The World Divided in Two: Digital Divide, Information and Communication Technologies, and the 'Youth Question'

Juha Suoranta
University of Lapland, Finland

Abstract

In this article I discuss the definitions and characterisations of media culture first generally and then from the specific viewpoint of young people. I review the discussion on the topic of young people and information and communication technologies (ICTs) by outlining the dominant cultural logic with regard to ICTs and the different forms of the digital divide. I also focus on new and unprecedented forms of socialisation, and consider the opportunities that enable us to get beyond the technology determinism currently dominating not just discussion on the media culture of young people, but also the wider public debate around ICTs. My approach emphasises the dialectical relationship between material reality and cultural terrain; it is at the crossroads of the tangible concreteness of the world and the various cultural discourses, where the meanings of both youth and ICTs continue to be built and re-built, contested and struggled over. In this context the media culture of young people comprises both traditional media, including print media, television and the telephone, and the more recent ICTs, such as computers, the Internet and mobile phones. All of these appliances are saturated with Western popular culture and advertising making their consumerist offers to young people in the process of forming their identities.

1 Global Media Culture

The young people of today live in a world of dramatic cultural, economic, social and educational distinctions. These distinctions are largely dependent on whether the person in question was born in the rich North or in the poor South. By North and South, I refer here to the economic, social and educational gulf prevailing in the world at the moment. In the South, people die of malnutrition, whereas in the North, the most common causes of death result from overweight. Where in the South, people are living in under the regimes of corrupted governments, in conditions best described as a state of societal chaos, people in the political totalitarianism of the North are discussing the reasons and consequences of the democratic deficit. Where in the North, the use of ICTs is skyrocketing, in the South, a significant proportion of population - over 800 million adults, two thirds of whom are women - still lack basic literacy.

From a very general perspective, the living conditions of the world's youth appear to consist of a wide variety of different ingredients. First, we can't sufficiently stress the fact that young people today are growing up in economically, culturally and socially different and differently timed worlds. However, in contrast to this immense variety of living environments, there exists a grand narrative: an unprecedented and unifying educational power of media culture, which challenges and often surpasses such traditional forms of socialisation as family, school, and church. As observed by Douglas Kellner (2000, p. 305),

> Culture had been particularizing, localizing force that distinguished societies and people from each other. Culture provided forms of local identities, practices, and modes of everyday life that could serve as a bulwark against the invasion of ideas, identities, and forms of life extraneous to the specific local region in question.

At present, however, the status and meaning of culture has changed: “culture is an especially complex and contested terrain today as global cultures permeate local ones and new configurations emerge that synthesize both poles, providing contradictory forces of colonization *and* resistance, global homogenization *and* new local hybrid forms and identities" (italics in original, ibid. p. 305). The first assumption behind the notion of media culture is that the proliferation of ICTs is causing rapid

transformation in all branches of life. The second underlying idea is that ICTs function to unify and standardise culture. It is also important to keep in mind that media culture in general and ICTs in specific carry a number of Western values - a cultural package, so to speak — not directly transferable to other cultures. Typically, the debate about the meaning of ICTs for young people moves between two polarities: utopias and dystopias. Technology enthusiasts believe that ICTs will revolutionise every aspect of the world. They are challenged by pessimists and cynics who believe that the core meaning of ICTs is that of cultural barbarism. Somewhere in between there are those who collect statistics about the global diffusion of ICTs with little emphasis on interpretations.

A wide range of different definitions and characterizations have sprung up around global media culture. Generally, the concept “media culture" refers to the socio-cultural condition where most of young people's daily perceptions and experiences are indirect and transmitted through various ICTs, whether traditional (radio, television and newspaper) or new (mobile phone, computer). Some of the definitions emphasise the significance of information and information technology that has emerged around it. Manuel Castells' *magnum opus*, *The Information Age* in three volumes (Castells 1996-1998), is a paramount example of this emphasis. Castells' account of the network society, the economic and social dynamics of the new informational age, is partly reminiscent of the analysis once conducted by Marx on the industrial society. The most fundamental difference between the two is that where Marx emphasised industrial labour as the basis for all productivity, Castells (1996, p. 17) stresses the meaning of information and information flows:

> In the industrial mode of development, the main source of productivity lies in the introduction of new energy sources, and in the ability to decentralize the use of energy throughout the production and circulation processes. In the new, informational mode of development the source of productivity lies in the technology of knowledge generation, information processing, and symbol communication.

In the footsteps of Marshall McLuhan, Manuel Castells (2001) has further argued that the Internet is the message of our times; that it is the medium that forms the fabric of our very lives. For Castells, the network represents the leading idea of our era and functions as a metaphor extending its influence to various aspects of human activity:

“Core economic, social, political, and cultural activities throughout the planet are being structured by and around the Internet, and other computer networks," he contends (ibid. p. 3) and continues: “exclusion from these networks is one of the most damaging forms of exclusion in our economy and in our society". He then goes on to compare the meaning of information technology to that of electricity in the industrial era, likening the Internet to the electrical grid or the electric engine: the Internet can distribute the power of information throughout the entire realm of human activity.

The central position of information also dictates the type of competencies required from labour force in the future. Perhaps the most central capabilities are those of learning and re-learning and managing information. Yet, Castells' accounts on the matter are not one dimensional, but do justice to the versatile and contradictory character of the global media and information culture. For instance, Castells is well aware of the fact that ICTs can be used both as the accelerator of immaterial flows of value, such as money and free trade, and as the information channel for various social movements and anti-corporate activism.

The fundament of Castells' analysis as well as its conception of the essence of the information society rests on economic activity. In fact, the term “information economy" is highly appropriate for the model of society constructed in Castells' theories. More than technological determinism, Castells' thinking seems to be guided and motivated by the ICT imperative. The following extract from Hand and Sandywell (2002, p. 198) does well to illustrate this type of thinking: “Where information technologies have been singled out as key causes of progressive change and democratic enlightenment, we not only have an instance of ideological simplification but also an advanced form of technological *fetishism*."

Where Castells' and his kind emphasise access to information as a factor to global and macroeconomic success, a number of other people (e.g. Kellner 1995; Webster 2000; Norris 2001; May 2002) highlight the importance of surrounding cultural, political and social factors in the construction of the global media and information culture. In short, they believe that the world of young people does, and indeed should, involve other things than just ICTs. Only after a thorough analysis of these factors surrounding ICTs can we say something about the significance of the global media culture in general and ICTs in particular.

From a sociological viewpoint, global media culture has often been associated with the substitution of the national by the global: “the logic of manufacturing is displaced by the logic of information; and the logic of the social is displaced by that of the cultural" (Lash 2002, p. 26). The sovereignty of nation states - economic, political and cultural relationships between independent states - is being replaced by global flows such as finance, technology, information, communication, images, ideas or people. The logic of manufacturing is giving way to the logic of information. This means that a vast array of products is becoming more informationalised: for instance, toys and computer games are becoming increasingly digitalised. Moreover, work and production processes are no longer labour-intensive, but information, knowledge and design intensive. Furthermore, the social is being displaced by the cultural: where the social constituted action tied to place and tradition, in the world of wired connections, the cultural flows freely as money, ideas and popular images (ibid., p. 26).

In his recent - and largely sceptical - take on the information society, Christopher May (2002, p. 12-17) has located four central, yet problematic, claims about current media culture. The first claim is that, above all, the meaning of media culture is that of a social revolution induced by the manifestations of information technology, such as computers, mobile phones and the Internet. As observed by May, the claim represents technological determinism and forgets that the meaning of technology is not to be found in technology itself, but arises from its usages and the cultural-political context. May (2002, p. 14) goes on to contend: “Once we recognize that there has been a long gestation of the relevant technologies and of their interaction with societies across the globe, then the claims for revolution start to look a little strained.”

The second claim foresees a replacement of the rigid social, political and judicial institutions by ICT-based new economy and Californian ideology. The global development of Californization is about autonomous individuals who communicate with other autonomous individuals with the primary aim of finding new ways to make money. The new economy offers no hope for longstanding or permanent jobs that would create stability and social security in young people's lives. In the weightless economy of the future, young people in the North work primarily in flexible, half-time, half-pay service-sector jobs, while the youth of the South slave away in sweatshops.

