

THE NEGATIVE INFLUENCE OF THE TECHNICAL MEANS ON CHILDREN'S DEVELOPMENT

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Abstract. The negative impact of the technical means (computer, TV) on children's development is characterized. This negative impact means damage of physical and mental health; lack of positive moral-ethic influence, forming a soulless, spiritless person; children's detachment from real life and their impossibility to realize themselves; increased aggressiveness; disappearance of the components of children subculture; availability (in virtual world) of the information which can influence child's development negatively; children's dependence on computer games, Internet-addiction, etc. The recommendations for parents to reduce the negative influence of technical means on children are given.

Keywords: children, computer, health, development, games, influence

Introduction

Nowadays children grow up under modern conditions of informative technologies which influence them greatly. Nearly every family has a computer and TV-set at home, and they became an essential part of lives of all

family members, even the youngest. Many people need technical means (computer and television) for their work, but there are a lot of parents who buy them as a present for their child with a view to play games, and these parents do not think of future consequences.

That leads to children's increasing interest in the technical means which allow children to entertain themselves, to communicate, to build their own virtual world. But children become less interested in their "child" affairs (outdoor games, direct cognition of the surrounding world, live communication with friends etc.).

Modern researchers who deal with the problem of the influence of the technical means on a child admit that children should work with it very restrictedly and carefully, under their parents' supervision. But parents do not always have time or desire to make their children interested in something else, for example true children's activities, or to take them for a walk and just to talk to them.

We should admit that the problem of the influence of the technical means on children's development is important and pressing, and some scientists, pedagogues studied different aspects of it. For example, Aries (1962) and Postman (1994) investigated the influence of the technical means on the culture of society and demographic problems. Патцлафф & Глеклер (2009), Петрунко (2007) and Фольваркова-Плахтій (2008) studied the changes which occur in children and childhood under the influence of the mass media. Абраменкова (2002), Печенко (2007), Варяниця (2005) and Загарницька (2009) investigated the problems with subculture of childhood and the influence of modern information on it. Иванов (1996), Комякова (2006) and Осорина (1999) studied the impact of modern civilization on childhood. But in the pedagogical and psychological literature the question of negative influence of the technical means on child's development has not been under careful consideration.

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The statement of the problem

The characteristics of the negative influence of the technical means (computer, television) on children's development are the objectives of this article. According to the objective, we have used such methods of the research as theoretic (analysis and synthesis of scientific and educational literature for comparison, correlation of different views on the problem which is being investigated), empirical (survey, observation, talks, the study of the results of children's learning activity for measuring the level of their educational independence and cognitive activity).

Results

It is impossible to imagine our world without different technical means, especially computers and TV-sets. They have entered practically all spheres of our life. Actually they may facilitate and speed up the implementation of various tasks, help to collect and store information; they are used for educational purposes (as visual aids, teaching tools, monitoring devices, etc). Nowadays there are a lot of educational games and programs which can teach many subjects. However children do not always perceive technical means as devices which allow to learn something new and to facilitate the work. Conversely, according to surveys and talks conducted by us, children very often treat computers as means with which they can get pleasure, relax or even realize their ambitions which they do not manage to realize in their real life.

According to UNESCO data, nowadays children at preschool age (3-5 years old) watch at the screens of computers and TV-sets 28 hours a week (4 hours a day), and children at school age (7-15 years old) watch at the screen twice more. So it is a computer that acts for children as a designer of the sur-

rounding reality and does not only acquaint them with it, in this way laying the foundations for forming children's personality, their views of life, developing their ken and tastes (Загарницька, 2009).

In view of this, we can determine certain threats for children's health and development which the technical means (computers, TV-sets) carry.

Technical means and physical health

The technical means can seriously influence children's physical health. Schoolchildren sit at their school desks practically without necessary moving for almost half a day, and the other half of the day they spend at the computer desks. So their muscle-skeletal system and eyesight suffer from that a lot as the risk of shortsightedness increases. Children get terribly tired of various "shooting", "catching", some of them have high blood pressure.

