Chapter 12.

YOUTH & INFORMATION and COMMUNICATION TECHNOLOGIES (ICT)

The definitions and ideas applied to information and communication technologies and the modern media culture are examined in the beginning of this chapter. The characterizations of media culture are then explored from the perspective of young people, and the links between youth and ICT are investigated. The dominant cultural logic with regard to ICT is outlined, and different forms of the digital divide are presented. Some global aspects of ICT use among youth are reviewed, using both primary and secondary sources. New forms of youth socialization brought about by the emergence of ICT are examined, and the chapter concludes with a set of recommendations.

INTRODUCTION

Young people today live in a world characterized by dramatic cultural, economic, social and educational differences; individual circumstances depend largely on where a person is born and raised. More than 800 million adults (two-thirds of them women) still lack basic literacy skills; at the other end of the spectrum, the use of information and communication technologies (ICT) is skyrocketing. Notwithstanding the immense diversity in living environments, an unprecedented and unifying global media culture has developed that challenges and often surpasses such traditional forms of socialization as family and school.

This complex cultural situation—in which young people are struggling to find direction in their lives or simply to survive, to improve their living conditions, and to develop their identities—has been given various names. Some call it the information or informational age, while others prefer the term technoculture[1] or technocapitalism, global media culture, or simply globalization, referring to the dialectic process in which the global and the local exist as "combined and mutually implicating principles".[2] Labels such as post-industrial, virtual and cyber society are also in use.[3] The idea behind all these terms is that across the globe, ICT are playing a central role in young people's lives and in society at large.

Two major assumptions underlie the role of ICT: the first is that the proliferation of these technologies is causing rapid transformations in all areas of life; the second is that ICT function to unify and standardize culture. It is on the basis of these assumptions that the term "media culture", incorporating the phenomena of informationalism[4] and globalization, is used in the present chapter.

Much has been written on the subject of media culture. Manuel Castells lists some of the demands that have characterized the transformation from the industrial to the informational era:

> *"...the needs of the economy for management flexibility and for the globalization of capital, production, and trade; the demands of society in which the values of individual freedom and open communication became paramount; and the extraordinary advances in computing and telecommunications made possible by the microelectronics revolution."*[5]

The processes behind the above-mentioned terms deserve a more thorough analysis as they relate to young people's living environment. One important consideration is that the concepts embodied in these terms, and the media culture as a whole, are greatly affected by Western values. In discussions about bridging the digital divide, it is therefore important to recall that ICT carry a "cultural package" of Western values that are not directly transferable to other cultures. The media culture of young people comprises traditional modes such as print media, television and telephone, as well as newer ICT such as computers, Internet and cellular phones. All of these devices are predominantly associated with Western popular cultural content; the advertising that goes with them strongly influences young people in the formation of their identities.

The debate about what ICT represent for young people typically moves between two polarities: utopia and dystopia. Technology enthusiasts who believe that ICT will revolutionize every aspect of the world are challenged by those who perceive ICT as a source of cultural invasion. Somewhere in between are those who collect statistics about the global diffusion of ICT, with little emphasis on their interpretation.

THE MEDIA CULTURE OF YOUNG PEOPLE

The content of the current media culture is often blind to a young person's cultural, economic and educational background. The concept of a media culture has evolved owing to the increased volume, variety and importance of mediated signs and messages and the interplay of interlaced meanings. In the world of young people, the media are saturated by popular culture and penetrate politics, the economy, leisure time and education. At present, the global media culture is a pedagogic force that has the potential to exceed the achievements of institutionalized forms of education. As Henry Giroux 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."*[6]

The concept of media culture encompasses not simply symbolic combinations of immaterial signs or capricious currents of old and new meanings, but an entire way of life[7] in which images, signs, texts and other audio-visual representations are connected with the real fabric of material realities, symbols and artificialities.[8]

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. A pop star provides a model for clothing and other style choices, and language used by a cartoon character becomes a key factor in the street credibility of young people. Under the present circumstances, there are few places left in the world where one might escape the messages and meanings embedded in the televised media culture.

In a mediated culture, it can be difficult for young people to discern whose representations are closest to the truth, which representations to believe, and which images matter. This is partly because the emergence of digitalized communication and the commoditization of culture have significantly altered the conditions under which life and culture are experienced. Many are still attached to the romantic image of organic communities in which people converse with one another face-to-face and live in a close-knit local environment. Digital communication is gradually undermining this traditional approach:

> *"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."*[9]

In the world of young people, the media culture may be characterized primarily in terms of three distinct considerations. First, it is produced and reproduced by diverse ICT sources. It is therefore imperative to replace the teaching of knowledge and skills central to agrarian and industrial societies with education in digital literacy. A similar point is made by Douglas Kellner, who contends that in a media culture it is important to learn multiple ways of interacting with social reality.[10] Children and young people must be provided with opportunities to acquire skills in multiple literacies to enable them to develop their identities, social relationships and communities, whether material, virtual, or a combination of the two.

