

Hrvaški pesimizem – razvojni scenariji optimistične šole

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Prispevek prikazuje rezultate empiričnih raziskav, ki obravnavajo prihodnost šole. V raziskavi je uporabljena kvalitativno-interpretativna metodološka paradigma, saj narava raziskovanega problema zahteva specifične raziskovalne metode in tehnike. Uporabili smo: deskriptivno metodo, tehniko "razvoja scenarijev" in tehniko analize tekstov. Orodje za pridobitev podatkov je bilo v obliki eseja, ki so ga pisali udeleženci raziskave (devetdeset prihodnjih učiteljev, zdaj študentov tretjega letnika), katerega tema je bil scenarij šole prihodnosti.

Rezultati kažejo, da z eseji dobljeni scenariji razvoja šole variirajo od optimistično-tehnološko-humanističnih do pesimističnih variant. Optimistični študentje vidijo razvoj šole v novih izobraževalnih ciljih, spodbujanju osebnosti dijakov, njihovega zadovoljstva; sama predavanja pa bodo nadomestile igre, ki bodo komponente kreativnega dela. Udeleženci raziskave vidijo kot glavno temo/nalogo šole prihodnosti socialni odnos med dijaki ter dijaki in učitelji. Odnosi med dijaki in učitelji bodo v prihodnosti osnovani na spoštovanju, kljub starostnim razlikam, razlikam v znanju in družbenem statusu, ob upoštevanju in razumevanju osebnosti.

Računalniki bodo učiteljem v pomoč in jim tako omogočili več časa za neposredno delo in sodelovanje z dijaki in ostalimi učitelji – tako lokalno kot globalno.

Pesimistični scenarij razvoja šole vidi učitelje kot "vsiljevalce" tehnologije, saj bo prav tehnologija v veliki meri ogrozila človeško komponentno poučevanja ter neposredno interakcijo med udeleženci izobraževalnega procesa. Hitrost razvoja tehnologije lahko privede do poučevanja dijakov v učilnicah virtualne realnosti. Strah, izražen v pesimističnih pogledih, se nanaša na dehumanizacijske učinke tehnologije in na nižjo socialno interakcijo, zdravje, socializacijske procese in življenje brez ljubezni in prijateljstva.

Ključne besede: razvoj šole, scenarij, optimizem, pesimizem, izobraževanje.

Croatian Pessimistic – Optimistic School Development Scenarios

This paper reveals results of an empirical research concerning the future of school. The research employs qualitative-interpretative methodological paradigm. Nature of the problem researched calls for specific research methods and techniques. Therefore, a descriptive method, scenario development technique and text analysis technique were used. The instrument used for collecting data was in the form of an essay, written by research participants (ninety future teachers, now 3rd year students) containing a scenario of the school of the future describing new features of the future schools.

The results show that various school development scenarios range from optimistically-technologically-humanistic to pessimistic. Optimistic students consider school development in the humanization of student-teacher relationship and creative work. The school of the future will feature new education goals, encouragement of student personality, student satisfaction, and, instead of lecturing, game will dominate as component of creative work. Research participants consider social relationships between students and between student and teacher as major questions in the future school. Relationship between student and teacher will, in the future, be more based on respect (in spite the difference in age, knowledge and social standing), consideration and understanding.

A computer will aid the teacher and give him more time for direct work and collaboration with students and other teachers (locally and globally).

Pessimistic scenario of school development envisions the teacher as 'enforcer' of technology, because the technology will considerably endanger the human component of teaching, the direct interaction between participants of educational process. The speed of technology development could result in students wearing cybernetic interfaces in virtual reality classrooms. The fear expressed in pessimistic views relates to dehumanizing affect of technology to social interactions, health, socialization processes and to defining life as a place with lack of love and friendship.

