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Historical Sciences and Archaeology

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The Ukrainian Documentary Heritage in Canadian Virtual Space: Digital Exhibitions, Encyclopedias and Databases

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Abstract. The article characterizes the Ukrainian documentary heritage in the Canadian virtual space. The Canadian digital exhibitions, databases and encyclopedias that present the information about the history of Ukrainian emigration, economic, cultural, religious and political life of Ukrainians in Canada are analyzed.

Keywords: Ukrainian Canadians; Ukrainian documentary heritage; Internet; digital exhibitions; databases; encyclopedias; Canada; archives; digitization.

Introduction.

More than one hundred years have passed since the first two Ukrainians immigrated to Canada. Ivan Pylypiw and Wasyl Elyniak from the village of Nebyliv in Western Ukraine started the first wave of Ukrainian immigration when more than 170 000 Ukrainians found their new homeland abroad since 1891 [1]. New generation of Ukrainians (called Ukrainian Canadians) formed a unique ethnic component in multicultural country as they managed to overcome all the difficulties, including long travelling by sea, financial problems, lack of knowledge of English or French, cultivation of new land, founding of first churches and schools, process of assimilation and Canadization, prejudice from local citizens and many others.

According to the 2011 Census of Population there are 23 major language families in Canada. Slavic language family, including Polish, Russian and Ukrainian, has numbers 721, 605 people. About 201,000 persons have Polish as their mother tongue; Russian and Ukrainian have numbers below 200,000 [2].

Nowadays the Ukrainian diaspora of Canada consists of four waves of immigrants, developing and flourishing in all aspects of life. They have established many religious, cultural, political, professional, beneficial, educational, business institutions, information about which is holding in many Canadian repositories. With the help of digital exhibitions, databases and encyclopedias we have the opportunity to investigate the Ukrainian documentary heritage in Canada.

The goal of the article is to find out and analyze the resources about Ukrainian Canadians in Canadian virtual space.

Materials and Methods.

The major sources for this article are the websites of Canadian libraries, museums and archives that are preserving, digitizing and giving the online access to the Ukrainian documentary heritage. Other sources are databases of different Canadian institution where archival descriptions by using keyword "Ukrainian" can be found. **Methods.** In the article we apply fundamental (philosophical) methods which include analysis and synthesis, induction and deduction, generalization. Among general scientific methods we use historical, system, social and cultural approaches. We also use historical methods such as historical-typological, historical-comparative and retrospective which allowed to consider the object from historical point of view.

Discussion.

I. Digital exhibitions are the most effective way of presenting documentary heritage of any nation because you can study materials through photos, texts, audio and video recordings. Canadian institutions have digitized a lot of materials and created the interesting exhibitions via the Internet. The most successful in this work is the Library and Archives Canada that is the main institution, responsible for preserving the documentary heritage of Canada. Among 109 databases and 89 virtual exhibitions, presented on its website, the Ukrainian materials can be found in the following three exhibitions [3]:

1. The aim of exhibition "Moving Here, Staying Here. The Canadian Immigrant Experience" is to provide information about immigration to Canada in 1800-1939. The exhibition consists of three sections: 1) "The Documentary Trail", where following documents of immigrant are characterized, e. g., printed advertisements about immigration to Canada, immigrant guides, government rules and regulations, travel documents, lists of passengers who travelled by vessels, identity files, land patents, immigrant diaries and memoirs, photos; 2) "Traces of the Past" includes period from 1800s, when the first legislation to protect emigrant was enacted, to 1930s, when the federal government of Canada passed strict restrictions about immigration during the Depressing Period; 3) "Find an Immigrant" give advices how to find an immigrant by using passenger lists and databases.

2. The exhibition "The Canadian West" presents 188 items (1540-1930s) from the holding of Library and Archives Canada that are grouped into three categories, followed by textual information and photos: "Anticipation; Expectations for the New Land", "Contact: Making the West Canadian", "Accommodation: The West as Home". The Ukrainian immigration is considered in the context of general immigration to western Canada that made this country one of the most multicultural in the world.

3. The exhibition "The Kids' Site of Canadian Settlement" is created for children at the age of four to six in order to know the history of their country. The information about early Ukrainian settlements in Canada is given among other 18 ethnic communities that helped to form Canadian state such as Acadians, Africans, Beothuk, Chinese, Doukhobors, Dutch, French, Haida, Inuit, Irish, Japanese, Metis, Mi'kmaq, Nisga'a, Plains Cree, Scots and Wendat (Huron). Each community is presented through three aspects – history, daily life and culture; photos, references and glossary are also added.

Next four projects are coordinated by the Kule Centre for Ukrainian and Canadian Folklore at the University of Alberta. The Centre was established in 2001 and it has become one of the most important institutions in Canada for the study of Ukrainian culture. The Centre presents the following projects via the Internet:

1. "Bohdan Medwidsky Ukrainian Folklore Archives" that will be considered below in the section about databases.

2. "Ukrainian Dance" is based on the published book "Ukrainian Dance: A Cross-Cultural Approach" by Andriy Nahachewsky, director of the Kule Folklore Centre. The website is under construction but we are able to read about popular Ukrainian folk and ethnic dances (e. g., hopak, hutsulka, kolomyika, wedding dances, the match), supplemented by photos and videos [4].

3. The project "Ukrainian Traditional Folklore" was initiated by the professor and the first holder of the Kule Chair in Ukrainian Ethnography Natalie Kononenko. Since 1998 the scientist has been interviewing people in the villages of Central Ukraine, Volyn region of Western Ukraine, Alberta and Saskatchewan, Kazakhstan. This comprehensive resource presents ritual, material, spiritual and verbal cultures of Ukrainians in their country and abroad. With the help of Virtual reality presentation we have the opportunity to see three-dimensional objects such as churches, houses, people in national costumes or painted Easter eggs (pysankas). The section "Verbal Culture" contains more than 200 hours of sound recordings with Ukrainian songs, tales, beliefs, prayers, taboos, legends, stories, etc. [5].

4. "Ukrainian Wedding Exhibit" is maintained by the Bohdan Medwidsky Ukrainian Folklore Archives and presents rich Ukrainian wedding traditions before 1940 and after 1970. The website compares weddings in Ukraine and Canada through videos and photos. There are also teacher resources, bibliography and glossary of Ukrainian wedding terms [6].

II. Databases have some advantages over digital exhibitions – they contain more information about holdings of any institution in the form of archival descriptions. With the help of databases in

the Internet a scientist or a simple user can search for the necessary materials from distance. Moreover, databases are updated more often as neither scanning nor photos or textual explanation is needed in comparing with virtual exhibitions. We will characterize several Canadian databases that hold information not only about Ukrainians but also about other ethnic groups of Canada.

1. While conducting our research, we have found one database of Ukrainian organization that is searchable database of the Bohdan Medwidsky Ukrainian Folklore Archives. The Archives is a part of the Peter and Doris Kule Centre for Ukrainian and Canadian Folklore in the Department of Modern Languages and Cultural Studies at the University of Alberta. It is considered to be the largest archives of Ukrainian folklore materials in North America. The Ukrainian Folklore Archives was founded in 1977 by Dr. Bohdan Medwidsky from students' fieldwork projects at the University of Alberta and nowadays it houses approximately 45000 items [7].

The online archives present over 23 000 descriptions of different records: 5300 albums, 13 000 songs and musical pieces, 3500 photographs, 1000 field recordings [8]. For the basic search you can use keyword search, people search, subject search (e. g., agriculture, clothing, crafts, rites and ceremonies, settlements) or accession # search. Advanced searches include search in commercial recordings, photo collection, field recordings and publications.

2. The website "Connecting Canadians: Canada's Multicultural Newspapers" in English and French languages was launched by Athabasca University with support of the Department of Canadian Heritage. It presents digitized early newspapers of ethnic communities such as Croatian, Estonian, Finnish, Hungarian, Polish, Serbian, Ukrainian, Serbo-Croatian, Latvian and Lithuanian. We have the opportunity to look through four Ukrainian-language newspapers, published in Canada [9]: 1) the only Ukrainian Weekly West of Winnipeg "Western News", later renamed to the only Ukrainian Catholic Weekly of Canada "Ukrainian News" (Edmonton); 2) social-political weekly "Ukrainian Echo" (Toronto); the only Ukrainian weekly in Eastern Canada "Ukrainian Toiler" (Toronto); the Ukrainian weekly "Free Word" in Toronto.

3. One of the most valuable and comprehensive project in the Internet is "Our Roots: Canada's Local Histories Online" in English and French, developed by the University of Calgary and Université Laval. This unique resource was initiated in 2000 and presents 5685 digital texts with 1.3 million pages about Canada in June 2012. To find the necessary information you can do a title, author, chapter, text or subject search by entering any keyword in a database. By typing the keyword "Ukrainian" in the title search, the list of 23 items are yielded. Every item is added by the information about authors, related subjects, publication and rights attribution statement [10].

4. The mission of website "Canadiana.org" is to support an access to Canada's digital documentary heritage for Canadians and the world. The term "Canadiana" refers to all materials, concerning history, economy and culture of Canada. The website was launched by the Canadian Initiative on Digital Libraries and the AlouetteCanada initiative (founded by the Canadian Association of Research Libraries) that merged in a new organization "Canadiana.org" in 2008. Today it is possible to use digital Canadiana via fourteen online collections, e. g., "Early Canadiana Online", "Department of Foreign Affairs", "English Canadian Literature", "Hudson's Bay Company", "War of 1812", "Canadiana Discovery Portal" and others. The last mentioned collection provides access to digital books, periodicals, government materials, photos, audio and video files; it contains materials about Ukrainians the most – 299 results by using a title search [11].

5. Since 2011 the Canadian Register of Historic Places provides an opportunity via the Internet to find information about all historic places that were recognized for their heritage value in Canada. A historic place is a structure, building, group of buildings, district, landscape, archaeological site or other place in Canada that has been formally recognized for its heritage value by an appropriate authority within a jurisdiction. The website is maintained by Parks Canada Agency and currently, over 12 500 historic places are accessible online [12].

To find the concrete historic place you are able to use the advanced register search by entering a keyword, province or territory, location (city, town, township), jurisdiction (federal, provincial or territorial), postal code, purpose group (i. e. historic or current function of historic place, for example, commerce, education, government, leisure). By entering the keyword "Ukrainian", we get the list of 103 historic places, most of which are religion places. Each cultural object is supplemented by such characteristics as address, date of recognition, photos, other name(s), links and documents, construction date(s), date of being listed on the Canadian Register, statement of significance (description of historic place, heritage value and character-defining

elements), information about recognition, historical information (significant date(s), category and type, function, architect/designer, builder), additional information (location of supporting documentation, identifier, related places, etc.).

III. Internet encyclopedias and dictionaries. The information about Ukrainians in Canada can also be found in different Canadian encyclopedias and dictionaries in the Internet. We will characterize five of them such as Internet Encyclopedia of Ukraine, Multicultural Canada, The Canadian Encyclopedia, The Encyclopedia of Saskatchewan and Dictionary of Canadian Biography Online.

1. One of the first encyclopedias about Ukraine and Ukrainians in the Internet was created in 2001 by the Canadian Institute of Ukrainian Studies (CIUS) – “Internet Encyclopedia of Ukraine”. The site is an online version of the printed five-volume edition of the Encyclopedia of Ukraine, prepared by the CIUS, Canadian Foundation for Ukrainian Studies and the Shevchenko Scientific Society in 1984-1993 under the direction of V. Kubijovyc and D. Husar-Struk. The online encyclopedia is maintained by Roman Senkus, Marko Stech, Andrij Makuch and more than twenty subject editors. Approximately 4700 articles were presented online in 2012, supplemented by photographs, illustrations, maps, video and audio materials [13].

The Internet Encyclopedia consists of six subject headings such as Ukrainian history, land, people, culture, art and literature. The information about the life of Ukrainians in the prairie provinces of Canada (Manitoba, Saskatchewan and Alberta) where most of Ukrainian pioneers found their new homeland is presented in the section “People”. To search for the necessary materials you can use several types of searches, viz.: title search, simple full text search, index search, advanced full text search [14].

2. The aim of the Multicultural Canada project is to provide a free access to the rich documentary heritage of ethnic communities of Canada, including Ukrainian. The project is coordinated by Lynn Copeland from Simon Fraser University and contains several resources [15]:

1) collections of newspapers, oral histories, photographs, books, newsletters, legal documents, etc. Three of 53 collections are Ukrainian and include 38 400 digitized items, contributed by the University of Calgary Library, 137 digitized published materials from 1900 to 1950 as a part of John Luczkiw’s Ukrainian collection, and 1272 issues of the Ukrainian-language newspaper “Zhyttia i Slovo” (Life and Word), published by the Association of United Ukrainian Canadians in Toronto between 1965 and 1991;

2) learning materials for teachers and students;

3) the online version of the Encyclopedia of Canada’s Peoples, published by the Multicultural History Society of Ontario in 1999 as the first Canadian encyclopedia about 119 ethnic groups. Every group is presented by the following topics: origins; migration; arrival and settlement; economic life; community life; family and kinship; culture; education; religion; politics; intergroup relations; group maintenance and ethnic commitment; bibliography. The entry about Ukrainians is prepared by Professor Frances Swyripa, University of Alberta. The separate entry is devoted to the Carpatho-rusyns (Ruthenians), ethnic group from east-central Europe.

3. “The Canadian Encyclopedia” is an online source of information about Canada and Canadians in English and French which was launched in 1999 by the Canadian institution “Historica Canada” and includes the Encyclopedia of Music in Canada, The Junior Encyclopedia of Canada and articles from the Canadian weekly news magazine “Maclean’s”. Originally it was published in 1985 by Mel Hurtig and immediately became a bestseller. The website is supplemented by TCE Blog that disseminates the information about Canadian history, politics, literature, music, film, culture and education.

The online encyclopedia provides the search function where you can enter a keyword or a phrase and indicate a type of record (articles, photos, video, maps, audio). By entering the keyword “Ukrainian” we get the list of 199 entries about Ukrainian immigration to Canada, Ukrainian writing in Canada, Ukrainian Cultural Heritage Village; Ukrainian-Canadian prominent people such as composer and pianist George Fiala, folklorist Robert Klymasz, pop music duo “Mickey and Bunny”, journalist and translator Myrna Kostash, comedian actor Luba Goy, priest and architect Philip Ruh and others. At the end of each entry there is information about author of article, list of suggested reading and links to related sites [16].

4. The publication “The Encyclopedia of Saskatchewan” by the Canadian Plains Research Center was dedicated to the celebration of Saskatchewan’s centennial in 2005. It includes

2 300 articles with 1000 photos, maps, tables and graphs that describe life in Saskatchewan. Two years later online version of the Encyclopedia was launched. The entries can be seen alphabetically or in 22 subjects, e. g., arts and culture, communities, military, religion and philosophy, women. With the help of search function of the website we have found 83 articles. Topics of the articles are the following: Ukrainian Settlements, Ukrainian Catholics, Ukrainian-English Bilingual Education; activity of Ukrainian Catholic Brotherhood of Canada, Ukrainian Labour Farmer Temple Association, Sheptytsky Institute; Savella Stechishin, writer and community leader; Constantine Henry Andrusyshen, linguist; Dmytro Stryjek, painter, etc. [17].

5. The website "Dictionary of Canadian Biography Online/Dictionnaire biographique du Canada" in English and French contains more than 8400 biographies of people that played an important role in constructing Canadian society since 1000 to 1930. The website is an online version of the 15 published volumes of the dictionary, prepared by the University of Toronto and the Université Laval since 1966. The advanced search on the website helps to find the necessary biography by entering a keyword, gender of a person, number of published volume and information about a searched person (occupation, region of birth, region of activities). For example, by typing the keyword "Ukrainian", we get the biographies of such prominent Canadian Ukrainians as: Nestor Dmytriw, Greek Catholic priest, interpreter and author; Tymofei Koreichuk, labour organizer and political activist; Cyril Genyk, translator, immigration owner and community leader; Joseph Oleskiw, who called "a father of Ukrainian immigration to Canada" and others [18].

We can **conclude** that the Ukrainian documentary heritage is widely represented in virtual space of Canada, including textual materials, photos, maps, sound recordings, videos in digital exhibitions, archival descriptions in databases and factual information in Internet encyclopedias. Due to the process of digitization Ukrainian scientists have the possibility to study valuable resources about Ukrainian emigration to Canada and more new interesting facts as a part of Ukrainian history will be found out. In the article we have considered not all web resources, although we have found a lot of interesting websites about Ukrainian Canadians, but they will be analyzed in our future publications.

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**Украинское документальное наследие в канадском виртуальном пространстве:
цифровые выставки, энциклопедии, базы данных**

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Аннотация. В статье характеризуется украинское документальное наследие в канадском виртуальном пространстве. Анализируются канадские цифровые выставки, базы данных и энциклопедии, которые презентуют историю украинской иммиграции, экономическую, культурную, религиозную и политическую жизнь украинцев в Канаде.

Ключевые слова: украинские канадцы; украинское документальное наследие; Интернет; цифровые выставки; энциклопедии; Канада; архивы; оцифровывание.

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UDC 33

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Abstract. Main objective of this research is to examine clients' perceptions in Bosnia and Herzegovina towards IT security of e-banking, to diagnose problems and try to give proper solutions. Survey was prepared based on six variables and specific questions assigned to each variable. Response rate was good and 207 respondents were surveyed. Overall results suggested a slight agreement in general, and they indicated that when it comes to IT security of online banking, several factors including privacy, control and intangible features are highly important for clients of Bosnia and Herzegovina. Clients do not perceive tangible features as important as they actually are. Therefore, banks are those who need to give more effort when it comes to implementation of IT security in online banking. They definitely need to find more effective ways to inform and educate clients about IT security of using online service, and in that way create additional value.

Keywords: perceptions; IT security; online banking.

Introduction.

One of the ways to handle money with no physical contact and make money transactions is to use internet. This method resulted in whole new trend nowadays known as "online banking". According to Muniruddeen Lallmahamood (2007) internet banking refers to banking services over the public network (the Internet), through which customers can use different kinds of banking services ranging from the payment of bills to making investments. Internet banking or online banking has created new ways of handling banking transactions for banking related services and for e-commerce related transactions such as online shopping [1].

From mentioned information, it is easy to conclude that hackers can steal more money in their pajamas from their bed rooms than robber with a gun who is conducting robbery. Additionally, it is obvious that banks' dependence on new technologies increases, and therefore their need to protect their own and assets of their clients increases as well. This is where importance of IT security for banks' clients starts. Accordingly, it is important to know awareness level and perceptions of clients towards IT security of online banking. Since results of this research will enable banks to learn more about their clients, this research have potential to be important source of information to consider by banks when it comes to their planning and development activities. In Bosnia and Herzegovina (B&H), there is a need to do this research because there is a gap in literature about mentioned issue in this country. The latter fact gives even more value to this work.

When it comes to methodology of this work, survey based on specific variables has been prepared and distributed to clients who are actively using online banking. This research has objective to learn perceptions of clients when it comes to IT security of online banking in B&H. Main contribution of this research is consisted of providing new information to banks operating in B&H and filling the gap in literature when it comes to writing about this issue considering population of B&H as target.