The third claim suggests that in the pre-Internet world, many writers stressed the significance of expert power afforded by management, control, ownership and distribution of information. The age of the Internet has witnessed the spread of what one might call a do-it-yourself ideology. Its central assumption is that people automatically mobilise into small and efficient interest groups and social movements that they act in and no longer require traditional parties or social institutions to forward their aims. The final claim argues that nation states are slowly disappearing from the political scene. According to this view, “the information revolution has undermined the state's ability to control information for its own ends, with fatal consequences for its overall authority" (ibid., p. 16). Of course, the claim is exaggerated, as in many senses the nation state remains a powerful category in the scene of global politics and there are no signs of its disappearance.

2 The Media Culture of Young People and the ICT Debate

It is hardly surprising that the majority of the content of current media culture is of Western-origin and is produced mainly in the US by Hollywood entertainment industry. Its contents are blind to the consuming young person's cultural, economic, and educational background as well as her or his social status. The logic of Western media culture is largely based on the old model of broadcasting: from few mastodons of communication to many. The same is true of the Internet, which has been hailed as a subversive instrument, thanks to its opportunities for many-to-many communication. Prevailing media culture is, at least to some extent, culturally blind and ruled by a small number of media giants. At present, global media culture is a pedagogic force that has the power to exceed the achievements of institutionalized forms of education. As Giroux (2000, p. 32) puts it:

> With the rise of new media technologies and the global reach of the highly concentrated culture industries, the scope and impact of the educational force of culture in shaping and refiguring all aspects of daily life appear unprecedented. Yet the current debates have generally ignored the powerful pedagogical influence of popular culture, along with the implications it has for shaping curricula, questioning notions of high-status knowledge, and redefining the relationship between the culture of schooling and the cultures of everyday life.

However, the concept of media culture does not refer simply to symbolic combinations of immaterial signs or capricious currents of new and old meanings, but

an entire form of life (see Lash 2001, p. 13), where images, signs, texts and other audio-visual representations are connected with the real fabric of material realities, symbols and artificialities. In this sense media culture is pervasive: its messages are an important part of the everyday lives of young people and their daily activities are structured around media use. The stories and images in the media become important tools for identity construction. Madonna provides a model for the purchase of a new denim outfit, and language used by a cartoon character becomes an important factor in the street-credibility of young people. In the present situation, there are not many corners of the world left to escape the meanings embedded in televised media culture.

It is important to recall the fact that the majority of young people in the world do not live according to the Western conceptions of youth. For them, childhood in its Western sense exists only indirectly through the presentations of media culture. The same media cultural influences seem to be in effect outside of the "Western world", too, but their consequences are likely to be somewhat different. The variance is mostly due to the different social circumstances, socio-political cultures, definitions of childhood and youth, and the different authority relations prevailing in different cultures.

In a mediated culture, it can be difficult for young people to know whose representations are closest to the truth, which representations to believe and whose images matter. This is partly because the emergence of digitalised communication and the commoditization of culture have significantly altered the conditions of experiencing life and culture. Many people perhaps still feel attached to the romantic image of the old organic communities, where people would converse with each other face-to-face and live in a close-knit local environment. Digital communication, however, is gradually wiping out the romantic image:

> Most of the ways in which we make meanings, most of our communications to other people, are not directly human and expressive, but interactions in one way or another worked through commodities and commodity relations: TV, radio, film, magazines, music, commercial dance, style, fashion, commercial leisure venues. These are major realignments. (Willis 2000, p. 48.)

In the world of young people, the object character of media culture is visible in various ways. Media culture is produced and reproduced by diverse ICTs. Thus it

would be imperative to replace the teaching and training of knowledge and skills central in the agrarian and industrial societies by education in digital literacy. A similar point is made by Kellner (1998, p. 122), who contends that in a media culture it is important to learn multiple ways of interacting with social reality. Children and young people must be provided with opportunities to develop skills in multiple literacies, in order for them to be able to better work on their identities, social relationships and communities, whether material, virtual or combinations of the two.

The media culture of young people does not simply concern signs and symbols, but also manifests itself in young people's bodies. Media culture covers the body through means made available by the currently prevailing fashion. The body is a sign that can be used efficiently to produce cultural identities. Furthermore, various kinds of media cultural skills and knowledge are stored movements of the body. This is evident in a number of youth subcultures, including certain popular sports and different games and dances such as street basketball, skate boarding and hip hop.

The body is also highly susceptible to different technologies of control. In the practices of schools, pupils' bodies are regulated by certain control mechanisms and cognitive knowledge production. Conversely, in the streets, youth clubs and private spaces, bodies function according to a different logic. Media cultural, informal knowledge does not simply equal conscious memorizing, but also involves somatic materiality produced for commercial purposes. The trouble with commercialised corporality is that it holds nothing sacred; if necessary, it will make use of material such as pornographic images of youth (Giroux & McLaren 2001, p. 53, 219-230). In the experience of young people, media culture represents a culture of pleasure and relative autonomy compared to home or school. As Willis (2000, p. 37) states:

> Informal cultural practices are undertaken because of the pleasures and satisfactions they bring, including a fuller and more rounded sense of the self, of 'really being yourself' within your own knowable cultural world. This entails finding better fits than the institutionally or ideologically offered ones, between the collective and cultural senses of the body - the way it walks, talks, moves, dances, expresses, displays - and its actual conditions of existence; finding a way of 'being in the world' *with style* at school, at work, in the street.

The current discussion on ICTs is dominated by a technological-administrative viewpoint. From this angle, the main issues constitute Internet diffusion, access to the

Internet and use skills. The discussion is seemingly value neutral. Nonetheless, a firm belief in progress, technology and market economy is evident in this discourse. As can be expected, enabling access to the Internet constitutes a key issue for the players in global economy. The opportunity to use the Internet is also a central issue in welfare politics promoting equal opportunities for young people. Aside from concerns related to market value and equal opportunities, an important form of criticism concentrates on the digital divide, which is perceived as distinct from the more elementary worldwide problems (cf. Castells 2001, p. 269).

Second viewpoint is that of social structures, which highlights the Internet and the unequalising social structures constructed around it. The emphasis is on social problems that emerge as by-products of the Internet culture. The polarisation between the rich and the poor is another serious concern in this respect. The adoption and use of technologies is believed to reflect and aggravate social inequalities, but also to increase the rate of employment and build up the information technological infrastructure required by social justice. The viewpoint of the information rich and the information poor demonstrates a belief in the traditional political intervention. Political decision-making and independent scientific research and development hold a key position when tackling the economic and social problems of information societies and especially the problem of the digital divide, which in many texts is seen as a grave structural problem. The discourse of the information rich and the information poor advocates welfare state politics as a central and natural solution to economic and social problems.

The spread of ICTs fosters inequity in terms of language barriers, geo-ethnic background factors, Internet access and media literacy. The flow of data does not dissolve existing social structures: if anything, the old structures are reinforced by the new technologies. In this sense, new technologies increase structural inequity. The technologies and markets on their own are unable to solve the social problems of media culture. The economic-information elite uses the gap generated by the technologies for its own benefit. The ideology is based on the capitalist logic of earning, where technology is turned into a necessity, the acquisition of which signifies growth in sales and the birth of new markets. This tendency is exemplified in commercial software, the capitalist tradition of copyright and the high cost of

telecommunications infrastructure: factors that make the uptake of ICTs impossible in poorer countries. Aspects like these turn economic politics into power politics and a new form of colonialism.

The viewpoint of the information rich and the information poor thus represents thinking that opposes corporate globalization and stresses the need for global politics and research as the promoters of equal opportunities. Though opening up of the world is a good and important objective, national governments, NGOs and organisations such as the United Nations constitute necessary instances of control that have the opportunity to advance equal development in the world. The view according to which children and young people are seen as innocent victims of media powers intertwines with all the above-mentioned discourses (see Buckingham 2000). This way of speaking evokes all the beasts of the apocalypse and a wealth of other evils to threaten the idealised world of childhood and youth. The breakdown of the nuclear family, teenage pregnancies, venereal diseases, paedophilia, child trade and child prostitution spreading through the Internet, drug use, youth crime, the degeneration of manners, suicide and religious cults are all seen as problems exacerbated or even inflicted upon us by the world of media.

