EDUCATION, MENTALITY AND CULTURE IN THE INTERNET ERA

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Abstract: *As usually we know **mentality** refers to the specific way of thinking of a person or collectivity. Education is therefore conceived as a continuous self-formation and self-development activity, open to improvement at intellectual, moral, technological, esthetic and physical level as well as at **the formal, the non-formal and informal** one. Therefore, the educational result is by all means an autonomous and harmonious human product.*

Keywords: *mentality, education, formal education, non-formal education, informal education, permanent education, information literacy and creativity, digital information, information technologies, information products, means and strategies of communication, society of knowledge.*

The whole mankind continuously evolved creating (besides the necessary goods) important values for the universal culture which passed form a generation to another being significantly enriched. In every epoch, people had a specific education, mentality and culture and in the internet era, these are particularly highlighted due to the individual and worldwide use of the information and telecommunication technologies, of the digital resources and the services provided by the Internet environment and it defines the particular features of the modern man living and working in a society of knowledge.

For a long time the mankind evolution has proved to be inextricably connected to education, mentality and culture, from the individual, collective and even global point of view. Every people have a certain mentality and culture, which shape them as distinct entities.

Mentality refers to the specific way of thinking of a person or collectivity, as an important factor (sometimes even more important than it looks at the beginning), that may have a significant impact on the response in a particular context: *historical period, geographical delimitation, civilization development etc.* Influenced by different factors, mentality

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depends on the individual and collective education and culture besides the historical period, geographical area, religion and socio-economic development. Having been acquired, mentality changes more slowly than other characteristics. A historical period has its own mentality type: the slave-owning mentality, the feudal mentality, the capitalist mentality, the communist mentality, the informational society mentality.

The members of a certain society do not have the same mentality, it differs from one generation to another and this also entangles the generation gap. An obvious example of the mentality in the current society, mainly influenced by the information and telecommunication technologies, is the card used as a means of payment of salaries and pensions, taxes payout , shopping and services payments etc. While most of the youngsters have easily accepted the cards to do a business on Internet, most of the elders cannot be persuaded to receive the pension on cards or to use a card or smartcard. Even though the cards are largely used for the salaries, people usually prefer to clear out their cards in order to may payments in cash.

As a consequence, in the 21st century society of knowledge, the priorities should also aim at a new mentality, the informational one, focused on digital information and electronic communication. While passing from a society to another, important changes are made regarding mentality and the adjustment to the new society is easier for those who change their mentality faster. Certainly, a new way of thinking, relying on adjustment, is naturally and quickly adopted and the informational mentality is therefore an important target. As far as the historical period, the geographical area, religion and the economic development are objective data the education and culture, the wide range of knowledge in different fields of activity are created and developed in time.

Hence mentality changes are also made through ***education***, that means growth, development and cultivation aiming at training people as active elements of the social life, a social phenomenon, particularly human, as old as the society, needed by the society it developed with.

Like the mentality, education depends on the material and spiritual conditions of the society, with various characteristics due to the historical periods, geographical areas etc. In time there have evolved individually and collectively training up of the society members.

When a new cultural pattern comes into being, the postmodern society stands for a new context where the current ***pedagogical ideal*** must be rethought. Its elaboration involved the synthesis of two project models.

The former, the social model refers to two society types: a closed society, characterized by the tendency of the current situation reproduction, leaving out the value competition, and an open society, characterized by the tendency to exceed the current situation, promoting competition according to socially relevant criteria.[1] The latter, the psychological model, refers to two tendencies of organizing a personality: a reproductive personality, passively receiving external influences and a creative personality, actively receiving the external influences.[2] As a person is neither a totally passive entity nor an actively supernatural human being, the pedagogical ideal of the informational era will aim at training up *the creative and independent personality, adjustable to rapid innovative changes,* proper to the informational postindustrial society.