Therefore, in the following sections of this work, through theoretical background, all necessary definitions together with brief historical facts important for understanding this topic will be explained. After that, information about online banking in B&H will be provided so readers can be more familiar with the situation in this country. Then, used methodology will be explained, after which results will be analyzed and discussed. In the end, appropriate conclusion will be prepared.

Theoretical background. Muniruddeen Lallmahamood (2007) defines internet banking as banking services over the public network (the Internet), through which customers can use different kinds of banking services ranging from the payment of bills to making investments [1]. On the other hand, Jagdeep Singh (2012) defines internet banking as online systems which allow customers to plug into a host of banking services from a personal computer by connecting with the bank's computer over the telephone wires. He is also mentioning some synonyms for internet banking such as online banking, PC banking, home banking or electronic banking [2].

According to Gordon and Loeb (2002), Information security is concerned with the protection of three characteristics of information: confidentiality, integrity, and availability through the use of technical solutions and managerial actions [3]. Banks are not only dealing with intangible money transactions, but also with protection of highly sensitive information such are credit cards' PINs, data about the customers, customers bank accounts and all other kinds of information that could enable to third party conducting the criminal activities and making damage for both, customer and bank. According to Landwehr (2001), weaknesses of banks' information systems are named vulnerabilities, and it is likely that such vulnerabilities represent opportunities for crime by third parties [4].

People were always trying to find appropriate way to protect their important and valuable assets. When considering different solutions for this problem throughout the history, it is interesting to mention that in Wild West, banks kept large amounts of cash, gold and silver on hand, and it was not difficult to trace them. Because of primitive communications and transportation, it might have been hours before the legal authorities were informed of a robbery and days before they could actually arrive at the scene of the crime, by which time the robbers were long gone. Since, guard for the night was only marginally effective, criminals needed only a little common sense and several days to analyze the situation. All mentioned factors tipped very much in the favor of the criminal. Today, highly sophisticated alarms and camera systems make asset protection easier. Also, banks stored money in safer forms, and many of them contain less cash than retail stores. The more cash it has, the more levels of security exist in particular bank. Additionally, because of communication and transportation improvements, police can be at the location in minutes. One of the alternatives when it comes to keeping money in safer forms than cash is electronic handling of money, where no physical contact is necessary. This means that almost all transactions can be realized via different devices including computers, mail or telephone, without physical contact. Such an operation resulted in new types of crime, and some of them are still new to the legal systems. Main problem is that allowing people to make transactions with no physical contact opens the door for criminals to gain access and make transactions. Accordingly, beside the physical security systems of banks, possibility of crime is still very high. Sometimes, in order to keep public image, banks do not even investigate and prosecute cybercrimes. If they would do that, customers wouldn't deposit money in their banks [5]. In short, big question emerge in heads of clients: "Is electronic way of handling money safe?"

Online banking in Bosnia and Herzegovina

According to report by Central bank of Bosnia and Herzegovina, only in 2007 more than 24 million of transactions were realized. Total value of mentioned transactions was 3,5 billion BAM. Average amount per transaction was 145 BAM. According to information from this report prepared at the end of 2007, at that point of time there were 31 commercial banks in B&H. Even 27 of them were using e-banking, which is 87,097 %. Still, few clients are using e-banking services. Number of clients who are making transactions through some way of electronic banking is only 10 692 individuals, and 5 308 legal entities. When we consider size of market of Bosnia and Herzegovina when it comes to banking services, this is relatively small number [6]. According to information above, there is a mismatch between supply and demand when it comes to e-banking services. Even though most of the banks offer e-banking services, still there are very few clients who are using them. Reason for this is still unknown. Therefore, this research will try to give an

answer from the aspect of IT security. In other words, IT security will be proven or eliminated as potential reason for non-acceptance of e-banking services by clients in Bosnia and Herzegovina.

Literature review.

Many researchers emphasized the risks that are emerging from adoption of new technologies by banks, and importance of IT security that increases along with new trends. Shrinath (1997) said that statement „information is power“ hasnowhere been realized more significantly than in the banking industry. According to him, IT in banking normally refers to the core banking systems used for processing various kinds of commercial transactions in different products. When discussing the risks and challenges for IT security in that period of time, author mentioned four risks: unauthorized system/data access by business users in the bank; unauthorized system/data access by application/system support personnel; unauthorized system/data access by customers; unauthorized system/data access by the public at large. Since most people do not realize that large banks are prone to high risk of security breakdown even withoutgoing so far as the Internet, author decided to examine and explain the most critical areas[7].

Carl E. Landwehr (2001) states that in that period of time (which is 11 years ago) computers had shrunk so that a web server can be hidden in a matchbox and had become so common that few people could give an accurate count of the number they have in their homes and automobiles, much less the number they were using in the course of a day. Also, due to fact that computers constantly communicate with one another, the meaning and implications of “computer security” have changed over the years as well. Therefore, through his paper, Landwehr (2001) reviewed major concepts and principles of computer security [4].

Lawrence A. Gordon and Martin P. Loeb (2002) wrote an article which presents an economic model that determines the optimal amount to invest to protect a given set of information. Their model takes into account the vulnerability of the information to a security breach and the potential loss should such a breach occur. They show that for a given potential loss, a firm should not necessarily focus its investments on information sets with the highest vulnerability because vulnerable information sets may be inordinately expensive to protect. Therefore, it could be more useful for a company to focus on information sets with midrange vulnerabilities. After analysis conducted by Gordon and Loeb (2002), they suggested that in order to maximize the expected benefit from investment in information protection, a firm should spend only a small fraction of the expected loss due to a security breach [3].

Pikkarainen et al. (2004) conducted a study about consumer acceptance of online banking. They investigated online banking acceptance in the light of the traditional technology acceptance model (TAM). The data for their results was consisted of group interview with banking professionals, TAM literature and e-banking studies. According to their results, perceived usefulness and information on online banking on the Web site were the main factors influencing online-banking acceptance [8].

When it comes to explanation of basic concepts involved with system security, helpful was introductory chapter of book entitled „Security in computing“ written by Charles P. Pfleeger & Shari Lawrence Pfleeger (2006). Their book deals with broad range of computer security related topics such are: cryptography; secure systems development; basic communications technologies; advices on planning, risk, and policies; Intellectual property; computer crime, and ethics. In short, it is possible to conclude that this book can serve as great guide to information about computer security attacks and countermeasures [5].

Luis V. Casalo, Carlos Flavian and Miguel Guinaliu (2007) made research with purpose to analyze the influence of perceived web site security and privacy, usability and reputation on consumer trust in the context of online banking. Their paper described the positive effects of security and privacy, usability and reputation on consumer trust in a web site in the online banking context. This study is very interesting and valuable since it proposes link between security, privacy and trust, amongst others, in the online banking context[9].

The study conducted by MuniruddeenLallmahamood (2007) explores the impact of perceived security and privacy on the intention to use Internet banking. Author used an extended version of the technology acceptance model (TAM) is to examine the above perception. Author concluded that while perceived usefulness is a critical factor in explaining users' intention to use Internet banking, it is important to pay attention to the security and privacy of users' of Internet banking. According to results, convenience, ease and time saving are the main reasons for the

adoption of Internet banking, whereas security, trust and privacy appear to be the top main concerns for non-Internet banking users. As author mentioned, this may also imply that security concerns and privacy protection are perceived to be part of the overall service provided by the Internet banking services providers, and he suggests that banks should gain customers' confidence through raising security levels of the bank [1].

IT security influence trust of clients as important factor. Best evidence for that is fact that most of articles that are dealing with evaluation of clients' trust when it comes to banking are including „security“ as important construct. Accordingly, Yap, K. B., Wong, D. H., Loh, C., & Bak, R. (2010) wrote a paper with aim to examine the role of situation normality cues (online attributes of the e-banking web site) and structural assurance cues (size and reputation of the bank, and quality of traditional service at the branch) in a consumer's evaluation of the trustworthiness of e-banking and subsequent adoption behavior. One of their findings in this work stated that web site features that give customers confidence are significant for promotion of e-banking [10].

Useful research for this article is also one completed by Mohanad Halaweh (2012) who was writing about user perceptions of e-commerce security[11]. In fact, both online banking and e-commerce are having common characteristic which is no physical (face to face) contact between parties involved in transaction, and using same technologies for doing transaction. This means that both of them are exposed to same risks. Accordingly, this common characteristic was very useful while identifying relevant variables for this study since some of them are simply modified and used for this research. Results of study conducted by Mohanad Halaweh (2012) showed that user characteristics, psychological state and intangible security features have a significant influence on e-commerce security perception. Additionally, in contrast, tangible security features and cooperative responsibility have a non-significant influence [11].

According to Singh (2012) customers, both corporate as well as retail ones are no longer willing to queue in banks, or wait on the phone, for the most basic of services. Therefore, electronic delivery of banking services is becoming the ideal way for banks to meet their clients' expectations. Accordingly, author got idea to study the scenario of e-banking, and in his study he considered opinions of 100 customers from Ludhiana. The results of this work revealed that people are aware of e-banking, but not fully. In fact, the Customers are at ease after using e-banking since it saves the precious time of the customer. It has also been found that Customer satisfaction varies according to age, gender, occupation etc. [2].

After going through literature review given above, it is obvious that there are strong interrelationships between privacy aspect, control aspect, psychological aspect, tangible features, intangible indicators on one side, and perceived IT security of e-banking on the other side. Therefore, it will be interesting to examine perceptions of Bosnian clients when it comes to mentioned factors regarding IT security of online banking.

Variables & survey

In order to get closer insight into clients' perceptions towards online banking in Bosnia and Herzegovina, six variables were identified as a result of literature review. Those variables are as follows:

1.1. Privacy aspect refers to confidence in the technology and online banking service provider when it comes to protection against privacy issues such are private information of client, information about money transactions conducted by client, information about client's personal passwords etc. Pikkarainen et al (2004) stated that as the amount of products and services offered via the Internet grows rapidly, consumers are more and more concerned about security and privacy issues [8].

1.2. Control aspect- When it comes to control perspective of IT security, as it is possible to conclude from survey questions of Yap, K. B., Wong, D. H., Loh, C., & Bak, R. (2010), this aspect refers to strictness of identity ascertaining when sending messages to client, or doing transactions by client, but also general control by bank when it comes to online transactions' confidentiality [10].

1.3. Psychological aspect- According to Halaweh, Mohanad (2012) The psychological aspect of security incorporates the feeling of fear, the need to feel that one's money is secure, and the ability to control the payment process and performance of online transactions. Even though he made research about e-commerce, because of same nature of e-commerce and e-banking which is

remote rather than face-to-face, his work was useful for preparation of survey in this study [11]. Therefore, it is possible to conclude that many customers have the misconception that the use of e-banking is vulnerable and that there is a high probability that their money will be lost.

1.4. Tangible features - Halaweh, Mohanada (2012) defines tangible indicators as those technological security features of websites that can be checked by users, such as https, padlocks and security certificates. Tangible features need to be understood and checked by the customer over the website rather than captured through social communication; this involves having knowledge and experience of these features, such as knowing what a security certificate means and how to check whether it has expired [11].

1.5. Intangible indicators - When talking about intangible indicators such are famous website and reputation, Halaweh, Mohanad (2012) says that they are not seen on the website and cannot be directly checked over the website. They are affected by society in terms of communication and the environment: where the customer lives and what they hear from others, as well as their past experience [11].

1.6. Perceived IT security Perceived IT security refers to general perception of online e-banking services by clients when it comes to IT security.

Based on those variables, survey consisted of twenty questions was created. Questions were mainly adapted from previous researches considering Pikkarainen et al [8], Casaló, Flavián, and Guinalíu [9], Yap, K. B., Wong, D. H., Loh, C., & Bak, R. [10], Halaweh, Mohanad [11], Muniruddeen Lallmahamood [1]. In Table 1, questions prepared for the survey, together with their references they were adapted from are presented.

Table 1: Review of survey questions

Questions	Adapted from
I trust in the ability of bank to protect my privacy	Pikkarainen et al (2004)
I am not worried about my personal information given to bank	
I think that my bank's information system respects personal data protection laws	Casaló, Flavián, and Guinalíu (2007)
I think that my bank's information system will not provide my personal information to other companies without my consent	
I think that my bank's information system respects user's rights when obtaining personal information	
I think that bank needs to ascertain my identity before sending any messages to me	Yap, K. B., Wong, D. H., Loh, C., & Bak, R. (2010)
I think that bank needs to ascertain my identity before processing any transactions received from me	
I trust that my bank uses security controls for the confidentiality of online transactions	
I don't fear when I am using e-banking services	Halaweh, Mohanad (2012)
I never have misconceptions about using e-banking services	
I don't feel anxious to use e-banking services because of its nature, which involves a lack of face-to-face communication	
I feel safe when I release credit card information through Internet banking	Lallmahamood, Muniruddeen (2007)

I don't check the presences of http(s) in the URL when I handle money transactions online	Halaweh, Mohanad (2012)
I don't check the small padlock icon on the bottom right corner of the website when I handle transactions online	
I don't check the digital security certificate of the web site when I handle money transactions online	
I would use e-banking services only provided by on a reputable bank	Halaweh, Mohanad (2012)
I would use e-banking services only provided by local bank	
I think my bank shows great concern for the security of any online transactions	Casaló, Flavián, and Guinalíu (2007)
I believe using e-banking services online is secure	Halaweh, Mohanad (2012)
Using e-banking services gives me a feeling of security	

As already mentioned, Pikkarainen et al. (2004) conducted group interview with banking professionals in order to learn about consumer acceptance of online banking [8]. Specific questions related to privacy aspect from his interview were adapted and used in this research to examine clients' concerns about their privacy and security issues in e-banking. Casaló, Flavián, and Guinalíu (2007) made research with purpose to analyze the influence of perceived web site security and privacy, usability and reputation on consumer trust in the context of online banking [9]. Since they are dealing with similar issue, questions regarding security and privacy were adapted and used in this study. Yap, K. B., Wong, D. H., Loh, C., & Bak, R. (2010) used survey to evaluate trustworthiness of e-banking and subsequent adoption behavior through several factors [10]. Accordingly, several questions helpful to measure control aspect of IT security in e-banking were used in our study. Halaweh, Mohanad (2012) studied user perceptions of e-commerce security [11]. Since both e-commerce and e-banking are having the same characteristics such is lack of face to face communication and physical contact which implies same issues and concerns for final users of such a services, many questions were adapted from his survey in order to measure psychological aspect, tangible and intangible indicators, and perceived IT security in general when it comes to online banking. Also, when it comes to Muniruddeen Lallmahamood (2007), one of questions used in his study was useful to adapt for this research when it comes to measuring psychological aspect of IT security [1].

Data and Methodology. Data for this study was collected by the means of a survey conducted in Bosnia and Herzegovina in 2013. A total of 250 questionnaire forms were delivered to respondents, and most of them were answered giving a response rate of 82.8 percent.

Surveys were filled at universities by students, academic and administrative staff, and in branches of different commercial banks in Bosnia and Herzegovina by randomly selected clients. This resulted in a sample that was well distributed in terms of demographic information (e.g. age, and education).

Collected data is numerical except demographics part which is categorical. Seven point Likert scale was used in order to test the agreements of the respondents on six variables through twenty questions. The collected data is then inserted into an excel spreadsheet and analyzed descriptively. The surveys were distributed both online and personally. Online version of survey was created, and its link was sent via e-mail to potential participants.

Results.

1.7. Demographics

Demographics information includes respondents' department, positions within the department and their education levels, gender and age. The survey is responded by 118 males and

89 females. Their education level is found to be extremely high (only twenty one respondents has no higher education level which is 10,1 % of all respondents). More details regarding education level of respondents are available in Table 2.

Table 2: Education level of respondents

Education level of Respondents	# of respondents	Percentage (%)
Other	21	10,1
Undergraduate	129	62,3
Master	53	25,6
Doctorate	4	1,9
Total	207	100

The positions of the respondents were grouped according to their similar characteristics. It is possible to conclude that most of respondents are still unemployed students, even 95 of them which is almost 46% of total number of surveyed respondents. Even though they are not employed, most of the students are studying far away from their hometown, and their parents (sponsors) are sending them money using banking services. This fact makes them considerable target for this research. When it comes to employed respondents, most of them are in managerial positions. Even 38 of surveyed people work in different managerial positions. Sample of 207 surveyed people has high level of variety in terms of positions, which is visible in Table 3.

Table 3: Positions of the Respondents

Positions of the respondents	# of respondents	Percentage (%)
Academic Staff	19	9,2
Accounting Officer	4	1,9
Administration	25	12,1
Electrical Engineer	1	0,5
Journalist	1	0,5
Lawyer	3	1,4
Librarian	2	1
Manager	38	18,4
Physical Worker	1	0,5
Psychologist	3	1,4
Sales Person	2	1
Software Developer	9	4,3
Teacher	2	1
Students (still unemployed)	95	45,9
Unemployed	2	1
Total	207	100%

1.8. Survey results

From Table 4, it is possible to conclude that privacy aspect of IT security in online banking of B&H is perceived as acceptable by clients of this region. In fact, mark of 5,223 indicates that clients slightly agree that bank is able, and doing its best to protect their privacy.

Table 4: Privacy aspect

PRIVACY ASPECT (5,223)	Mean	Std. Deviation
I trust in the ability of bank to protect my privacy	5,338	1,369
I am not worried about my personal information given to bank	5,188	1,487
I think that my bank's information system respects personal data protection laws	5,37	1,394
I think that my bank's information system will not provide my personal information to other companies without my consent	5,059	1,505
I think that my bank's information system respects user's rights when obtaining personal information	5,159	1,458

According to the results, clients think that high level of control is necessary when it comes to IT security of online banking. In other words, by selecting mark which is close to 6, clients confidentially agreed with statements about ascertaining their identities while using online banking and they believed that banks are using security controls to improve confidentiality of online transactions (Table 5).

Table 5: Control aspect

CONTROL ASPECT (5,594)	Mean	Std. Deviation
I think that bank needs to ascertain my identity before sending any messages to me	5,585	1,408
I think that bank needs to ascertain my identity before processing any transactions received from me	5,667	1,355
I trust that my bank uses security controls for the confidentiality of online transactions	5,532	1,457

When it comes to psychological aspect whose results are presented in Table 6, clients' perceptions towards IT security of online banking are shaky. In fact, respondents slightly agreed with the statements which indicate that still there is some space for fear, misconceptions and anxiety while using online banking.

Table 6: Psychological aspect

PSYCHOLOGICAL ASPECT (5,221)	Mean	Std. Deviation
I don't fear when I am using e-banking services	5,322	1,529
I never have misconceptions about using e-banking services	5,345	1,482
I don't feel anxious to use e-banking services because of its nature, which involves a lack of face-to-face communication	5,285	1,655
I feel safe when I release credit card information through Internet banking	4,932	1,826

Results showed that users are not completely aware of importance of tangible features for security while doing online transactions. Clients in B&H were mainly neutral and slightly agreed that they are not very careful when it comes to paying attention to presence of http(s) in the URL, small padlock icon and digital security certificate of the web site. More details about this aspect are available in Table 7.