According to this view, the parents have either died of AIDS or for some other reason lost their handle on their child's education. Schools have been transformed into teaching factories incapable of providing young people with the skills necessary in media culture (see also Castells 2001, p. 259-260). The media, especially television, feeds children material that makes them disturbed and passive, as they “as a result of their developmental stage” are incapable of processing it. Children and young people are seen as passive recipients of messages, as spellbound viewers and dim-eyed zombies susceptible to a range of addictions from drugs to the media. ICTs steal children from their parents and eliminate the natural life phases of childhood and youth. Perhaps an even clearer manifestation of a way of speaking proclaiming the end of childhood and youth is a form of media panic where children and young people are seen as victims of ICTs. The term media panic refers to a concern, worry or fear that arises from the use of new devices or new cultural forms that children and teenagers adopt at the same time challenging earlier cultural practices and conceptions.

Contrary to the previous viewpoints, and especially to the panic discourse, the viewpoint of visionary utopianism promotes what has been termed ICT avant-gardism, the creative and unexpected use of ICTs to support both young peoples' identity formations and practical aims. Others endorse a complete change of course, as they perceive information and communication technologies as a part of a global conformity project based on capitalist profit seeking and the war of all against all. This change of course is expected to take place partly with the help of a new world ethics emphasising equality, ecological thinking and ethical tolerance as central values. The new paradigm of ICTs would mean the end of the diaspora of Africa, the emergence of a humanist ethics in the new technologies and the global openness of scientific information in virtual universities. As a result of these developments, ICTs would no longer function as an instrument of inequality but would serve to unite people's fates the global village. The viewpoint of visionary utopianism includes the idea of children and young people as our hope for the future and as heralds of better things to come, as characterised by Buckingham (2000, p. 44):

> Thus, it is argued that computers bring about new forms of learning which transcend the limitations of older methods, particularly 'linear' methods such as print and television. And it is children who are seen to be most responsive to these new approaches: the computer somehow releases their natural creativity and desire to learn, which are apparently blocked and frustrated by old-fashioned methods.

In the global world, children and youth with their own practices and consumer choices are in the vanguard of the developments in ICT use. A number of thinkers from diverse ideological camps suggest (see Tapscott 1998; Papert 1996; Rushkoff 1996; Katz 1997; Jenkins 1998; Kinder 1999; Giroux 2000; Buckingham 2000) that children and young people can act as “oppositional intellectuals" and “semiotic guerrillas" of the Internet age. A number of critical pedagogues who have always had faith in the wisdom of youth and are now channelling their hopes to the possibilities of using ICTs as a tool for resistance. For the latter, ICTs represent a powerful tool for self-expression, avant-garde, digital situationism, semiotic guerilla war, media criticism and influence through media, interaction and research. Some of these people (e.g. Giroux 1996; McLaren 1995; 1997; Lankshear 1996) adopt a systematically critical attitude toward the capitalist and commercial foundation of media culture.

The critics maintain that not all of the teachings of media are worth learning. The messages received from media should be critically negotiated nationally, locally and between family members examining the meanings carried by them, whether visible, invisible, public or implicit. It is often argued that children and youth are not just better familiar with the practices of media culture than their parents and teachers, but also create new media culture independently of formal pedagogy or curricula. Without underestimating the capabilities of young people, it is reasonable to claim that children and young people are unable to manage their everyday lives on their own. They need to be loved, supported and understood by adults who also provide them with limits and advice. It does not seem likely that the global predatory capitalism would be able to cater to these needs.

In the context of media culture, the basic needs of children and teenagers remain unaffected. In fact, they may even be highlighted. While some are forced to comply with an inhuman pace of work and the resulting socio-psychological anxieties and others must live in an inhuman idleness under a constant threat of starvation, the meaning of social safety networks and lasting human relationships is bound to increase. The debate on children and youth reflects not just worry for our own lives and the lives of people close to us, but also concern for the state of the world. The viewpoint to the state of the world and the welfare of people as seen in the above discourses is altered completely when we begin to discuss the problems of media culture as societal concerns affecting the whole world. Discussion on childhood and youth should be broadened to cover the general conditions and structures of life, or, in other words, social justice in a world ruled by global corporations.

3 Forms of Digital Divide

All of the international organisations - including the European Union, the United Nations, the International Monetary Fund, the G-8 countries and the OECD - have expressed their awareness of the fact that the proliferation and use of ICTs form yet another dimension in the division of the worlds' youth into fortunate and less fortunate ones. As Castells (2001, p. 265) puts it, “the new techno-economic system seems to induce uneven development, simultaneously increasing wealth and poverty, productivity and social exclusion, with its effects being differentially distributed in

various areas of the world and in various social groups". International agencies - both inter-governmental and non-governmental as well as those belonging to the corporate sector - discuss the digital divide and compile charts and agendas for the purpose of bridging it.

In the debate, the concept of the digital divide is used in different ways (Norris 2001, p. 4-14; Castells 2001, p. 256-258). There is the notion of the global digital divide that is used to refer to the differences in the use of ICTs between people living in different corners of the world. An important dividing line in this respect can be drawn between the rich North and the poor South. From the point of view of economic activity, ICTs are expected to significantly increase the reachability of potential customers in terms of both marketing and direct sales. The Internet is also believed to benefit the development of public services, such as administration, healthcare and education. The problems that make up the digital divide are currently being tackled by hundreds of projects carried out by hundreds of governmental and non-governmental organizations around the world.

The second interpretation of the digital divide concerns the unequal opportunities for ICT use within countries. Important factors here are the individual's socio-economic position, level of education and place of residence. The lesser the income and education and the further away from the capital the locality, the more likely the person is to be left outside of information flows and networks. This type of social stratification is connected with the third version of the digital divide pertaining to democracy and its possibilities after the digital revolution. The theme of the democratic divide is particularly significant with regard to the civic engagement of young people. The opportunities of children and young people to express their ideas and opinions about the different issues in society have traditionally been very limited. Often, the means of influencing the world around them have been limited to peer relationships, rebelling against the boredom of school or the resistance expressed at home (Buckingham 2000, p. 13). Furthermore, some researchers have claimed that mobile-based interaction between adolescents and their parents tends to diminish productive conflicts between them, thus robbing adolescents of the opportunity to develop their sense of self through such conflicts.

The increasingly mediated and digitalised essence of culture has opened up the world both geographically and socially. Media culture and ICTs do not automatically equal the globalisation of economy: they also provide new opportunities for engagement and resistance. Yet for the moment, it is impossible to know what ICT-based democracy and activism will mean in practice, although the global network and email have already in many instances been successfully utilised for globalised civic activism. In this sense, the Internet is a contested terrain used by both the right and the left, by dominant media corporations from above and by radical media and other activist groups from below. In the likely occasion that new technologies constitute the dominant forces of tomorrow, “it is up to critical theorists and activists to illuminate their nature and effects, to demonstrate the threats to democracy and freedom, and to seize opportunities for progressive education and democratisation" (Kellner 2000, p. 316).

The discussion on the digital divide has sparked off a notion termed as participation hypothesis, according to which ICTs would have a dual effect on the participation of young people (Norris 2001, p. 195). The new opportunities for participation created by ICTs may strengthen the civic engagement of those young people who are active in this respect to begin with. ICTs may also serve to mobilise young people who were not previously interested in any form of political or social engagement. Similarly, young people who do not read newspapers or follow the news on television may be drawn in by the opportunity to participate in societal debate through the Internet. However, as there has been no research into the field yet, it is too early to tell whether the participation hypothesis is accurate on either of these counts.

Yet another type of divide concerns the division in technology and knowledge. One characteristic of the development of ICTs is that as one technological gap seems to be narrowing, another opens up. This is due to the rapid cycle in which the technology used is replaced with new technology. As stated in a maxim termed Moore's law, computing power doubles every eighteen months while costs remain constant. Thus, in the opinion of Castells (2001, p. 256), “it could well happen that while the huddled masses finally have access to the phone-line Internet, the global elites will have already escaped into a higher circle of cyberspace". Castells' point appears rather cynical as, from the point of view of sustainable global media culture, the real

question naturally concerns the type of ICTs that young people need and the kind of technology they use in their everyday activities, whether to do with gaming, personal contacts or schoolwork. Here we encounter a discrepancy between ICT manufacturers operating on the basis of commercial interests and young people driven by the interests central in their life-world.

In his recent book on the Internet, Castells (2001, p. 258-260) unleashes a relatively powerful attack on contemporary educational systems that sustain the digital divide based on the knowledge gap. Castells' critique is based on the idea turned common belief that education and lifelong learning constitute central resources that add to the individual's work qualifications and enhance his or her personal development. In his opinion, most schools in developing countries, but also in the over-developed countries, function more as storages of children and youth. In global assessments, however, schools display tremendous variation with regard to teachers' qualifications and other resources.

