E-learning towards Social Inclusion

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Preamble

The objective of this document is to present and systematize elements for reflection and action in setting up a socially inclusive e-Learning environment within the EU context.
This is not a finished document. It is a perpetual draft inviting to debate and participation, to be continuously revised, as more contributions arrive.

Our aim is an equalitarian information society with communities with cultural, social and political dimensions. If we want an information society which is really inclusive, digital technologies should be presented with values embedded in them, as social instruments able to improve democratic participation and improvers of people's lives.

This document is divided in three main sections: "E-learning and social inclusion nowadays", which analyses the main problems and opportunities that ICT offers to social inclusion; "the future paradigm: social e-learning" which states the new general framework and principles we want to impulse, and a declaration with the main principles we believe are key to create an information society which is really participative and equalitarian.

E-learning and social inclusion nowadays

Data processing, multimedia and the Internet (a set of protocols and applications) are techniques organised and used by human beings. They are deployed and used in a certain social context. The Internet is, however, a technical object, as it concerns communication modes between people as well as information circulation, storage, sharing and access. Finally, the internet is a flexible technique which can be spread, learned, transformed and adapted in a relatively short time. Its evolution can thus turn quickly in unforeseen directions : as all techniques, socially included, it can contribute to smoothing disparities or to generate new inequalities.
In that way, because it allows new communication and organisation modes, information and communication technologies (from now on, ICT) are often presented as being able to reduce some disparities. Minority groups have already shown that they are able to use the internet to take their development in hand. It is then attractive to believe that the technique will reduce the disparities. But disparities observed in access and use are the continuation of pre-existing social disparities. Now, in an information based society, the internet's non-homogeneous distribution risks increasing economic and social disparities.
The concept of "digital Divide" denotes that there is a disparity in terms of access to the information highway and subsequent use of ICT. The divide reflects the skewed ness of resource allocation between nations, individuals and communities. Simply put it is about who possess the capacity and the means to acquire the software and the hardware, who has the necessary infrastructure and other necessary elements to employ Information and communication technologies to the full advantage, and who has the knowledge and capacities to use it properly.
Most measures related to digital divide relate to equipment and access to the internet. They do not care about use nor quality of use. If access to infrastructure and tools (not necessarily at home) can be considered as a right of the citizen, it is necessary to go further. Digital divide is a multidimensional phenomenon which includes many different drawbacks. Several of them –and very important ones- are mental in essence, so education and training are best strategies to fight these problems back. Some of them, like lack of trust or lack of motivation belong to the user side, but there are also barriers included in the production of the e-learning systems, like formal approaches, non adaptive technologies, lack of meaningful context and generalistic methodologies which do not pay proper attention to the social and cultural contexts.

Beyond this known and measured digital divide is a more important divide which lies in the quality of ICT use and the capacity to handle, select and produce information in order to learn permanently and play an active role in the information society. These capacities are indispensable factors in professional success and personal development. Digital inclusion means paying proper attention to the social and cultural contexts and not merely to teach people how to surf the web or how to send e-mail. These are only the building blocks. We need to make a lot more than that to assure that excluded people can use ICT to expand their functionings and capacities to empower themselves and achieve a better life.

Finally, It is also becoming clear that the small community and local actors voluntary associations addressing these social exclusions are also in danger of exclusion from the information society for various reasons including law and uncertain funding, lack of awareness of the opportunities offered by these technologies and lack of technical expertise.

1. Disparities observed in access and use.

Internet access and the use of computer equipment increases with educational level, social and occupational status and level of income. Men are more connected than women, families with children more than isolated women and cities more than rural zones. Immigrants, ethnic groups and minority groups are less connected. The less advanced countries have also less access to internet (and more expensive access). We lack precise analyses of the links between these factors, their relative weight and cumulative effects.

In each of the categories, the elderly are the ones who use ICT the least (but in some EU countries they are also the poorest, the least educated and they mainly live in rural areas).