Keywords: school development, scenario, optimistic, pessimistic, education

1. Introduction to the problem

The mankind was always "burdened" by time, a notion that can be seen through the need for planning their future, life and various activities, through the need for escaping currently unfavorable moments into the (future) time which one considers to be ideal. Even though projections of various kinds of future reflect fear of unknown (and inexperienced), man was always interested into finding a "crystal bowl" to predict the future. Each prediction of future needs to arise from knowledge (and understanding) of the past, but too rigid concentration on the past events may result with predictions of future being an elongation of the past; bad experience from past may influence projections of (future) desires which therefore may seem utopist.

Theoretically – methodological bases of futurology have highly contributed to demystification of the future, and today there are a substantial number of projects in the field of futurology; almost every country has formed institutions whose main goal is to research the future. Understandably, projections of the future sometimes do come true, and that provides motivation for researching the future. However, unexpected events do occur: e. g. practically nobody could have predicted 9/11, the attack on the World Trade Center. We believe that event had shaken the belief in the futurological predictions, regardless of the methodology used, but it has also enlarged the need for researching various aspects of future.

Futurology today has a respectable methodological "tool": social – impact assessment, technological forecasting, environmental impact assessment, science fiction, search conference, brainstorming, relevance tree method, scenario and others. In researching a new scenario of Croatian school development we opted for the scenario method, which is the reason for more detailed description of this method of futurological research.

2. What is a scenario?

In everyday life (personal, business, social and other) we are mostly concentrated on solving current problems, but the need for asking questions (and searching for answers) about tomorrow (where tomorrow may stand for the next 24 hours, longer period, or even period in which we won't be no longer living) still exists. Regarding the obvious connection between present actions and future consequences (of those actions) it is very important that we are aware of our present actions and the influence they may have on the future. That is the way of lowering the risk of growing insecurity and uncertainty. The need for lowering insecurity and uncertainty doesn't apply only to individual but to the whole community, big corporations and other social forms. One of the ways of lowering the risk is the use of scenario developing method that is highly structured way of viewing (possible) future. Method of scenario developing provides description of sequence of events that may occur in the future. Scenario is a series of events that we imagine will happen in future, and it usually includes a brief picture of main characteristics that we are interested in, in different time periods and points in future.

Mental experimenting, dominant in scenario method, takes into consideration the interaction of various factors and their impact on "production" of different futures. Scenario means developing alternative descriptions of what future may look like, of directions of development with no pretensions to predict the unpredictable. We may say that scenario is a written story about future that may be short and written in the past tense, which actualizes the need for real switch from the past, or respect for the past. Future events are based on known initial conditions or assumptions – first to be analyzed are trends, then environment and finally, by means of other methods, implications that present situation may have on the future.

Present is uncertain and future is even more uncertain, and in such conditions scenario is thought to be a strong (and important) tool for future planning. Many important world corporations use scenarios to plan the future – British Airways, Electrolux, Cable and Wireless, Royal Dutch, Shell, Motorola and others, in order to search for the best strategies for market development, new products and other important questions.

Use of scenarios in public sectors is also very important; for example, The Scenario Planning Office within the Government of Singapore uses it with intention of seeing what has to be done about "3T's" (Trade, Technology, Tribe) within next 5 years of this Millennium.

Queensland Department of Transport and Main Roads use the scenario method in order to improve connection between goods, people and service within next 25 years. In 1999 the US CIA's Global Futures Project developed 4 scenarios exploring global futures through to 2015. The 4 scenarios were: Inclusive Globalization, Regional Competition and First Polar World (more info: <http://www.cia.gov/cia/publications/globaltrends2015>).

These are just some examples of the use of the scenario method that imply its importance in the planning of future.

There are certain conditions that have to be met in developing a "good" scenario – collecting high-quality data, research of the scenario outcomes that have to be transformed into strategies, and finally it's important to monitor lead indicators and update scenarios.