Education was differently defined since the ancient times until the modern times. Hence, referring to education, Plato said that it is "*the art of developing good skills or native qualities for virtue of those people who have them*", and Aristotle stipulated that "*education should represent a public supervision, not an individual one*". In the Enlightenment period, Jean-Jacques Rousseau considered that "*Negative education should give away any obstacle occurring in the natural development as everything must naturally happen with no intervention.*" The German philosopher I. Kant said: "*it is a pleasure for us to consider that the human nature will be better developed through education and the final result will be fully satisfactory. This reveals the future happiness perspective of humanity.*"

As an educational science, pedagogy now defines this fundamental concept according to methodological landmarks, from the social, psychological and psychosocial point of view and refers to education as a product - a product of a certain class and of a certain historical period -, as a process of the human personality development and as an activity. The latter perspective simultaneously analyses education, as a product and process, projected and worked out within an activity open to improvement and self improvement. According to this classical assertion "*the education is an action we take only over our fellows but also over ourselves.*"[3]

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[1] Popper K.R., *Societatea deschisă şi duşmanii ei*, Ed. Humanitas, 1993.

[2] Golu Mihai, *Dinamica personalității*, Ed.Geneze, Bucureşti, 1993.

[3] Dotrens Robert, *A educa şi a instrui*, Ed. Didactică şi Pedagogică, Bucureşti, 1970.

The evolution trends of education involved in the scope of the informational postindustrial cultural model with a view to the 21st century aims at:

- the continuous formation-development of personality achievable through the educational forms and content;
- self-formation and self-development of personality through permanent education;
- the full capitalization of education within the connection: education –environment – heredity;
- the curricular projection focused on the formative objectives correlated to respective contents and methodologies.

These guidelines ensure the social approach tendency of education as a product, with a view to a psychological approach of education as a process.

Education is therefore conceived as a continuous self-formation and self-development activity, open to improvement at intellectual, moral, technological, esthetic and physical level as well as at ***the formal, the non-formal and informal*** one.

At the institutional and non-institutional level, the simultaneous and successive pedagogical activities and influences organize the educational forms: the formal education, the non-formal education and the informal one.

Formal education represents the all the pedagogical activities institutionally projected through structures systematically organized on study levels, within an instructional process using plans, programs, books, courses etc.

In the computerized societies, the education computerization is a pedagogical strategy adapted to the educational policy. This is achievable through the following strategies:

- new technologies capitalization;
- the development of an effective self-instruction system;
- the individualized education promotion;
- creativity stimulation as against the best possibilities of every personality.

These strategies hint at the pupil and teacher at the same time.

The education computerization practice needs the capitalization of the computer and the informational technologies in order to achieve the educational purposes.

Computerization was achieved and is continuously achieved on the managerial level, both in the system field and in the educational process, in its content, methods and educational means.

Computer utilization in the didactical process has become a "must-have" taking into account the rapid development of the information technology. Since the new pupils and students generations got already used to the flood of media information the concept of an educational process assisted by computer is quite meaningful. The computer is perceived in different ways: as a toy, a tool, an information source, being daily used for communication, information, instruction.

The computer assisted instruction (IAC), sometimes called "*the most important technological innovation of modern pedagogy*", contribute to the instruction efficiency. The pupil/student/computer interaction allows the didactical strategies diversification, enabling the pupil/student access to broader information, more logically organized, variously structured, presented in different visualization ways. In fact the immediate pedagogical effects are produced by quality of the computers programs well used in organizing information, computerized products, integrated in the instruction activities according to the methodical efficiency criteria. Therefore the pedagogical modernization entails some hardware equipments, software and their adjustment, reception and capitalization capability in the instructional environment. Apart from hardware and software, technology means also other information sources besides the teacher – the knowledge provider. Communication with the specialists, access to virtual libraries, scientific articles are the possibilities offered to those who want to be informed using the facilities supplied by the connection to the global Internet and its particular applications.

While using any didactical means we have to think of their advantages and disadvantages. The computer assisted instruction value is to be found in the learning process organization, the didactical principles (conscious and active learning, continuity and systematization, knowledge understanding and good acquiring) working simultaneously and during the pupil's/student's activity according to the curriculum, therefore stimulating the formation and development both of the intellectual capacity and the individual working skills.

Besides its advantages, this modern and efficient way of learning has certain drawbacks: It mostly individualizes learning eliminating the pupil/student-teacher dialogue, it conducts the pupil's activity step by step preventing him from developing the creative abilities. At the same

time, it fails to see all the pupil's/student's reactions to the internal or external problems, it stresses the verbalism (in writing) less developing intuition, it restricts the superior motivation, the critical mind and the individual thinking.