These differences in access and equipment leads to an analysis of use: we use the internet if we know that we can benefit from it in everyday life. It is the professional or school or university context which generates the first use. Thus those who are professionally excluded, because they are retired or for other reasons (disabled, unemployment, etc.) face more risk of being excluded from ICT.

If internet use is mainly connected to work, it is also integrated into the domestic sphere and daily life. Most widespread is the use of e-mail, at first for professional or practical purposes, but also for keeping in touch with family and friends. Use of discussion groups and forums, very important quantitatively and qualitatively in the beginning of the popular use of Internet, has decreased a lot. The collective dimension of the internet which benefits individual relationships (the individual with his family, the individual and his social network, the individual and his professional network) thus tends to fade.

This goes with consumption rather than production behaviour. Internet users interact with their close relations; beyond that, they consume resources and services. Libertarian and equalitarian influences present in the creation of the internet fade for the benefit of a commercial structure. A real network in which each user is an information producer is being transformed into a network increasingly functioning in broadcasting mode, illustrated by the asymmetric consumption of internet by broadband.

This individualistic evolution, reflecting the dominant social practices, maintains exclusion.

The socially excluded are those who have most difficulties in finding content adapted to their needs (and wants) because nobody produces it for them, and thus they have little reason to access, becoming therefore socially excluded as well. However, we can observe that, under the combined effects of public policies, technical evolutions and costs reduction, the differences between each of these elements of the digital

2. Digital divide is not ineluctable.

The accompanying policies, through education and training, have to concentrate their efforts on the development of empowerment among all social groups; otherwise, only families from dominant classes will continue to pass on these capacities to their children. To reach this objective, it is necessary to set up real training actions which exceed the discovery of specific tools' features. Learning to use a browser is one matter, but learning to find relevant information in limited time and being able to participate remotely in a collaborative project at distance are other matters entirely. Confusing these objectives, is like learning to use word processing software instead of learning to write.

Software tools are very rarely adapted to the user and traders always propose new versions. This is a de facto exclusion factor generated by the tool. The more we belong to a discriminated group (e.g. people with disabilities, cognitive problems or weak abstraction abilities), the less we have been exposed to these techniques; Learning the ropes to use ICT will take longer and we will have less time, energy and cognitive capacity to develop an intelligent and positive use of the tool.

E-Learning does not have to limit itself to online training organised by/for universities and big companies. It must not be only centred on managing learners and on increasing training organisations' customer bases. When developing e-Learning modules and projects we need to make sure that all the social groups have access to techniques, to give everybody the means to use ICT in their personal and professional development, and to learn in the information society.

The future paradigm. Social e-learning

After a careful analysis of real e-learning practices towards e-inclusion, we have found the following six key areas which are good starting points for both implementation and further research. They are the following:

I. Social solutions to social problems
Social practices interact with technology, and one influences the other. If we want to have a really inclusive information society, we need to address the social problems that have turned people into digitally excluded, and not only consider the ones derived from lack of structure. When digital divide is considered, not everyone has been created equally. There is an important qualitative difference between someone which is already excluded and need to understand and use ICT and someone which only needs some formal knowledge to jump in. This is a general principle which we think should permeate any type of e-learning strategy directed to e-inclusion. Otherwise it may become a total failure.

II. Community and awareness
Learning communities are a hot subject nowadays. Nevertheless, they are mostly viewed as mere instrumental concepts towards improving learning. Again, this is useful, but it is not enough. ITC offers us wonderful social software which can be used in original ways to help real communities to expand their political, social and cultural horizons. Isolated communities can use digital technologies to be better known and respected among our society. The dispersed members of a community can use several digital tools to stay in touch and continue developing their own lifestyles and culture. We should also keep in mind all the awareness power that lies in the Internet to describe and fight social exclusion. This strategy is key when we are considering rural isolated communities and migrants that are working far away from their homes, but they can become also a important measure to fight sexism in the computer world and help women to join and transform ICT.