Generally we can develop 3 basic scenarios: positive or optimistic, neutral or middle and pessimistic scenario. Futurologists usually create 2 or 3 different scenarios about the future of certain field believing in the possibilities of different outcomes or alternative futures.

3. Methodological approach to the problem

There is a permanent interest in the future of schools and education, and one of the reasons for that is the importance that school had (and still has) in all civilizations and societies. Education is a political activity and practically all countries in the world wish to have full control over that segment of a society. School and education are considered to be a condition of technological development; it qualifies people for trade competition and incorporation into the world of work, and in relation to that school is a source of power. These and other reasons always again actualize the question of the future of schools. Within futurological researches schools (schooling and education) are viewed in the context of social change, on the one hand, and on the other hand are focused on certain questions (goals, material, student / teacher status, etc.) of the future schooling and education. Answers to main questions in this field are usually given by theoretic, while active (young) school consumers practically don't have a say in the matter. Despite the fact that future, when talking about consumers, is contradictory (when future comes they won't be neither young nor school users, at least not as active) we believe their opinion is important in creating different (and better) future schools.

For this research we have chosen the quality – interpretative methodological paradigm. The nature of researched problem – the future of schools – has dictated the choice of specific research methods and techniques. In that manner, we have applied descriptive method, and within it the technique of scenario development and text analysis. Data collecting instrument was in essay form, and participants (future teachers), now 3rd year students (ninety of them) were asked to create scenario of future schools and describe the changes which will differentiate the school of tomorrow from the school of today.

4. Results of the research and their interpretation

Based on their yearly experience in the schooling process most of the participants haven't expressed satisfaction with present schools and all of them share the opinion that schools have to be changed urgently.

“When we think about the future of the school we hope for the best, or at least better than the current. However, projections of the future schools are, due to their complexity and sensibility, very hard to make because in small countries, such as ours (Croatia) schooling isn't a primary problem. Only when problems that are, according to politicians' criteria, marked as primary (except in pre-voting period when everybody puts education first) are dealt with, problem of schools is addressed. Education is not looked upon as an investment, but instead as a field on which money should be saved. Such a view on the schooling process results with constant interventions that do not lead towards its improvement”

“Schools of today belong to the past. Everybody agrees they should be changed, but there is no agreement in directions in which they should change. It's obvious that some of the elements can't be changed, and they haven't been changed since Komensky.”

“Schools of today have no connection with the real world: we learn a lot of unnecessary facts, but that doesn't prepare us for life and work. School needs to be changed urgently.”

“It's without any doubt that society and education reflect on each other, education has never been, and never will be, above certain culture and civilization: that also proves that schools have changed through time, even if slowly. Schools have to be changed, and the speed of changing will depend on changes of the society; on how much politics and economy penetrate into education.”

These are only some of participants' replies, but they all reflect criticism towards the present school and explicit demand for its change (towards better and more modern).

There are various modern school scenarios. Scenarios of school development vary from optimistically-technologically humanistic to pessimistic. In defining directions of the school change most dominant is technological paradigm that reflects participants' optimistic view and their belief that schools shall move towards humanization of student-teacher relations and creative work.

Such a scenario will develop under the influence of computer science because teachers and students will have more free time due to the fact that computers will deal with all administrative work.

"Continuous use of the technology will provide teachers with more time for students; they will have more time to advice students and form friendly relationships with them."

"Students will learn using different methods and if they don't understand something they will be able to discuss it with their teachers. Special value will be given to the ways in which student obtained information, and not only if he had memorized it. In such an atmosphere unhealthy competition between students will be lost. Grading won't exist as well."

"I am very optimistic about school change. Since I've started my schooling (and that wasn't so long ago) schools have changed a lot. The basis for change is technology and teachers who are becoming more oriented towards students. As a student I am free to state my mind without any fear of getting a low grade, and similar experience is also shared between those who attend high schools and elementary schools. These arguments give me hope that schools of tomorrow will move towards even more humane relations."