The computer - a modern and intelligent device and a new amazing information source - competes with the teacher and therefore the latter's role will be changed to a certain extent. The teacher will give up doing certain daily activities but he shall elaborate educational programs and software components. He will also have to be aware that no matter how good these programs may be, he is the perfect teaching machine.

The non-formal education represents extra-didactical, non-scholastic pedagogical activities which complete the formal education. This complementary instruction is, on the one hand, performed in schools, sport and cultural clubs, competitions, Olympiads etc., and on the other hand in out-of-school activities (trips, public universities, shows and exhibitions) or extra-school activities, in a socio-professional environment (with improving, recycling solutions etc.). This pedagogical circuits use updated resources, such as: video, media, disco, radio, school television, computer assisted instruction with non-formal programs networks etc. The vocational character of non-formal education is very important as it supports the pupils, students, adults with particular minimum or maximum chances to school or professional success, stimulating their development towards high performances or top competences. The optional character of this form of education is notable as it is performed according to the pupil's/student's desire as far as education is concerned; nowadays youngsters prefer new fields related to the informational culture.

The typology of the educational forms includes the ***informal education*** too. It represents the pedagogical influences spontaneously and continuously exerted over the human personality in he family, city, district, street, within the social micro-groups, different types of environment, community, mass-media (traditionally written press or the digital one, radio and television).

The informal education highlights the tendency to emphasize the informative function as the sources with pedagogical influence expand to the prejudice of the formative function of education. In the current society, the spontaneous education influence significantly increases due to a huge informational but heterogeneous support, that varies day by day, from one person to another, being quite incorrect sometimes. AT the same time,

the on-going trend of mass-media generalizes the "over-information" and "perceptive hyper-stimulation", reaching proportions beyond pedagogical control, especially for the cable television, in the radio programs on ultra-short waves, in different networks, on the Internet.

In the informal education, family is very important since most of the basic knowledge regarding nature, conduct rules, cultural-sportive activities, the skills to use the audio-video devices etc. are acquired within the family environment.

As for the physical development, the family ensures food and clothes, supervises health and growth, establishes a certain daily program (special time for meals, rest, leisure etc.), forms the first abilities of personal hygiene and of practicing sports, cultural and practical activities. Family notices the child's abilities, trying (since early childhood) to make him/her eager to know everything, to get informed, to freely express desires and preferences without pushing or compelling him/her at all. The physical growth must be strictly connected with the intellectual development as a child learns to speak so that he could express thoughts, feelings, opinions etc. in the family environment. Another aspect of the familial education is the way a child is brought up, the civilized manners taught; politeness, respect and self-respect, honesty, order, loyalty, friendship, respect for the moral and material values etc. and, in this respect, parents must be actual models; otherwise the child will be misled and confused considering the moral values are some abstract terms with no real value. In the fast rhythm and little spare time of the modern society, parents are less and less concerned with their children's raise and education but they should be aware that the gaps in education have an unpredictable long term effect.

Last but not least, family education must be governed by love.

In the modern society, family education cannot be conceived without ***children using the computer and Internet technologies*** since early childhood. Most of the parents are just delighted to see their child interested in playing or watching cartoons on computer. The graphical interfaces, used by most of the computerized products, enable a rapid access that does no longer depend on the PC operating knowledge but only on the selection of certain options represented by small suggestive drawings, whose associated functions are easily learned by children even before they know to read. Some parents encourage their children to use computer as long as they want without taking into account the dangerous effects of the excessive usage of the PC and the Internet. Like any other

addiction, the PC addiction is not good at all, having unexpected side effects on the child's development as he/she starts to appreciate the virtual communication more than the real one. Sometimes the child prefers isolation, has eyesight problems and does no longer respect the meals and leisure time, changing his/her behavior, rejects doing sport and socializing etc. Many times, the films for children, the cartoons as well, stimulate the child's aggressiveness with possible long term effects.

Parents should be worried about their children's prolonged fatigue, their sleeplessness, the nightmares caused by the violent scenes in the games or by the strong emotions with vegetative signs. "The kids spend too many hours in front of the computer. The addiction comes up in time and through the pleasure to be in front of the PC and to emotionally live whatever one sees in the computer game", the psychologist Tamara Iscru, doctor in medicine said.