Second, the media culture of youth extends beyond signs and symbols, manifesting itself in young people's physical appearance and movements. The media culture influence is visible in how youth present themselves to the world through means made available by prevailing fashions; the body is a sign that can be used effectively to produce a cultural identity. Furthermore, various kinds of media-transmitted skills and knowledge are stored and translated into movements of the body. This is evident in a number of youth subcultures involving certain popular sports, games and music/dances such as street basketball, skateboarding and hip hop.

The body is highly susceptible to different contextual forms of control. While they are in school, pupils' movements are regulated by certain control mechanisms and cognitive knowledge. In the streets, youth clubs and private spaces, however, their bodies function according to a different logic. Informal knowledge absorbed through the media culture requires some conscious memorizing but also involves physical learning, quite often commercialized.[11]

Third, in the experience of young people, media culture represents a source of pleasure and relative autonomy compared with home or school. As P. Willis 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."[12]

Experts on young people have long appreciated the complexity of the concept of youth, especially when examined from a global perspective. The best summation is perhaps that the concept of youth today is historically and contextually conditioned; in other words, it is relative as well as socially and culturally constructed.[13] In the present media culture, the age at which childhood is perceived to end is declining, and the period of youth seems to be extending upward.

It is useful, however, to recall that the majority of young people in the world do not live according to the Western conceptions of youth. For them, childhood and adolescence in the Western sense exist only indirectly through media presentations. The same media culture influences seem to be in effect outside the Western world, but their consequences are likely to be somewhat different owing mainly to variations in definitions of childhood and youth and to the different authority relationships prevailing in individual cultures.

THE ICT DEBATE AND THE YOUTH QUESTION

The pessimistic view

Children and young people are often seen as innocent victims of the pervasive and powerful media. In the extreme view, the breakdown of the nuclear family, teenage pregnancy, venereal disease, paedophilia, child trafficking and child prostitution spreading through the Internet, drug use, juvenile crime, the degeneration of manners, suicide and religious cults are all seen as problems exacerbated or even inflicted upon society by the media. Parents seem to have become disconnected from their children's education. Schools have been transformed into teaching factories incapable of providing young people with the coping skills they need to survive and thrive in the media culture.[14] The media, especially television, present material that disturbs children and makes them passive, because they have not yet reached a stage of development that allows them to appropriately process the information they are receiving. From this perspective, children and young people are seen as tractable recipients of messages, as spellbound viewers susceptible to a range of addictions.

An even clearer manifestation of such pessimism is "media panic", which describes the concern, worry or fear that arises from the use of new devices or the adoption of new cultural forms by children and teenagers during a period in which they are challenging earlier cultural practices and conceptions. It is useful to remember that, years ago, the spread of the cinema to a wider audience unleashed a panic and inspired a wave of research intended to provide empirical proof of the destructive effects of motion picture viewing. Another panic emerged in the early 1950s in the United States (and in the following decade elsewhere) when the television became a standard feature in many homes. The third media panic—focused on the detrimental nature of ICT—is occurring now. A sad fact about media panics is that they rarely evoke questions about what might be called problems of the factual world. It may be,

however, that these panics are becoming less fierce in nature as social reality becomes increasingly pluralistic with regard to ethnic foundations, gender codes and cultural meanings.[15] The dystopic view inspires remedial action, including the creation of rules for dealing with the problems of networked societies and the globalizing world, but it also functions to construct a demonized image of youth.

The optimistic view

At the other end of the spectrum, children and young people are seen as those who stand to benefit most from the ICT revolution, as characterized by David Buckingham:

> *"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."*[16]

In the global village, children and youth—with their own practices and consumer choices—are in the vanguard of developments in ICT use, which has positive implications for the future of society. A number of thinkers from diverse ideological camps suggest that children and young people can act as "oppositional intellectuals" and "semiotic guerrillas" of the Internet age.[17] Some seek the provision of network connections to developing countries and advocate a cultural leap directly from agrarian to digital and post-industrial societies. On the other side are a number of critical pedagogues who have always had faith in the wisdom of youth and are now channelling their hopes towards the development of ICT use for the purpose of resistance. For this latter group, ICT represent powerful tools for self-expression, avant-garde digital situationism, media criticism and influence through media, interaction and research. Some of the authors favouring resistance adopt a systematically critical attitude towards the capitalist and commercial foundations of the media culture.[18]

A word of caution

Critics maintain that not all media teachings are worth learning. The messages received through both the traditional and newer media should be critically negotiated at the national and local levels and between family members, and the meanings carried by them—whether visible or invisible, explicit or implicit—should be examined. It is often argued that children and youth are more familiar than their parents and teachers with the practices of the media culture and are contributing to the creation of a new media culture independent of formal pedagogy or curricula. Without underestimating their capabilities, however, it is reasonable to assert that children and young people are unable to manage their everyday lives totally on their own. They need to be loved, supported and understood by adults who will also provide them with limits and advice. It does not seem likely that a global predatory media culture can cater to those needs.