"Data- based and communication technologies are primary interest of EU and countries in transition. Its main goals refer to modernizing schools and educating teachers how to use technology. Computer literacy allows young people to communicate with their peers all over the world and to learn about different cultures as well as to spread their own. But that doesn't mean there should be no schools. No society has ever rejected schools, and none ever will. No true means of socialization can arise from sitting in front of a "box"; there would be no getting used to problems of other people, no mutual acceptance because not everything can be said by means of our "cubical assistant".

From these replies we can see how computer technology penetrates schools, having deep impact on its change. Modern times demand a partnership between school and technology and socialization that occurs in schools is an assurance of future school existence. Future schools will be characterized with new educational goals with obvious student development and their pleasure. Instead of plain teaching, games will dominate as components of creative work.

"Under the influence of technology there will be more time left for students' and teachers' creative expression. Most of creativeness and freedom comes from games that should not be a privilege of pre-school children."

"In future schools, and future begins in the present, it will be easier for students to learn individually, through playing (and using computers). Role of a teacher will be demonstrating to students how to learn individually, how to create new ideas, how to prepare for permanent learning and how to handle new situations. "

"Use of technology provides great possibilities for direct educational work. Computers allow various interactive multimedia presentations as well as presentations of models, pictures, texts, slides, exercises. Compared to traditional education, interaction between student and computer is on a higher level because student is forced to observe what happens on a computer screen while in traditional school student can be mentally absent."

Social relationships between students and students and teachers are among the most important questions of future schools. In future, student-teacher relationship will be based on respect (despite age, knowledge and status difference) and understanding. *“School computerization breaks the monotony of frontal organization. It helps students develop their creativity, it gives them access to important information and opens possibilities for equal debating with teachers based on various sources.”*

“Educational technology is welcomed refreshment; students can participate more actively, and create their own work place and their own education. It also helps students to perceive teachers as partners in educational process, because teachers would no longer have monopoly over knowledge. Constant emergence of new information puts both teachers and students into same position (that of a student) and allow them permanent education.”

“Traditional way of work won’t be sufficient in times of fast changes. Schools of tomorrow must make progress towards teamwork and small interest-group work where students could assist each other. Teachers will work according to students’ interests which will provide basis of educational context.”

Computers will help to lower teachers’ work amount which would give them more time for direct work and cooperation with students and other teachers (locally and globally).

“Some of the teachers are not tolerant, and some are even aggressive, but I can’t hold that completely against them. Along with teaching they must deal with huge amount of administrative work that takes away their free time, and that makes them nervous. Computers should help them reduce that extra work.”

“Teachers in our schools are burdened with different assignments. Due to money shortage they can’t cooperate with foreign teachers. Computers (and especially Internet) will allow teachers to exchange experience (both good and bad) and widen their competency as educators.”

Though participants feel that technology is the factor that started school change, it’s also a factor that has to be regarded carefully. All participants state the notion that humans are social beings who need “living” word, because no society has ever rejected “oral culture” nor replaced it by “computer culture”. That is why it’s very important to carefully set the amount of computer usage and implement computerization into education so it doesn’t go too far or in wrong direction.

Alongside with optimistic school scenario exist a pessimistic one that arises from participants’ replies and refers to both school development and society in general (on global level). That pessimism largely refers to fast growth of technology that has an impact on human relations. They believe that society is becoming divided on rich individuals and poor masses, on those that will have monopoly over information sources and possibility of manipulating them.

Out of such pessimism arises the pessimistic scenario of school development.

Pessimistic scenario reflects fear of dehumanization of school relations (teachers-students-parents) and sees teachers as “facilitators” of technology. Technology will jeopardize humane teaching – teaching during which performers are in direct contact.

“My fear is that one day computers will completely replace teachers and that would create the situation in which all “potential” students would be sitting at their homes and by means of Internet would receive material and instructions on how to learn. That’s highly negative and leads to loss of social contact between students and teachers. It’s true that we are all forced into certain school classes without real criteria, but still through interaction with other members of our class we learn how to behave, how to be tolerant, how to accept differences.”

