member States to make every effort to close the gap between those who have access to new technologies and those who are excluded, and to provide for priority actions aimed at minority groups, such as old people, the disabled, the unskilled and residents of isolated and island regions, and at women;

- (d) Calls on the Commission to define priority measures to reduce the new technology gap between, on the one hand, countries within the European Union and, on the other, EU countries and the candidate countries of eastern Europe;
- (e) Calls on the Member States and the Commission to encourage cooperation between society and private enterprise in the process of investing in new technologies, providing hardware and specifically in extending the content networks;
- (f) Calls on the Member States to promote measures to reduce the costs of access to new technologies and the Internet;
- (g) Expects that, through the e-Europe comprehensive action plan, the objectives set by the Lisbon European Council meeting, as well as the employment policy guidelines, can be given concrete effect;
- (h) Wishes e-Learning also to give practical shape to:
- the objectives of the Lisbon European Council, and the Stockholm follow-up to it with the report on 'concrete future objectives of education and training systems';
- the employment guidelines;
- attractive life-long learning for all; and
- the promotion of virtual mobility;
- (i) Expects the goal set at Lisbon of equipping all schools in the Union with Internet access by the end of 2001 actually to be met and all teachers to have high-speed access to the Internet, personalised electronic mail, an annual refresher course or programme in technologies and teaching methods and multimedia teaching resources by 2002;
- (j) Proposes, in accordance with the Lisbon objectives for bridging the digital gap in the emerging information society and boosting social cohesion, to enable every schoolchild and student to have an electronic address at their place of education;
- (k) Calls on the Council and Member States to look into the possibilities for flat rates for internet access by educational establishments;
- (l) Calls on the Council and the Member States to promote the creation of a high-speed, highly flexible and highly multi-cultural trans-European network which will link up research institutes, universities, scientific libraries and ultimately schools, businesses and local and national administrations for the exchange of scientific and other information in the various languages, and which can spearhead teachers' efforts at bench-marking and at exchanging best practice;
- (m)Urges the Commission to ensure that e-Learning measures supported by Community funds give absolute priority to teacher training and that, where funds allow, other sectors such as the training of trainers or the exchange of experience between research experts are also able to enjoy Community support;
- (n) Asks the Commission and the Member States to encourage the use of ICT for school twinning and collaboration in Europe, and to help teachers to adopt new and



- innovative ways of working with ICT through Europe-wide dissemination of leading examples and practice, and with this purpose support eSchola a week for e-Learning in Europe;
- (o) Calls on the Commission and the Member States to ensure that the e-Learning initiative concentrates on priority objectives: providing all schools with the necessary technological infrastructure and training teachers (who, more than anyone, are responsible for education), through bench-marking measures and the exchange of best practice, so that they acquire knowledge and skills in the use of the new technologies for educational purposes, in both content and software, which should be flexible, multicultural and should take account of the specific characteristics of pupils and other diverse factors, in order to improve child and adult pupils' capacity to learn, by developing distance learning and differentiated and individualised teaching methods;
- (p) Calls on the Commission and the Member States to ensure that the e-Learning initiative gives absolute priority to integrating the information technologies in school curricula, by means of teaching methods that use the new technologies. Teaching centres will be responsible for developing the content of the new school curricula, thus providing a higher standard of excellence and competition between centres;
- (q) Calls on the Commission and the Member States to launch, with the e-Learning initiative, an ambitious European policy for developing high-quality educational multimedia software, content and services that are adapted to the needs of teaching and professional training;
- (r) Calls on the Commission and the Member States to create the necessary fora to encourage relations between education and training establishments and the content industry in order to generate high-quality educational products;
- (s) Calls on the Member States to ensure, by the end of 2002, that as many teachers as possible are trained in the use of the Internet, high-speed and database networks and multimedia resources, and to provide them, by the end of 2003, with such training as will ensure that they are 'digitally literate' and capable of adapting the new electronic communication systems to the classroom in a critical and educationally responsible manner;
- (t) Calls on the Member States to promote policies for motivating teachers, by showing them that the information technologies can offer them a number of advantages: they are cost-effective, efficient and cut red-tape in schools;
- (u) Calls on the Commission to continue to help ensure, by supporting European networks such as 'European Schoolnet' a joint initiative of the Commission and the Member States in 1997 for the development of ICT in schools –, that training and research centres become local multipurpose knowledge acquisition centres open to all, using methods that reflect the diverse nature of the groups at which they are aimed and the goal of life-long learning;
- (v) Intends to support the e-Learning initiative, which it regards as an absolute priority in the area of education, and to provide adequate funding under the budget for the