THE DIGITAL DIVIDE

Three levels of disparity

The concept of the digital divide can be applied in at least in three different ways.[19] First is the notion of the global digital divide, which relates to the disparities in ICT use between people living in different parts of the world. One dividing line in this context can be drawn between the developed and developing countries. In terms of economic activity, ICT are expected to significantly increase accessibility to potential customers in terms of both marketing and direct sales. The Internet appears to be benefiting the development of public services, particularly in areas and sectors such as administration, health care and education. The problems contributing to the digital divide are currently being addressed through hundreds of projects implemented by a multitude of governmental and non-governmental organizations around the world.

The second interpretation relates to unequal opportunities for ICT use within countries. Important factors in this respect include an individual's socio-economic position, level of education and place of residence. The lower the income and educational levels are and the further away from the capital and centre of activity a person is, the more likely he or she is to be excluded from information flows and networks.

The third type of divide is one pertaining to participation in a democracy and the possibilities that may develop after the digital revolution. The digital divide is particularly significant in relation to the civic engagement of young people. Opportunities for children and youth to express their ideas and opinions about different issues in society have traditionally been very limited. Typically, the only means they have had available to influence the world around them have been peer relationships, rebellion against the boredom of school, or resistance expressed at home.[20] The digital revolution is opening doors to increased communication and involvement, but other doors may be closing. Some researchers claim that cell-phone-based interaction between adolescents and their parents tends to diminish productive conflicts between them, robbing adolescents of the opportunity to develop the better defined sense of self that generally evolves through such interaction.

Engagement, participation and learning within the ICT framework

The increasingly mediated and digitalized essence of culture has opened up the world both geographically and socially. Media culture and ICT do not automatically translate into the globalization of the economy alone; they also provide new opportunities for engagement and resistance. At the moment, it is impossible to know for certain what ICT-based democracy and activism will mean in practice, though there have been some initial forays into this area; the global network and e-mail have already been successfully utilized for globalized civic activism. In this sense, the Internet is a competitive playing field used by both the right and the left, and by dominant media corporations from above and radical media and other activist groups from below. In the likely event 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 democratization".[21]

Discourse on the digital divide has produced what is known as the participation hypothesis, according to which ICT influence the involvement of young people.[22] First, the new opportunities for participation created by ICT may strengthen the civic engagement of those youth who are already active in this respect. Second, ICT may serve to mobilize young people 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 attracted by the opportunity to participate in societal debate through the Internet. It may be too early to tell whether the participation hypothesis is accurate on either of these counts.

Regrettably, in the dialogue on digital culture and bridging the digital divide, the perspectives and opinions of children and young people are often disregarded, and efforts are rarely made to observe these phenomena from within the context of their living environment.

In his recent book on the Internet, Manuel Castells unleashes a powerful attack on contemporary educational systems that sustain the digital divide through their failure to address the knowledge gap.[23] Castells' critique derives from the now common belief that education and lifelong learning constitute central resources that contribute to an individual's professional qualifications and enhance his or her personal development. In his opinion, most schools in developing countries and many in the developed countries function primarily as storehouses for children and youth. In the global assessment, schools display tremendous variation with regard to teachers' qualifications and other resources. Schools have failed to adopt the type of pedagogical thinking required in the Internet era, based on 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." Owing to the miserable state of schools, the task of preparing young people for the new era is left to the home, a fact that is likely to add further to the disparities in the knowledge, skills and attitudes of children and young people.

Bridging the digital divide

The introduction of ICT is linked to a number of practical problems that are especially relevant in the poorest areas of the world. One primary concern is the lack of money and ICT resources. Most agree that a significant increase in development aid is needed. A second concern is that the newest ICT applications are far too expensive from the perspective of developing countries. One solution that has been suggested is to use freeware and to develop devices that are sufficient for the needs of users but do not represent the newest or fastest technologies.

A third problem relates to the language used in ICT. English is currently the global lingua franca. According to estimates, there are some 3,000 to 4,000 languages in the world, but 80 per cent of all web sites provide content in English alone. The language barrier can be overcome with the help of skilled individuals who, like the scribes of old, assist others in the community by translating texts from the local language into English and vice versa.[24] Young people learn languages more easily than adults do and can in many situations function as translators or interpreters.

Statistics on the digital divide show an increasingly polarized world. As the Internet is the most central technology in the global media culture, examining its use provides some understanding of the proportions of the overall ICT differences and an opportunity to assess the significance of ICT for young people on a global scale.

Over the past 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; by 2002 the world total had increased almost tenfold, to some 580 million. A review of the figures for different regions offers a simplified yet revealing picture of the situation: the distribution of Internet users is extremely uneven. Statistics indicate that slightly less than 200 million of them live in the Unites States or Canada, a similar number live in Europe (185 million), and the total for East Asia and the Pacific region is only slightly smaller (170 million). In Latin America, the number of Internet users is estimated at 33 million. In Africa, there are some 6 million users, half of whom reside in South Africa, and the figure for Western Asia is close to 5 million.