“Everybody in right state of mind would accept advantages of the technology, depending on the field in which they are active. That means that educational technology should be used because of its advantages (even ill students can participate, learning is easier, pace of work can be set individually, etc.). Teachers and students should think of technology as of a partner. However it’s my opinion that trend of learning

without teachers is negative. My recommendation is that schools have to be computerized but not to that level where computers could replace teachers. So, yes to computers, but carefully and reasonably.”

“Computers are being rapidly introduced into all segments of educational process. Advancement of technology has relieved teachers from some of their duties, but there is a great danger that teaching profession may cease to exist. In world of filled with technology I can see less and less human (teacher), and all that word implies, I can’t see a smile, a handshake, friendship, conversation, game... In a world to come I don’t see a teacher, only a machine and estranged children who has fallen in love with machine instead of a human being.”

“It may seem pessimistic to look on the computerization as on dehumanization, but to be optimistic in a world in which values are measured by profit means to be unreal. But, I still hope that society will, when it reaches certain (dangerous) stage of development, realize that humans can’t be humane in an environment that is marked by certainty and mathematical accuracy or complete lack of emotions. For that reason school will once again return to that human factor that was there before this race for money begun.”

“Computerization of education is most definitely a trend that reflects recent culture (and in the future to come it will be even more obvious). But after the peak that technology will soon reach, education will undertake a fall as a result of its dysfunction and dehumanization of all interactive relations, including those in schools”.

The speed of technological advancement may lead to students going to school by putting on cyber helmets or wearing cyber suits which will allow them to move in virtual reality.

“What can a reasonable (pessimistic) person expect in a world where robots are taking over human roles. After its tour of the Moon, Rover Spirit is currently on Mars, and its twin “Opportunity” is in prepare and expected to land on the other side of Mars by the end of January 2004. I’m not the least bit happy about cloning and its abuse. It seems to me that rich countries deal with marginal problems in a world where its normal for people to die of hunger and disease, in a world in which majority of people is only half literate. I’m sure it’s going to get even worse. Human values are disappearing”

“The madness of technological advancement will turn young people into robots. Instead of the school bag they will wear cyber suits or put cyber helmets on their heads. They will learn real fast just by pressing the button. A. C. Clark is more and more right. In such conditions teachers will no longer exist”.

Pessimistic scenarios reflect the fear of dehumanization and its influence on human relations, students’ (and adults’) health, socialization of children and programming of life in which there won’t be too much space for love and friendship.

“There is no doubt that technology does provide some advantage-it allows faster information gathering, easier combat with certain diseases, provides new kind of fun. But, computerized world has brought estrangement, dehumanization in families, schools, workplaces and world in general. Due to the sophisticated technology we must be more afraid of terrorism and new enemies. In such an environment Lech Walesas saying can be very inspiring: “You have riches and freedom here but I feel no sense of faith or direction. You have so many computers, why don’t you use them in the search for love?”

Dehumanization won’t occur only in rich countries that develop new technologies, but also in poor countries in which hunger and death represent everyday life.

Participants feel that globalization, as a global trend; will implement way of life that suits rich countries and countries that know how to force themselves upon others (and that, as they feel, is one of America’s greatest strengths). “Technology doesn’t help poor countries because its advantages are above their reach. However, considering that many people can’t ensure bare existence, modern ways of education have created even larger gap between rich (educated) and poor (uneducated). Poor won’t experience the advantages of on-line or other modern ways of learning for a long time. I believe they would be happy to have schools like ours, even if we are so eager to change them.”

“Globalization demands reorganization of many aspects; that reorganization, however, will suit dominates cultures; small, poor countries will depend even more on rich, developed countries; education will gain even more value, but it will be accessible only to rich people. No technology will ever erase differences.”