- relevant coordination, management and assessment tasks, including the human resources required;
- (w) Calls on the Commission to ensure it has the necessary structures in place in order to operate successfully, in particular an effective task force led by the EAC Directorate-General to be responsible for the horizontal coordination of the e-Learning initiative as it affects all the Community programmes that are involved in various ways, and to carry out an in-depth study of experience obtained to date in the Member States in the educational use of the new technologies, in order to identify consistently successful or less effective educational uses of the new information and communication technologies;
- (x) Calls on the Commission to urge the Member States to ensure that the infrastructure provides high quality standards, that general quality criteria and assessment rules are laid down, both for content and the level of training courses available, and that the aim should be for bench-marking wherever possible;
- (y) Calls on the Commission to consider seriously the possibility of submitting a series of measures and actions aimed at promoting the work of each Member State in the area of the application of new technologies to teaching, thereby helping to reinforce the implementation of a 'European educational area';
- (z) Calls on the Commission to support proposals and initiatives of Member States and regional authorities to promote the learning of information technology skills, to adopt proposals aimed at defining new basic skills (technical knowledge, foreign languages, etc.) and to define a system for the mutual recognition of national qualifications and diplomas in information technology;
- (aa) Calls on the Commission to define indicators to monitor the development of e-Learning, including indicators monitoring the equality of children's access to information and communication technologies regardless of geographical, social or cultural inequalities; these indicators will give the Member States better information on their results in implementing e-Learning;
- (bb) Recalls that in the 2001 Budget the appropriations foreseen for the e-Learning initiative under a preparatory action in the meaning of Article 37 of the IIA of 6 May 1999 were increased by Parliament;
- (cc) Stresses that, according to Article 274 of the Treaty, the Commission should implement the budget voted, while Parliament, as part of the budgetary authority, has the responsibility to ensure the best value for money in deciding the priorities and the monitoring of budget implementation;
- (dd) Underlines that the information and knowledge-based society to which e-Learning refers is taken into account in the guidelines for the 2002 budget procedure;
- (ee) Intends to use the instruments provided by the IIA of 6 May 1999 to fund Parliament's priorities in respect of the authorised ceilings; considers that the possibility of concentrating the appropriations as much as possible should be looked at

in the context of the 2002 Budget;

- (ff) Expects the Commission to provide an adequate and specific legal framework for Parliament's priorities which have received financial support and the effectiveness of which can be assessed;
- (gg) Calls for the action plan which is to be submitted to the next meeting of the Council of Education Ministers on 28 May 2001 to take due account of the principle of gender equality in all relevant areas, with particular reference to those covered by the employment guidelines and the European Social Agenda adopted at the Nice European Council;
- (hh) Calls on the Commission and the Member States to encourage the public and private sector to close the gap in education and training systems in informatics between female students, who constitute less than 20%, and male students, who constitute more than 80%, and therefore calls for special training schemes to be organised for women, particularly female teachers in gender segregated courses;
- (ii) Calls for specific initiatives to be taken to foster the development of appropriate educational software for women and girls; calls for support for regional and local training centres especially for women and girls, and calls for a reduction in the current 'digital divide' by involving marginalised groups, such as unemployed single mothers;
- (jj) Endorses the stated objective of stepping up the interconnection of virtual forums and campuses, the networking of universities, schools, training centres, and multi-disciplinary learning centres open to all; calls for this to be used as an opportunity to organise and establish a register of exchanges of best practice in the teaching and training of young girls and women.
- 2. Instructs its President to forward this resolution to the Council and Commission and the governments and parliaments of the Member States.

EXPLANATORY STATEMENT

The subject of e-Learning should be approached with its goals and the means to achieve them in mind: the aim of the e-Learning initiative is to improve training levels and the means to achieve this are new technologies.

Hence the need to give teachers, given that it is they who are called upon to carry out this task, the tools necessary for the goals to be met.

It is therefore important for the appropriate hardware and software to be made available in schools. These tools are essential in order for the educational aspirations relating to the creation and development of a 'single educational space' at European level to be realised.

With regard to the training objectives of the e-Learning initiative it should be stressed that the somewhat controversial introduction of new technologies into schools has given rise to two main positions each characterised by an underlying attitude giving rise, in turn, to particular types of action.