Technical means and mental health

The use of the technical means may lead to damage to child's mental health. Overindulgence of computer games may lead to the increase of child's aggressiveness. Computer games are full of various evil spirits and cruel characters, for example cyborgs, ghosts, evil villains. As child's mental sphere is not formed yet and it can't overcome terrible images, children begin to be afraid of darkness, complain of nightmares and do not want to stay alone.

The famous and the biggest in the world association of psychologist APA has concluded that violence in games provokes aggressive thoughts and behaviour, gush of anger among children and teenagers. Violent actions without after-effects and results may teach children that violence is an effective means of solution to different conflicts (Комякова, 2006).

Withal, psychological and psychiatric practice testifies the increase and variety of deviations in children's behavior and emotional-psychic health. Psychologists and psychiatrics emphasize increasingly that modern children

become more dependent on TV-sets and computers which manifests primarily in children's cruelty, hostility, insensitivity to other people's feelings (Aries, 1962; Postman, 1994; Патцлафф & Глеклер, 2009; Петрунко, 2007; Фольваркова-Плахтій, 2008). Moreover scientists distinguish such a threat as depletion of child's emotions (it may happen because a player who wants to win has to conceal his/her feelings and to remain cold-blooded) (Комякова, 2006).

However aggressive pictures influence different children differently. The final result of this influence depends on various factors (child's age, the degree of formation of his/her mind, the peculiarities of social environment, degree of child's adaptability in peers' group). Destructively and hypnotically the screen influences affects especially sensitive children who do not have formed natural defensive reactions against it.

It is necessary to emphasize the fact that in China the government imposed restrictions on computer games. It was caused by the researches which have shown that after an hour of playing a child loses his/her playing skills acquired before; after three hours of playing a child becomes tired, and after five hours of playing his/her mental exhaustion appears.

Technical means and children's moral culture

The technical means do not often have positive moral-ethic influence, and their use may lead to the formation of soulless person. We have questioned a group of children (63 children) at school age (6-10 years old) who they considered to be an example in their life, who they want to look like. The most of children (nearly 80%) have answered that they regarded their favourite characters of the films, cartoons and games as an example in their life. But children do not often think of the fact that their favourite characters do harm to other people and propagandize the cult of power by their behaviour. That leads to certain changes in children's consciousness: girls consider sexuality,

dissoluteness (not modesty and sincerity) to be significant in their life; boys think that they can achieve everything in their life using power but not mind and work. So, overindulgence of computer games may cause the substitution of universal human values for the values of virtual world spread with the technical means.

Technical means and children's feeling of life

Frequent playing computer games and watching TV too much may lead to children's detachment from real life and their impossibility to realize themselves in it. It is not surprising that screen attracts children greatly, and sometimes noting can detach them from bright, dynamic computer games which flurry their consciousness. But even if parents, who worry about this situation, manage to distract their children from the screen, these children have nothing else to do; they do not know how to occupy themselves. The famous child's games (tags, hopscotch, hide-and-peek etc.) can seem not so exciting, as they do not give children the thrill which computer games can provide with. Children do not want and do not need to make efforts to invent something or to prove their abilities in reality, because it is much easier for them to switch on the computer and to become a brave warrior, a fighter or even a fantastic monster that has supernatural power. Children get used to making practically no efforts to get something, for example to conquer the world, in which everything is as they like. They began to live in their own virtual world, not noticing the real one, and fail to adapt to it. As a result, children feel internal discomfort, their irritability arises, and even when they become grown-ups they rush to the screen for self-affirmation as they can't get it in their real life.

Such children have overestimated requirements and low will potential. It may be shown in such a situation. In order to build a real thing (for instance a sand castle or a dog-house) children should think about what it would be

like, what it would be made of; they have to learn how to make it strong, where to get building materials, and finally they have to make efforts to build it. However in order to built this thing (a sand castle or a dog-house) in virtual reality it would be enough just to click on some keys. It's a peculiar child's deception which forms the great gap between real and virtual worlds in child's consciousness (for instance, to feel the water one should touch it but not watch it in computer). As a result, it is difficult for such a child to adapt to real life. According to our survey, such children do not notice interesting natural facts around them (birds' twittering, a bright rainbow, funny animals or even people's ordinary appeal to them), they lose or cannot make contact with people.