Table 7: Tangible Features

TANGIBLE FEATURES (4,563)	Mean	Std. Deviation
I don't check the presences of http(s) in the URL when I handle money transactions online	4,715	1,846
I don't check the small padlock icon on the bottom right corner of the website when I handle money transactions online	4,536	1,813
I don't check the digital security certificate of the web site when I handle money transactions online	4,439	1,78

On the other hand, this research showed that clients are paying more attention to intangible features such are banks' reputation, location and its concern towards security provision for its clients when making their decision to use online banking services. More details about influence of intangible features to clients' perceptions of IT security of online banking are available in Table 8.

Table 8: Intangible features

INTANGIBLE FEATURES (5,051)	Mean	Std. Deviation
I would use e-banking services only provided by on a reputable bank	4,955	1,673
I would use e-banking services only provided by local bank	5,048	1,579
I think my bank shows great concern for the security of any online transactions	5,15	1,649

When it comes to general opinion about IT security of online banking, from Table 9, it is possible to conclude that clients once again slightly agreed with the statements, and showed that they mainly agree that using e-banking services online is secure and that they mostly have feeling of security when using services of online banking.

Table 9: Perceived IT security

PERCEIVED IT SECURITY (5,208)	Mean	Std. Deviation
I believe using e-banking services online is secure	5,188	1,633
Using e-banking services gives me a feeling of security	5,227	1,592

Discussion of results.

The results suggested a moderate agreement in general except control aspect, which implies that clients perceive control as highly important when it comes to IT security. As it has been described by Casalo et al. [9], there are positive effects of security and privacy, usability and reputation on consumer trust in a web site in the online banking context. This research supported

mentioned statement, and it showed that IT security is definitely important factor for consideration by bank's clients. Also, Lallmahamod (2007) examined impact of perceived security and privacy on the intention to use Internet banking. Results indicated that security, trust and privacy appear to be the top main concerns for non-Internet banking users[1]. In this research, only users of online banking were surveyed, and according to results previously explained, it is possible to conclude that even though they use online banking, banks still didn't establish full trust with their clients. Even overall result of this research was moderate agreement, which doesn't have same level of confidentiality as strong agreement. Therefore, it would be interesting to make another research with non-users of online banking, and then compare their perceptions with perceptions of users in this research. Also, fact that users of online banking services are not completely aware of importance of tangible features for security while doing their transactions indicates that clients do not have enough knowledge about IT security of online banking. Therefore, banks in Bosnia and Herzegovina should find ways to inform and educate users about utilization of tangible features such as presence of http(s) in the URL, small padlock icon and digital security certificate of the web site in order to improve IT security of their services.

Conclusion.

This research proved to be in the aim to provide important insights in the area of clients' perception towards IT security of online banking in Bosnia and Herzegovina. Also, the response rate of 82.8% together with the fact that surveyed people are coming from various companies, departments and positions within those departments gives even more importance and value to the results of this work. Moreover, this work is not only diagnosing specific issues in terms of IT security of online banking in B&H, but also suggesting potential solutions. Main limitations of this research are relatively small sample and the generic approach to problem. Therefore, future researches can go more deeply into the issue and analyze larger samples. Because of the lack of available research about this issue in Bosnia, this is a very unique set of information for the banks operating in B&H. In the end, it is possible to conclude that when it comes to IT security of online banking, privacy, control and intangible features are highly important factors for clients of Bosnia and Herzegovina. On the other hand, clients do not perceive tangible features as important as they actually are. It is suggested for future research of similar type to focus on larger sample as mentioned previously, and to include non-users of online banking in research as well.

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УДК 33

Представления клиентов об информационной безопасности электронных банковских услуг в Боснии и Герцеговине

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Аннотация. Главной задачей данного исследования является изучения представления клиентов Боснии и Герцеговины об информационной безопасности электронных банковских услуг, диагностирование проблем и попытки предложить правильные решения. Исследование было основано на шести переменных и специальных вопросах, составленных для каждой переменной. Процент ответивших был высоким, были опрошены 207 респондентов. Результаты продемонстрировали небольшое совпадение мнений и показали, что когда дело касается информационной безопасности электронных банковских услуг, несколько факторов, включая секретность, контроль и нематериальные характеристики очень важны для клиентов Боснии и Герцеговины. Клиенты не осознают насколько важны материальные характеристики. Таким образом, банкам необходимо прилагать больше усилий для внедрения информационной безопасности в электронные банковские услуги. Им определенно нужно находить более эффективные способы информирования и обучения клиентов об информационной безопасности использования электронных услуг и, таким образом, придавать им дополнительную ценность.

Ключевые слова: представления; информационная безопасность; электронные банковские услуги.

UDC 33

Tourism Potential Valorization of the River Danube in Novi Sad and its Environment Based on the Hilary Du Cros Model

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Abstract. Natural resources are the main basis for tourism development in one region. Given that natural resources are not only aesthetic but also economic value of a certain region, they should be valorized in order to provide good basis for creating valuable tourism product. Rivers as such, are the best representatives that provide possibilities for developing different types of tourism, which could give huge benefits for the region. In this paper, the focus is on the river Danube which is the second largest river in Europe and part of Corridor VII. The aim of this paper is to evaluate and bring this river closer to the population of Serbia. Also, the intention is to show the importance of the Danube, since it flows through Novi Sad and has a great potential for developing nautical and cruising tourism. Investments in this resource would significantly contribute to the development of an integrated tourist product of Novi Sad and Serbia. Bearing all this in mind, this paper will present the results of evaluation of the Danube, based on model of Hilary Du Cros.

Keywords: tourism valorization; The Danube; Novi Sad; Hilary du Cros.

Introduction.

The Danube is an important pan-European Corridor VII and strategic connection with Europe and Eurasia, which should encourage the development of trade, tourism and services in Serbia. Of the total navigable length of the Danube (2580 km), 22,8 % are found on the territory of Serbia. The objectives of developing Corridor VII are defined in the Memorandum of understanding and development of pan-European Corridor VII, whose signatories are Germany, Slovakia, Austria, Hungary, Croatia, Romania, Bulgaria, Moldova, Ukraine and the European Commission. After the NATO bombing, all bridges in Novi Sad were demolished which caused navigability limitation of the river. The Danube, one of the most important rivers in Europe is here beside us. Its length, basin, water potential, the number of countries which connect the waterway of Europe are all features of this river that emphasize its importance, and hence the importance of Serbia for the economy of European countries. But real question is how much is this natural, river biotope with all its biological and ecological values present in the public and the citizens of this country? How much do young people know about this river, its natural resources, its granularity, islets and marshes? What is known about the Danube, what has been studied in schools except for the multitude of dull facts from geography and biology? The paper should bring the river closer to the youth and the general population, who will be able to take action in the near future in the exploitation of all resources. In addition, the intention is to introduce them with its natural power and the importance of this river in Serbia, because the Danube flows through Serbia and has the great potential for developing tourism in Serbia and surrounding.

Literary review

The name valorization comes from the word *valor*, which means the price or the value [1]. Tourist valorization is a process of determination and evaluation tourist attractiveness, which are important for the development of tourism, in a particular region or a larger geographical area [2]. The result of tourist evaluation is a value [1]. Tourist valorization could be also understood as a process where tourist value is placed on domestic or foreign markets, and it could be measured with the height of the consumption realized by tourists [3]. However, the destination can receive both, negative and positive marks during the process of valorization. In a case it receives negative, some improvement will be necessary in accordance to improve tourists' attendance. On the other hand, if a destination receives good marks, the chances are more than big that destination can become a great place for tourist attendance [4] [5] [6] [7]. There are many criterion to be taken into account during evaluating a destination, however, taking attractiveness as the only criteria is wrong and may cause a problem [3]. Some authors take as criteria the following factors: traffic conditions, the degree of attractiveness of tourist places, the degree of development of tourist facilities and quality of equipment of the tourist sites [1]. Tourist valorization of morphological properties of geological heritage should not be equated with classical economic valorization of space because natural tourist values are not goods in classic economic sense [2]. It is very important that valorization of natural and cultural attractions of the destination is respecting the principles of sustainable tourism development [8]. The most successful is tourist valorization of natural resources, which does not disturb the existing laws of nature [9] [2]. There have been several types of tourist valorization, but one of the most popular is valorization based on Hilary Du Cros model. Hilary Du Cros introduces the process of tourist evaluation of destination, cultural-touristic sub-indicators and the degree of their graduation [10] [5]. Since this model refers to cultural resources, and this paper valorizes natural resource, it will not be used in its original form, but in slightly edited.

Hydrographic characteristics of the river Danube

The length of the Danube is 2,857 km and thus it takes the 21st place in the world and the second in Europe. The basin area is 817,000 km², and occupies the 25th place in the world. As the waterway, the Danube is used in a length of 2,588 km, from Sulina (the mouth of the Black Sea) to Ulm (West Germany). The Danube is formed 1.4 km east from *Donaueschingenau*, Germany, connecting the two rivers the *Brigach* and the *Breg*, which is locally known as "*Brigach und Breg bringen die Donau zu Weg*" [11]. These Rivers originate on the slopes of the *Schwarzwald* Mountain. Only 33 rivers in the world are longer than the Danube, and 32 rivers have basins that are bigger than the Danube's basin. The natural characteristics of the Danube can be split in three different sectors: the Pannonian, Đerdap and Pontic Danube [12]. Before entering Serbia, the Danube runs through Germany, Austria, Slovakia, Croatia, Hungary and then enters Serbia near Bezdan and flows in a length of 588 km through Serbia. After leaving Serbia, it flows through Romania, Bulgaria and Moldova from which it flows into the Black Sea [13].

Because of the marine division of the Danube, there are three different sectors, which are divided into sub-sectors, due to specific natural characteristics, navigation conditions and easier analysis:

1. **Upper Danube** - from Ulm (2. 588 km) to Komoran (1. 767 km)

- 1.1. Ulm (2.588 km) - Regensburg (2. 379 km)
- 1.2. Regensburg (2. 379 km) - Pasava (2. 226 km)
- 1.3. Pasava (2. 226 km) - Linc (2. 135 km)
- 1.4. Linc (2. 135 km) - Vienna (1.927 km)
- 1.5. Vienna (1.927 km) - Komoran (1.767 km)

2. **Middle Danube**- from Komoran (1. 767 miles) to Prahovo (860 miles) with the sub-sectors:

- 2.1. Komoran (1. 767 km) - Budapest (1. 64-7 miles)
- 2.2. Budapest (1. 64-7 km) - Belgrade (1. 170 km)
- 2.3. Belgrade (1. 170 km) - Prahovo (860 km).

3. **Lower Danube** - from Prahovo (860 km) to Sulina mouth (0 km) with the sub-sectors:

- 3.1. Prahovo (860 km) - Đurđevo (4-93 km)
- 3.2. Đurđevo (4-9 3 km) - Braila (170 km)
- 3.3. Braila (170 km) - Sulina (0 km) [14].

The importance of the Danube as a waterway traffic corridor

The Danube has great importance for all the countries through which it flows. River transport is the cheapest mode of transport for both, goods and passengers. About 80 million tons of cargo-bulk cargo (timber, iron, and construction materials), oil, fuel, gas and over 10 million passengers have annually been transported along the Danube. The Belgrade's river port in 1973 was on the fifth, but in 2002 at 16th place by the circulation and transport of goods. It is an indicator of underutilization of the Danube transport purposes in Serbian territory, although it has the most favorable geographical position on the road from Central Europe to the Middle East [12]. The river develops passenger traffic as well. The river connects many cities with small different ships. In Vojvodina, this form of passenger traffic has simply disappeared in the recent past. Now, there are only staging, special vessels for the transport of goods and people on the Danube. Ferries connect two villages on opposite coasts, such as Banoštor - Begeč, Beočin - Futog, Vukovar - Plavna [12]. Down the Danube big cruisers can be seen throughout the year in the river port of Novi Sad. These ships are floating hotels on the water of the highest class, categorized with four and five stars, such as *"Volga"*, *"Ukraine"*, *"Der Kleine Prinz"*, *River Odyssey*, *M/S Rousse Prestige*, *Viking Neptune*, *M/S L'Europe*, *M/S River Claud*, etc. Cruising tourism presents a great potential for Serbia, especially for Novi Sad. The revitalization activities in the corridors that pass through Serbia returned a great possibility of tourism development, not only for the people of this country, but throughout the European continent. Those corridors are known as Corridors VII and X. Corridor VII is actually the river Danube itself. In addition, the Corridor VII is one of the five transport corridors that are located in the South East Europe [15]. Cruise ships that flow down the Corridor VII are involved in a number of different travel arrangements usually from late March to early November [16] [17] [18]. Passengers on these ships have a full hotel service. Danube cruise usually takes 7-10 days. When in Serbia, cruisers stop in Novi Sad and Belgrade. In Novi Sad, after visiting the center of the town, tourists have a chance to visit several monasteries which are settled in the nearest surrounding, at Fruška Gora. The advantages of the Danube could be: rich tourist offer, a distance of 100 km from the port, harbor and marines, attractive tourism products prepared for travelers passing through the Danube and great interesting coastal belt [19]. For bringing nautical tourism in Vojvodina to a higher level, it would be very important to improve the following things: the development of the marines for the "garaging" and service vessels, tourism charter service and cruising - "river cruise" [20].

The great potential of the Danube should be in the developing management plans for the countries through which it flows. Danube resources are used for water supply of population, industry, agriculture, hydropower, boating, fishing, tourism, recreation, and many others [14].

Rowing, sport and recreation on the Danube

The Danube develops plenty of potentials for different types of tourism. The main forms of tourism are fishing and sailing, and least but not less important, are sport, recreational, cultural and tourism of events. Although all the forms of tourism are extremely important, sport and recreation are most relaxing component of tourism, that give a new dimension with the quality of new experiences for visitors [21]. Staying by the river cannot be imagined without a boat as the main means of transportation. Rowing has a long tradition associated with each river, especially with the Danube. Rowing along the Danube is now retained only in recreational paddling. While rowing, tourists can only hear noises made by oars that pass through water, feel the smell of the water, river vegetation, hear the birds chirping or the sounds of wings heron that suddenly departs disturbed by the presence of men. Recreational boats are vessels designed and constructed to be used and only with paddles. They are light, stable vessels which can be used without major efforts of rowing, and they are extremely mobile and can be easily managed. In Novi Sad, it is possible to go for a recreational rowing on the Danube which organizes a rowing club Danube rafting'. Catamaran "Floating Island" is anchored on the city beach named the "Strand" and provides information about rowing and sailing a boat. During the summer period, catamaran sails several times during the day. The tours are organized from Bačka Palanka to Novi Sad, Novi Sad - Slankamen and from Novi Sad to Belgrade. The biggest interest has been in the tour "Štrand – Love Island - Štrand" where the catamaran "Floating Island" floats upstream along the Danube to "Love Island" [22].

Novi Sad

Novi Sad is the largest city of the autonomous province of Vojvodina, Northern Province of Serbia, as well as the seat of the provincial government and the administrative center of the South Bačka District. The city is located on the border between Bačka and Srem, on the banks of the Danube river, the Pannonian plain on the northern slopes of Fruška Gora. Novi Sad lies at 45 ° 20'0 north latitude and 19 ° 51'0 "south latitude, in the central part of the autonomous province of Vojvodina. The altitude is 72-80 m on the left and 250 - 300 m on the right side. The climate is moderately continental. The average temperature is 10.9 ° C. During the fall and winter, the wind Košava blows occasionally. It comes from the east. The average rainfall is 578 mm [23].

Novi Sad was first mentioned in writings in 1694, only two years after the beginning of the construction of the Petrovaradin fortress. Despite this relatively short history of the town, this area has a long and interesting history, which includes variety of nations and different cultures. At the point where the three rivers meet and approach the Danube, the Sava and the Tisa, the cultures of East and West, Orthodoxy, Catholicism and Islam confronted, and thus many ethnic and religious groups found their refugee here. This area is inhabited and visited by many people. In addition to the Romans there were also Gepids, Huns, Avars, Slavs, Germans, Hungarians, Byzantines and Turks. The primary form of the Petrovaradin fortress was built by the Romans. This fortress was restored by the Hungarians and aftercare was taken by the Turks. In the 17th century, after the expulsion of the Turks, the Austro-Hungarians began to build a bridgehead on the left, the marshy bank of the Danube, opposite the fortress. Around this fortification village trader, artisans and soldiers were established. The settlement was first called Serbian village, and later the name was changed to Petrovaradin Trench. After the wars of the early 18th century, people wanted freedom. They managed to set this town free, and the Empress, Maria Theresa, announced independence of the town, under the name of Novi Sad. Thus, Novi Sad carries the status of town from the 1st of February in 1748 [24].

Novi Sad is one of the most developed cities in Southeast Europe. It has been recognized as a safe, healthy and stimulating place to live, work and invests. Successful and administrative center of Vojvodina, the city with electronic local government that encourages and supports the development of modern economy. The leader in the information technology sector, the development of organic food and eco sector, distribution and logistics. Incubator of innovation, modern, academic, cultural, tourism, trade fair and congress center of the region, rich in tradition, the festival city of international importance. Stable, modern and democratic multinational community, a city with a distinctive perspective and status of two-way urban gates of Europe [25]. Novi Sad is one of the most important cultural centers of the Republic of Serbia, the city authorities are trying to make the city more attractive to numerous cultural organizations, events and music concerts. Since 2000. The festival EXIT (EXIT) has been organized in Novi Sad, which is the biggest summer music festival in Serbia and in the region. The 'INFANT', known as the only festival of alternative and new theatre, has also been held in Novi Sad for years, then Zmajevе dečje igre – well known childrens' literature festival, Novi Sad Days of Brazil-Samba Carneval, Sterija Theatre, Novi Sad Jazz Festival, Novi Sad International Literary Festival, Novi Sad Music Festival (NOMUS) and many others.

Objectives and methodology of research

In accordance to develop any kind of tourism on a certain location, the process of valorization and evaluation is necessary. Without previous evaluation, starting any tourism activities would lead to negative effects. When evaluating a space, we cannot only observe its attractiveness as often from high attractiveness and sensitivity of a location, the development of tourism can lead to numerous negative effects and it could be partially or completely devastated.

Tourism valorization must be designed, comprehensive and objective, because only after the successful evaluation, which reveals the strengths and weaknesses (in terms of tourism) one destination can be accessed by launching tourism activities.

The objective of this study was to determine the attractiveness of the river Danube in Novi Sad and its surrounding, as well as to determine the potential for the development of different types of tourism, taking into account different criteria.

Tourism valorization based on the model Hilary Du Cros

In the tourism industry, there are several different types of models used for the implementation of tourist valorization. In this paper, tourist evaluation will be modeled on the

model provided by the author Hilary Du Cros. Given that the model of tourism valorization is related to cultural heritage, and in this paper is valorizing the natural resource, it will not be used in its original form, but modified and adapted for the assessment of natural resources.

During the valorization two groups of sub-indicators were evaluated:

- sub-indicators of tourism sector (market attractiveness of natural resources and factors of importance in the design of tourism products)
- sub-indicators sector management of natural resources (natural significance and robustness).