In many cases there is an expectation that new technologies will be agents of real change for the better in the school system. On closer examination, this expectation proves, however, to be unfounded and unjustified. Often, such expectations merely reflect wishful thinking rather than considered opinions, a fact made worse by constant media hype and an unthinking attitude towards the process of technological change.

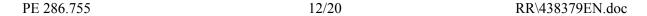
As a result action takes the form of a series of disjointed initiatives, which are not systematic, which involve no major decisions or continuity and which take place in a climate of permanent uncertainty.

In many other cases, teachers are suspicious, an attitude which is equally unjustified and almost always based on a simplistic analysis of the situation. The feeling of suspicion is combined with one of resignation to the fact that the march of new technologies is unstoppable and that they cannot be avoided for much longer.

As a result, any activity which involves the use of new technologies is regarded with suspicion and is accompanied by a chorus of criticism, while at the same time teachers continue to pretend not to notice that students are already making extensive use of new technologies outside the school environment.

E-Learning therefore constitutes a major opportunity for schools (both state and private schools), universities and research centres throughout Europe to close the significant gap which has opened up with the United States in the use of new information and communication technologies.

The e-Learning initiative should prove to be particularly effective in four main areas: boosting the availability of infrastructure in order to facilitate greater familiarity with computing; developing software, products and multimedia services that can act as a vehicle for European culture as well as properly meet the needs of teachers and trainers in Europe; training





qualified personnel so they have the skills and ability to spread knowledge about the use of new technologies; reducing the cost of telecommunications which otherwise constitutes an obstacle to the extensive use of the Internet.

OPINION OF THE COMMITTEE ON BUDGETS

for the Committee on Culture, Youth, Education, the Media and Sport

on the Communication from the Commission on e-Learning - Designing tomorrow's education

(COM(2000) 318 - C5-0741/00 - 2000/2337 (COS))

Draftsman: Carlos Costa Neves

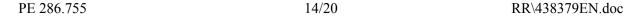
PROCEDURE

The Committee on Budgets appointed Carlos Costa Neves draftsman at its meeting of 27 February 2001.

It considered the draft opinion at its meeting of 21-22 March 2001.

At the meeting it adopted the following conclusions unanimously.

The following took part in the vote: Terence Wynn, chairman; Carlos Costa Neves, draftsman; Kathalijne Maria Buitenweg, Joan Colom i Naval, Den Dover, Jutta D. Haug, Ulpu Iivari (for Catherine Guy-Quint), Anne Elisabet Jensen, Wilfried Kuckelkorn, Per Stenmarck and Ralf Walter.



SHORT JUSTIFICATION

Contents

One of the major strategic goals fixed by the European Council of Lisbon for the Union, is 'to become the most competitive and dynamic knowledge-driven economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion'.

Three European Councils have given their input to e-Learning in an e-Europe:

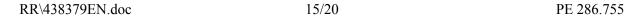
- the Luxembourg Summit (December 1997), which launched the e-Europe action plan 'Luxembourg process';
- the Lisbon Summit (March 2000), the conclusions of which attached a particular importance to education and training for living and working in the knowledge society and defined a comprehensive series of targets;
- the Nice Summit (December 2000), which adopted the European Social Agenda aiming to guarantee access to information and communication technologies for all those in training; to provide training in the use of these technologies, particularly for learning purposes, to ensure the availability of quality European multimedia services and products and to encourage the players involved to commit themselves to the attainment of these goals.

The ambitious objectives set up by the Commission concerning e-Learning are based on four main lines of actions:

- *equipment*: efforts will concentrate on multimedia computers for the connection and improvement of access to digital networks;
- *training at all levels*: this emphasises the pedagogical nature of the skills required and aspects linked to the development and use of the new technologies in learning;
- *development of good quality multimedia services and contents*: the European educational multimedia industry is undercapitalised and lacks qualified manpower; closer links need to be established between education and industry;
- development and networking of centres for acquiring knowledge: the interconnection of virtual spaces and campuses, the networking of universities, schools, training and cultural resource centres.

Not only does this represent an historic opportunity for Europe to develop its linguistic and cultural heritage, it is also a political and economic challenge. It will imply a strong commitment from the Member States and from the European institutions, in order to coordinate the efforts made at local, regional and national levels, by both public and private sectors and to provide the best European added value.