In their space a child can sit down, lie down, crawl or walk any time (due to that he/she can feel his/her body from below, from above, from the side), smell, touch, feel. But when a child watches a screen, only two senses work: the sense of sight and the sense of hearing.

In Japan the scientist have determined a new disease (the manifestations of this disease have been fixed in people from other countries of the world too, but it was in Japan where this disease became wide-spread – over 10 thousand young Japanese have this disease). It's about young people who lost their social contacts and connections with the surrounding world. They do not want to see their friends and relatives. That is not a fleeting whim or faddishness; it may last for long months or even years and becomes pathology as people lose their individual autonomy. While playing a computer game, a person loses himself/herself in his/her individual world. Unfortunately, even psychiatrists cannot cure this disease (Патцлафф & Глеклер, 2009).

Another sad fact is that children, who work and play computer games too often, do not want to learn real natural law according to which the world functions – they lose their interest in it and natural curiosity. Due to ease and availability of perception of information, a child easily gives up the attempts to gain knowledge from other sources of information, loses his/her interest in

attending libraries and reading books. However, due to different kinds of literature, national-cultural and personal identity is formed, and one cannot compensate losses which the lack of interest in books inflicts to a child (Петрушко, 2007). Children lose cognitive interest more and more, they become selfish and insensible to adults' educating influences.

The technical means penetrate into child's soul and consciousness and occupy them so much that replacement of the real world for the virtual one arises, but a child cannot notice it. The situations from our life (sometimes tragedies) which happen to children and their commentaries may be the examples of it. For instance, we can often watch on TV different TV programs that reveal children's excessive aggression to animals and other people, and this aggression sometimes led to their death. Being asked about the reasons for their actions, children answered that they had not thought of possible results and they could not imagine that their actions could lead to somebody's death. They even thought that an animal or a person who they had killed would have the second life like in a computer game! Unfortunately, even after the talks with adults these children did not become aware of what they had done, as they identified themselves with their favourite characters of computer games and films and children behave as these characters did.

In winter 2012 the world was shocked to hear the news about numerous suicides committed by teenagers in Moscow and Moscow region (some of these suicides were even shot at the camera!). These children left notes in which they wrote that the reasons for their death should be looked for in Internet, in social networks. The scientists suggested different possible reasons for their suicides, and teenagers' excessive interest in social networks was called as one of the reasons. It can be easily explained. On the one hand, these teenagers could realize themselves only in virtual world and, on the other hand, in their real life they were not able to communicate with peers and adults, they often had conflicts and their social and communicative skills were not devel-

oped enough which led to significant stresses in human relations and nervous breakdowns.

This indicates that modern children who are not able to realize themselves and have certain problems with relationships between people and the surrounding world, even do not try to solve these problems and just avoid them, immersing in their own world of computer games and virtual reality where they feel as heroes and have no problems. However the problems remain in the real life, and while growing up they will have to either solve their problems or immerse in their own world deeper exacerbating them even more by that.

Technical means and children subculture

Children's excessive interest in the technical means may lead to disappearance of the world of children subculture or its certain components.

Children subculture is a special system of child's ideas of the world, values, models of behavior and communication. It has own moral and legal rules, speech apparatus, folklore and game complex. It is a peculiar culture that exists according to own specific and distinctive laws though it functions in the field of general culture (Абраменкова, 2002; Печенко, 2007; Варяница, 2005).