Pekka Tarjanne has examined the digital divide and the position of young people in the changing world.[25] According to Tarjanne, ICT have created a new realm of opportunity, but only for the lucky few. This new world has opened up "to the individuals fortunate enough to be able to access these technologies."[26] The Internet currently reaches less than 10 per cent of the world's population; reducing the digital divide is dependent on the participation and support of all players in different sectors of society. Tarjanne states that "the impact of the information revolution touches all of society, and ... (the revolution) is being led by the young adults of the world, on both sides of the digital divide. Young adults from developing countries are increasingly realizing the wonders of foreign cultures and customs."[27] Tarjanne sees young people as explorers who, free from economic and cultural constraints, look for information in other countries and contexts and have grasped the importance of networking in the global labour market of the future:

> *"The tools of information technology have provided the next generation with faces and customs of alien places. ... Universities and small cafés are flooded with young adults attempting to find news not available to them in their city or village. They realize how important this knowledge economy will prove for their future."*[28]

This view is in line with the cosmopolitanism of Ulrich Beck, who maintains that young people in particular feel as one with global processes and phenomena through popular culture.[29] Beck notes that "the sphere of experience, in which we inhabit globally networked living environments, is glocal, has become a synthesis of home and non-place, a nowhere place."[30]

Attention must be given to the fact that not all young people have unlimited access to "glocal" experiences or the opportunity to build up any speed on the information superhighway. According to Pippa Norris, disparities in media-culture possibilities reflect the previously recognized differences in national income, health care and education.[31] The disparities in the diffusion of the Internet and traditional mass media are the consequence of the profound economic, political, social and educational discrepancies between societies:

> *"The problem, it appears, is less whether Namibians lack keyboard skills, whether Brazilians find that few web sites 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."*[32]

This being the situation, 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."[33] She also offers the following remarks about the stages of the Internet revolution:

> *"In the first decade, the availability of the Internet has ... 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 towards explaining those countries at the forefront of the Internet revolution and those lagging far, far behind. ... If countries have the income and affluence then usually (but not always) access to the Internet will follow, along with connectivity to telephones, radios, and television."*[34]

According to Norris, the digital divide has little or nothing to do with the characteristics of media such as the Internet or the opportunities they provide. Instead of linking more schools to the Internet, instructing teachers on issues connected with digital literacy or establishing network connections in poor areas, the primary focus initially should be on fundamentals such as the realization of basic rights and the reduction of economic, social and educational inequalities. Alongside these efforts, action can also be taken to narrow the digital divide.

USES OF INFORMATION AND COMMUNICATION TECHNOLOGIES AMONG YOUTH

The current status of traditional media

Examining the global media culture as it relates to young people worldwide, it would be incorrect to claim that they are living in the age of, or are even very enthusiastic about, the Internet. From a global perspective, children are much more oriented towards television. According to one survey, television is the most widely used medium among 12-year-olds in the world.[35]

For young people, the current media culture could perhaps be termed a television culture. During the 1990s television and satellite broadcasting spread throughout the world. Globally, the proliferation of television has been far greater than that of the Internet, though it too remains far from even. In developed countries, 674 of every 1,000 inhabitants have televisions; in developing countries the corresponding rate is 145 per 1,000.

A survey conducted in 23 countries around the world explored the media access and media use of 12-year-olds.[36] The study showed that in 97 per cent of the countries surveyed, the inhabitants received at least one TV channel; the average range of channels per country was four to nine. In 18 per cent of the countries there were more than 20 channels offered. According to the same survey, 93 per cent of children had access to a television set primarily at home. The percentage was similar for radio and books. Less easily accessible media included newspapers (85 per cent), cassette recorders (75 per cent), video recorders (47 per cent), video consoles (40 per cent), personal computers (23 per cent) and the Internet (9 per cent).

One should bear in mind that the domestic television culture in low-income countries differs from that in high-income countries. Children and youth in developed countries are increasingly watching television in the privacy of their own rooms. In developing countries, the same TV set is often used by the children of a group of families. The same is true with regard to the use of other media; for instance, access points to the Internet are often shared collectively,[37] and the same mobile phones are used within and between families.

Though the pervasiveness of radio is even more extensive than that of television, its importance in the media culture as a producer of images and identities remains less significant. However, its value in areas such as health education and political engagement is still very high on a global scale. It is worth remembering that the radio "is the only form of mass communication for two-thirds of the population of rural Africa".[38] 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 is also compatible with the rich oral traditions of the world.[39]

The evolving role of new information and communication technologies

New ICT can be used in many different ways; some options are more relevant for and popular among youth than are others. ICT-based interaction between young people is common. Communication between friends and strangers may occur using real names or pseudonyms (virtual personalities or net identities), or anonymously. ICT are also used to obtain information and assistance in subject areas ranging from music and sports to medical and psychological issues. Young people often use ICT for identity development; some, for example, establish, maintain or join fan clubs on the Internet. The constantly expanding field of online gaming is an important aspect of young people's use of ICT.