With its double responsibility of representing the citizens' and the tax payers' interests, the European Parliament should have an important role in this ambitious initiative, both at political and budgetary level.



Legislative and budgetary aspects

In the 2001 Budget, the funding dedicated to e-Learning amounted to EUR 6 million under a preparatory action (item B3-1000 Preparatory action for cooperation in the fields of education and youth policy). According to Article 37 of the IIA of 6 May 1999, the relevant commitment appropriations may be entered in the budget for only three financial years at most. The legislative procedure should be concluded before the end of the third financial year.

In the guidelines for the 2002 Budget, the Committee on Budgets has underlined the necessity for Parliament to improve the value for money of the Community programmes aimed at the citizens, in particular by concentrating appropriations. Therefore, the rapporteur considers that significant funding should be allocated to this action in order to achieve an efficient impact.

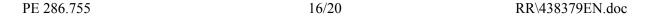
According to point 4.2 of the Communication, the role of the Commission is to support the Member States in the implementation of the e-Learning initiative and to coordinate and strengthen their efforts by co-financing certain activities. At present, e-Learning is not a proper programme. It is based on existing programmes such as Socrates, Leonardo da Vinci, Culture 2000, Research, Structural Funds.

The rapporteur fully supports the initiative. However, he has some doubts about the principle which consists in limiting the role of the Community to coordinating national policies. He considers that the existing Community programmes relevant to e-Learning (Socrates, Leonardo da Vinci, Culture 2000, Research, Structural Funds) have their own objectives and targets. Therefore, in his view, such an important initiative needs to be developed independently under a new specific programme (with a proper legal basis in future), avoiding duplication with the existing ones and providing real visibility and added value to Community action.

CONCLUSIONS

The Committee on Budgets calls on the Committee on Culture, Youth, Education, the Media and Sport, as the committee responsible, to incorporate the following points in its motion for a resolution:

- 1. Recalls that in the 2001 Budget the appropriations foreseen for the e-Learning initiative under a preparatory action in the meaning of Article 37 of the IIA of 6 May 1999 were increased by Parliament;
- 2. Stresses that, according to Article 274 of the Treaty, the Commission should implement the budget voted, while Parliament, as part of the budgetary authority, has the responsibility to ensure the best value for money in deciding the priorities and the monitoring of budget implementation;
- 3. Underlines that the information and knowledge-based society to which e-Learning refers is taken into account in the guidelines for the 2002 budget procedure;
- 4. Intends to use the instruments provided by the IIA of 6 May 1999 to fund Parliament's





priorities in respect of the authorised ceilings; considers that the possibility of concentrating the appropriations as much as possible should be looked at in the context of the 2002 Budget;

5. Expects the Commission to provide an adequate and specific legal framework for Parliament's priorities which have received financial support and the effectiveness of which can be assessed.

OPINION OF THE COMMITTEE ON WOMEN'S RIGHTS AND EQUAL OPPORTUNITIES

for the Committee on Culture, Youth, Education, the Media and Sport

on the Communication from the Commission "e-Learning - Designing tomorrow's education" (COM(2000) 318 - C5-0741/2000 - 2000/2337 (COS))

Draftsperson: Lissy Gröner

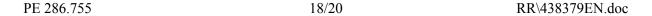
PROCEDURE

The Committee on Women's Rights and Equal Opportunities appointed Lissy Gröner draftsperson at its meeting of 23 January 2001.

It considered the draft opinion at its meetings of 20 March 2001 and 9 April 2001.

At the latter meeting it adopted the following amendments unanimously.

The following were present for the vote: Maj Britt Theorin, chairperson; Marianne Eriksson, vice-chairperson; Jillian Evans, vice-chairperson; Lissy Gröner, draftsperson; María Antonia Avilés Perea, Ilda Figueiredo (for Geneviève Fraisse), Koldo Gorostiaga Atxalandabaso, Anna Karamanou, Christa Klaß, Rodi Kratsa-Tsagaropoulou, Astrid Lulling, Thomas Mann, Maria Martens, Emilia Franziska Müller, Christa Prets, Miet Smet, Joke Swiebel and Elena Valenciano Martínez-Orozco.



EXPLANATORY STATEMENT

The new employment strategy guidelines, adopted at the Lisbon European Council meeting of 23 and 24 March 2000, seek to make the promotion of a high level of employment the Union's fundamental objective. The proportion of women in employment should therefore rise from 51% to 60% over the next ten years.