Castells goes on to argue that schools have failed to adopt the type of pedagogical thinking required by the Internet era, thinking that originates in the old idea of learning to learn: “what is really required is the skill to decide what to look for, how to retrieve it, how to process it, and how to use it for the specific task that prompted the search for information." Resulting from the misery of schools, the task of preparing young people for the new era is left to the homes, a fact that is likely to further add to the disparities in the knowledge, skills and attitudes of children and young people. Along with a number of other ICT enthusiasts, Castells (2001, p. 269) stresses that postponing the launch of the Internet in developing countries until after having attended to the more pressing difficulties experienced by the population would be a grave mistake. Without an Internet-based economy, writes Castells, there is little chance for any country to survive in the global race.

In this situation, even basic education, learning to learn and reflexivity are not enough. In order to be able to build their lives in the society of the future, young people need to develop a capacity to critically adapt their learning to the prevailing global, societal and local circumstances. With no intention to undermine the global significance of especially girls' and women's education, some local projects have indicated that schooling and basic literacy are not always necessary to up people's

capacity for action. (The relation between the education of girls and women and the number of children should not be interpreted to mean that education automatically diminishes the number of children. Rather, the education of women is a sign of change that has occurred in their social position and of societal change in general [see Lappé et al. 2000, p. 48]). Often, it is possible to depart from very practical problems and to rely on locally accumulated oral tradition combined with a technology suited for the need and use context. As Sanjit Roy, the founder and director of the Barefoot College in rural India, states:

> 'We have looked at the problems that the poor face from their point of view and not from the point of view of a so-called expert looking from outside,' says Roy. 'We have come to the conclusion that, using their own knowledge, skills and practical wisdom, it is possible for them to solve their problems themselves.' (Coles 2002, p. 42.)

With regard to the global digital divide, the uptake of ICTs entails a number of practical problems that are particularly relevant in the poorest nations of the world. The primary concern is the lack of money and ICT resources. It is a generally accepted view that the amount of development aid should be at least doubled from the current total of 50 million dollars (Annan 2002b). According to this view, poor countries need external funding and technological assistance for basic investments before they are capable of functioning independently on the global market (Annan 2002a). Nonetheless, financial aid provided without the teaching of human and property rights is not sufficient, as because of corruption, development aid often ends up in hands other than those it was intended for.

The second problem is also a financial one: the newest ICT applications are far too expensive from the point of view of developing countries. One suggested solution for this has been the utilisation of freeware and the development of devices that are sufficient for the needs of the user without representing the newest and the fastest technology. A commonly acknowledged problem with ICTs is that instead of originating from the actual needs of people, its development is based on a constant pursuit of financial gain and a never-ending race for bigger and better egged on by the market.

The third problem is the language used in ICTs. Today, English is the global *lingua franca*. According to estimates, there are some 3 000 to 4 000 languages in the world, but 80% of all web-sites exist in English alone. A number of possible solutions exist for crossing this language barrier. Young people learn languages spontaneously through watching the English-language programmes produced by multinational media corporations. Schools around the world teach English as the first foreign language. The language barrier can also be conquered through the help of better-skilled individuals, who, like the scribes of the old days, assist others in their community through translating texts from the local language into English and vice versa (see La Page 2002, p. 44). Young people learn languages more easily than adults and can in many situations function as translators or, more commonly, as interpreters between people speaking different languages.

Optimistically thinking, the perception of international actors on the problem of the digital divide is based on "a technologically deterministic assumption that closing gaps in access to computers will mitigate broader inequalities - an assumption requiring enormous faith in the capacity of a technology to bring about major social change" (Light 2001, p. 723). From a more critical angle it could be conjectured that we are not dealing with technological determinism at all, but have simply encountered a new case of word magic that manages to keep the discussion on global development going while the predators of global economy allowed to roam free, unhindered by any international regulations.

The concept of digital divide has certain social consequences: it functions to shape social reality and contains unarticulated value-judgements. This involves the danger of shutting out alternative ways of thinking and constructing a uniform vision of culture. The speech on the digital divide may in fact serve to generate the myth of the Internet economy based on "the magic of technology but, more important, upon a belief in capitalism as a fair, rational, and democratic mechanism" (McChesney 1999, p. 121). Critical voices have claimed that in reality there is little intention to demolish the digital divide. It can be narrowed down somewhat, but not enough to lose the economic advantage derived from it. As perceptively noted by Eduardo Galeano (2001, p. 36):

> And don't forget the ferocious protectionism practiced by developed countries when it's a matter of what they want most: a monopoly on state-of-the-art technologies, biotechnology, and the knowledge and communications industries. These privileges are defended at all cost so that the North will continue to know and the South will continue to repeat, and thus may it be for centuries upon centuries.

4 The World Divided in Two

The picture painted by the statistics of the digital divide speaks the same language as all other indicators of the state of the world: it reveals an accelerating tendency towards polarisation. As the Internet is the most central technology in global media culture, observing its use provides some understanding of the proportions of the overall ICT polarisation. Examining the proliferation of the Internet use also affords an idea of the overall significance of ICTs for young people on a global scale.

The most extensive and up-to-date figures concerning Internet users are provided by NUA surveys (www.nua.ie). The methods used in assessing the number of Internet users vary, and it is worth remembering that the figures always constitute estimates. There is no denying that in the last five years, the world has witnessed a veritable Internet explosion. In early 1997, the number of Internet users was estimated at less than 60 million globally. In 2002, the number of users is tenfold: some 580 million. Reviewing the figures of different continents offers a simplified yet revealing picture of the situation: the distribution of Internet users is extremely uneven. It seems that slightly less than 200 million of them live in the Unites States or Canada and an equivalent number in Europe (185 million).

The number of Internet users in the Asia Pacific region is slightly smaller (170 million) than in North America or Europe. A growing proportion here consists of the Chinese (some 57 million users), though the number is still relatively small compared to the proportion of Internet users in the population of Japan (51 million) and South Korea (22 million). In Latin America, the number of Internet users is estimated at approximately 33 million. In Africa, there are some 6 million users, half of whom reside in South Africa. The number of Internet users in the Middle East is close to 5 million.

The Internet is thus highly illustrative of the differences between Northern and Southern hemisphere; the statistics reflect an image of a world split in two. Proportioned to the population of the world, the differences are dramatic. The following fact reported by Galeano springs to mind: “two out of three human beings live in the so-called Third World, but two out of three correspondents of the biggest news agencies work in Europe and the United States" (2001, p. 282).

According to Norris (2001, p. 49), there is nothing out of the ordinary about the absolute differences in media cultural structures between rich and poor countries. The disparities in media cultural possibilities reflect the previously recognised differences in national income, healthcare and education. Instead, from the viewpoint of diminishing the digital divide, it is disconcerting to realise that even the traditional media is not equally distributed around the globe, but its use has accumulated to affluent countries. Norris predicts that the Internet is most likely to be adopted in countries where the old media, such as radio and television, are in active use. In other words, Norris sees no easy end to the development separating the poor Southern countries excluded from the information flows and the rich Northern countries not only firmly attached to the currents but also steering them.

The profound statistical analyses carried out by Norris thus indicate that the problems in the spread of the Internet to developing countries do not result from the medium itself. The differences in the diffusion of the Internet and traditional mass media are the consequences of the profound economical, political, social and educational discrepancies between societies:

> The problem, it appears, is less whether Namibians lack keyboard skills, whether Brazilians find that few websites are available in Portuguese, or whether Bangladesh lacks network connections. Instead, the problems of Internet access are common to the problems of access to other communication and information technologies that have been widely available for decades in the West. (Ibid., p. 66)

This being the situation, (ibid. p. 51) Norris recommends the following approach: “rather than any short-term fix, such as delivering beige desktop PCs to wired schools in Mozambique, Egypt, and Bangladesh, the long-term solution would be general aid, debt relief, and economic investment in developing countries." She also makes the following remarks about the stages of the Internet revolution:

In the first decade, the availability of the Internet has therefore reinforced existing economic inequalities, rather than overcoming or transforming them. The reasons are that levels of economic development combined with investments in research and development go a long way toward explaining those countries at the forefront of the Internet revolution and those lagging far, far behind. . . . If countries have the income and affluence then often (but not always) access to the Internet will follow, along with connectivity to telephones, radios, and television. (ibid. p. 67.)