Maximum total score of indicators of the both groups is 60, based on which a matrix of market attraction / robustness is constructed (dividing aggregate score in three interval values 0-20, 20-40 and 40-60). Thus, a network of 9 cells is formed, for determining the position of natural resources in terms of market attractiveness and robustness, based on the two studied groups of sub-indicators.

Research results

Ratings for the tourism potential of the Danube in Novi Sad and its surroundings.

*Three of researchers participated in the ratings.

Table 1: Grades of market attractiveness of Danube's waterway near Novi Sad

Tourism sector grades (individual values) The market attractiveness of natural resources				
Sub-indicators	First researcher	Second researcher	Third researcher	Average grade
Environment	5	5	5	5
Familiarity outside the local area	2	4	3	3
The possibility to use resources biodiversity in tourism	5	4	5	4,6
Fairway of the Danube as a national symbol	5	5	5	5
Fairway of the Danube can be differentiated from other natural goods	5	5	5	5
Danube waterway associated reminds on a culture	5	5	5	5
Waterway is interesting for special activities	5	5	5	5
It is complementary to the other tourism products in the region	5	5	5	5
Tourism activity in the region	5	3	4	4

Average grade of the market appeal for these sub-indicators is ranged in the interval: 3-5. The total score of the market appeal for these sub-indicators navigable the Danube at Novi Sad is 41.6

Table 2: Marks of factors of importance in the design of the tourist product

The tourism sector is rated from 0 to 3 Factors of importance in the design of the tourist product				
Sub-indicators	First researcher	Second researcher	Third researcher	Average grade
Access to the navigable part of the Danube	3	2	2	2,3
Transport to the place of embarkation	3	1	2	2
Closeness of other natural resources	3	3	3	3
Additional facilities in the area	2	1	1	1,3
Accommodation facilities in the area	2	3	3	2,6

Average grade of factors when designing tourism products according to these sub-indicators is ranged in the interval: 1.3-3. Overall rating factors of importance when designing a tourism product is 11.2.

Total score of tourism sector indicators is 52,8. The results indicate that the level of market attractiveness is high, as well as requirements for designing tourism products.

Table 3: Marks of natural importance of the Waterway Danube at Novi Sad

Natural resource management sector assessment (individual values) Natural significance				
Sub-indicators	First researcher	Second researcher	Third researcher	Average grade
The aesthetic value of the landscape	3	3	3	3
The educational value of the landscape	1	3	2	2
The social value of the landscape	3	2	2	2,3
The importance of the landscape for scientific research	3	3	3	3
Rarity of the surrounding landscape	3	2	2	2,3
Representation of the landscape	3	3	3	3

Average grade for the natural significance of the above sub-indicators is ranged in values 2-3. Total score for the natural importance of the Danube waterway is 15.6.

Table 4: Grades for robustness of the Danube waterway

Natural resource management sector, marks from 1 to 5				
Robustness				
Sub-indicators	First researcher	Second researcher	Third researcher	Average grade
The sensitivity of the waterway	3	3	2	2,6
Preservation of the waterways' landscape	4	3	3	3,3
The existence of a management plan	2	3	1	2
Monitoring and maintenance	1	4	3	2.6
The potential for ongoing investment	5	5	5	5
The negative impact of a large number of visitors	1	1	2	1.3
Negative impact on the local community	1	1	2	1.3
The negative impact of tourism modifications on the natural water flow	1	1	2	1.3
The negative impact of tourism on the local community modification	1	1	2	1.3

Average grades for robustness and management of the above sub-indicators are ranged in interval: 1, 3-5. Total score for robustness of Danube waterway near Novi is: 20.6.

Total score of management sector indicator is 36.2. This means that the management sector has a medium value.

Final grades

Concerning sub-indicators of market attractiveness, the final grades and commentaries are as followed:

- The ambient of the Danube water flow has been assessed with average mark 5, which means that its value of the natural habitat is excellent

- The awareness of the Danube water flow as a tourist product of Novi Sad out of local area has been assessed with average mark 3, which means that this tourist product has not been sufficiently known

- The possibility of using the wealth of biodiversity of the Danube water flow in tourism has been assessed with average mark 4.6 which signifies a high degree of using the biodiversity wealth

- The Danube water flow in Novi Sad as an important national/regional symbol has been assessed with average mark 5

- Authenticity of the Danube water flow in the sense of clear differentiation of other natural riches has been assessed with average mark 5, which signifies a clear differentiation from other natural riches

- The possibility of organizing special activities within the program of rafting, sailing rowing, photo safari, observing birds, etc. has been assessed with average mark 5 which means that it is possible to organize previously mentioned activities as well as some others

- The level of complementariness of tourist product of the Danube water flow with other tourist products in the region has been assessed with average mark 5

- Tourist regional activities (promotion, marketing and the like) aiming to increase tourist awareness has been assessed with average mark 4 that represents a high regional activity

Concerning sub-indicators of designing tourist product, the final grades and commentaries are as followed:

- The possibility of approaching the spot where you can go aboard for inland navigation, rowing, sailing, etc., has been assessed with average mark 2.3 which means that the access is allowed

- Transport to the boarding place has been assessed with average mark 2 which implies easier access to boats and vessels

- The closeness of other natural attractions in the region has been assessed with average mark 3 which shows that the distance can be easily reached on foot

- Suitable services in Novi Sad and nearby places (in the sense of providing various information, free parking places, etc.) has been assessed with average mark 1.3 which results from the fact that the adequate invaluable services have been provided

- The accommodation in Novi Sad and its environment has been assessed with average mark 2.6 which signifies that there is suitable accommodation in the town and its surroundings

Among the grades of the management sector indicators, sub-indicators of natural importance and robustness and management can be separately commented. Concerning sub-indicators of natural importance the grades and comments are as follows:

- The aesthetic value of the environment of the Danube water flow has been assessed with the mark 3 showing a high aesthetic value

- The educational value (possibility of being visited by pupils and students and others and their scientific teaching) has been assessed with average mark 2 showing a high value

- The social value (the importance of the sights and social benefits) has been assessed with average mark 2.3 which means that it is high

- The research value of the Danube water flow (the possibility and importance of studying flora and fauna, biodiversity, ecology and the like) has been assessed with average mark 3 which means it is high and gives already mentioned possibilities

- The rarity of natural resources at the destination (in the sense of authenticity and rarity) has been assessed with average mark 2.3 which characterizes rare cultural resources of the same kind

- The tourist regional promotion of the destination has been assessed with average mark 3 which means it has a good representative value

Concerning sub-indicators of robustness and management the grades and comments are as follows:

- The sensibility of natural resources (in the sense of the possibility of accepting a large number of visitors and causing damage to vessels, surroundings) has been assessed with average mark 2.6 which means that the region is pretty sensible

- The state of saving the region, the surroundings and everything that is necessary for the organization of the Danube water flow has been assessed with average mark 3.3

- The natural resources management (the existing of the adequate plan for the management) has been assessed with average mark 2 which means that the plan is in the pipeline

- The monitoring and preservation of the water flow has been assessed with average mark 2.6 which means that the monitoring is on good value for the time being but it should be improved

• The prospect for current investments and protection of nature and vessels has been assessed with average mark 5 showing excellent prospect

• The possibility of negative influence caused by a large number of visitors on necessary vessels (mass tourist visits) has been assessed with average mark 1.3

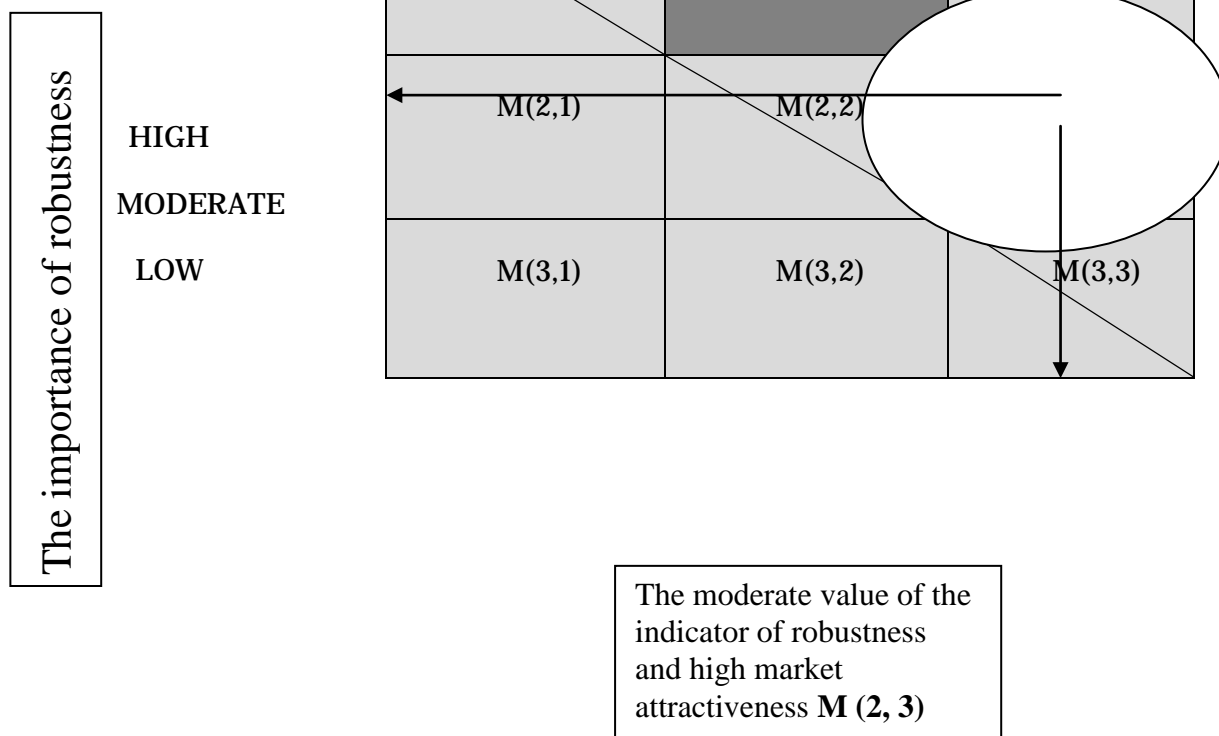
• The possibility of negative influence on way of life and cultural tradition of local communities caused by a large number of visitors has been assessed with average mark 1.3 showing a medium level of possibility

• The possibility of sight modification as a part of development strategy has negative influence on physical condition of the surroundings, the Danube onshore (used by boatmen, boats, vessels, etc.) has been assessed with average mark 1.3

• The possibility of sight modification could have negative influence on cultural way of life of local communities has been assessed with average mark 1.3 representing a medium level of negative influence due to the change of sights and other factors

According to assessed marks, market attractiveness and robustness of the water flow of the Danube near Novi Sad, will be showed on the graph. Final grade of tourism sector indicators is: 52.8 - degree of market attractiveness is high. Final grade of natural resource management sector indicator is: 36.2 – Sector of natural resource management has a moderate value.

Graph 1. Matrix of market attractiveness and robustness of the Danube waterway



Conclusion

German writer Werner Heider said: "No other European rivers cannot be compared with the Danube in terms of its historical significance. Based on the research it is shown that the Danube is a river with high potential. It has moderate robusticity and high attractiveness. It means that Danube in Novi Sad and its surrounding needs more promotion and investments for improving tourism offer, which will make it more attractive which will cause attracting more tourists.

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УДК 33

Оценка туристского потенциала реки Дунай в Новый Сад и окружающая его среда на основе модели Хилари Дю Крос

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Аннотация. Природные ресурсы являются основой развития туризма в регионе. Принимая во внимание, что природные ресурсы являются не только эстетической, но и экономической ценностью определенного региона, их следует оценивать с точки зрения обеспечения хорошей основы для создания ценного турпродукта. Реки как таковые являются лучшими образцами, обеспечивающими возможности для развития различных видов туризма, дающих огромное преимущество региону. В данной статье уделяется внимание реке Дунай, которая является второй по величине рекой Европы и частью коридора VII. Цель данной статьи – оценить и сделать эту реку ближе для населения Сербии. Мы также намерены показать значимость Дуная, так как она протекает через Новый Сад и имеет большой потенциал для развития водного и круизного туризма. Инвестиции в данный ресурс внесли бы значительный вклад в развитие комплексного турпродукта Нового Сада и Сербии. Принимая все это во внимание, в данной статье мы представим результаты оценки Дуная на основе модели Хилари Дю Крос.

Ключевые слова: туристическая валоризация; Дунай; Нови Сад; Хилари дю Кро.

UDC 33

**Measuring Tourism Potential of Places of Interest and Memorial
Objects Using Analytical Hierarchy Process (AHP) - Case Study
City Of Nis, Serbia**

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Abstract. Places of interest are the parts of the city that usually represent important historical events and which in that way mark the certain place. They were built for permanent preservation of the memories of significant events, people and places of national history (memorials). City of Nis is one of the oldest cities in Europe, as evidenced by a number of prehistoric sites and monuments in the city. Furthermore, it is recognized as the Nis traffic center of the Balkans as a geographical core of the Balkan Peninsula. The aim of this paper is to analyze the market appeal places of interest and memorial object in the city of Nis, and evaluate its potential and importance for the development of tourism. The paper used the analytical hierarchical method in order to evaluate the potential and importance of tourism in the area of Nis. Ten relevant criteria were proposed and were indicated for several of the most attractive places of interest and memorial object in city of Nis (Cegar Monument, Skull Tower, Bubanj Memorial Site) and were analysed by Analytic Hierarchy Process (AHP) which is one of the most popular tools in decision-making processes. Analyzing the sights it was found that Skull Tower has the highest market appeal, followed by Cegar Monument and the least market appeal has Bubanj Memorial Site.

Keywords: places of interest; memorial object; Nis; heritage tourism; cultural heritage; the analytic hierarchy process.

Introduction.

Cultural heritage represents a very important offering element, which is of a special cultural and historical importance for choosing a destination. Some research indicates that cultural heritage has gained an increasing importance and has large impacts on different economy levels (Florida, 2002; Hesmondhalgh, 2002; Scott, 2002) and that regions may build up their competitiveness by further developing their cultural heritage (Bandarin et al., 2011; Boix et al., 2012; Cooke and Lazzeretti, 2008; Pereira Roders and Von Oers, 2011).

According to the European Commission, there are now approximately 200,000 protected monuments in the European Union (EU), and 2.5 million buildings of historical interest (European Commission, 1998). Cultural attractions have become particularly important in this modern form of pilgrimage called tourism. Not only do cultural attractions such as Museums and monuments constitute the largest sector of the European Attractions market, but they are also increasingly being placed at the centre of urban and rural development strategies and image enhancement programmes (Richards, 2001).

Heritage tourism is focused on the material ("tangible") and intangible resources, including the way of life of a community. The concept of the spiritual, "intangible" cultural heritage (language, stories, art styles, music, games, religious beliefs, etc.) becomes increasingly important, which is why UNESCO adopted the Convention to help its protection. Heritage or legacy is a modern use of the past, including the interpretation and representation (Rabotić, 2012).

Cultural heritage shows not only the level of the creative power of a city in the past which is reflected in the uniqueness of traditions, historical events and monuments that exist in a specific city, but is also an important factor in its recognition (Radojević, 2011).

According to Conrad (Conrad, 1982), "the wish for retrospect which is caused by a psychological need for the continuity or for searching the roots, brings to being interested in the past." Cultural heritage is no more just a pure past but it also represents places where different cultures meet (Hadžić, 2005). Depending on physical, artistic, cultural and historical characteristics, as well as on the possibility of their presentation, cultural heritage can be divided into the following groups (Website article by UNESCO, The different types of cultural heritage): archeological sites, goods of monumental and artistic characteristics, cultural and historical integrities, places of interest and memorial objects, folklore heritage, belief, languages, manifestation values, cultural institutions with its activities, cultural landscapes, cultural routes, traditional medicine, underwater cultural heritage, documentary and digital heritage, music, songs, literature.

Using this qualification, some places of interest and memorial objects of the city of Nish will be presented and some elements of their valorization and cultural and touristic presentation will be given by analytical hierarchy process. The city of Nish is very rich in having cultural monuments which succeed in giving the picture of cultural and historical events and processes in this area.

GEOGRAPHICAL SETTING AND CULTURAL HERITAGE INVENTORY

The city of Nish, by its territory belongs to a Nish county and it represents the center of a regional area (three counties – Nish, Toplica, Pčinj), with 589.486 citizens. Nish is one of the oldest towns in the Balkans situated at the crossroads of Balkan and European highways which connect the Balkans with the Near East (*Map 1*). It has been well-known as the Gate of East and West for ages (Prodović, 2011). It was inhabited at the beginning of the Bronze Age and today Nish has been living and developing on the ruins of the Roman town Naissus and big Roman graveyard (Janićević, 1998).



Map 1. Geographical setting of Niš (Authors)

City of Niš is located at Corridor 10, with the main road on the branch line to the south, Thessaloniki and Athens, and the route to the east of Sofia and Istanbul. From Nis roads lead to the northeast, towards Zaječar, Kladovo, Timisoara, and southwest to the Adriatic Sea (Radojević, 2011). Nis airport is very significant for establishing international tourism fluctuation towards tourism destinations in the south and southeast Serbia. Tourism economy could realize significant revenue by offering services to tourists landing on the Nis airport (Stanković & Petrović, 2007). The town itself was formed in the spatial vacuum gravity of large metropolitan centers of Belgrade, Sofia and Skopje (Prodović, 2011).

The city of Nis as a social, economic, educational, health, cultural and sport centre of the South-East Serbia as well as the crossroads of the most important Balkan and European highway and railway traffic directions, is in possession of excellent potentials for further tourism development (Stanković & Petrović, 2007).

At present, the tourist destination of the city of Nis faces an ever-increasing competition and tourist requests that are liable to continual changes. In order to develop the tourism destination of the city of Nis and to reach success under complex conditions, it is necessary to adapt new changes continually. This task becomes more and more difficult due to the fact that development must pay attention to the tourism resource limitations (Gligorijević & Petrović, 2008).

City of Nis has a lot to offer possessing the potential to become an attractive destination in the region. Tourism of the city of Nis can be developed through various forms. However, the form of tourism that should most be activated is heritage tourism.

Nis is one of the oldest cities in the Balkan Peninsula and has a rich cultural heritage. The turbulent history has left the city with valuable cultural symbols and monuments, the most important Bubanj, the archaeological site of the Neolithic period, Mediana, dating from Roman times, old Christian monuments dating from the 4th to 6th century, the complex Nis Fortress, dating from the 17th century, Kazandžijsko sokače, the urban area from the 18th century, a Cegar monument, Skull Tower, Monument to the Liberators of Nis and others (Radojević, 2011). In the group of places of interest and memorial objects, Cegar Monument, Skull Tower and Bubanj Memorial Site were done.