The conditions of the new working world of today still affect families and women in a negative way. As a result more and more women are pushed to socially insecure working areas. Only about 20% of all IT students are women, and only 14.5% of the start-ups in the multimedia sector are set up by women. As is mentioned in the fifth framework Programme for Research, one of the aims to achieve should be a participation of 40% of each gender.

While new technologies make a crucial contribution to development, they could give rise to a new form of discrimination against, and exclusion of, women. It is thus essential to involve women in the development process, given that one in two new jobs is created in the new technology sector. The political guidelines laid down by the Nice European Council and the commitment made to improving access to lifelong education and training, particularly in the new technology sphere, aim to ensure that there are no shortfalls in qualifications, especially among women.

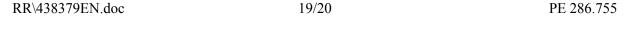
The statements made recently by the Employment Council meeting in Lulea (Sweden) indicated the glaring lack of information technology specialists and the need to step up continuing training and make it easier for women to gain access to new technologies.

The e-Learning initiative is intended to ensure that all those in education or training have access to information and communication technologies. The initiative must form an essential part of the objective of building a 'learning society' laid down by the Lisbon European Council. It must therefore help to close the gap between those who have access to new knowledge and those who do not, particularly women.

The infrastructure objectives cannot be reduced to mere technological problems on which enhanced access to new knowledge is dependent. In this connection, the Internet is merely a tool which will help to close the gap only for people who know how to use it properly. The profound economic, industrial and cultural changes which the new technologies are generating carry with them a risk of greater inequalities, particularly for women, and can lead to social and cultural imbalances, particularly in low-wage sectors, where many women are employed.

Those changes are likely to create a gulf between those sectors with a high rate of productivity growth and the others, including service sectors such as banking, education and health, where tasks which mainly involve the processing of information could be automated. Much remains to be done with a view to ensuring that everyone has the necessary equipment. The quality of the infrastructure available and purchasing power are, of course, major obstacles; however, one cannot afford to ignore an additional factor, namely whether people – and women in particular – are actually willing to purchase the necessary equipment.

This new world would appear to interest boys much more than girls, owing perhaps to a lack of interest in technical matters or to the apparent parallel with video games. The Internet is still



predominantly a male preserve, although the resultant discrimination does not stem from social factors but from the fact that the Internet is, generally speaking, a male-oriented 'playground'; whereas girls are attempting as discreetly as possible to gain a foothold and to make up the lost ground, but have not as yet managed to do so. There is now a chance to reduce inequalities, particularly those affecting girls.

Schools can play a leading role in this process by, in addition to making the necessary equipment available, teaching future generations the specific skills required to master the Internet, namely, the ability gradually to take on board new rules, to identify the links between objects located in different places, to pass on one's experience and to commit details to memory. Schools therefore have a vital role to play, given that shaping the future content and functions of these new technologies must be a collective process. The future development of the Internet must be driven by the uses to which it is actually put, and not any prescriptions as to how it should be used.

CONCLUSIONS

The Committee on Women's Rights and Equal Opportunities calls on the Committee on Culture, Youth, Education, the Media and Sport, as the committee responsible, to incorporate the following points in its motion for a resolution:

- 1. Calls for the action plan which is to be submitted to the next meeting of the Council of Education Ministers on 28 May 2001 to take due account of the principle of gender equality in all relevant areas, with particular reference to those covered by the employment guidelines and the European Social Agenda adopted at the Nice European Council;
- 2. Calls on the Commission and the Member States to encourage the public and private sector to close the gap in education and training systems in informatics between female students, who constitute less than 20% and male students, who constitute more than 80%, and therefore calls for special training schemes to be organised for women, particularly female teachers in gender segregated courses;
- 3. Calls for specific initiatives to be taken to foster the development of appropriate educational software for women and girls; calls for support for regional and local training centres especially for women and girls, and calls for a reduction in the current 'digital divide' by involving marginalised groups, such as unemployed single mothers;
- 4. Endorses the stated objective of stepping up the interconnection of virtual forums and campuses, the networking of universities, such as the International Women's University at the EXPO 2000 in Hanover (Germany), schools, training centres, and multi-disciplinary learning centres open to all; calls for this to be used as an opportunity to organise and establish a register of exchanges of best practice in the teaching and training of young girls and women.