There are a lot of components of children subculture. They are traditional folk games (roundelays, active games etc.), children's folklore (horror stories, nursery rhymes etc.), children's legal code (it concerns the signs of ownership, the rules of exchange, seniority rules etc.), children's humor (jokes, spoofs, tricks etc.), children's magic, superstitions and mythological creativity (fantastic stories-fables, fictional ritual performed for fulfillment of desires etc.), children's philosophizing (the ideas of life and death etc.), children's esthetic ideas (garlanding, weaving bouquets, painting, modeling etc.), giving nicknames to peers and adults, children's religious ideas (children's prayer, religious rites).

Recently some new components have been added to well-known components of children subculture. They are educational games (they are used in educational activity which is in the field of children subculture), the world of children's fashion, computer games, multimedia space, children's toys.

Unfortunately, some components of children subculture (roundelays, certain active games and elements of children's folklore etc.) are disappearing little by little because children cannot and do not want to play ordinary games or with ordinary toys. It is much easier and more interesting for them to switch on a computer and to immerse in the virtual world. However, the specificity of childhood is in these simple children's toys, games and other things. Thus, childhood loses its originality as its specificity vanishes.

In addition to it, in their real life children try to do what they see on the screen. For instance, when television started to show programs and films which reveal sophisticated murders, criminalists began to face the same cases in their real practice. After showing some films about kidnapping on TV, the police started to register the facts of kidnapping small children by elder teenagers with the demand of ransom (Петрунко, 2007). The German journalist G. Zilber said about it: "Wars and terror, mockery and violence, street fights and kidnapping, hijacking and murders are the facts of adults' reality, and they turned into the plots of children's games" (Иванов, 1996).

Children cognize the surrounding world with the various children's games (role-playing games, folk games, roundelays, etc.). Role-playing games teach children to overcome difficulties, to get along with other people, to cooperate and to concede. A game is a peculiar model of "big" world, and children's behavior in their future life depends on how often they play.

There is a section in psychotherapy called play therapy. It deals with the problems of using games as the strongest form of influence on children which helps to overcome their psychological and social difficulties that hinder children's personal and emotional development. A child who often played

with other children and adults in his/her childhood becomes independent faster as eventually he/she starts inventing games and different activities to do for him/her.

However, nowadays children do not want to be active, to invent new games and to modify existing ones. One can often observe such a situation when some families with small children gather, and instead of running, playing ordinary children's games (hide-and-seek, tag etc.) with each other or with animals, children quarrel over who will play the computer. Unfortunately, parents do not often pay attention to it as they think that while working on the computer a child does not look aside and nothing bad can happen to him/her, so parents may have free time. But we think that ordinary laziness, egoism, unwillingness to take care of children and lack of interest in their further development are hidden behind this.

In many psychologists' opinion, an ordinary toy-constructor and plasticine (or clay and dough) will be a better choice for the development of children's intellectual abilities (as they can help to develop hand motor) than a computer. The initiative in a game should belong to a child up to 90%, thus this initiative should be determined by the construction of the toy just at 10%. But in the technical means a computer solves nearly everything. The same thing is about modern "learning" games and toys – they can speak, sing, dance and point out to a child what he/she should do and what keys he/she should click on. However, it is a child who should solve everything and determine how a toy should act and work.

Charades, colorful games, care for animals and dolls influence child's mind positively. The tasks for gumption are not harmful, but children can often stop working and continue thinking over finding out the results too long, distracting from the classes. That's why it is necessary to set time-limits for them. But it is necessary and better to set full restrictions on wars and shoot-

ings in virtual world for a child. Certainly, a game-strategy improves memory but only if it influences a child's mind an hour a day and no more.

It is important to note that the technical means enhance their influence in conditions of urbanization when the pace of life increases and people move away from the natural habitat. As a result, modern children have almost no opportunity to organize their spare time outside the home by themselves, to play active games with other children, to leave the yard by their home, to attend traditional "forbidden" places (for example, the roofs of houses) with their friends, to retell traditional "horror-stories" in the peer group and to feel fear aroused by "horror-stories" with other children (Осорина, 1999). The lack of game activity (this activity is natural for children) impoverishes their emotional life, leads to early and one-sided intellectualization of mind. The loss of children's active games skills causes the development of children's fears and anxiety (Петрунко, 2007).