Wider comparisons of young people's use of ICT are hindered by the fact that no relevant global statistics, let alone in-depth inquiries, are available. Compared with research on television and video viewing, statistics and studies on ICT use among children and teenagers are relatively scarce, even in countries with high levels of information technology development and use. In information-rich societies, the use of ICT by children and young people is largely uniform and appears to develop in very similar stages, with little cross-national variation.[40] In the following paragraphs, comparisons involving Finland, Japan and the United States are presented. Scandinavian

countries have been among the earliest owners and users of information and communication technologies and may therefore function as trendsetters for ICT 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 developed countries, practically every child lives in a home equipped with the basic tools of the information age, including the radio, television, telephone and, to an only slightly lesser degree, the stereo and video cassette recorder.

The cell phone and the computer are central appliances of the media culture and will in time converge with digital television. In affluent countries such as Finland and Japan, the devices are used daily by increasingly younger children. In 1997, for instance, fewer than 5 per cent of Finnish 7- to 10-year-olds owned a personal mobile telephone; by 2001, the rate of ownership for the same age group had risen to 30 per cent. In 1999, 15 per cent of Finnish 15-year-olds owned a mobile phone, but by 2001 the figure had climbed to 66 per cent. In both age groups, girls are somewhat more likely than boys to own a handset. The mobile phone has gradually become part of the everyday lives of people in developed countries. It is seen as a useful object that makes life a little easier, one that soon becomes inconspicuous and that people quickly start to take for granted. Computers are equally pervasive. In 1998, more than 80 per cent of Finnish 8- to 10-year-olds had computers in their homes, and half were reportedly using them.[41] In 2001, 26 per cent percent of children in the same age group had computers in their rooms, and nearly all teenagers aged 13 to 19 years used computers at least occasionally; the devices were used most frequently to access the Internet, followed by gaming, writing, listening to music and drawing.

Internet use among young people in developed countries is continually increasing. The most elaborate and extensive surveys on the ICT behaviour of youth are conducted by commercial entities. According to one such survey, Internet use among 12- to 19-year-olds in the United States primarily involves e-mailing and instant messaging between friends. The next most common uses are online gaming, downloading digital music and retrieving educational resources. Young people also use the Internet to engage in online chatting and to follow sports and world events.

In a survey conducted in Finland, 8- to 10-year-olds reported using ICT primarily to access the Internet and play computer games, but also for information searches and drawing.[42] One of the most striking features of children's involvement in computer activities is the surprisingly low level of school-related use. Without too much exaggeration, it can be argued that ICT and the media culture represent a world of entertainment for children and youth.

Current trends suggest that as the number of broadband and wireless connections increases and usage costs drop, and as new mobile terminal devices are produced for the market, young people's use of the Internet for all of the purposes mentioned above will rise. Internet use costs are subject to market forces; more users and more service providers (increased competition) mean lower consumer prices.

Children and youth in the developed world have taken to the wonders of the media culture like fish to water. They are able to incorporate the use of ICT into their media-filled lives with relative ease and flexibility, alongside and often in association with more traditional activities. The mere existence of ICT makes the lives of today's children and youth differ in important ways from the lives of earlier generations. The media culture and its products teach children different attitudes as well as a vast range of informal skills and information. However, children's everyday learning is often compromised and complicated by the stereotypical attitudes and cultural fantasies of a less-than-ideal adult world (examples include Internet child and teenage pornography sites).

The effects of the new media culture on youth

One could argue that children and youth in ICT-rich countries are currently experiencing the second stage of the media culture, characterized by two types of phenomena. First, ICT are used multimodally, which is to say that the different technologies interconnect 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 they use their time and interact with people close to them.

Some have expressed their concern that reducing human contact to calls and messages transmitted through the mobile phone may foster a sense of insecurity in children and young people. Research undertaken recently by the present author and H. Lehtimäki indicates that one-third of 8- to 10-year-olds perceive their parents as too busy.[43] With older children, reachability through the cellular network creates a situation characterized by constant (tele)presence and accessibility; mobile communication creates what one might call an extended umbilical cord between youth and their parents.

Research also shows that the home is often the place where children and parents negotiate the meaning of the media culture. In addition to everyday family matters, these negotiations often concern the limits of media use. In family interviews, the limitations are rarely described as problematic, but are instead seen as useful and necessary ways to determine the proper meaning of ICT. In other words, the negotiations are used to construct the idea of the information society in practice.

In her case study of Japan, Yasuko Minoura sheds light on another social consequence 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'."[44] Minoura believes that this development threatens to render the relationships between parents and children entirely placeless and to demolish the familial social bonds that are continually constructed in the joys and sorrows, quarrels and happy moments experienced in face-to-face interaction.

In developed countries, children and young people tend to become involved in various leisure pastimes. In many cases, this has generated active groups of children and teenagers who are versatile in their use of the new ICT but also engage in sports and culture-related activities. What has also emerged, however, is a group of passive young people whose everyday lives are filled with television viewing, which, incidentally, is now considered one of the central factors in diminishing social capital and solidarity between people.[45] Extending this idea further, the claim has been made that, in developed countries, public spaces are disappearing and life in general is undergoing a process of privatization,[46] leading to the erosion of social cohesion and trust.