As fantasy invades children's conscience, they are going to live in a virtual world, that they like because here everything is possible, with no responsibility for the doer, with no personal real or emotional commitment.

Children should be very well cared for and they must get misleading information from TV or computer as they take everything for granted and can no longer make the difference between good and bad/evil.

They may become computer addicted in several years, sometimes since early childhood. Some researches show that a primary school pupil must spend only half an hour per day in front of the computer, the secondary school pupils – one hour and a teenager – not longer than two hours, working only for homework. Teachers should not compel pupils to write endless essays with a lot of information they can especially get on the Internet, without checking the documentation they did and making huge piles of pupils'/students' portfolios. All the teachers are responsible with organizing the tasks thus avoiding the computer or the virtual world addiction.

Although the psychologists advise parents to make a rigorous selection of their children's activities, there are still many parents who admit that they encourage them to work on computer moreover making e-mail addresses for them to be able communicate on line with their mates. Computer assisted learning would be more important than playing computer games.

Therefore, nowadays, parents should understand that education is vital for their children since a wrong start in education is quite risky for

their further development. Some of the mistakes a child makes today could not be corrected the next day. For the parents' support, some of the software components include facilities to restrict the access to a calculation system. An example is *Parental Control*, one of the operating systems Windows Vista, Windows 7, which allows the access limitation for children to an inadequate informational content, depending on the content type or the rating *Entertainment Software Rating Board* (EARB). The following settings can be operated: the computer access schedule, the time limits for web navigation, the allowed programs lists etc.

The ***permanent*** education represents an important guideline for the personality formation-education, aiming at the revaluation of all the educational forms during a lifetime.

In 1970, in a "manifesto book" with a pragmatic value, Paul Lengrand defined the general objectives of the continuous education:

- creation of favorable structures and methods for the human personality formation-development during a lifetime;
- human personality training up for self-instruction and self-education.

These objectives achievement requires a new educational policy to unify the school education with the adults education, emphasizing "*the continuity of the permanent education*" with its flexibility as far as creativity is concerned.

In the Internet era, the permanent education becomes "*a subject for meditation and action*" which entails "*theoretical reflections*" and "*practical suggestions*" regarding education for everybody, parents education, education for democracy, education for professional improvement and requalification etc., stimulating "*a didactics for adults*"[4] as well. The Internet era, with its offer of learning devices, with instruction networks through mass-media and computer multiplies the possibilities of diversified efficient pedagogical communication and represents an environment and an ideal stage in the continuous education.

The ***new educations*** are defined in the UNESCO programs, adopted in the recent decades, as "*answers of the educational systems to the demands of the contemporary world*", political, economic, ecological, demographic, sanitary ones. The pedagogical objectives hint at the following: the environment education, the education for peace and agreement, education

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[4] Urban Czyck, Franciszck, "*Didactica pentru adulți*", Ed. Didactică şi Pedagogică, 1975.

for participation and democracy, education for population, education for a new international order, education for communication and mass-media, education for changes and development, nutritional education, home modern education".[5]

The new educations are introduced like some independent research modules spread also by means of the modern communication systems: television, radio, computer networks. The development of this new type of instruction forms faces the "*serious and worldwide*" emergent challenges recorded especially after 1989 as "*the contemporary world issue*".

In the modern society of knowledge, education focuses on *intelligence and creativity*, the educational-forming process aiming at the conscious development of biopsychic potential and the creation of certain type of personality requested both by the present conditions and the perspective ones in the socio-economic, technical and cultural environment, going to continuously change and diversify. Whenever knowledge is created there should be a person or a group of people with new ideas, new concepts or innovations and this is possible during a scientific research, making new projects, doing experiments etc. Theoretically, a set of knowledge is divided in two large categories: the first is made up of explicit knowledge, expressed in a formal language, sent from a person to another and sometimes recorded too and the second comprises the strategic knowledge, represented by personal experience, convictions etc. The explicit knowledge may be found, data bases, data deposits, sites etc. and the implicit ones are to be found in legends, convictions, rumors etc.

According to the research in the specialty literature, the process of knowledge creation (the organizational knowledge too) follows two guidelines: the first refers to the fact that only human beings create knowledge and the second considers that the explicit knowledge interacts with the implicit ones. Hence there are four creation/conversion processes of knowledge: socialization, externalization, combination and internalization. They make an unlimited spiral, a continuous process going to "polish" the information to facilitate rediscovery, learning and solving of the actual problems. The results must br tested and assessed to consider their truthfulness and value.