Based on participants' replies we have categorized optimistic and pessimistic scenarios. Very interesting are those replies that are characterized as neutral. Even if they weren't numerous those replies are important because they place great importance on teachers.

“No technology can improve schools if it isn't used properly. Advantage of technology lies in the hands of teachers – it's up to them to make material easier and more interesting. Noncreative teachers can make even the most interesting material seem boring.”

“During my education some teachers used OHP, slides and other (then modern) technology. To me that didn't seem too modern or too interesting. Instead of copying from blackboard we copied from OHP.”

“Teaching process is mostly in the hands of teachers. What matters is their connection with students and context, not technology. No modernization can occur just from the use of technology, if that isn't followed by changed approach to students.”

“Good teachers can make teaching process interesting with or without technology.”

Smaller number of participants feels that in the near future schools will return to those characteristics it had in the times of its beginnings. *“The use of computers and other technology is a trend that will soon pass. Soon, schools will get tired of it and will return to its ancient habits.”*

“People with similar interests will meet in clubs, bars, on squares and spend their time together; modes of school learning will adapt to systems of internal and external communication thus making true Plutarch's ideal that “the city is the best teacher”.

“All innovation pretty soon turns into tradition (it simply become old). That will happen to technology as well. We will learn new things walking through stores and talking about the nature we have destroyed and few good people left.”

Regardless of whether their view is optimistic or pessimistic all participants agree that educational goals and ways of evaluating knowledge should be changed.

In accordance with pedocentric orientation and similar view of schools participants describe schools as a place of freedom, proactive and pro-social functioning.

“Schools will become places of love, satisfaction and happiness.”

“I hope that students and their interests will soon become central in decision making. Students must become a criterion for context, pace, space and time of learning.”

“Bad attitude that students have towards present schools arises from poor teacher-student relations, especially in grading process. To know means to know by heart. That must be changed as soon as possible.”

“In this time of changes we are burdened with material that refers to the ancient past. That presents a burden and we don't know how to get rid of it. Not everything from the past should be rejected – from the past we can learn about the present and the future – but there is no need to emphasize it constantly. After examinations we forget it all, so what's the point of it?”

“In these modern times knowledge gets old very soon and that is why individual learning should become primary educational goal. Ways of obtaining information should be more important than plain memorizing and reproducing of facts that are only temporarily new. What is true today may not be true tomorrow.”

“Why insist on memorizing, and why think of it so highly? What about creativity, initiative, problem solving? These are new, necessary values that should be developed through schooling.”

It is obvious from these replies that participants think schools should be places of successful, high- quality education and not places of double standards and formal, scholastic, purely intellectual learning.

5. Conclusion

Based on our research we can distinguish mainly optimistic and mainly pessimistic scenarios. Even though these results don't allow generalizations, they can serve as indicators to creators of educational politics and help develop new school scenarios. In new schools the ratio of teacher and technology has to be taken into consideration. The use of educational technology has to be rationalized because school socialization is a value that mustn't be replaced with computers and other modern ways of learning.

In choosing methods and material it's important to chose basic material that allows incorporation an formation of new knowledge that is necessary for functioning in the complex conditions of the modern future society.

Teachers highly value, and insist on, memorizing and reproduction of educational material, and that is not characteristic of Croatian schools only, but a “quality” that exists in schools all over the world. Schools of tomorrow must move away from these burdening factors and emancipate individuals. Considering the fact that there are a larger number of school (school system) interventions a hope exists that new (futurological) winds of change have started to blow.

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Nositelj je projekta „Pedagoški aspekti kurikulumu inovativne škole“ kojeg financira Ministarstvo znanosti, obrazovanja i sporta Republike Hrvatske. Mentor je magistrantima i doktorantima i član je Matičnog povjerenstva Republike Hrvatske za izbore u znanstveno-nastavna zvanja.

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