Norris' argumentation thus departs from that of Castells in a number of important points. As Castells sees that efficient utilisation of ICTs can lead to economic success, it is Norris' contention that the uptake of ICTs must be based on a sufficient economic and political foundation. The juxtaposition constitutes a classic chicken-and-egg problem. On the one side, there are the ICT enthusiasts, such as Castells, who argue that access to information sources, particularly the Internet, improves the competitive positions of nations as well as the desirability of individuals in the labour market. The narrow scope of this view is, of course, easily revealed when it is considered from a standpoint outside of the Western idea of progress. Moreover, it emphasises the significance of a single type of information: one that is published in the format of bits.

The opposite view is taken by commentators who, like Norris, see that the digital divide cannot be explained through the characteristics of the medium, such as the Internet, or the opportunities provided by it. Instead of linking more schools to the Internet, instructing teachers in issues connected with digital literacy and establishing network connections in poor areas, the focus should first be on the basic tasks such as the realisation of basic rights and the diminishing of economic, social and educational inequalities. This is not to say that alongside with these aims we should not act to demolish the digital divide through solutions such as those suggested above.

It does seem, however, that the issue of ICTs is offering a harmless facade behind which to conceal the complex political, economic and social problems concerning the state of the world. The idea of bridging the digital divide is an aim supported by actors regardless of their political orientation. Conversation on the diffusion of ICTs is much more convenient and less conflict-prone than a fundamental debate on important reforms in the global economic and political order. As Light (2001, p. 716) contends:

> It is comforting to imagine that the diffusion and use of a particular technology will remedy complex social problems . . . Certainly, for the myriad of claims makers, the simplicity of the concept and the restricted scope of existing debates are virtues. These simplifications help to generate broad support that more comprehensive constructions of inequality could not.

Here we are again faced with the commonly repeated questions arising from the illusion of progress: the most important of which being, What is the standard of living that the worlds' resources can support? By itself, ICTs are not terribly energy consuming, but what should we make of the material well-being demanded and also created by them? Should ecological values be incorporated in the debate on ICTs? Would it be possible for ICTs to generate a reversal of values that would allow people to see the world as constituting of differences and different ways of defining concepts such as well-being? Perhaps the next direction of ICTs is to be found in sustainable development, where the production of new bulk devices in the hope of easy profit would terminate and young people would no longer be tricked into buying devices most of the features of which are useless? Instead, designers and manufacturers would focus on rolling out simpler and more easily usable technology, as exemplified in products such as the mobile terminal device Simputer.

5 Uses of Information and Communication Technologies among Youth

The general significance of ICTs, as with all the tools and artefacts around us, lies in the fact that they carry with them cultural meanings. It is as if something of the nature and essence of the era they were produced in was inscribed in the devices. As we use the appliances, we develop a dialectical relationship with them: we not only adapt to them but also ascribe new meanings to them. When discussing media culture from the standpoint of young people, it would not be entirely truthful to claim that young people today are living the age of the Internet; that, globally speaking, young people in general would be enthusiastic about the Internet. From a global perspective, the reality of children is not so much oriented towards the Internet as it is centred on television. According to one survey, the television is the most widely spread medium among 12-year-old schoolchildren in the world (Groebel 1999, p. 62, see also Kenway & Bullen 2001, p. 56).

As concerns young people, the current media culture could perhaps be termed television culture. The 1990s can be regarded as the decade when television and satellite channels spread around the world. Globally, the proliferation of television has been far wider than that of the Internet, although it too remains far from even. In the North, the rate of televisions is 674 per 1 000 inhabitants, whereas in the South corresponding figure is 145. A survey conducted in 23 countries across the world (Groebel 1999, N=5324) explored the media access and media use of 12-year-old children. The study showed that in nearly all (97%) of the countries surveyed, the inhabitants received at least one TV channel. The average number of TV channels per country was four to nine. In 18% of the countries, the number of TV channels offered was more than 20.

According to the same survey, 93% of children had access to a TV set primarily at home. The percentage was similar with radio and books. Less easily accessible items were newspapers (85%), cassette recorders (75%), video recorders (47%), video consoles (40%), personal computers (23%) and the Internet (9%). However, when examining the figures, the reader should be aware that significant differences exist between the continents and countries particularly with computers and the Internet.

One should also bear in mind that the uses of television - that is, domestic television culture - in low-income countries differ from those in high-income countries. Today, children and youth in the North are staring at the tube increasingly in the privacy of their own rooms. In the United States, almost seven out of ten children have their own television sets. In Finland, the percentage of children with TV sets in their rooms is 40. The phenomenon seems to constitute a growing trend among Finnish children (Suoranta & Lehtimäki 2003). In the South, the same TV set can be used by the children of a group of families. The same holds true of the use of ICTs: for instance, access points to the Internet are often shared collectively (Castells 2001, p. 262), and the same mobile phones are used among and between families.

The above-mentioned survey (Groebel 1999) reveals that children's favourite media contents consist of crime and action narratives, science fiction and horror, respectively. It is thus no surprise, that Arnold Schwarzenegger, originally an Austrian bodybuilder turned Hollywood actor, is the best-known person among children and youth in the world today.

Though the proliferation of the radio is even more impressive than that of the television, its media cultural significance as a producer of images and identities remains clearly less significant. Nonetheless, its value in areas such as health education or political engagement is still very significant on a global scale. It is worth remembering, that the radio “is the only form of mass communication for two-thirds of rural Africans" (Newbery 2002, p. 51). Indeed, certain proponents of the radio argue that discussion on the digital divide has sidetracked the discussion on global development. Radio can reach communities beyond the information superhighway, and it is also compatible with the rich oral traditions of the world (Newbery 2002, p. 51).

The new information and communication technologies can be used in many different ways (see Kobayashi 2001), some of which more central and popular among young people than others. First, communication through ICTs is a common practice among young people. Communication between both friends and strangers may occur either under one's real name, anonymously or using pseudonyms (cf. virtual personalities, net identities). Second, ICTs are used to look for information and assistance in questions ranging from music and sports events to medical and psychological questions. In addition, young people use ICTs for purposes such as identity work: for example, many establish and maintain fan sites on the Internet. Moreover, the constantly expanding field of gaming, for example in the form of online games, is an important aspect in young people's use of ICTs.

Unfortunately, wider comparisons concerning young people's use of ICTs are hampered by the fact that no global statistics, let alone in-depth inquiries, are available on the issue. Naturally, no studies are necessary to determine that in continents such as Africa and South-America, where the use of ICTs is low in general, children and teenagers are not active users of the technologies. Compared to research on television and video viewing, statistics and studies on children and teenagers' use of ICTs remain relatively scarce even in countries with high uptake of information technology. In the following, I review some of the research conducted that provides some basis for extrapolating and predicting global developments.

In the affluent societies, the use of ICTs by children and young people is largely uniform and appears to develop in very similar stages with little cross-national

variation (see Livingstone et al. 1999; Roberts 1999; Saanilahti 1999; Luukka 2001; Kobayashi 2001). The US and the Scandinavian countries have been the early adopters in both ITC ownership and use, and as a result may function as trendsetters for development in the rest of the world. Children in information societies are surrounded by more information and communication technology than any previous generation. In the rich industrialised countries, practically every child lives in a home equipped with the basic tools of the information society, such as the radio, television, telephone and, only slightly lesser percentage, with the stereo and a video recorder.

In the following, I observe the situation with regard to the mobile phone and the computer, which as digital technologies constitute two central appliances of media culture and will in time converge with digital television. Where in Africa half a percent of the continent's population possess a mobile phone, in affluent countries such as Japan and Finland, the devices are used daily by increasingly younger children. For instance, in 1997, less than five percent of Finnish 7- to 10-year-olds owned a personal mobile phone. In 2001, the rate of ownership in the same age group was 30%. In 1999, 15% of Finish 15-year-olds owned a mobile phone. By 2001, the figure had climbed to 66%. In both age groups, girls were somewhat more likely to own a handset than boys. It can be concluded that the mobile phone has become a part of the everyday lives of people in rich countries. It is seen as a useful object that makes life a little easier, an object that soon becomes inconspicuous and one that people quickly start to take for granted. Moreover, mobile technology can be seen as a potential solution to communication problems in poor countries, where the construction of a landline network would prove too costly. However, lack of interest in private investment has been seen as problematic, as profit expectations for ICT investments in poor countries currently remain far too low.