The computer technologies development brought about the artificial intelligence field, which enabled the simulation of human thinking by computer means and techniques, relying on some experts' set of

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[5] Vaideanu George, "*Noile educații*", 1986.

knowledge, stored in digital environments. In the initial stage, the researches in the artificial intelligence field were to solve some formal problems requiring an intelligent conduct. Then, these researches tried to reduce many of the combinations used to solve the problems and one of the most important contributions of the artificial intelligence in the computer science was to approach the difficult problems from the solving time point of view and for the less difficult ones they tried to get a satisfactory solution in a reasonable time. Other researches in the artificial intelligence field looked for simulating some human abilities such as: language, eyesight and hearing, involving both the elaboration of some complicated processing algorithms and the usage of special technical devices. The attempt to simulate the human intelligent conduct led to the investigation of other types of problems with a high degree of human expertise, such as: management, planning and solving engineer problems, medical diagnosis etc. The result of these researches was the expert systems elaboration, as they introduce the artificial intelligence concepts and include more components: the knowledge basis, the facts basis, the inferences engine, the system generator and the system interface. Now the expert systems are used in business, being successfully implemented in management.

Education has a direct impact also on ***culture***, which represents "*a number of distinct features of a society or social group in spiritual, material, intellectual or emotional terms*", according to the UNESCO definition. Starting from education, the society members' training is elaborated and it influences both the individual cultural level and the culture of a collectivity as such (be it regional, national, universal etc.) in a certain period of time. In fact, culture is the most important heritage people may have, even though only some of them succeed in making it profitable. Education is a social, human phenomenon, with different aspects according to the material and spiritual conditions of the society, aiming at developing the individual as a labor force and social being whereas culture gather quantitative and qualitative values spread by painting, literature, music architecture, mass-media, rituals, religion etc. Culture is deeply rooted in the universal human capacity to create values, norms, etc. and to pass them to the next generations, cultural values which can be acquired through the various forms of subjective and objective memory. There is an obvious difference between *culture*, as the amount of material and spiritual values created by mankind together with the institutions necessary to communicate and transmit these values and the *man of*

culture, as an educated person, with a high knowledge level, who knows a lot about the universal cultural values. Another difference should be made between the man of culture and the one who creates the cultural values.

Certainly, this article had no intention to make an analysis of the concepts regarding culture and the cultural values, it briefly showed the impact of a new component of culture – the information literacy[6] nowadays. Recently, this concept has been foreseen by Alvin Toffler, who referred to a new information and Internet epoch when the industrial civilization will be replaced by a technological and information culture which will depend on creativity, to the largest extent ("The Third Wave", 1980) .The transition from the industrial epoch to the informational era entails many significant changes, both on the social and individual level. Alvin Toffler's forecasts came true and we realize that the third millennium society belong to the digital era, a knowledge era, where the informational resources, especially the digital ones, gained new valences. The society members are more and more concerned with the revaluation of these resources which enabled the spatial and temporal barriers removal, considerably enhancing their accession level and their usage area.

In the specialty literature, there are many definitions of information literacy, Therefore it is presented as: "*the ability to recognize an informational necessity to locate, assess, effectively use and communicate the information in different ways*"[7] or "*A new liberal art including everything from the computer skills and the access to information to a critical reflection on the information nature, the context and the social, cultural and even philosophical impact.*"[8] In order to integrate and quickly adjust to the new demands, the knowledge society members must acquire this information literacy, represented by the abilities necessary to identify an informational need and to find its solution locating, rating, processing and using information. In this respect,

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[6] The concept of *information literacy* was introduced in Romanian when the informational culture developed, being also encountered in other languages *(la culture de l'information* in French or *information literacy* in English) to define the ability of finding, assessing, using and communicating information in all its manifestation forms (http://www.csupomona.edu)

[7] Definition provided by State University of New York (SUNNY) Council of Library Directors, 30th September 1997 (hyyp://olis.sysadm.suny.edu)

[8] Definition provided by Saphiro Jeremy and Shelley Hoghes in articolul "*Information Literacy as a Liberal Art*",

Publicat in *Educom Review* (March/April, 1996)

the information literacy requires a good knowledge of the information nature, of its organization, of its aspects in various access sources and techniques in order to be selected, processed and applied in solving actual issues. This knowledge needs proper competences enabling the successful accession to the information society.