An examination of the power relations at work in commercial media opens up another global dimension of ICT use by children and teenagers. The content of the media culture targeted at children and young people is decided by a small number of global ICT and entertainment companies that dominate the culture industry. Although the issue is kept relatively quiet, the ICT market is revolving increasingly around children and young people. There are three main reasons for this: young people and children have more uncontrolled access to these media; they are exposed to ICT and are absorbing and acting upon new information at an ever-earlier stage in their development; and youth are becoming an increasingly important group of consumers who have their own money and can influence their parents' purchasing decisions.

The main producers of television shows for children and young people distribute their programmes worldwide; consequently, 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. The result has been an accelerating stereotyping and simplification of the global culture. This type of development can hardly be seen as desirable if, instead of uniformity, the objective is to enhance plurality within children's and young people's media culture.

The centralization of television programming targeted at children and young people represents a good example of how the existence of information and communication technologies by themselves means nothing, and how the technological possibilities contained in them are not necessarily developed or put to use unless money can be made from them. The media culture of children and young people appears to constitute a microcosm of the more general homogenization of values occurring in the global media culture.

Access to increased opportunity for interactivity through digital technology does not seem to be altering the technology-related wishes or use patterns of children and young people; from the beginning, games have been the true "killer" applications, first on television and computer screens and later in game consoles.

As the Internet spreads across the globe, it is likely that no matter what form digital technology takes, the younger generation will be the first to adopt it. From a global perspective, however, traditional media will long maintain their position as the most important means of information and communication and will continue to exist alongside the new ICT far into the future.

INFORMATION AND COMMUNICATION TECHNOLOGIES AS NEW FORMS OF SOCIALIZATION

Information and communication technology as a cultural phenomenon

In examining young people and ICT, it is impossible to overlook the fact that the youth of today inhabit multiple worlds simultaneously. On the one hand, they are forced to struggle with a range of vastly different livelihood and adjustment issues. While some young people live in extremely poor conditions, others contemplate their identities in their bedrooms, chatting away at their personal computers. 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 faced with a global media culture that represents a unifying force, a type of cultural pedagogy that teaches them how to consume and act "and what to think, feel, believe, fear, and desire".[47] Many young people around the world are dreaming about living the glamorous life of a pop star or a top athlete. The global media culture, saturated with popular culture, is bumping against the world's adolescents like a pressure wave. The compulsion towards unification effected by the media culture varies from one society to another and depends on a young person's media competence and his or her power to resist outside influences.

Culture permeated by ICT creates a setting in which the traditional modes of socialization are altered and, at least to an extent, replaced with new ones. In today's world of mediated popular culture, ICT constitute a socialization force potentially more powerful than the home or school.

In previous sections of this chapter, the evolution and significance of ICT have been examined from quantitative and general perspectives. However, it is important to understand that, above all, the emergence and development of ICT constitute a cultural phenomenon. As Jennifer Light states, "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."[48] This means that ICT should always be examined contextually or socio-historically—in this instance, as part of the changes that have occurred in the living environment of young people.

Margaret Mead's three-way division of culture based on postfigurative, cofigurative and prefigurative socialization patterns provides an interesting opportunity for this kind of examination.[49] It is worth noting here that analyses of cultural forms offer typifications and a general picture of the phenomenon, hiding from view the specific activities and practical everyday details of the culture. In addition, it must be made

clear that the three cultural forms explored below do not represent a clear temporal continuum but can exist and prevail simultaneously in different parts of the world, as is the case at present.

In a postfigurative culture, socialization occurs as knowledge and traditions are passed down from the older to the younger generation. In a cofigurative culture, people also learn from peers and organize a versatile formal education. In a prefigurative culture, the direction of socialization changes so that the younger generation may instruct the older generation on how to function in a new cultural situation. The sheer speed of cultural change is an important reason for this reversal. In a new cultural setting, old skills, knowledge and attitudes lose their meaning. Naturally, the transformation is never complete; even in a society thoroughly permeated by ICT, postfigurative and cofigurative cultures continue to live on through traditions nurtured by people.

Given the present cultural position of young people, however, the notion of a prefigurative form of culture acquires new importance, for its central idea corresponds with what in this chapter has been termed the global media culture.

The assumption that in a prefigurative media culture socialization would occur exclusively in one direction, from the immaturity of childhood to the maturity of adulthood, is clearly problematic. The problem derives from the essence of culture itself. In postfigurative and cofigurative contexts, it is possible for culture to be transmitted exclusively from the older generation to the younger. In a media culture, the situation is altered, as cultural transmission can move in both directions.

The acceleration of cultural change serves as the basis for two-way socialization, making it possible for adults not only to teach but to learn from children and young people, and for children to teach each other and their parents and to learn from one another. Popular stories and narratives become part of the experiences of childhood and youth, while at the same time children and youth become part of the narratives of popular culture.

This type of cultural change is one 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 part of the living environment of children and teenagers, ICT create public spaces in which new connections are formed between knowledge, skills and pleasure.[50]

Developments in learning

School can be 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 contrasted with, for example, the open code of the Internet. For the media-savvy teacher, ICT constitute a never-ending source of information and pedagogical challenges, as they provide an opportunity to establish virtual classrooms uniting school classes in different parts the world. In a progressive school, ICT might serve a fundamental pedagogic purpose: to generate discussion across all barriers. The purpose should not be to persuade those who think, act and look differently to conform, but to look for opportunities for a common understanding and a better future together.