Varying national policies are characteristic of the situation. For instance, according to the neo-liberalist political thinking currently prevailing around the issue in Finland, competition in the free market will eventually deliver broadband connections to every home, no matter how sparsely populated the region. In Sweden, the state is investing in the construction of broadband connections, as the Swedes appear to have less faith in a system based on profit seeking displaying an interest in providing connections to localities outside of population centres. As both aim to provide every home with a

broadband connection, from a global viewpoint, it will be interesting to see which of the policies will produce the best outcome.

As to the computer, in 1998, more than 80% of Finnish 8- to 10-year-olds had a computer in their home and half of the owners also reported using it (Kartovaara & Sauli 2000, 181). In 2001, 26% percent of children in the age group had a computer in their own room. Among teenagers aged 13 to 19, nearly everyone used a computer at least occasionally. The most central use of the computer was accessing the Internet, followed by gaming, writing, listening to music and drawing.

The use of the Internet among young people in rich countries is constantly increasing. It is thus hardly surprising, that the most elaborate and extensive surveys on the ICT behaviour of young people are conducted by commercial actors, who naturally operate in the expectancy of gaining profit. For instance, according to a report commissioned by AOL (America Online) (2002), Internet use among 12- to 19-year-olds in the US largely concentrates on emailing and instant messaging between friends. The next most common uses are online gaming, downloading digital music and using the Internet as an educational resource. In addition to these activities, young people also use the Net to engage in online chat and to follow sports and other events of the world.

In another survey, conducted in Finland (Suoranta & Lehtimäki 2003), 8- to 10-year-olds reported using ICTs primarily to access to the Internet and to play computer games, but also for information searches and drawing. One of the most striking features in children's use of the computer is the surprisingly low level of school-related use. Without too much exaggeration it can be argued that for children and youth, the information society signifies a world of entertainment. The current tendency is that as the number of broadband and wireless connections increases and their usage costs drop and as new mobile terminal devices are being produced for the market, young people's use of the Internet in all of the above mentioned areas increases. Internet use costs follow the general rule according to which more users and more service providers, or in other words, more competition, means reduced costs.

Children and youth in the affluent part of the world seem to be living their lives amidst the wonders of media culture like fish in water. Their media-filled life incorporates the use of ICTs, which is something that they do flexibly in their practices along with other more traditional activities. The mere existence of ICTs makes the lives of today's children and youth differ in important ways from the lives of the earlier generations. The products of media culture teach children different attitudes as well as vast amounts of informal skills and knowledge. However, children's everyday learning is often compromised and complicated by the stereotypical attitudes and cultural fantasies of the less-than-ideal adult world (cf. internet child and teenage porn sites). One might contend that children and youth in ICT-rich countries are currently experiencing the second stage of media culture characterised by two types of phenomena. First, ICTs are used multimodally, which is to say that the different technologies intertwine in many ways in the lives of children and young people. Second, the technologies are becoming an increasingly important part of the everyday lives of children and young people, which has implications for the ways in which young people use time and interact with people close to them.

Some have expressed their concern that human contact being reduced to calls and messages transmitted through the mobile phone may foster a sense of insecurity in children and young people. Taking this worry into consideration, we observed in our survey that one third of 8- to 10-year-olds perceived their parents as too busy. With older children, reachability through the mobile phone creates a situation characterised by constant (tele) presence and accessibility. One way of describing the situation is that mobile communication creates what one might call an extended umbilical cord between young people and their parents. Suoranta & Lehtimäki's (2003) study also showed that homes are often the places in which children and parents negotiate the meaning of media culture. In addition to other everyday matters of the family, these negotiations often concern the limits of media use. In the family interviews, the limitations are rarely described as problematic, but are seen as useful and necessary ways to determine the proper meaning of ICTs. In other words, these negotiations are used to construct the idea of the information society in practice and also to give a practical answer to the question, what it means to be alive in this particular period in history. Understood in this way, the negotiations are used to come up with the small

choices of everyday life that determine the nature and content of both media and the information society.

In her case study of Japan, Yasuko Minoura (2001, p. 91) has shed light on another social consequence of the phenomenon of mobile communication: “The mobile phone has blurred the distinction between 'at home' and 'not at home', and parents seem to be under the comforting illusion that their children, who are still connected via the mobile, are always 'at home'." Minoura believes that this development threatens to render the relationships between parents and children entirely placeless and demolish the familial social bonds that continue to be constructed in the joys and sorrows, quarrels and happy moments experienced in thick, face-to-face interaction.

In rich countries, the ways of life of children and young people display a tendency towards accumulation of hobbies (cf. accumulation hypothesis). On the one hand, this development generates an active group of children and teenagers, who are versatile in their use of the new ICTs, but also engage in sports and culture-related activities. On the other hand, there emerges a group of passive young people, whose everyday life is filled by television viewing, which, incidentally, has been considered as one of the central factors in the diminishing of social capital and solidarity between people (Putnam 2000). A number of scholars have voiced the well-founded claim that in the rich countries of the North, public spaces are disappearing and life in general is undergoing a process of privatisation (Putnam 2000; Giroux 2001), which also entails erosion of social cohesion and trust. As Galeano (2001, 274) puts it in his criticism of the present communication world and the unchallenged faith in ICTs:

> This sort of progress just promotes separation. The more relations between people get demonized — they'll give you AIDS, or take away your job, or ransack your house — the more relations with machines get sacralized. The communications industry, that most dynamic sector of the world economy, sells abracadabras that open the doors to a new era in human history. But this so-well-communicated world looks too much like a kingdom of loners and the mute.

An examination of the power relations at work in commercial media opens up another global dimension on the use of ICTs by children and teenagers. The contents of the media culture targeted at children and young people are decided on by a few of global ICT and entertainment companies that dominate the culture industry: Vivendi in Europe and AOL-Time Warner, Walt Disney, Viacom and News Corp. in the US.

Although the issue is kept relatively quiet, the ICT market is revolving increasingly around children and young people. There are two main reasons for this. One is that children and young people are capable of adopting and, because of their developmental stage, are keen to adopt new things as parts of their life-world. The second reason is that children in the affluent Northern societies are becoming an increasingly important consumer group: they have their own money and also influence their parents' purchase decisions with their opinions.

Yet, the vast majority of the children and young people in the world are unable to take part in the Western consumption frenzy, as it is known that almost a half of the world's population has to get by on no more than a few dollars a day and that four out of five under 20-year-olds live in the poor South. With comparable income levels, it is quite impossible to conceive of purchasing information and communication technologies for one's personal daily use. In this context, the digital divide amounts to nothing more than one more dimension in global inequality.

Children's and youth programmes form an important part of the operations of five of the biggest entertainment companies. The big four in TV channels for children and young people - Cartoon Network, The Disney Channel, Fox Kids Network and Nickelodeon - are owned by the above-mentioned mega corporations and distribute their programmes throughout the world (for more details, see Feilitzen & Bucht 2001). In consequence, the world of children and teenagers is filling up with programmes produced for commercial gain by a handful of companies, and programmes produced locally with the support of public funding are becoming increasingly rare.

One of the central trends in the media culture of children and teenagers is the accelerating Disnification, or the stereotypification, simplification and Westernization of the global culture:

> In the animated world of Disney's films, monarchy replaces democracy as the preferred form of government, people of colour are cast as either barbarous or stupid, and young Kate Moss-like waifs such as Pocahontas, Megara in *Hercules*, and Mulan support the worst kind of gender divisions and stereotypes (Giroux 1999, p. 157).

This type of global development can hardly be seen as desirable if, instead of uniformity, we wish to enhance the plurality of children and young people's media culture.

The centralisation of television programmes targeted at children and young people is a good example of how the existence of information and communication technologies by itself means nothing and the technological possibilities contained in it - such as the many-to-many communication enabled by the Internet - are not necessarily put to use unless it is possible to make money on them. It thus seems that the media culture of children and young people constitutes an example of the more general homogenisation of values occurring in the global media culture and a disproportionate orientation to the West in media representations. Certain media critics, such as Kellner (1995, p. 332), perceive the virtual world created by television as a substitute for the overall misery experienced by people:

> Those who are most exploited and oppressed by the social order can afford little more than the 'free' entertainment provided by media culture, especially television. As an escape from social misery, or distraction from the cares and woes of everyday existence, people turn to media culture to produce some meaning and value in their lives.