Places of interest and memorial objects

Places of interest and memorial objects, sub-group of “dark tourism”, represent work of human hands or nature, important for the history of a specific nation. They include places, objects and monuments which individually or in a group point out important events, persons and places. They are memorial graveyards, various monuments, memorial places (Hadžić, 2005). Places of interest may be parts of a town where some important historical events happened or “black spots”, places where big murders, persecutions, executions happened. On the other hand, they can be places where famous painters painted their paintings or places where famous people spent most of their time. This phenomenon is well recognized, and named differently in the literature as dark tourism (Foley and Lennon, 1996, p. 198), thanatourism (Seaton, 1996), black spot tourism (Rojek, 1993), atrocity heritage tourism (Tunbridge and Ashworth, 1996), and morbid tourism (Blom, 2000). Among these, dark tourism is the most widely applied in academic literature (Sharpley, 2009), and defined as ‘the act of travel to sites associated with death, suffering and the seemingly macabre’ (Stone, 2006, p.146), or alternately, as ‘visitations to places where tragedies or historically noteworthy death has occurred... that continues to impact our lives’ (Tarlow, 2005, p. 48). Dark tourism offers both an educational and emotional tourism experience, conveying important messages related to gaining knowledge of past events (Henderson, 2000; Lennon and Foley, 2000), while serving an emotional or potentially therapeutic function as well (Braithwaite & Lee, 2006). Such attractions and sites evoke negative emotions including fear, horror, sadness, depression, empathy, sympathy, and feelings of vengeance (Krakover, 2005; Miles, 2002).

In Nish and its surroundings they are Cegar Monument, the unique monument in the world – Scull Tower and Bubanj Memorial Site. All three are of a great cultural historical importance not only for the region but for the whole country. They should be promoted as much as possible all over the world. There will be more about this cultural heritage.

Cegar Monument. Northeast of Nish, not far away from the village Kamenica, there is a historical place, the hill Cegar famous for the First Serbian Rising battle. The monument, as a mark of respect and memory for brave soldiers and their commander Stevan Sindelić, was raised on that hill.

The first and the biggest trench was on Cegar, with the duke Stevan Sindelić and the second with Petar Dobrnjac in Gornji Matejevac (nearby the Latin church) (<http://www.ni.rs>). On 30th May 1809, the Turks attacked Dobrnjac’s trench and on the following day, 31st May, they attacked Sindelić’s trench on the Cegar hill. When Sindelić saw that the Turks invaded the area and killed a lot of Serbian soldiers, he rushed to an ammunition storehouse and blew it out. About three thousand Serbian soldiers and doubled number of Turkish soldiers were killed on that day. Because of this battle for freedom and independence, Cegar became a historical place for our people (<http://www.visitnis.com>). The hill was marked as a monument. Today’s monument is the Tower – the symbol of a military fortress. The monument was raised on 50th anniversary of liberation from the Turks, 1st June 1927. It is placed on the same place where the first memorial object had been raised. The Cegar monument is a famous historical place and has been protected by law since 1983. The same year, it was declared as a cultural heritage of great importance by the Assembly of Serbia (Andrejević, 1996).

Scull Tower. Scull Tower represents the unique monument in the world. It came to be as a consequence of the big battle on Cegar in 1809. It used to be situated outside the settlement, next to the Constantinople road but today it is in the very centre of Nish, in boulevard Zoran Đinđić. The tower was raised from the skulls of killed soldiers in Cegar battle, near Nish, on 31st May 1809 (<http://www.ubnt.ni.ac.rs>). It was built very soon after the battle by the order of Hurshid pasha, the Turkish commander of Nish at that time, later Grand Vizier. It was built on the four-angled foundation, about three metres high. 952 skulls of Serbian heroes were walled in as a warning to the Serbian people. Today, 58 skulls remain: 21 on the north wall, 13 on the western wall, 12 on the southern wall and 11 on the eastern wall. In a special cabinet, there is one more, well preserved with the sign: “The skull of Stevan Sindelić” (Andrejević, 1996), (<http://www.discoverserbia.org>). On the platou, in front of the entrance of the chapel, there is the bust of Stevan Sindelić, built in 1938, the work of a sculptor Slavko Miletić. On the bust pedestal, there is a Cegar battle relief of the same sculptor. Scull Tower has been protected by law since 1948 and declared as a cultural heritage of great importance by the Assembly of Serbia since 7th April 1979. Nish institution for protection of cultural monuments gave a suggestion of putting Scull Tower into a list of UNESCO world cultural

heritage in May 1989. Scull Tower represents the unique monument of a kind in the world and it faithfully illustrates Turkish misdeeds upon the Serbian people.

Bubanj Memorial Site. Bubanj Memorial Site is located on a forest hill, southwest of Nish, in Palilula community. Bubanj Park crosses the main Nish-Skoplje road, two kilometers far from Red Cross concentration camp. During the Second World War, this place was one of the biggest places of executions in Yugoslavia. The monument shows three fists of monumental dimensions (www.nistourism.org.rs).

Bubanj Memorial Site was one of the biggest places of executions during the National-liberation War. At the beginning of 1942, Bubanj shooting range started executions by shooting 24 Krusevac people - Red Cross camp inmates. After that, massive shootings began. German fascists drove camp inmates in trucks, day and night and shot the Serbs, Jews, Gypsies here. About 10 000 camp inmates and prisoners were shot. In this death factory, groups of patriots from the south of Serbia were shot one after another (<http://spomenickulture.mi.sanu.ac.rs>).

The first memorial object was a very modest stone pyramid which was raised on 7th July 1950. Three years later a tender for building a monument on Bubanj was invited. In July 1960, the work of Ivan Sabolić was accepted.

The monument on Bubanj was ceremoniously uncovered on 14th October 1963, the day of Nish liberation. A complex is like a big park with a memorial path, about a half kilometer long and with a marble relief, 23x2.5 in size, consisting of five compositions which symbolize "the killing machine", hanging, shooting, rebellion, capitulation and the victory and three concrete obelisks which symbolize raised hands with clenched fists (Andrejević, 1996). Inside the complex, since 2004, there is a chapel built of glass and metal, done by an architect Aleksandar Budevac. Bubanj, as an authentic place of massive fascist terror during the National-liberation War has been protected by law since May 1973 and in April 1973, by the decision of Serbian Assembly it was announced cultural heritage of great importance. Thanks to an overborder project of Serbia and Bulgaria this year, 15th October, the part around the monument and the amphitheatre should be reconstructed. The reconstruction will be done by the overborder project of Serbian Palilula community and Bulgarian Bobov Dol community. European Union has taken to finance the project from IPA fund as a part of ColourTour programme. Palilula got 121.666 euros. A tender has been invited and the best offer was from "MD Gradnja" company (<http://www.jugoistocna.com>).

Methodology

With aim of getting market attractiveness of places of interest and memorial objects, AHP methodology was applied. Selection of the method is based on the type of analysis that is needed for the realization of the objectives. Research was conducted in May 2013, which is carried out by experts in their field, in order to precisely determine the final rankings.

Research subject in this paper is to consider which place of interest or memorial object is the most attractive cultural heritage.

The goal of the research is to evaluate the places of interest and memorial objects in the city of Nis. This study proposed ten relevant criteria: environment, well-known outside the local area, important national symbol, interesting story about cultural sight, characteristics that differentiate from other local cultural sights, appeal for special needs, complementary with other products in region, tourist attraction in region, destination is associated with culture and political support, which should be used as market appeal tool. These criteria were indicated for several of the most attractive cultural sights of investigated area.

Research Methodology.

To get the information about the most attractive cultural sight, in the paper is used the method of Analytic Hierarchy Process (AHP). AHP is one of the most popular tools in decision-making processes. This model is structured as a set of pair-wise comparisons of decision elements made by the decision maker. At the top of the hierarchy is the goal, the next level contains the criteria, while alternatives lie at the bottom of the hierarchy. If the comparisons are not perfectly consistent, then it provides a mechanism for improving consistency (Triantaphyllou & Mann, 1995). This method is a "qualitative" technique that relies on the judgment and experience of the decision makers.

An approach based on pairwise comparisons which was proposed by Saaty (1980) has long attracted the interest of many researchers. Pairwise comparisons are used to determine the relative

importance of each alternative in terms of each criterion. In this approach the decision-maker has to express his opinion about the value of one single pairwise comparison at a time. Usually, the decision-maker has to choose his answer among 10-17 discrete choices. Each choice is a linguistic phrase. Some examples of such linguistic phrases are: "A is more important than B", or "A is of the same importance as B", or "A is a little more important than B", and so on (Triantaphyllou & Mann, 1995).

Pairwise comparisons are quantified by using a scale. Such a scale is an one-to-one mapping between the set of discrete linguistic choices available to the decision maker and a discrete set of numbers which represent the importance, or weight, of the previous linguistic choices. The scale proposed by Saaty is depicted in table 1 (Triantaphyllou & Mann, 1995).

Stages of the research. The first stage of the project is the selection of places of interest and memorial objects. After that, relevant criteria were selected and ranked as a market appeal tool. With those criteria we form a hierarchical model in statistical software "Expert Choice 2000" to enter the score. Later on places of interest and memorial objects were also graded. With obtained ranks program used calculations to form a graph which shows the most attractive site.

Table 1: Saaty scale

Intensity of importance	Definition	Explanation
1	Equal importance	Two activities contribute equally to the objective
3	Weak importance of one over another	Experience and judgement slightly favor one activity over another
5	Essential or strong importance	Experience and judgement strongly favor one activity over another
7	Demonstrated importance	An activity is strongly favored and its dominance demonstrated in practice
9	Absolute importance	The evidence favoring one activity over another is of the highest possible order of affirmation
2,4,6,8	Intermediate values between the two adjacent judgments	When compromise is needed

Results and discussion

Talking about places of interest, the most attractive for the market and with the highest rates, which can be seen on figure 1, is Scull Tower. This can be easily explained by the history of its beginnings and the story behind. Scull Tower represents the result of the battle which took place on a historical hill- Cegar, 1809. Scull Tower was built like a chapel and became the mausoleum of bravery. It has been in a bad shape for years, but some renovations have been done recently and there are more and more tourists coming every year. Sign posts are very good, so it is neither hard nor far to get there. Despite the fact that only 58 skulls remain, the most attractive for this place of interest is the skull which is supposed to be Stevan Sindelić's, one of the greatest Serbian heroes. Next to a parking lot, there is a souvenir shop where tourists can get souvenirs and the guide book which is available in Serbian and English.

This monument is unique of a kind and it represents a very important period of Serbian history. Scull Tower, due to its importance and greatness of historical value, should be promoted and visited much more. An Internet presentation would help in its promotion and affirmation. Both the interior and exterior of this place can be used for promoting other issues like organizing

some art or photo exhibitions, concerts, book presentations ect. In order to deserve a special place in historical and cultural heritage, special tours in visiting this monument should be organized.



Figure 1. Places of interest and memorial objects evaluation results

Cegar monument – the hill where the famous historical battle took place, represents an outstanding and important place from the period of the First Serbian Rising. This monument is not of a great architectural value but that is not the reason of not visiting it. On the very spot there is no adequate guide who would welcome tourists and tell the story of this amazing monument. The site and the parking lot are arranged very well but, on the other hand, there is no promotion for this site. It is obvious that in promoting and visiting Scull Tower, Cegar monument should be involved in, too.

Bubanj memorial site is the site which talks about sufferings of thousands and thousands of people during the Second World War. However, the site has been neglected by citizens and local authorities, so it has the lowest rate. One of the greatest places of execution during the World War II, famous historical site, has become a gathering place for young people who cover the walls of the monument with graphites.

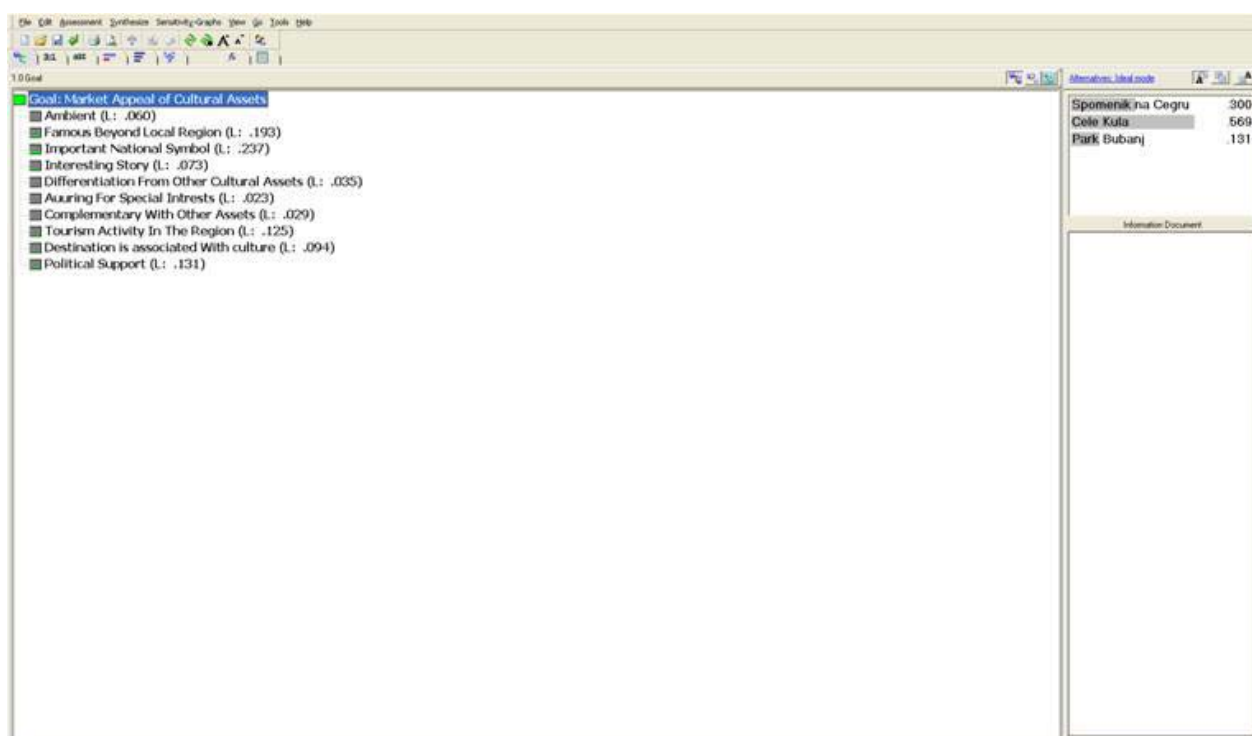


Figure 2. Places of interest and memorial objects evaluation in “Expert Choice” program

In order to have better promotions and presentations of this site, it is necessary to put sign posts and attract tourists to come. The amphitheatre which is near the Fists should be used for cultural happenings and the park can be used for sport events like cycling, running ect. The consistency rate (CR) which is 0.08, also shows that results are correct and that there is no need for correction in comparing and repeating calculation.

Conclusion.

The city of Nis has a very good basis for the tourism development, primarily cultural (heritage) tourism. Places of interest and memorial objects city of Nis make this area important for the whole country. The results of the research indicate how Nis with its cultural heritage has the potential for development of cultural (heritage) tourism and with its rich history can find its place in the tourist market, both in the country and abroad. Some of the things that should be done in the city in order to become an attractive destination of heritage tourism: make adequate restoration and reconstruction of the cultural heritage, stop the deterioration of cultural heritage, improve infrastructure, arrange the website and provide adequate information of cultural heritage, and finally to use different promotion tools such as tourism fairs, trade shows, exhibitions, and others in order to promote cultural heritage in the best possible way. By offering adequate quality content such as sightseeing in the city and cultural-historical monuments, organizing various tourism and cultural manifestations, enabling quality and approachable accommodation and catering services and the like, tourism economy could realize significant revenue from tourists transiting through Nis.

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УДК 33

**Измерение туристского потенциала
достопримечательностей и мемориальных объектов,
используя аналитический иерархический процесс (АИП)
на примере города Ниш, Сербия**

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Аннотация. Достопримечательности являются частью города и обычно представляют важные исторические события, отмечая, таким образом определенное место. Они были построены для того, чтобы сохранить память о важных событиях, людях и местах национальной истории (памятники). Город Ниш – один из старейших городов Европы, о чем свидетельствует ряд доисторических мест и памятников города. Более того, Ниш считается транспортным узлом Балкан и географическим центром Балканского полуострова. Цель данной работы – проанализировать привлекательные достопримечательности и мемориальные объекты города Ниш и оценить их потенциал и важность для развития туризма. Для оценки потенциала и важности туризма в районе Ниш в статье использовался аналитический иерархический метод. Были предложены десять важных критериев, которые применили к нескольким самым привлекательным достопримечательностям и мемориальным объектам города Ниш (памятник Сегар, башня черепов, мемориальный комплекс Бубань). Они были проанализированы с помощью аналитического иерархического процесса (АИП), который является одним из наиболее популярных инструментов в процессах принятия решений. При анализе достопримечательностей, было определено, что башня черепов обладает наибольшей рыночной привлекательностью, за ней следует памятник Сегар и наименьшей рыночной привлекательностью обладает мемориальный комплекс Бубань.

Ключевые слова: достопримечательности; мемориальный объект; Ниш; культурно-исторический туризм; культурное наследие; аналитический иерархический процесс.

Pedagogical Sciences

Педагогические науки

UDC 378

Russian Media Educators: Case Studies Portraits

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Abstract. This article is devoted to case studies of the media education works of some well knowns Russian media educators. The analysis of media educational work of the famous Russian media educators leads us to the conclusion that media education in Russia is developing, building on the synthesis of the aesthetic, socio-cultural, and practical concepts, with a focus on the development of media competence of the audience, mainly school and youth. The enthusiasts of media education, even devoid of substantial public support for its innovative projects, achieve significant and meaningful results.

Keywords: Russia; media educators; media literacy education; media competence; schools; teachers.

Introduction.

Many media education projects are realized in Russia. A network of school mediathekas (libraries containing books, journals, audio and video cassettes, CDs, DVDs, etc.) has been created in recent years, and a number of most interesting creative network projects for schoolchildren have been launched — these directions are guided by Y. Yastrebtseva. Her colleagues, L. Bazhenova and Y. Bondarenko, aim their efforts at promoting media educational work in Moscow schools. During the lessons, play activities are often used (especially with younger children), students perform creative tasks (making a short video film, a photo collage, etc.), and have collective discussions of media texts. Similar work is going on in schools and universities of other Russian cities — Tver, Voronezh, Samara, Perm, Chelyabinsk, Rostov, Taganrog, Tambov, Krasnodar, Yekaterinburg, Volgograd... For example, the recognizable symbol of media education in Voronezh is the Student Film and Video Club, where participants come to discuss especially significant or problem films — the club was led by S. Penzin (1932-2011), an art critic and assistant professor of the Voronezh State University. Professor G. Polichko from the State University of Management is the initiator of annual media educational festivals for schoolchildren — with master classes, talks given by well-known figures of media culture, and collective discussions... Such festivals have taken place for about 10 years in different Russian cities.

This article is devoted to case studies of the media education works of some well knowns Russian media educators.

Case of Stal Penzin

Dr. Stal Penzin (1932-2011) has devoted about three decades of his life to film education. He was born in the family of the known Voronezh artist. After graduating from university (1955) he continued the post-graduate studied in the Russian Institute of Cinematography (VGIK). He defended the Ph.D. thesis in 1968 and worked in Voronezh State University, Voronezh Institute of Arts and in Voronezh Pedagogical Institute. Still in the 60s he organized a youth film club, and very soon joined the recognized leaders of film education movement in Russia.