Conclusions

The contemporary society exists and develops in "the empire" of informatics. From a linguistic point of view, the term *informatics* is more frequently used, enriches with new connotations, its semantic field continuously develop becoming more and more productive and it covers the concepts of various fields. Terms like: information school, information technologies, information strategies, information services, information literacy and, why not, information mentality. Of the three concepts – mentality, education, culture – education has a formative role as it forms culture and may shape and determine mentality.

From the historical perspective, the pedagogical ideal of the computerized society is the creative personality, and from the cultural models perspective, the pedagogical ideal of postmodernism is the open personality, adjustable to innovative changes acquiring new values: general and special creativity, work autonomy, social and individual responsibility. In order to form and develop this personality a lot of activities and influences are necessary through different forms of education (formal, non-formal and informal), successively and simultaneously carried on.

The tasks of the contemporary world add "the new educations' to these activities, a concept materialized in pedagogical objectives. This reflects the ideological and psychosocial tension of the contemporary worldwide problems: democracy, the economic development, the natural environment protection, the spare time revaluation, the relations between men and women, the religion role , the difference between national and international in politics, the difference between national and universal in the cultural works, the postindustrial society culture, its information type.

The concept of information society has become a common collocation, quite synonymous to the contemporary society. The new information and communication technologies can be found in any activity field of a person: professional activity, leisure time, scientific research. In everyday life, the computer is unavoidable and the educational software is the star of the start of this millennium. It is a continuously expanding field, entailing

changes in the instructional process and also becoming a commercial product that defines its own market, largely expanded beyond the school borders. Therefore, there are more and more problems when we think of using the computer.

The statistics reflects the computerized image of the contemporary society with positive or negative consequences. Here are some data: The New York Times, in a week, published more information than an ordinary person of the 18th century had ever got during her lifetime: currently, our knowledge is doubled every two years and in2021 they will double every three days; 29% of the children between 9 and 12 have a socializing site, many of them being victims of the trust abuse; 36% of the children do not read books at all; 30% consider watching TV their favorite leisure time: 73% watch alcoholic drinks commercials: 22% of the children between 9 and 14 have seen at least a porno, erotic or horror movie.

Constantly increasing unavoidable phenomena such as: the sensorial overstimulation and the bulky amount of heterogeneous information require a continuous pedagogical care, attainable in the formal/non-formal educational institutions which must revaluate the pedagogical influences and the life experiences formally acquired.

Obviously the modern society represents a new stage of the human creativity, where the information and communication technologies play an important role, especially the digital information resources and the Internet services. The global virtual space received many current activities regarding communication, learning, commercial and financial transactions, interaction with the public administration etc., and this changes the lifestyle both professionally and individually. In order to face these challenges, modern people should understand and use the new devices, without unbalancing the real life and the virtual environment they have to cope with.

Education is an art that allows information to pass from the conscious mind to the unconscious one, through school education and permanent training leading to the individualization of the society members. Now, the educational systems do no longer mean for every person to acquire knowledge but also to achieve a psychological and cognitive development. Not long ago, the teaching-learning process mostly meant to gather a great amount information while nowadays it aims at establishing a formative process, supported by the rational usage and creative revaluation of information resources. The current educational processes combine the traditional methods with the continuous training ones: e-

learning, e-teaching, the access to the virtual libraries etc., obviating the time and space barriers to have access to information and knowledge, creating the abilities to locate, assess and use information – as tasks for the specialists in different fields of activity in a knowledge society.

The features of the present and moreover of the future are the following: the permanent evolution, the information technologies development, the complete change of the lifestyle and communication with the others. Under these circumstances, the modern education is going to assure the physical health and keep the mental sanity, making people more balanced, able to positively react the difficult issues in life, to revaluate their intellectual and affective qualities, to willingly accept the change. If one fails to develop his ability to face the change he may turn to passivity and alienation. Therefore, the educational result is by all means an autonomous and harmonious human product. He wiil be the intelligent and creative man, able to operate information and make up a new culture type, the information culture, able to shape a new mentality type, the information mentality of a new milenium.

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