Situation comedies give people a moment's relief from their everyday troubles. At the same time, they steer young people toward stereotypical gender models. Action movies offer notions about who have the power, who is entitled to use violence, who are the good guys and who the bad and which of the stars are the most applauded and thus shine the brightest (ibid. p. 332). The overall picture of media culture is no different for the more fortunate children and young people whose families are able to afford the most recent ICT equipment, such as mobile phones and laptop computers. Access to digital technology providing the opportunity to interactivity does not seem to alter the use habits and technology related wishes of children and young people: from the very beginning, games have been the true killer applications, first on television and computer screens and later in game consoles and mobile phones. Perhaps Seoul, the capital of South Korea with its more than 26 000 online game rooms all over the city, is leading the way to the future of global youth culture:

> Filled with late-model PCs packed tightly into rows, these rabbit warrens of high-bandwidth connectivity are where young adults gather to play games,

> video-chat, hang out, and hook up. They are known as 'third places' — not home, not work — where teens and twentysomethings go to socialize, to be part of a group in a culture where group interaction is overwhelmingly important. (Herz 2002, p. 91)

As the situation among young people in rich countries saturates, the commercial giants will have to find new markets elsewhere. With the Internet, the current prospects for commercial gain on a global scale seem even less tangible than in the field of telecommunications. As the Internet spreads from the rich countries to Africa and South America, it is more than likely that no matter what the form of digital technology, the young generation will be the first to adopt it. However that may be, from a global viewpoint, the traditional media will long maintain their position as the most important means of communication and will continue to exist alongside the new ICTs far into the future.

6 ICTs as New Forms of Socialisation

When discussing young people and ICTs, it is impossible to overlook the fact that the young people of today simultaneously inhabit multiple worlds. On the one hand, they are forced to struggle with a range of vastly different problems concerning livelihood and adjustment. While some toil in conditions best described as slavery and inhabit shanty villages that have sprung up on the outskirts of metropolis, others contemplate their identities in their bedrooms, chatting away by their personal computers. Also, while some strive to escape the authority of parents, others look for someone to offer security and consolation.

On the other hand, the youth of today are also faced with the global world. For them, global media culture represents a unifying force, a type of cultural pedagogy that educates them in how to consume, act, “and what to think, feel, believe, fear, and desire" (Kellner 1995, p. xiii). It is possible, and even very likely, that young people throughout the world are dreaming about the glamorous life of a pop star or a top athlete and wishing for the life of a stereotypical Western youth with its broken hearts and other minor miseries. In any case, global media culture filled with popular culture is bumping against the worlds' adolescents like a pressure wave. The pressure for unification effected by media culture varies from one culture to another and depends

on the young person's media competence and his or her power to resist outside influences.

Culture permeated by ICTs creates a setting where the traditional modes of socialisation are altered and, at least to an extent, replaced with new ones. The viewpoints vary, but on the whole it is a generally accepted notion that in today's world mediated popular culture and ICTs constitute a powerful force of socialisation. It makes sense to perceive the relationship between people and technologies as a two-way one. People invent, use, appropriate and modify technology. Yet, through using technology we learn to live with it, and in this way it makes us the historical beings that we are. This can be seen to constitute dialectical socialisation, where we create technological environments, which, in turn, create us. This is the central lesson of the social history of technology. In this fundamental sense, it is possible to think that a person's lifespan and the general circumstances of life are dependent on the time and place of birth. It can be concluded that in this important sense, life is largely determined by demographical, generational and geographical as well as cultural and political factors. This results in a situation where different generations are living different eras, even though existing at the same point in history. Another consequence of this is that the living conditions and opportunities of young people vary greatly.

In this article the meaning of ICTs has been observed from a quantitative and rather a general viewpoint. It is important to recall, however, that above all, the emergence of ICTs is a cultural phenomenon. As Light (2001, p. 711) reminds us: “Technology is not a neutral tool with universal effects, but rather a medium with consequences that are significantly shaped by the historical, social, and cultural context of its use." This means that ICTs should always be examined contextually or socio-historically: in this instance, as a part of the changes that have occurred in the life-world of young people.

The three-way division of culture into postfigurative, cofigurative and prefigurative by Margaret Mead (1971) provides an interesting opportunity for this kind of examination. It is worth noticing here that cultural forms always present typifications and offer a general picture of the phenomenon, hiding from view the actual activities and practical everyday details of the culture. Furthermore, the three cultural forms do not form a clear temporal continuum but can live and prevail simultaneously in different parts of the world, as, in fact, is the present situation.

In a postfigurative culture, socialisation occurs from the older generation to the younger. In a cofigurative culture, people also learn from peers and organise a versatile formal education. In a prefigurative culture, the direction of socialisation changes so that the younger generation may instruct the older generation in how to function in a new cultural situation. The mere speed of cultural change is an important reason for this reversal. In a new cultural situation, old skills, knowledge and attitudes lose their meaning. Naturally, the transformation is never complete: even in a society thoroughly permeated by ICTs, post- and cofigurative cultures continue to live on as traditions nurtured by people. However, considering the present cultural position of young people, the notion of a prefigurative form of culture acquires new importance, for its central idea corresponds to what in this paper has been termed media culture.

The assumption that in a prefigurative media culture socialisation would occur exclusively from the immaturity of childhood to the maturity of adulthood is clearly problematic. The problem is contained in the essence of culture itself. In post- and cofigurative culture forms, it was possible for culture to be transmitted exclusively from the older generation to the younger. In a media culture, the situation has altered, as cultural transmission can no longer take place just from the old to the young, but also occurs the other way round. The accelerating cultural change thus serves as grounds for the two-way socialisation, or the fact that it is also possible to learn from children and young people, that children can teach each other and their parents and learn from each other. The popular stories and narratives become a part of the experiences of childhood and youth, while at the same time children and youth become a part of the narratives of popular culture. This type of cultural change is also a reason why the cultural practices and meanings generated by children and young people need to be listened to, read, explored and studied with particular sensitivity. As a part of the life-world of children and teenagers, ICTs create public spaces where new couplings are formed between knowledge, skill and pleasure (Giroux 2000, p. 30).

In critique departing from the notion of the two-way socialisation prevalent in the prefigurative culture, school is seen as an institution that both upholds and reforms tradition. School is a sanctuary of closed knowledge protecting its educational autonomy with every means available. The closed code of school can be compared to

the open code of the Internet. For the media savvy teacher, ICTs constitute a never-ending source of information and pedagogical challenges, as they provide the opportunity for establishing virtual classrooms uniting school classes in different parts the world. In the progressive school, ICTs might serve a fundamental pedagogic purpose: to generate discussion across diverse barriers in the purpose of not to persuade those who think, act and look different to conform, but to look for opportunities for a common understanding and a better future together.

It is interesting to consider the unprecedented range of opportunities for learning the use of ICTs offers young people. The literacy requirements of media culture expand from the ability to read text to capacities to operate and understand the meanings delivered by a variety of equipment (CD- and other music players, the computer, the mobile phone, the video), something that often precedes the acquisition of traditional literacy. In addition, it is possible to conceive of online chat as a pedagogical site that enables learning in fields such as skilled use of words, interaction unattached to gender and demarcations crucial for identity work. The sending of text messages on the mobile phone produces its own medialore and in its way functions to reform the language, whereas gaming culture enhances sensory and aesthetic perception and produces cognitive skills that have so far been studied very little but have already been declared to provide access to the digital future. Furthermore, increasingly affordable computers and powerful and versatile software enable young people's own music production in cheap self-made studios. In addition, a range of subcultures is springing up around globally and ethically moving issues and appears to be spontaneously generating a new generation of communication. According to Willis (2000, p. 124-125), confidence in one's own skills and the motivation for the creative learning that occurs in media culture arises from creative consumption, fandom and the copying of pleasure-generating cultural products. Learning based on the consumption of culture should be perceived as a normal way to learn, and no distinction should be made between production and consumption in this context. Cultural practices are the practices of learning, and learning — even in school settings — is filled with media cultural meanings. According to Willis, we really are on the verge of a new electronic folk age.

However, the commodity form of media culture has placed young people in a difficult position. By attaching their identities to popular cultural messages, they have adopted some of the ideals and ways of thinking promoted by media culture. Yet they are currently finding themselves in a situation where it is impossible to feel secure enough to make any long-term plans, let alone model their lives and futures according to the ideals adopted from the media:

> A hit soap opera is generally the only place in the world where Cinderella marries the prince, evil is punished and good rewarded, the blind recover their sight, and the poorest of the poor receive an inheritance that turns them into the richest of the rich (Galeano 2001, p. 301).