Quite naturally Dr. Penzin's pedagogical views changed over the time. The influence of ideological clichés, traditional for the communist epoch could be found in his early books written in the 70s. However later he refused the ideological influence and became an active advocate of film education based on *art house*. "The only way to enter the world of the serious, genuine cinema is to love it - wrote S.Penzin. - But one can only love something real, something familiar. (...) Therefore

it is necessary to help students to get to know good films. Those who will grow fond of it, will seek to see more good films, will be interested to learn about their authors, the history of cinema" (Penzin, 1987, p. 4).

S. Penzin accumulated his theoretic knowledge and practical film education experience in the text of his monograph "Cinema as a Tool of Education of Youth" (1973), where he asserted that "cinema is a valuable instrument for a teacher not only as one of the best tools of a snapshot and representation of reality, but also as a way to develop understanding of it" (Penzin, 1973, p.8), comprehension of the historical development of the world and human consciousness. "The primary factor uniting aims of education and cinema, - wrote S. Penzin, - is the common recipient - personality" (Penzin, 1973, p.8), but "the teacher should be careful about self righteous assertion, not to find himself in the position of a "boss", while it is necessary to provide a free space for independent activity of students" (Penzin, 1973, p. 19). In the curriculum of his film course S. Penzin included such themes, as "The process of film creation", "Cinema classification", "Expressive means of cinematograph", "Cinema in education".

However neither the course syllabus nor the monograph contained a coherent and comprehensive system of film education at higher education level. He occasionally expressed severe criticism of entertainment films, so popular with young audiences: "a teacher should encourage students' negative attitude to such film production, declare war and fight to the end") (Penzin, 1973, p.70).

S. Penzin considered a students' film club as an effective form of media education in secondary schools and universities. Ideally it should involve producers (film screenings, film festivals, exhibitions, conferences with the director and film crew, field trips, etc.); film critics (newspapers, film reviews, correspondence with film directors and actors, lectures, conversations, museum of cinema, conferences, discussions of films; film-sociologists (surveys, tests); film/TV studio (production of films/ TV programs) (Penzin, 1973, p.143).

Soon S. Penzin published his second book, "Cinema – is the educator of youth" that, as a matter of fact, was a concise, clearly written reference book and told pupils or students about the types, genres and the language of screen arts, "the tenth muse" core terminology. "Our conversations about cinema, - wrote S. Penzin, - try to convince without enforcement. Select any letter, any term depending on your mood. Our objective is not to cover all problems, but to teach how to learn the basics of film art" (Penzin, 1975, p.6).

In 1984 S. Penzin offered the readers another monograph- "Cinema in the System of Arts: a Problem of the Author and the Character", that touched upon the concepts "the author's film world", "synthetic nature of the film art", "art and a person", and others at a more complex level. As a passionate proponent of the *auteur theory*, S. Penzin believed that film education should be based on films by A.Tarkovsky, F.Fellini or I.Bergman. The monograph belonged to Film Studies rather than field of Education. Yet the book "Lessons of Cinema", published two years later was directly aimed at teachers and parents and explained how films about childhood and youth can help in the difficult process of education.

The arrangement of content of the book was captivating. S. Penzin used contemporary Russian films for youth ("Hundred Days after Childhood", "Lifeguard", "Guys") as "case studies" and convincingly proved that "film authors are the teachers, they teach lessons - lessons of cinema» (5, p.64). S. Penzin brought readers' attention to the fact that almost all serious directors one way or another address the theme of childhood in their works– "the morning of life", as artists feel the strong necessity to return to the starting place of developing the world outlook, to compare the world of one's own childhood to the world of a new generation, thus assisting the socialization of young people. "Sooner or later a teenager faces a free choice, with neither caring parents nor teachers nearby. Art prepares a person for self-reliant actions." (5, p. 65)

Dr. Penzin did not reduce the potential of cinema to education only. He attracted the attention of his readers to other functions of the screen (cognitive, aesthetic, communicative, game etc.). The target audience of the book was not only those who teach, but also those who learn. S. Penzin hoped that a teenager after having read "Lessons of Cinema", would reflect on life and cinema, would remember that cinema is not only entertaining films about cowboys and spies, pretty girls and comics. They would be aware that there is also the *auteur's* world with an open and sincere conversation about history and modern life, difficult fates and interesting personalities. As before S. Penzin was sure that film education should be built on the best examples and film

studies should make a wall between “bad films” and the audience. S. Penzin’s pedagogical vision is reflected in his book “Cinema and Aesthetic Education: Methodological Problems” (1987). This was perhaps the first book in Russian academic literature that analyzed the subject, aim and objectives, principles and methods, film education curriculum, organization of a film club. He wrote: “Not everyone recognizes the necessity of film education, the reasons of the opponents being usually one or all of the following: 1. A true work of art is comprehensible for everyone. Therefore a good film does not require any “intermediaries”, anyone can understand it. 2. There is enough film advertising and promotion. 3. A person who studies literature in school will automatically be literate in cinema. 4. Cinema is not a “true” art yet: its history is not so long, there is no “classical works” which value is proved by centuries, like masterpieces of literature, theatre, and painting. 5. The results of Literature studies do not correspond to the efforts spent; there is no point in repeating this sad experience with another medium. 6. Today there are no conditions (teachers, film libraries, etc.) for introduction of film education at schools and universities. 7. Art creativity belongs to emotional sphere, and knowledge to rational one. The less a person knows about art, the better he is as a viewer- recipient. The conclusion is clear: film education is harmful, not beneficial” (6, p. 31). Further in the book, S. Penzin consistently refuted all of the above arguments and proved that film education is, in the first place, one of the directions of aesthetic education. The subject matter of film education is interpreted as the system of knowledge and skills necessary for the quality perception of screen art, development of audience’s culture, creative abilities (6, p.43).

S. Penzin anticipated the questions that are likely to be asked about film education (Penzin, 1987, p. 44): film education – what is it for? To develop the course participants’ knowledge about films? Or to develop audience’s abilities and critical thinking? Should the curriculum include the theory and history of cinema? Or should it be centered on the distinguished works of film art? Last but not least, what should the teaching strategies be? Same as in Film Departments or different?

In Stal Penzin’s opinion, depending on the way a teacher answers these questions, it is possible to divide film education in Russia in two directions “extensive” (covering art culture on the whole, where Film Studies occupy the same volume of space in the curriculum as, for example, Literature) and “intensive” (specifically focused on film and therefore resembling an abridged course of Film Studies for future professionals in media field). Yet S. Penzin emphasized again that film education is part of the aesthetic development of a person, therefore should develop aesthetic feelings, ideals, and viewpoints. “Even the “intensive” film education should not be “narrow” and be reduced to teaching visual literacy; classes should embrace film aesthetics with ethics” (Penzin, 1987, p.45).

As stated by S. Penzin, the content of film education should include: “a) the basics of aesthetics, film history and theory, any pictures to develop the quality aesthetic perception of any film; b) the information on main areas of application of theoretical knowledge; c) information on challenging problems in the subject matter; d) assignments that develop students’ skills to analyze film texts” (Penzin, 1987, p.46). In this case the immediate objective of film education is to “encourage the aesthetic perception of films”. And the long- term objective is “the development of the personality through film art” (Penzin, 1987, p.46). Consequently, a person should have the following general aesthetic qualities (good aesthetic taste; unbiased perception of media; abstract thinking; acknowledgement of cinema as Art, not a mirror reflection of life; awareness of the importance of film education) and special ones (demand for serious art house films, ability to select and understand films, interest in the history of cinema, etc.) (Penzin, 1987, p.46-47).

Further the aim of film education was specified in objectives: 1) *education*, i.e. knowledge development (resulting in the awareness of the importance of film studies; skills to analyze all the elements of a film, to interpret a film message; being selective about the choice of a film to watch); 2) *learning*, i.e. critical thinking development, etc.; 3) *personal growth*, resulting in the development of such qualities, as good aesthetic taste, desire to communicate with “serious works of art” (Penzin, 1987, p. 47-48). According to S. Penzin the development of the latter can and should be fostered through the pre-viewing activities, after-viewing explanations, creative projects, club activities.

Essentially many of the above aims and objectives seem to be disputable especially for media educators in other countries. For example, Len Masterman, as it is well known, absolutely rejects the possibility of the development of aesthetic taste at media lessons, as well as the separation of

films into “good” and “bad”, considering that it is virtually impossible to prove to the pupils/students the high or low quality of a film.

Yet S. Penzin is a committed supporter not only of the “aesthetic approach” in media education, but also ethical. “Film education cannot be brought down to specific - aesthetic and film studies objectives, a viewer should be, first of all, a Person, an ethical person (“homo eticus”) (Penzin, 1987, p.47). For these reasons, Penzin distinguishes between the following levels of aesthetic culture of a person: 1) high, or optimal, characterized by a wide art erudition, advanced abilities and interests, fundamental knowledge; 2) average, which is characterized by the unbalanced development of main components of the previous level; 3) low: aesthetic illiteracy (Penzin, 1987, p. 77).

Adapting traditional didactic tenets, S. Penzin chose the following principles of education: 1) education and all-round development in the learning process; 2) scientific character and intelligibility of teaching; 3) systematic character and link of the theory with practice; 4) active learning; 5) visual expression; 6) transition from education to self- education; 7) connection of learning to life; 8) lasting knowledge; 9) positive emotional background, recognizing interests and characteristics of a class and an individual (Penzin, 1987, p. 59). To these nine, S. Penzin added three more principles: 10) film studies as part of the system of arts, 11) the unity of rational and emotional components in aesthetic perception of films; 12) bi-functional aesthetic self-education, when the aesthetic feeling clarifies the ethical (Penzin, 1987, p. 71). Consequently teaching the analysis of a film (as a work of art) has three aims. The first one is “the understanding of the author's position, studying everything that is directly connected to the author – the main medium of film aesthetics. The second aim is to comprehend the hero - main medium of an aesthetic beginning. The third task is the junction, synthesis of the previous concepts. (...) All three tasks are indivisible; they arise and demand the solutions simultaneously” (Penzin, 1987, p. 56). As for the methods of film education S.Penzin recommended reproductive, heuristic and research methods of teaching and learning.

S. Penzin became one of the first Russian media educators to try to summarize the experience of film education (the analysis of textbooks, curricula, practical approaches) in Russian schools and universities and the film club movement. Being one of the most enthusiastic leaders of film-clubs, S. Penzin considered that the specific feature of a film club is that it performs numerous functions: “the foremost of these interrelated functions are: 1) film education (function: after- school program); 2) propaganda of film art (function: advertising); 3) screening and discussion of “difficult” (art house) films (function: art house film theatre; 4) film reviews (function: film critic); 5) surveys (function: sociologist); 6) communication (function: meeting point and the recreation centre” (Penzin, 1987, p.126-127). Taking into account these functions, S. Penzin created several models of film club movement, each focusing on one or several functions – e.g., to provide space for different kinds of audiences, after- school program or a university association of cineastes (Penzin, 1987, p. 137).

S. Penzin marked the distinction of media education in clubs from media education in school/university: heterogeneity of participants (age, experience, motivation to participate in the club, education, moral values, knowledge in the field of art); and a more specific, compared to school pupils, stance of the audience (Penzin, 1987, p. 135).

S. Penzin met the emergence of video technology with great enthusiasm and took advantage of a rather short interval of time (the end of the 80s – the first half of the 90s), when VCRs did not yet become the common appliance in households of Russia. It was during these years that the audience of video clubs in Russia increased sharply because people wanted to see those films that until then had been banned by the censorship. S. Penzin noted the following benefits for film education: independence from the official film distribution; possibility of recording and non-commercial use of any films, programs or their sequences; using techniques *freeze frame*, *stepframe* and others; video production in school or university; collection of videos (Penzin, 1993, p. 95).

Many of S. Penzin's former students became media educators. For example, Galina Evtushenko is one of his adherents. Having graduated from Voronezh University (1978) she taught in schools, film courses and film clubs. Later she wrote the Ph.D thesis on film education in Moscow Institute of Cinematography (1991) and then taught film education for future professionals. After that she worked as a film director herself. Her very first educational five-

minute documentary "I've seen you somewhere" got attention of critics and colleagues. Today G. Evtushenko is one of the best known Russian film documentary directors. She is the unique embodiment of successful re-training: from a media teacher to a film director (while the reverse process is more common).

Last years of his life S. Penzin was media educator at Voronezh State University, and Pedagogical University and Voronezh Film and Video Center. S. Penzin developed a number of university curricula (Penzin, 1998, 2000, etc.) that integrate film education with a major field of study of university students. The contribution of S. Penzin's pedagogy - both theoretical and practical - is difficult for overestimate. His input in Russian media education is very significant and once again proves that educational innovations are not only the capital's prerogative.

Case of July Rabinovich, Alexander Spichkin, Gennady Polichko and others Kurgan media educators

Media education in Kurgan (at Kurgan State Pedagogical University, Kurgan State University, Kurgan Institute of Teachers' Professional Development) has firm traditions due to activity of such educators, as July Rabinovich (1918-1990), Alexander Spichkin (1948-2002), Gennady Polichko, Svetlana Odintsova, Natalia Legotina, and many others.

Along with "Moscow school" of Yuri Usov (1936-2000) one of the most important places in history of Russian media education is occupied by the so-called "Kurgan school", headed for a long time by professor Yuly Rabinovich (1918-1990). Rabinovich was one of leaders and pioneers of Russian media education. For about thirty years not only he was actively engaged in film education of school pupils and students, but also trained the new generation of media educators, many of whom (S. Odintsova, G. Polichko, A. Spichkin, etc.) successfully defended Ph.D. dissertations on media education.

Since 1961 Y. Rabinovich began to introduce media education on a material of screen arts in Kurgan Pedagogical Institute (within the framework of a student film-club, special courses at History and Philology departments). Communicating with students, Y. Rabinovich saw "the declining interest for books, replaced by cinema, TV, and later - pop music". This process disturbed him as the teacher of Language Arts, and he directed his research towards the integration of film studies with literature courses (Rabinovich, 1991, p.6). At the beginning of the sixties Y. Rabinovich published a number of articles on the problems of film education. These and other works became a basis for the serious academic research. In 1966 Y. Rabinovich received his Ph.D. degree in Moscow - his dissertation was the first one in Russia on film education (Rabinovich, 1966). "Kurgan school" of film education began to develop.

In early 1960s Russian media educators (in Kurgan, Armavir, Tver and other cities) worked as a matter of fact autonomously; were not aware of the experience of the colleagues. "At the beginning, we had to, - writes Y. Rabinovich, - to act as film critics, sociologists, theorists and practitioners" (Rabinovich, 1991, p.58). The magazine "Cinema Art" published the open letter to the President of Russian Academy of Pedagogical Sciences. "The President wrote a response. These materials have caused the wide discussion. The magazine provided the space for "the round table" where teachers, education policy makers, and cinematographers participated. (...) Teachers highlighted the question of teaching materials and strategies for film education, (...) made a sound suggestion to offer a course on theory and history of cinema at pedagogical universities» (Rabinovich, 1997, p.7-8). To tell the truth, some participants of the round table objected to proposed innovations, justifying their opposition by the overload school and university curricula, and intensive existing courses of literature. Y. Rabinovich however argued, and persuasively proved, that studying film art does not hamper educational process, but, on the contrary, facilitates it.

In 1971 Y. Rabinovich organized a teacher training course in Kurgan Pedagogical Institute. The course covered correlation of literature and cinema (Rabinovich, 1997, p.9). The syllabus included such topics as "Cinema as Art", "Film Genres", "Expressive Means of Screen Arts", "Film Representation", "Screen Plays", "War Films", "School Films", "Children and Educational Films", "Moral Values in Films", "Documentary Films", "Film Education in School", etc.

Students learnt to analyze films, to write film reviews. Besides the training got within the classroom, they could expand their knowledge, and practice new skills at the film club. Unlike many Russian media educators (I. Levshina, R. Guzman, etc.), Y. Rabinovich believed that film

education of students should begin with the history of motion picture arts as “the historical approach is always important while studying any art, and cinema is not an exception” (Rabinovich, 1991, p. 78). He also argued that studying film classics assists the better understanding of the film language.

As I. Levshina justly notices, there was no other college of education in Russia that constantly and consistently sent teachers of literature to remote rural schools, offered quality film courses and integrated screen art with literature courses” (Levshina, 1978, p. 14).

By the early 1970s Y. Rabinovich developed the following principles for future teachers training: 1) introduction to the basics of motion picture arts, the theory of cinema; 2) application of knowledge related to the theory of literature for studying film; 3) development of a technique of the comparative analysis of a film and a literary work; skills to analyse the screen adaptation; development of the students’ interest in reading through their interest in cinema; and so on (Rabinovich, 1997, p. 13).

“Kurgan school” of film education affected not only schools and higher education institutions, but also the regional Institute of Teachers’ Professional Development. The seminar on film education gathered the audience of 150-200 people annually, and its modules included lectures on the theory and history of motion picture arts, training in methods of film education, and discussion of films. The similar course “Book and Film” was organized in 1983 by the Kurgan Library Society. The syllabus of the course developed by Y. Rabinovich included:

- 1) Birth of cinema. Fiction as one of sources of cinema (a theme, a plot, visual imagery, perception);
- 2) The role of the word;
- 3) The word as the basis of literature;
- 4) The word and the image in a modern film, dominating role of a picture;
- 5) Montage in literature and in motion picture;
- 6) The devices of the cinematic representation of “human soul dialectics”, a concealed world of a person;
- 7) Different means of representation of the same objects or events in film and literature;
- 8) Codes of screen adaptation of literature. Creative interpretation of a novel or a story;
- 9) Teaching strategies for using screen adaptations in school literature courses. Types of essays, film reviews;
- 10) Seminars, practical activities, screenings of some significant films based on the Russian classics;
- 11) Screen adaptation as one of means of modern “reading” a well-known literary work;
- 12) Feature films in class and out of class work. Interaction of literature, cinema and TV in aesthetic education of modern students (Rabinovich, 1991, p.96-97).

Pedagogical views of Y. Rabinovich reflected the aesthetic theory of media education based on the synthesis of literature and cinema art. Being a practitioner as well as a researcher, he was aware of the serious problems that Russian film education faced: lack of financial and technical resources in schools, shortage of quality audiovisual material, absence of effective support at the national level of the Ministry of Education, inertness of bureaucratic thinking on the part of policy makers, editors of pedagogical publishing houses or magazines, and so on. In the 1980s Y. Rabinovich drew a paradoxical (at first sight) conclusion: mass expansion of film education in Kurgan area did not achieve significant results: “recurrence of the same teaching patterns (lecture, quiz, practice, home assignment) proved to be uncreative. Pupils’ enthusiasm about cinema decreased. The elective classes did not develop the culture of the perception of art. Lessons and assignments replaced the development of a deeply emotional relation to film, aspiration to enjoy it as a work of art (Rabinovich, 1991, p.101-102). In fact, extensive film education propaganda in Kurgan area resulted in a sad phenomenon- some teachers engaged in film education under pressure, without enthusiasm and love for cinema art. Thus the created effect was similar to literature courses in schools: teachers and pupils started to treat film in classroom as another boring duty...