III. Towards the transparent PC

Personal computers and software get more improvements and new features each year and therefore become more difficult to use. This may be fine for users that are familiar with ICT. However, it makes things worse every year for the digitally excluded, specially when elderly or people with disabilities are considered. In fact we consider that this "new feature" strategy is deeply wrong from a social and educational point of view. We need to reverse it. We have to consider strategies and technologies to turn them more intuitive and easier to use. A camera or a car are fairly intuitive technologies. To take a picture, you just direct the camera to the place you want to photograph and click the button. If you want to turn right, you just move the wheel right. Why can't ICT be like that?

IV. Problem solving methodology for e-learning

Because our target has specific needs, we need to avoid academicism, and to construct e-learning materials that are useful, practical, and motivational. This surely implies something that is usually neglected when thinking about e-learning strategies: the specific social and cultural context. Lack of trust and of motivation are important barriers towards e-inclusion. We will never cross those gates if we just create the typical "how-to" courses. Besides, information society becomes more and more competitive. In a few years, just knowing how to use a word processor or an e-mail client won't make any difference in the job market. This is another reason to search for problem solving methodology. A general course on how to use several graphic edition software may be of use, but it is far better a problem solving course on how to make flyers for clubs, which is both a good motivator and even a job opportunity for an unemployed young in a challenging neighbourhood.

V. Internet for everybody

Software technologies are plastic enough to be adapted to any specific need an special collective may had: content can be adapted to any type of cognitive, sensorial or physical disability. Unfortunately, very few companies, administrations or individuals use that characteristic. We need to raise awareness on that topic among software and hardware producers, web designers and educators. When accessing culture, physical barriers like distance or architecture are a challenge to people with mobility problems. Books are of no use to people with visual difficulties. It is a shame that most digital cultural products, which can avoid these barriers easily, are not really adapted to these people's needs.

Declaration

1. When e-inclusion is considered, overcoming mental barriers is as important as solving lack of access to networks and related equipment. The digital divide is not only technological, is also mental.

2. Research is key. We lack of precise analysis on the links between exclusion factors, and how they relate to ICT. There is a clear need to finance research programs that helps us to understand the different excluded groups online and whether these needs differ on age, ethnicity or gender.

3. Despite promising results, When people with disabilities are considered, further research is still needed. For example, we need to individuate which are the higher risk areas, avoid the generalistic approach and look for solutions that aims at specific disabilities.

4. A mere approach insisting on the importance of ICT in the workplace is probably not enough. Digital technologies have to be presented to the excluded people as something attractive; fun to use is also key to avoid lack of motivation.

5. Linking ICT with culture and social status is also a good motivational tool but it is important not to overuse it. Target groups should never get the impression that there is no life outside Internet.

6. There is a positive symbolic image linked to the use and mastering of ICT. Accessing and mastering (even at a modest level) ICT is synonymous to integration. This set of values can be used training both students and trainers.

We defend a e-learning model which is participative, peer to peer constructed and blended:

7. Participative:. Do not define the interfaces a priori, based on former models. Allow the user to get involved in the functioning of the system from the beginning in order to see what works and what doesn't.

8. Peer to peer teaching: promoting the youngest and students to become future trainers has also been tested several times and seems to have better motivational effects. By seeing that former peers have been able after all of learning the ICT basic skills and are also able to teach them, give the students more confidence and motivation.

9. Blended: when social inclusion is considered, a blended approach (combining use of computers with live interaction with a professor) becomes a lot more successful than pure e-learning approaches. Personal contact with educators is key when working with the computer gets more complex and unmotivating.

10. One should not forget that, despite our best efforts, not everybody will be actually able to jump into the information society. Policies and inclusion strategies should also allow the full development of people that due to economical situation, physical or cognitive disability, isolation, and so on are not and will not be able to use ICT at all.

Therefore, we conclude that ICT are social instruments, with values embedded in them. It is our main task to assure that these values lead us to a more inclusive and equalitarian information society, where these technologies are use to improve democratic participation and empower the socially excluded.

Délégation aux usages de l'internet
Ministère délégué à la recherche
et aux nouvelles technologies