It seems reasonable to claim that the mediated practices of young people, at least in the affluent West, point towards a phenomenon called network sociality. The concept of network sociality can be understood in contrast to the idea of community. The notion of community evokes meanings such as stability, coherence, common history, embeddedness, belonging and a certain social recognition (Wittel, 2001, p. 51). It involves strong interaction and long-lasting ties as well as rich narratives of the collective. Conversely, network sociality is not based on a common narrative but on informational acts; as observed by Andreas Wittel (ibid.), network sociality is “not based on mutual experience or common history, but primarily on an exchange of data". In network sociality the social bond is created on a project-by-project basis.

The information and communication technologies and media culture in general shape the thinking of children and young people, as they form their understanding concerning themselves and others in close interaction with ICTs and the messages carried by them. Thus, in a pessimistic interpretation, it is possible to claim that we are moving towards a mode of sociality that is likely to significantly narrow the relationship between a child and his or her caretakers. Furthermore, sociality maintained via ICTs erodes enduring relationships and alienates people from each other.

Richard Sennett (1998) has been one of the most prominent social critics of the decline of lasting and trustful relationships. He argues that flexible project-to-project life without routines and security leads to a number of losses, including the loss of commitment and a trust both at work and in family life. These losses then turn into

psychological and social pathologies such as forced loneliness, violent behaviour, unnecessary divorces and other everyday problems ranging from harmless unfriendliness to social exclusion and racist stigmatisation. However, there is also a positive interpretation of the current situation. Margaret Mead (1971) was among the first optimists to suggest that the new prefigurative era carried with it a seed of change for a better future. In her view, the new era necessitated a number of shifts in social relations between people. In the new era the learning process has been turned upside down. For the first time in the history of humanity, children and young people are afforded the opportunity and the responsibility to teach their parents and teachers, to guide their elders on their way to the future.

In a similar vein, Norris (2001, p. 84) mentions generational differences as the most important in the adoption of ICTs. An interesting point in Norris' analysis is that when looking for explanations for Internet use, a person's generation surpasses factors such as income, education and profession. In other words, the cultural and social capital and material resources available to the individual do not mean everything: “The Napster generation is already experiencing a virtual world as they develop that is different from formative lives of their parents and grandparents" (ibid. p. 85). Thus, the young are not just experiencing the new era, but are also actively shaping the future with their digital practices.

Mead (ibid.) demands that as adults we too must teach ourselves to change our behaviour and give up old ways of thinking in order to keep our minds open to new ideas generated by the younger generation. According to her, only by developing new ways of communicating and new modes of interaction is it possible to free people's imagination from the past. It is her conviction that the development of culture is dependent on a continuous dialogue between younger and older generations. In the prefigurative age of media culture, it is highly probable that, as Mead suggest, the competencies necessary in media cultures are best achieved through parent-adolescent, teacher-adolescent and parent-teacher dialogue, where young people get to be heard as experts and as teachers, too. For, in the present media culture, it should be imperative for parents and teachers to perceive children and young people's informal skills in the use of ICTs not as threats but as opportunities for personal growth and social change and gateways to mutual respect.

7 The Principle of Sharing

Today's youth are faced with a dual dilemma. They need to cope with their local circumstances, be it the desperation of a Sao Paulo shanty village or the luxurious life of Beverly Hills. Yet they are, in principle, equally hit by the global media culture with its popular images. The following notion expressed by Willis (2000, p. 49) seems to ring true in this respect: “the modern communicative imperative is not to do you good, to educate you, to inform you, to develop you, but to sell your buying power and buying capacity on the largest possible scale." Young people are also living extremely unequal lives in terms of food, health, education, employment, and social security. During the 1990s, the world experienced a substantial increase in income inequality, polarization, poverty, and social exclusion. These maladies are even more accentuated among young people, as four out of five people under the age of 20 are living in developing countries. Therefore, it is important to keep in mind that the digital divide is but one aspect of the divisions separating the world's youth.

Some hope can be found in the numerous local experiments making practical use of ICTs in various parts of the world as we speak. It is characteristic of this activity that ICTs are made to function as a part of the local circumstances. The adoption of ICTs on its own is not important: instead, the technologies are harnessed to solve a practical problem - whether it be the transmission of information (distribution of weather or health related information) or a problem in need of a more technical solution (e.g. water pumps operating on solar energy). It is typical of these experiments that new innovations are created through incorporating new technologies in old technical solutions that have perhaps been in use for a long time. Furthermore, it is crucial to grasp the importance of focusing on the use and development of technology that responds to the actual needs of the people - a principle that is a welcome guideline for sustainable development in the field of information and communication technologies in general, as the field's fascination with newness often seems beyond reasonable. The field of community informatics is based on a variety of social experiments that “are giving community activists, policy-makers and citizens a new set of possibilities for fostering social cohesion, strengthening neighbourhood ties, overcoming cultural isolation and combating social exclusion and deprivation" (Keeble & Loader 2001, p. 1). 270). Community informatics thus contributes to the general idea of sharing in the

field of ICTs: the same idea Amartya Sen (2002, p. 51), a Nobelist in economics, has brought forth to help overcome the global maladies of the contemporary economic world order. Perceiving sharing as one of the central notions in the general culture of science, Sen argues that the organising principles of sharing might have something valuable and substantial to offer in the seemingly endless battle against pervasive poverty, deprivation, and the ongoing conflicts that result from global confrontations between the economic elite and those who have nothing to lose but their chains.

Aside from being an influential social institution, the market mechanism also functions as an organisational ideology, which leads to unpredictable and often poor social consequences. Sen contrasts the idea of sharing to the use of the market mechanism as a dominant ideology of the current era. For Sen, economic development is neither about the accumulation of capital nor the growth of gross national product but about a process of expanding human freedom through sharing the common good. Sen's ideas go against the grain of business-as-usual economic thinking in which Utility is defined as economics, morality is not; reason is regarded as economics, emotion is not; choice is seen as economics whereas the attributed opposite, coercion is not; finally independent behaviour is included in economic theory, while interdependent relationships between actors are not (van Staveren, cited in Andersson 2002, p. 71).

It is clear that Sen has little faith in mainstream economics building on such dualisms. In a long line of empirical studies, he has demonstrated that market economy does not work properly without the following elements: the principle of sharing and good quality education and healthcare. According to Sen, the principle of sharing can be used to benefit a wide range of development activities, such as increasing social engagement and cultural activity, avoiding and preventing illness, the organisation of a land reform and the promotion of micro-credit facilities, as well as a range of other ways of distributing resources that make it easier for people to engage in economic activity.

ICTs can enhance the sharing of common resources while simultaneously contributing to the re-building of both social capital and people's self-esteem, as demonstrated in numerous examples from developing countries. Despite the fact that, especially in the affluent parts of the world, young people are today seen as an important consumer

group, youth usually live their ordinary lives in the margins of the official economy and are thus accustomed to executing the principle of sharing in their daily practices. Their use of ICTs is a case in point. Through innovative usage, many young people are able to effectively utilise their scant resources. One example of this type of activity is hackerism that, in part, is based on the idea of producing resources such as free code and software for common use. Needless to say, this activity has its downsides and features a number of well-documented problems. Despite these problems, hackerism has often been discussed in a positive tone, particularly with regard to its associations with concepts such as freedom and sharing, also seen as the principle of copyleft or open code.

There is more wealth and prosperity in the world today than at any point in history, and yet economical, social and technological divisions run deeper than ever. In this situation, it would be important to focus on the terms on which ICTs will be applied in different parts of the world. ICTs cannot be thought of as simply a technology: they are loaded with cultural values and preferences as well as wishes and wants of what tomorrow should look like. It is evident that the cultural values carried by ICTs are largely Western with a particular emphasis on North America and its allies in consumer capitalism. Today, young people make up a fifth of the world's population constituting some 1.2 billion people. The importance of investing in their lives cannot be overestimated, as knowledge, skills and attitudes learned in youth often determine a person's faith later in life. It is my view that a world where young people, remaining in their own localities, would be able to generate their own culture and be connected with youth in other parts of the globe to exchange ideas and learn from each other would constitute a global village worth living in.

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Author's Details

Juha Suoranta, PhD, is a Professor of Education in University of Lapland (Finland). In 2003 he has worked as a senior researcher in the Academy of Finland, and as a visiting Professor in University of California at Los Angeles. His research interests include research methodology, critical media education, and life-long learning in the information society. He has published over 150 scientific articles and ten books of which Children in the Information Society (Peter Lang) is forthcoming in 2004.

Correspondence

Juha.Suoranta@urova.fi