Moreover, the social and cultural situation in the country has changed dramatically; since the second half of the 1980s films (including foreign production) were no longer deficit. Television, video, Internet delivered households streams of various screen production. The most active part of the audience- school pupils and students appeared to be oversaturated with the audiovisual

information. Russian media education called for the revision of many firm methodological and methodical approaches.

The most influential representatives of Kurgan school film education, besides Y. Rabinovich are S. Odintsova – professor of Kurgan State Pedagogical University; G. Polichko – one of the leaders of the Russian Association for Film & Media Education and A. Spichkin - professor of Kurgan Institute for Teachers' Professional Development.

S. Odintsova received her Ph.D. degree in 1981, after defending her dissertation "The film analysis as one of improvement factors in education of students - philologists in pedagogical institutes". She successfully developed Rabinovich's ideas of the synthesis of literature and film education. She gives special attention to the problem of the film language knowledge of which "is necessary for a dialogue with the film text since the author's concept of the world and the person is embodied in a film-image that consists of the interacting and tied components: changing camera angles, drama action, the moving image, music and sound, word and speech of the characters, light and color tonality, the rhythm of a single shot and the montage of the whole film" (Odintsova, 1997, p. 51). I agree with S. Odintsova's opinion that "the analysis of a film develops a personality and influences the nature of a dialogue with a work of art. It is very important for an audience (...) that the analysis of a film connects and develops figurative and verbal thinking. The film analysis requires and develops imagination because it demands a reconstruction of film image in its tangible sensual form. (...) As for the methodological approach to the analysis of a film we share the opinion of those researchers who consider that the only true principle is the complete analysis of a film - in unity of the form and the content" (Odintsova, 1997, p.52). The moral - aesthetic dimension of S. Odintsova's approach, characteristic of Russian media educators, distinctly stands out: "A modern teacher, - she writes in her article "Film education in a pedagogical institute", - is the defender of moral and aesthetic values. He should resist a powerful stream of pseudo-culture, be open-minded to the new in life and art, clearly differentiate between the good and the bad, the beauty and the ugliness; should contribute to the spiritual revival of the society» (Odintsova, 1993, p. 113).

Another distinguished student of Y. Rabinovich, - G. Polichko also continuously developed ideas of integrating literature and the basics of motion picture arts in educational process of school and university. He received the Ph.D. degree in 1987 with the dissertation on "Cross curricula connections of a Literature course and an elective on film education as means of the aesthetic development of senior pupils". Being a teacher and then the principle in a Kurgan school, G. Polichko ran one of the Kurgan film clubs for a number of years. In 1988 he was elected the Secretary of Russian Association for Film and Media Education and moved to Moscow. There he created a firm *Viking* (at the end of the 1980s) which invested a significant share of its income to various media education projects (conferences, seminars, publications, the Moscow film lyceum, etc.).

One of G. Polichko's successful projects of the time was setting up the two- year Advanced Film Education Course for Teachers. Unfortunately, in the middle of the 1990s the firm *Viking* went bankrupt; subsequently the funding for the film education teachers' courses, conferences and seminars was significantly reduced, many projects were closed.

In his early works G. Polichko used to be a proponent of the system of training traditional for Russian film pedagogy and education, namely, working with art films only. As well as in Y. Rabinovich's works, in G. Polichko's programs we can see the clear aesthetical focus of media education. Comparing Russian and foreign media education tradition, G. Polichko wrote that communication with foreign colleagues has shown, "that it is exactly on this borderline - the presence or the absence of art substance in a media text – that a watershed between the western and our concepts of film education is. We begin from the point where our foreign colleagues stop, - approaching aesthetic, evaluating dialogue of the art content of a film text. The language of cinema and the analysis of how this text is constructed, for Russian film education is only the first step to its perception, then the main thing begins (...) – communication about art. Western (in particular British) system of film education is aimed at different thing. As our English colleague, the film educator from Devon Martin Phillips has said during the seminar in Valuevo, "the evaluation of a film is not a pedagogical problem, it is a problem of an individual choice of a person" (...) At the basis of film education of our English colleagues is the concept of a free personality, which foundation is the full sovereignty of an inner life; and any dialogue concerning the evaluation of the

content of a text, especially art, is an intrusion into the private world of a person, an attempt to impose the "right" interpretation of a media text on him/her" (Polichko, 1993, p.17).

I would like to add to these generally true conclusions that American and European media educators did not give up the aesthetical concept of media education at once. In the 60s many of them were also focused on developing the audience's taste for art and to introduce the best examples of cinema. However a different opinion (promoted by its adherent, the British researcher Len Masterman) gradually started to prevail, asserting that the evaluation of a media text's art value is so subjective (and even film experts have contrary judgements sometimes), that education should not deal with problems of "good" or "bad" aesthetic quality of films, as well as, with judging about "good" or "bad" aesthetic tastes.

The influence of Y. Rabinovich school can be seen in works of other Kurgan teachers. I. Zhukova designed the university special course "The Silver Age of the Russian poetry" integrating film clips. V.Olejnuk integrates film education into the course of *World Literature of the XX century* at the pedagogical university.

However the most consecutive supporter of modern models of media education, undoubtedly, became Professor Alexander Spichkin (1948-2002). He got interested in film education while studying in Kurgan Pedagogical Institute, which he graduated from in 1970. After the graduation he continued working in the sphere of his academic interests and in 1986 was awarded the Ph.D. degree. It was he who persuasively rationalized the reasons of fostering the aesthetic approach in Russian film education. He criticized the tendency of many Russian teachers (including Y. Rabinovich) to use in classrooms only art house films, or film classics.

"Film education, - A. Spichkin marked, - was usually part of the general structure of curriculum aimed at the aesthetic development, including other subjects such as Music, Literature, Fine Arts and sometimes (though less often) Drama. The aesthetic approach was, as a matter of fact, the most rewarding under existing conditions because the aesthetic sphere was one of few spheres where, despite of rigid censorship, there was quite substantial degree of intellectual freedom. However very soon some contradictions of the aesthetic approach also came to light. The result was that film education was basically focused on studying film "masterpieces", (...) and on the expert taste; "introduction to the best samples of world motion picture arts" stepped to the foreground as one of the main aims of film education. In practice this phenomenon reflects in a bit different form (relevant to education) the existence of "scissors" between critical judgments of film experts and mass "bad" taste; interests and aesthetic preferences of students become less important for a teacher than his/her own preferences and an "expert" assessment. (...) Mass media and various forms of mass culture were frequently seen as a threat, as some form of inevitable evil, destroying aesthetic tastes of children and teenagers, distracting them from the "high art" (Spichkin, 1997, p.15).

Having briefly outlined forms and ways of the organization of media education abroad, A. Spichkin reasonably believed that with all the distinctions it is possible to find similarities in theoretical and practical approaches. The significant place in western media education is occupied by "the approach to media texts as to a sign system. Thus the aesthetic quality of a text is as though moved outside the brackets, and the central attention is given to the nature of the audiences' perception, ways of nonverbal communication of the information in two basic kinds: nonverbal signals (gestures, facial expression, plastique, expressiveness of speech, intonation), and the nonverbal signals transmitted through technical devices (a camera angle, type of a shot, lightening and colour, composition, camera movement, montage)" (Spichkin, 1997, p.17). In opinion of A. Spichkin, studying these signs develops the audiovisual literacy, which in its turn can form a basis for the advanced aesthetic perception. "Thus, rethinking film education in the context of media education does not mean, that the aesthetic approach, traditional for Russia should be rejected as something out-of-date. It is however necessary to recognize that as any other approach to film education it has some limitations, and that various approaches do not cancel out, but enhance each other» (Spichkin, 1997, p.17-18).

Another important direction in media education according to A. Spichkin is the role and nature of functioning of media in society, development of critical thinking applied to any media text. "The attitude to media education to some extent can serve as an indicator of democratic changes in the country because the transition from passive consumption to the critical analysis of

media and, hence, to an active civic stand depends on (...) the understanding of the role of mass media in society” (Spichkin, 1997, p.19).

In 1999 A. Spichkin published the handbook for teachers (21) in which he developed the ideas of his previous works. The book covered the content, the structure and teaching techniques of media education, its integration with the curriculum (within the courses of Fine Arts and Drama, Literature and World Art Culture, social studies).

Having paid attention to the instability and variability of the basic terminology in modern media education, A. Spichkin drew a conclusion that media may be defined as:

- “Technical means of creation and communication of the information (the technological approach);
- The way of rendition of traditional arts (the aesthetic approach);
- The way of communication, combining various sign systems (the communicative approach);
- Means of the critical perception of information about the events in political and social life (the social approach);
- Teaching and learning material, encouraging the development of the associative, figurative, visual thinking (cognitive approach);
- The method of the development of creative skills (the creative approach)” (Spichkin, 1999, p.6-7).

The analysis of foreign and Russian curricula and handbooks let A.Spichkinu (Spichkin, 1999, p.7-8) distinguish some core units of media education:

- communication of the information in society (concept of communication, sign systems and ways of representation of the information, history of mass media, mass communication and its rules);
- the structure of mass communication (studying of separate types of media and their specific features);
- social functioning of media (control over mass information, media economics, perception of mass information and its influence).

The content of these key units includes:

- the development pupils’ knowledge and understanding of history, structure and the theory of media;
- the development of skills of perception of the information contained in media texts;
- the development of applied creative skills related to media.

British media educators (C.Bazalgette, A.Hart, etc.) agree on a more laconic description of these units (key concepts and signpost questions): “*agencies* (who is communicating a media message and why?), *categories* (what type of text is it?), *technologies* (how is it produced?), *languages* (how do we know what it means?), *audiences* (“who receives it and and what sense do they make from it?”), and *representations* (how does it present its subject?)” (Hart, Hicks, 2002, p.32). As we see these key concepts may be applied not only to “high art”, but to *any* media text, therefore are universal.

Reflecting on the development of media education in the modern world, A. Spichkin tried to put together a “model” media education curriculum. “In many countries there is a special subject, its name structure may vary, but the content is almost the same. The subject matter are the media. (...) In Russia due to the regular growth of prices on books and periodicals, television becomes not only the the most popular, but frequently the only mass medium which is accessible for teenagers and is an integral part of their daily life. Therefore television can be considered as a nucleus in construction of the autonomous media education system (...). The media studies curriculum should include the following basic units:

1) An outline of the history of television. TV and other mass media. Television characteristics – improvisation, documentation, intimacy. Efficiency of the television information, it visual power. The spectator as an eyewitness of events;

2) A person on the television screen (gestures, facial expressions, plastique, expressiveness of speech, intonation and its role; anchor, reporter, etc.);

3) The world through the television screen (a television camera: a mirror or a filter?; the language of the television camera: a camera angle, a shot, composition, light exposure and color; movement, montage);

4) Television program as complex verbal and visual influence on a spectator (types of television programs, programming);

5) Television genres (sitcoms, television series, soap operas, documentary programs, news coverage, educational programs, talk shows, game shows, nature programs, sport programs, advertising, etc.);

6) Television production: from a script to broadcast ("behind the camera" occupations: a script writer, an editor, a director, an assistant director, a producer, a cameraman, a sound producer, etc.);

7) TV and other media – fine art, literature, music, theatre, cinema. Types of television interpretations of traditional arts" (Spichkin, 1999, p.8-11).

At the same time, A. Spichkin pointed out the disadvantages of media studies as an autonomous subject, namely the inadequate qualification of a teacher, and consequently, the risk of a superficial treatment of the subject. His concerns were that if a teacher does not possess a profound and extensive knowledge in the field of TV, and does not believe in practical benefit of such course for his/her pupils, then maybe it is not worthy to teach it in his/her class.

The second model of media education proposed by A. Spichkin is media education across the school curriculum, integrated into traditional disciplines, such as Literature, Art, History, Geography, and other subjects. "As against an autonomous approach, the integrated model in the first place presupposes not so much studying media, how much the products of media - media texts." (Spichkin, 1999, p.13). Yet there is a danger that teachers may reduce media education to the role of media as "teaching aids", teaching *with* and not *about* media, thus neglecting studying of the key media education concepts (agencies, categories, technologies, languages, audiences, representations).

For all these reasons, A. Spichkin offered his model of the "aspect" structure of media education:

- type of coding: verbal / nonverbal; visual / audio/combined;
- type of a text: narration, description, analysis;
- type of an audience: age /gender/social position/ educational level;
- type of values: aesthetic /moral/religious/political;
- social functions of the media text: entertainment/ information/ education/ propaganda

(Spichkin, 1999, p.21-24).

A. Spichkin argued that "the aspect approach can be applied to the autonomous model of media education as the pattern of the content arrangement. However its advantages are more obvious in teaching media across the curriculum" (Spichkin, 1999, p.25).

Reasonably believing that efficient media education is only possible with the development of the audiovisual literacy (e.g. skills to decode media texts) of school students, in his book A. Spichkin suggested a number of practical, game activities aimed at the development of skills to see / listen and describe elements of visual and audiovisual texts, to interpret media texts, and to apply the new knowledge and skills to create own media texts (spichkin, 1999, pp.28-34).

Further A. Spichkin described an innovating technique of integration media education into the courses of Art (use of "a shot frame", montage exercises, "Kuleshov's Effect", "Comic strip", "Film Poster", "Collage", etc.), Literature (creating a soundtrack for the literary text, a slide-film on a poem, comparing the original book and its screen adaptations, storyboarding, writing a short script, etc.), Drama, World Art Culture, Social Studies.

As far as the Social Studies are concerned, A. Spichkin thought that the significant part of the media education component of the curriculum should be dedicated to the television news coverage analysis, using the following guiding questions:

- 1) What stories frequently become news and what are excluded?
 - 2) Why an item is selected for the newscast?
 - 3) Who decides what items to include?
 - 4) How are the news presented?
 - 5) Are newscasts important for the society? (Spichkin, 1999, p.64).
- Activities on newspapers include:

- making a radio news coverage based on newspaper articles;
- analysis of several editorial articles printed within a week, separating facts and opinions;
- reading several editorials to define the balance of opinions (What issues does the newspaper support? What issues does it neglect or argue with?);
- evaluating articles using the criteria of balanced reporting (Spichkin, 1999, p.64).

A. Spichkin had many other ideas for media education, but very sadly, a severe illness took away his career and life in 2002...

The experience of Kurgan "media education school" seems quite successful and useful for Russian education. For its forty years of existence Kurgan school has proved - both in theory, and in practice, - that film education and media education on the whole, is an effective means of the development of creative abilities, critical thinking, aesthetic perception of a person.

Case of Alexander Sharikov

Russian media educator Alexander Sharikov, born in 1951, graduated from the Moscow State Pedagogical Institute and continued postgraduate education in the Russian Academy of Education (his Ph.D. dissertation (Sharikov, 1989) was defended in end of 1980s. He worked in the academic Laboratory of Screen Arts in the Institute of Art Education and in the Laboratory of Teaching Aids of the Russian Academy of Education, his articles on problems of media and media education were published in Russian, British and French academic journals. He authored several books devoted to media sociology, media education and media culture and a number of course syllabi on media education. Then he supervised the sociological department of the Russian television company (RTR) and conducted several surveys on television preferences of the audience, etc. Now he is...

Perhaps, A. Sharikov was the first Russian teacher concerned not only with film and press education, but with the problems of media education on the whole. Fluent in English and French he began to study foreign media education in the second half of the 1980s. This research work resulted in the publication "Media Education: International and Russian experience" (Sharikov, 1990).

In his outline of the main directions of media education Dr. Sharikov explained the reasons of emergence of media education, based on the long standing practice of film education. He noted that the term *media education* became known in the 70s and implied "not only art, culture studies and semantic aspects, but also social, psychological and political features of this phenomenon. It turned out that teaching the language of cinema and learning to appreciate film art without understanding of the whole system of sociocultural relationships in the process of communication was obviously not enough for the development of civil qualities. Media education was envisaged as the way to improve this situation" (Sharikov, 1990, p. 6). Media education was aimed at preparing the young generation to live in a new information age, be able to interpret different types of information, understand it, "be aware of possible consequences of media's impact on a person, to learn to communicate on the basis of nonverbal forms of communication with the help of technical devices" (2, p. 6). And the foremost aim of media education became a person's involvement in mass media system, that is the experience of nonverbal perception, studying the language of media, skills to interpret and evaluate the message, etc. (Sharikov, 1990, pp.10-11).

In the historical outline A. Sharikov has shown that many teachers understood media education as "educational technology" – a sort of the traditional course "Technical teaching aids" that has been taught in Russian pedagogical universities for decades. However the focus from teaching and learning *with media* then shifted to *studying media*.

Having analyzed numerous foreign researches, A. Sharikov (Sharikov, 1990, p. 8-10) selected three key concepts of media education: "media literacy" (teaching and learning nonverbal ways of communication, the language of media culture), "information protection" (development of the participants' critical thinking) and "social – pedagogical" (studying social and political aspects of media influence including problems of the so-called "cultural discrimination" or "cultural imperialism"). Later Russian researches (Fedorov, 2001; Spichkin, 1999) continued the analysis of key concepts of media education around the world. Yet Dr. Sharikov's research was actually the first "media education manifesto" in the Russian pedagogical discourse.

The book also covered two main approaches of the implementation of media education in the educational process- integrated (with traditional subjects) and autonomous (a new course, e.g.

“Media Culture” either mandatory or elective). He also touched upon the issues of interaction between the teacher and pupils, the changing role of a teacher and characterized the teaching strategies in a media classroom:

- “setting up the free, friendly, trustful atmosphere of psychological comfort;
- inherent use of the polysemic character of the information; rejection of the strictly programmed schemes of classes (principle of improvisation);
- legitimacy of multiple variants of interpretation of the information; the recognition of the equality related to the information and its evaluation of all participants of the class, including a teacher;
- focus on issues related to pupils’ immediate social and cultural environment, their interests and life experience” (Sharikov, 1990, p.19).

A. Sharikov identified the following methods of media education abroad: “deconstruction” (content-analysis) of media texts, creative activity of pupils (collages, posters, slide/video films, radio/ TV broadcasting, school press, etc.), discussions, simulating games and so on (Sharikov 1990, p. 19-20).

Recognizing the importance of the critical thinking development, A.Sharikov, nevertheless, is not inclined to consider this process as the central objective of media education. In his opinion, the development of communicative, creative skills of students, the abilities to interpret, create and communicate media messages is no less important (Sharikov, 1990, p.46).

In July 1990 during the academic conference on media education in Toulouse A. Sharikov surveyed 23 international educators and experts in the fields of media literacy and mass communications. The objectives of survey were to learn the number of experts believing in the connection between media education and the development of media (60 % answered that media education promotes the development of media), to specify the main objectives of media education, to verify the definitions of “critical thinking” and “communicative abilities” (Sharikov, 1990, p.48).