Too grown children

The virtual world is full of information that may influence child's development negatively (made growing-up, children's early sexualization, children's imitation of asocial behavior). For example, in Internet one can find a lot of information (of criminal, erotic character) which a child is not ready to perceive and understand. The information is given like to adults: it does not require education for understanding its content; it does not distinguish the audience transmitting the same information to everybody and without reference to sex, age, level of training etc.; it lets a child enter adults' world revealing freely any topics of adults' life (even violence, crimes, aggression), not restricting its content and paying no attention to moral aspects of a person's development. Modern children do not advance to adults' life gradually discovering its secrets which they are ready for and in ways which correspond to the level of their development. Conversely, TV and computers promote children's

discovering these secrets in finished form. As a result, communicative context appears and it promotes the idea that childhood is neither desired nor essential.

Children's dependence on technical means

Children's excessive interest in the technical means may cause the appearance of dependence on computer games, Internet-addiction. Actually, dependence on games is a disease connected with the addiction for gambling, including computer games. They became a part of entertainment industry that attracts a lot of children. It is difficult to detach a child with dependence on computer games from his/her computer. Such a child is usually very withdrawn, has mental disorders. Both his/her social life and range of interests' contract. Like many other diseases, game dependence can be cured with difficulties (with medications, psychotherapy and autotraining), and it takes much time. It may take years to cure this disease, and relapses may occur in future.

We should admit that in many countries computer games undergo the process of labeling according to users' age before getting into stores. For example, in England only 2% of computer games get the certificate "Children up to 18". But in many countries of the world the spread of computer games isn't regulated because of the absence of the criteria for selection of these products (Загарницька, 2009).

Suggestions for parents' thinking

Nevertheless, technical means are necessity for modern people; they can become assistants in people's work and study. In order to reduce the negative influence of technical means on children, parents should follow some recommendations: (1) Parents should not buy their children a computer or a TV-set as a present. Children should understand that a computer is a working device first of all; it should be used for work and study and seldom for entertaining; (2) Parents should spend more time with their children (no rules, methods

or technical means can substitute parent's active, live participation in formation of child's personality and soul). Parents should communicate with their children, be interested in children's life, teach them to interact with other people, as important children's need to communicate should be satisfied with live communication with people (especially family), but not with technical means; (3) Parents should encourage children's hobbies and find interesting entertainments for whole family and different forms of spending their leisure time, show alternative ways of spending free time for their children; (4) Parents should limit the time of children's playing computer games and see after the content of information which children acquire, form children's ability to be critical of information and to stand against undesirable informational influences; (5) Parents should aim at spending more time physically active (being out, in the open air), but not sitting of lying at a TV-set or a computer.

We surely understand that it is much easier to do nothing and allow children to do what they want (some may even say that adults shouldn't limit children), but a lot of facts prove that children's excessive passion for technical means often influences them badly. So, these are children's health and our future which are in our (adults') hands.

Conclusions

This article has revealed the negative influence of the technical means (computer, television) on children's development. Attenuation of the traditional institutions of socialization and decrease of their role in children's life, liberalization of sexual relationships and promotion of violence through the technical means (computer, television) form children's wrong views of the world which are based on false moral values and behavior patterns. As a result, children's aggression increases, their physical and mental health worsen; their communicative and social skills remain underdeveloped which may lead

to child's incapability to realize him/her in the real life and replacement the real world by the virtual one.

The study allows to draw more attention to the different problems with childhood and children's development (as childhood is gradually disappearing), to determine the reasons and the negative results of development in the society, its impact on children. This study would help to make recommendations for parents, teacher on how to develop healthy children (physically, mentally), how to reduce the negative influence of modern world's peculiarities on children.

This research has revealed a part of the problem with various negative influences of modern world on children. The perspective themes for further researches are the influence of modern toys on children, the influence of excessive informatization of society on children, the necessity and influence of early education on children, the problem with preservation of childhood.

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