As documented in the previous sections, young people use ICT to participate in and complete various learning tasks, whether formal or informal. It is interesting to consider the unprecedented range of opportunities for learning ICT use offers young people. The literacy requirements of the media culture extend from the ability to read text to the capacity to operate and understand the meanings delivered by various devices such as compact disc and other music players, the computer, the mobile phone and video equipment—skills that often precede the acquisition of traditional literacy.

It is possible to conceive of online chat rooms as a pedagogical forum that facilitates learning in a wide range of areas including skilled word use, interaction unattached to gender, and demarcations crucial for identity work. Sending text messages through the mobile phone produces its own media lore and in its way functions to reform the language, and the gaming culture enhances sensory and aesthetic perceptions and produces cognitive skills that have so far been studied very little but have already been identified as a means of access to the digital future. In addition, increasingly affordable computers and powerful and versatile software are enabling young people to produce their own music in self-made studios. A range of subcultures is springing up around the globe and appears to be spontaneously generating a new generation of communication.

According to Paul Willis, confidence in one's own skills and the motivation for the creative learning that occurs in the media culture arise from creative consumptionand the copying of pleasure-generating cultural products.[51] Learning based on the consumption of culture should be perceived as normal, 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 meanings linked to the media culture. According to Willis, humanity is on the verge of a new electronic folk age.

Developments in the world of work

The prefigurative media culture has important implications for the position of young people in the labour market. Young people seem to absorb knowledge, skills and attitudes from the media culture almost by osmosis. Some of these skills are highly useful in a prefigurative context: language skills become tradable assets, and computer literacy is hard currency in ICT companies investing in the field. In other words, the new qualifications acquired through informal learning serve to construct a more skilled and knowledgeable labour force.

By attaching their identities to popular cultural messages, young people have embraced some of the ideals and ways of thinking promoted by the media culture. However, they are currently finding themselves in a situation in which it is impossible to feel secure enough to make any long-term plans, let alone model their lives and futures according to the principles and standards 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."[52]

The construction of a new, individualistic work culture is founded on the promulgation of a new philosophy of education. The principles of this philosophy can be summarized as follows: rather than subjects, young people are taught competencies and skills; students learn problem-solving methods rather than didactic principles; individual learning contracts are introduced in which students assume responsibility for their own development; emphasis on business training and cooperation between schools and companies is increased; and the importance of technology education and computer literacy, as well as a commitment to corporative lifelong learning, is perceived as imperative for success in working life.[53]

In this context, young people can easily become defined as mere instruments of economic activity. Their value may be determined based on the extent to which they can benefit the corporate culture, "an ensemble of ideological and institutional forces that functions politically and pedagogically to both govern organizational life through senior managerial control and to produce compliant workers, depoliticized consumers, and passive citizens".[54]

The relationships and causalities between ICT, young people and the economy are often observed slightly too deterministically. It is claimed that the success of ICT companies has a direct effect on the growth of the economy and thus on the well-being of young people. As has been successfully indicated by a number of scholars, the relationship is actually reversed. Generally speaking, the social infrastructure of society (democratic government, equitable income distribution, social security and public services) must be intact to allow the adoption and utilization of ICT for the purpose of enhancing sustainable development benefiting everyone.

The changing nature of social interaction

It seems reasonable to claim that the mediated practices of young people, at least in many developed countries, point towards a phenomenon called "network sociality". This concept can be understood in contrast to the idea of community, which evokes associations such as stability, coherence, common history, embeddedness, belonging and a certain social recognition, and involves strong interaction and long-lasting ties as well as rich narratives of the collective.[55] Conversely, network sociality derives not from a common narrative but from informational acts; as observed by Andreas Wittel, it is "not based on mutual experience or common history, but primarily on an exchange of data".[56] The social bond is created on a project-by-project basis.

Information and communication technologies and the media culture in general are shaping the thinking of children and young people, as they form their understanding of themselves and others in close interaction with ICT and the messages carried by them. Pessimists might argue that society is moving towards a mode of sociality that is likely to significantly narrow the relationship between the young and their immediate environment, and that sociality maintained via ICT will erode enduring relationships and alienate people from one another.

Richard Sennett has been one of the most prominent social critics of processes contributing to the decline of lasting and trusting relationships.[57] He argues that flexible project-to-project life without routines and security leads to a number of losses, including the loss of commitment and trust both at work and within the

family. These losses then turn into psychological and social pathologies such as loneliness, violent behaviour and unnecessary divorces, as well as everyday problems ranging from harmless unfriendliness to social exclusion and racist stigmatization.

There are also positive interpretations of the current situation, however. Margaret Mead was among the first optimists to suggest that the modern prefigurative era carries with it the seeds of change for a better future.[58] In her view, the new era has necessitated a number of shifts in social relations between people and has turned the learning process upside down. For the first time in the history of humanity, children are being given the opportunity and responsibility of teaching their parents and teachers, of guiding their elders on their way to the future.

In a similar vein, Pippa Norris mentions generational differences as the most important determinant of ICT adoption.[59] With regard to Internet use, for example, a person's generation is a more important factor than income, education or profession. In other words, the cultural and social capital and material resources available to an individual are not everything: "The Napster generation is already experiencing a virtual world as they develop that is different from formative lives of their parents and grandparents".[60] Thus, the young are not just experiencing the new era, but are also actively shaping the future with their digital practices.

Mead demands that adults teach themselves to change their behaviour and give up old ways of thinking in order to keep their minds open to new ideas generated by the younger generation.[61] According to her, only by developing new ways of communicating and new modes of interacting is it possible to free people's imaginations from the past. It is her conviction that the development of culture is dependent on a continuous dialogue between younger and older generations.

The dialogue between generations can occur in many ways: the use of ICT is one possibility if, at the same time, it is remembered that communication over distances can never replace personal interaction. The physical closeness necessary for and nurtured in interaction remains of crucial importance in relationships, not only between youth and parents, but also between adults.

In this prefigurative period, it is highly probable that, as Mead suggests, the competencies necessary in media cultures are best achieved through parent-adolescent, teacher-adolescent and parent-teacher dialogue, with young people given the opportunity to be heard as experts and as teachers. In the present media culture, it is imperative for parents and teachers to perceive children's and young people's informal skills in the use of ICT not as threats but as opportunities for personal growth and social change and as gateways to mutual respect.

SUMMARY AND CONCLUSIONS

Globalization is powered in part by tremendous and rapid ICT advances, and young people are often among the first to take advantage of new developments in this area. Youth are capable of using ICT in diverse and novel ways, as a result of which traditional forms of socialization such as the family and school are increasingly being challenged and overtaken. Many of the perceptions, experiences and interactions that young people have daily are "virtual", transmitted through various forms

of information and entertainment technology, the foremost of which continues to be television rather than the Internet. These technologies offer a culture of information, pleasure and relative autonomy, all of which are particularly appealing to young people.

Youth are at the forefront of the information revolution, but they face the challenge of reconciling the reality of their daily existence with the popular images presented in the media. Many young people are simultaneously experiencing life within the global and local spheres. They may develop a global consciousness yet still have to function and survive in their own locality and culture. At the same time, many young people, particularly in developing countries, are excluded from the information revolution, leaving them on the wrong side of the digital divide. A fundamental question about how ICT and the digital divide relate to the process of global development is not about technology or politics; it is about reconciling global and local practices. The challenge is to give culturally valid meaning to the use of new technologies.

While the importance of ICT use for development cannot be underestimated, it should not be seen as a panacea that will solve problems of unemployment or social exclusion in the near future. This observation is of particular relevance to young people, because there is ample reason to question whether the adoption of technology-based development strategies will produce results of real benefit to all young people. It will take many years for all youth to gain access to the opportunities promised by ICT. Notwithstanding these caveats, there is reason to be cautiously hopeful and optimistic about the potential of ICT, especially in view of the relative advantage young people have in embracing these technologies for their own benefit.

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[4] This term is used to refer to the informational mode of development.

[5] M. Castells, *The Internet Galaxy: Reflections on the Internet, Business, and Society* (Oxford, Oxford University Press, 2001), p. 2.

[6] H. Giroux, *Impure Acts: The Practical Politics of Cultural Studies* (New York and London, Routledge, 2000), p. 32.

[7] See S. Lash, *Critique of Information* (London, Sage, 2002), p. 13.

[8] H. Giroux, "Representations of violence, popular culture, and demonization of youth" in *Smoke and Mirrors*, S. Teoksessa Spina, ed. (Lanham, Rowman and Littlefield, 2000), p. 98.

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[13] Also see G. Valentine, T. Skelton and D. Chambers, *Cool Places: An Introduction to Youth and Youth Cultures* (London and New York, Routledge, 1998), pp. 2-6; D. Buckingham, After the Death of Childhood: Growing Up in the Age of Electronic Media (Cambridge, Polity Press, 2000), pp. 99-102; and J. Kenway and E. Bullen, *Consuming Children* (Buckingham and Philadelphia, Open University Press, 2001), pp. 56-60.

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[16] D. Buckingham, op. cit., p. 44.

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[28] Ibid.

[29] U. Beck, loc. cit.

[30] Ibid., p. 31.

[31] P. Norris, op. cit., p. 49.

[32] Ibid., p. 66.

[33] Ibid., p. 51.

[34] Ibid., p. 67.

[35] J. Groebel, "Media access and media use among 12-year-olds in the world", in *Children and Media: Image, Education, Participation*, C. von Feilitzen and U. Carlsson, eds. (Göteborg, UNESCO International Clearinghouse on Children and Violence on the Screen, 1999), p. 62; also see J. Kenway and E. Bullen, op. cit., p. 56.

[36] J. Groebel, loc. cit.

[37] M. Castells, op. cit., p. 262.

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[39] Ibid.

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[43] Ibid.

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