As for the opinions of the experts about the objectives of media education, they, according to Sharikov’s data, ranged in the priority order as follows: the development of communicative abilities, critical thinking and interpretation, the development of skills “to decode” media texts, to create own media texts, to evaluate media texts, to reflect on media in the system of sociocultural associations. The development of technical skills to use media technology was ranked as the last one (Sharikov, 1990, p.50). Reflecting on the conducted survey A. Sharikov came to conclusion that critical thinking in media education context usually stands for the process of the analysis of a media text, which “is aimed at the interpreting the underlying message and results in three options – interpretation of the latent message, its evaluation and expression of one own’s attitude to it. This process is both of individual and creative nature. Creativity in this case is exhibited through generating new meanings of a message” (Sharikov, 1990, p. 58). The advantage of the given definition is its universal character thus it may be applied depending on the referent system (i.e. orientation of a teacher towards a particular key concept of media education). If a media educator is predisposed towards teaching social or political aspects of media, the correspondent type of information will be evaluated and interpreted. If a teacher bases his teaching on the aesthetic concept, then the analysis of art aspects of media texts will take place in his/ her classroom. If a teacher is interested in semiotics, then sign systems of a media text will be analyzed. However, Sharikov remarks that disagreement between personal referent systems of a teacher and students may cause problems.

A. Sharikov has also defined the term “media communicative competence”, as “the proficiency in perception, creation and communication of message through technical and semiotic systems taking into account their limitations, based on critical thinking, and also on the ability to media dialogue with other people” (Sharokov, 1990, p. 64).

The book “Media Education: International and Russian experience” also included a brief historical and pedagogical outline of the development of media education in Russia. A. Sharikov proved the legitimacy of Russian media education in the context of interrelations between education and culture. “There are two main functions of education related to culture. The first function is to maintain culture with the help of the mechanism of reproduction of culture at individual level. In other words culture can only be preserved through education. Without education, culture runs the risk of being destroyed. I will call this function of education as “reproductive”. The second function is that education is an essential prerequisite for the

development of culture. In other words education provides that foundation for the development of culture. I will label this function as “productive”. The latter function is connected, first of all, to the creative structures of human activity. So, education in a broad sense is the condition, both for maintaining, and advancing culture. (...) If one accepts such point of view, then media education is a prerequisite of both maintaining, and developing media culture» (Sharikov, 1990, p. 25-26).

Besides A. Sharikov drew the attention of readers that any new emerging mass medium gives rise to a corresponding field of education: first, at the level of professional training, and then - in secondary schools and departments of education. Thus, as Sharikov emphasized, it is the professionals in media sphere (film critics, journalists etc.), sensing problems of the dialogue between an author of a media text and audience, tend to share their knowledge with students and teachers.

Further A. Sharikov conventionally divided media education in Russia in two main directions: education on the material of newspapers, magazines and radio (“journalistic” direction) and education on the material of cinematograph (“aesthetic” direction) and described landmarks in the development of these directions from the 1920s to the 1980s pointing out their dramatic dependence on Marxist ideology (Sharikov, 1990, p.29-38).

In 1991 A. Sharikov (together with T. Stroganova) compiled the bibliographic catalogue of books and theses on media education (Sharikov, Stroganova, 1991). The other collaborative work (with E. Cherkashin) resulted in the publication of an experimental media education curriculum prototype for school pupils (Sharikov, Cherkashin, 1991).

A. Sharikov highlighted a number of problems connected to the intensive development of media in Russia (media as a “parallel school”, media and the system of traditional education, the necessity of “protection” of children from negative influence of media in an information society. In particular, he emphasized a serious problem of media influence on the development of values and norms of behaviour of children and teenagers. “While in totalitarian period this problem was solved by censorship control, that is by limitation of the accessible information, now its solution is impossible without the development of a referent system of values and critical attitude to media messages” (Sharikov, Cherkashin, 1991, p. 1-2).

In 1991 A. Sharikov elaborated an experimental syllabus of the course “Mass Communications” (Sharikov, Cherkashin, 1991, p. 5-25) for secondary schools. It included the following issues:

- main concepts and laws of the communication theory
- semiotic systems, their structure and properties;
- perception and interpretation of messages based on the development of skills of analysis, interpretation, evaluation and expression of own attitude;
- mass media (structural, functional, social and other aspects) (Sharikov, Cherkashin, 1991, p. 6).

It was stressed that the above-stated issues should preferably be introduced not only through lectures, but mainly through hands-on activities, where pupils could be involved in creative work related to different types of media - print press, cinematograph, photo, sound recording, television, computer communications, etc.

The second experimental syllabus by Sharikov and Cherkashin, “Mass Media and Education” (for classes with pedagogical emphasis, i.e. in special schools whose graduates as a rule enter university Departments of Education) (Sharikov, Cherkashin, 1991, p.26-36) is constructed by the similar pattern. However a significant place is given to matters of teaching methods of media education. Recommended activities included: production of model dust-covers for children's books, photo montage, slide/video films, audio recordings (radio programs, educational programs etc.), school papers, television programs, holding seminars, discussions related to media texts analysis and more (Sharikov, Cherkashin, 1991, p. 29). These activities were supposed to result in the development of skills of perception, understanding, evaluation, interpretation of various media texts, and the development of communicative abilities of pupils.

In the second half of the 1990s A. Sharikov changed the sphere of his academic interests due to another job position. He became the supervisor of the sociology office of the Russian television and radio company RTR (Moscow). His research during those years was centered on the influences

of television on society and the problems of monitoring. The data of the research included also TV-preferences of children and youth.

Currently Dr. A. Sharikov is the Professor of the State University *Higher School of Economics*, Department of Media Management and Media Business (Moscow).

Conclusion.

The analysis of media educational work of the famous Russian media educators leads us to the conclusion that media education in Russia is developing, building on the synthesis of the aesthetic, socio-cultural, and practical concepts, with a focus on the development of media competence of the audience, mainly school and youth. The enthusiasts of media education, even devoid of substantial public support for its innovative projects, achieve significant and meaningful results.

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УДК 378

Российские медиапедагоги: портреты

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Аннотация. Анализ медиаобразовательного творчества известных российских медиапедагогов приводит нас к выводу, что медиаобразование в России развивается с опорой на синтез эстетической, социокультурной, культурологической и практической концепций, с ориентацией на развитие медиакомпетентности аудитории, преимущественно школьной, молодежной. Изученный опыт показывает, что энтузиасты медиаобразования, даже лишённые существенной государственной поддержки своих новаторских проектов, добиваются существенных и значимых результатов.

Ключевые слова: Россия; медиапедагоги; медиаобразование; медиакомпетентность; медиаграмотность; школы; учителя.

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Students Perceptions about Celebrity Endorsement

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Abstract. The instrument of celebrity endorsement has nowadays become a pervasive element in advertising and communication management. It is unanimously accepted that celebrity endorsement can grant extraordinary characteristics to a product or service that may have lacked otherwise. The great number of celebrities endorsing brands has been increasing over the past decades. The purpose of this study is to examine perceptions of the student population in Bosnia and Herzegovina (hereafter named BiH) about the celebrity endorsement. Questionnaire is designed and used to survey a randomly selected sample of university students and 125 usable responses were obtained. During the research, five hypotheses have been tested. Data were analyzed by performing descriptive statistics and Chi-Square test. Chi-Square test was used to analyze relationship between nationality of respondents and factors that influence decision of choosing celebrity endorser by firm. Findings show that students perceive celebrities as a very important factor in advertisements.

Keywords: celebrity endorsement; students; advertising; consumer perceptions.

Introduction.

The emergence of the concept called celebrity endorsement has created the need to understand how and why this concept is used as a tool of promotion. Despite the cost and the risks involved with this technique of advertising, it has been used quite extensively in the present era. All over the world, celebrities have been used for different types of brands. Everyone is exposed to advertisements, especially young population. The marketing landscape has become more differentiated by advertisements, and it is very easy to get noticed. Indeed, even though celebrity endorsement represents some risks, it is a largely used method to reach competitive advantage by companies.

Today, companies spend millions each year for the endorsement of their products/services by celebrities. It is always a great challenge for marketers to determine the meaning consumers associate with the brand in order to select the right celebrity and to build the right celebrity endorsement concept. In fact, there are many factors influencing the effectiveness of a celebrity endorsement strategy which are not taken into consideration well enough.

Although the trend in celebrity advertising is gaining momentum in BiH, there is limited information on how Bosnian consumers perceive the advertising of branded products by celebrities, especially student population. Are there differences in their perceptions towards product endorsement by celebrities? Is the celebrity key motivation factor when they are buying a product? These questions are particularly important as there were no prior studies or information related to these issues.

With growing competitiveness in today's industry and similarity of products and services offered by different companies, it has become increasingly important that companies identify the best way of advertising their market offerings. Exploring such information will help companies to identify the appropriate marketing strategies needed to attract new customers and retain existing ones. One promising segment which arguably, has not been given enough attention is the younger

age group. Companies which are planning to cultivate this vibrant market segment must understand how individuals belonging to such segments perceive celebrity endorsement that companies are using in their advertising. Furthermore, students constitute significant population of consumers and it seems very important to find out their opinion about this process.

By investigating students' perceptions about celebrity endorsements this study will help marketers to see if celebrity advertisements are more effective than non-celebrity advertisements as well as if celebrity can have the power to change students' perceptions about the product.

This study analyzes celebrity endorsement through existing literature and brings attitudes of student population in BiH about this matter. In following sections basic definitions of celebrity and endorsement, historical background of this marketing strategy, the reasons why celebrities are used in advertisements, as well as research objectives and hypothesis will be presented. How data were collected for this study will be presented in methodology section. Following methodology section, five hypotheses will be tested. Data will be analyzed by performing descriptive statistics and Chi-Square test. Chi-Square test will be used to analyze relationship between nationality of respondents and factors that influence decision of choosing celebrity endorser by firm. As last part of this study, results from descriptive analyzes and Chi-Square test will be presented together with the conclusion section were different suggestions for marketers and other company representatives will be provided, in order to improve quality of the service as well as design of new advertising offers.

Literature review.

A definition of celebrity and endorsement

In the literature, there are quite many definitions of celebrities, stated from different perspectives, but in this research, we bring two definitions from widely known experts in this matter.

Friedman & Friedman (1979) explain that *"a celebrity is a person such as an actor, sportsman, entertainer, etc, who is different from the general public and is recognized by them, because of his or her achievements."*

"Celebrities are people who enjoy public recognition by a large share of a certain group of people whereas attributes like attractiveness, extraordinary lifestyle are just examples, and specific common characteristics cannot be observed, though it can be said that within a corresponding social group celebrities generally differ from the social norm and enjoy a high degree of public awareness" (Schlecht, 2003).

On the other hand Roll (2006) provided a definition of endorsement by stating that: *"Endorsement is a channel of brand communication in which a celebrity acts as the brand's spokesperson and certifies the brand's claim and position by extending his/her personality, popularity, stature in the society or expertise in the field to the brand."*

Customer perceptions about celebrity endorsement

Customer perceptions about celebrity endorsement have been of big interest by researchers in past several years. The results of previous studies showed that the highest benefit of involving celebrities in advertising is to create exposure and attention from consumers. Particular differences and similarities are present in the impact of celebrity endorsements and how consumers perceive them. While there is a positive impact of celebrity endorsements on attention and exposure of consumers, its connection to positive attitudes towards brands and purchase decision is less understandable (Biswas, Hussain, & O'Donnell, 2009).

According to Erdogan *et al.*, 2001 consumers perceive that information coming from celebrity, especially famous spokesperson has more similarities with their lifestyle and interest in comparison to the unknown persons.

Both, theory and practice have proven that the use of celebrities in advertising is a good way for attracting attention of a public (Ohanian, 1991).

Celebrities are very popular among the public and they enjoy in being seen by vast majority of people. Good looks, interesting lifestyles and different backgrounds are just some of celebrities' special characteristics that are differentiating them from ordinary people, which guarantee them a great amount of the public's attention.

Celebrity endorsers are used by the companies because they are considered to have something that is called "stopping power", i.e., a celebrity can be a useful tool to draw attention in advertising messages directed to public.

Additionally, consumers usually have perception that, when a celebrity endorses a company, it tells that the company has good reputation, products or good customer service and their products are worth of buying.

According to Escalas & Bettman (2003), some people are building image of themselves from brand associations based on celebrity endorsement; they do that in a manner that is consistent with self-related needs, such as self-enhancement. For example, a consumer may imagine about himself to be a sportsman and nice dressed, like David Beckham, who is now endorsing many brands, including Adidas and Police sunglasses.

According to his desire to look more like Beckham, the consumer may choose to play football in Adidas shoes and wear Police sunglasses when not playing the football game. As a result of that process, he may create a self-brand connection to these brands endorsed by Beckham, which helps to him to create his self-concept around the images of being athletic and well dressed. Thanks to this, he will communicate with others representing this self-image of him.

Schlecht (2003) analyzes the connection between consumer perceptions about celebrity endorsements and brands, by applying a theory of widely accepted principles of how consumers' brand attitudes and thoughts can be positively influenced. She found in her study that celebrity endorsement strategies can under the right circumstances indeed justify the high costs associated with advertising.

According to Amos, Holmes & Stratton (2008) there is a relationship between use of a celebrity endorser and the effectiveness of that endorsement. This result emphasizes the high risk associated with using celebrity endorsers as well as the great impact of scandals attached with celebrities.

Silvera & Austad (2004) highlight characteristics of advertisements that make them effective in delivering messages. The finding propose that endorsement advertising effectiveness can be strongly influenced by consumers' perceptions concerning whether the endorser truly likes the product. This research also suggests that advertisers should put more effort not only into selecting right endorsers, but also into providing strong arguments and explanations for which reason endorsers actually do like the products they endorse.

Relationship between celebrity endorsements and brands was examined by Mukherjee (2009), as well as the impact of celebrity endorsement on consumer's buying behavior. In his opinion, celebrity endorsement is always a two-edged sword and it has a number of positives—if properly matched it can do miracle for the company, and if not it may produce a very negative consequences for the brand and company at all.

Gan (2006) investigates the Chinese consumer's behaviors toward celebrity and non-celebrity advertisement. The results show that Chinese consumers like celebrity who has more professional career skills, appearances, communication skills etc.

Hunter & Davidsson (2008) explore impact of negative information about celebrity to consumer perception about brand. Conclusion is that negative information might leads to negative attitude towards the brand. But, that is not case if company is led by celebrity.

Saleem (2007) highlighted that a celebrity endorsement is becoming very important part of marketing structure. She proposes that marketers should use celebrities in ads when there is no or very little product differentiation. But, when marketers have to focus on more diverse market, multiple celebrities endorsement (more than one celebrity in a single advertisement) could be an answer.

Koernig & Boyd (2009) take an example of famous athlete and unknown model in order to examine the roles of product endorser "match" with celebrity and non-celebrity endorsers. The results show that a famous athlete is more effective when endorsing a sport brand than a non-sport brand.

In her paper Rafique, (2012) investigated the customer perceptions about celebrity endorsements with respect to their physical attractiveness, source credibility and congruence on customers' brand perception and purchase intention. In her paper she tested the efficacy of this marketing tool. Data that were collected from 103 respondents in questionnaire form have been factor analyzed. And also she used ANOVA, Regression Analysis and CronBach's Alpha to verify the

devised model. Results of her study showed that celebrity endorsements do have impact on customer's perception and purchase intention.

Pughazhendi, Baskaran, Prakash, & Balamurugan, (2012) in their study explored the consumer perceptions towards single celebrity endorsement and multiple celebrity endorsement more than one celebrity in a single advertisement for high and low involvement products and services. They designed questionnaires and deliver them to three hundred university students to assess the impact of multiple and single celebrities' endorsement with respect to high and low involvement products. In their study they used regression and t test analyses and results of these analyses showed that the customer perceptions toward advertisements, brand and purchase intentions are more positive for multiple celebrities' ads.

Research Objective

The topic of celebrity endorsements and its elements is deeply acknowledged in academic literature, but what makes this research out of the ordinary is that it enables us to understand the celebrity endorsement process from a student's point of view.

Not much has been seen in the student's light despite the fact of it being perceived as a potential market segment for celebrity endorsed products.

Attitudes of student population are changing at a rapid pace and they are becoming more aware of the products that they use to define their 'self'. The research is carried out to obtain a view among student population about celebrity endorsement. Is it as positive as it is assumed to be?

Most advertisements, majorly focuses on the young generation, therefore their perception about the celebrity endorsed form of advertisement is out of most importance, also getting to know the attitude the youth provides the knowledge of the most current incidents or attitudes of any country, hence the youth has been targeted in this research.

The research undertaken on celebrity endorsement in this study will be useful on both academic and professional platform, as it looks into the perception of students on celebrity endorsement, providing theory for scholarly and directives for managers and professionals.

Research Hypotheses

In this research, we developed 5 hypotheses which are going to be tested.

H₁ Celebrity advertisements are more effective than non-celebrity advertisements.

H₂ Male endorser is more effective as compared to female endorser.

H₃ Celebrity has the power to change students' perceptions about the product.

H₄ There is no relationship between nationality of students and factors that influence decision of choosing celebrity endorser by firms.

H₅ There is no relationship between gender of students and type of celebrity who is preferred to be seen in advertisements the most.

Methodology.

Data for the study were collected through a survey delivered to students in Bosnia and Herzegovina. A total of 200 questionnaires were distributed to students who live in different cities in Bosnia and Herzegovina. Of the 200 questionnaires, 125 were accepted as usable for the study. Questionnaire was consisted from 20 items. Results have been analyzed by using SPSS software. Data were analyzed by performing descriptive statistics and Chi-Square test. Chi-Square test was used to analyze relationship between nationality of respondents and factors that influence decision of choosing celebrity endorser by firm. All questions have been mandatory to answer in order to create clear picture about attitudes of respondents. Results of these findings will be presented in following section.

Results.

In the following pages educational, national and gender structure of our respondents will be presented. After that hypotheses will be tested.

Table 1: Educational level of respondents

	Frequency	Percent	Valid Percent
Undergraduate student	90	72	72
Graduate student	35	28	28
Total	125	100	100

As we can see from table 1, there were 90 undergraduate students (72%) and 35 graduate students (28 %) that we used in the sample for our study.

Table 2: Nationality of respondents

	Frequency	Percent	Valid Percent
Bosnian	83	66.4	66.4
Turkish	32	25.6	25.6
Serbian	7	5.6	5.6
Pakistani	1	0.8	0.8
Mongolian	2	1.6	1.6
Total	125	100	100

Looking at the table 2 we can find information about subjects' nationality. Questionnaire was distributed to students of different national backgrounds. Bosnians were again vast majority (66,4 %), Turkish (25,6 %), Mongolians (1,6 %), Serbians (5,6 %). Also, there was one student from Pakistan (0,8 %).

Table 3: Gender of respondents used in the sample

	Frequency	Percent	Valid Percent
Male	75	60	60
Female	50	40	40
Total	125	100	100

For this study as a sample we used both, males and females. In table 3 we can notice that there were 75 male respondents (60 %) and 50 female respondents (40%) used in the sample.

After we find out proportion of educational, nationality and gender background, we are going to test our hypotheses.

H₁ Celebrity advertisements are more effective than non-celebrity advertisements.

Table 4: Students' perceptions about the effectiveness of celebrity advertisements as compared to non-celebrity advertisements

	Frequency	Percent	Valid Percent
Strongly Disagree	11	8.8	8.8
Disagree	24	19.2	19.2
Neutral	19	15.2	15.2
Agree	37	29.6	29.6
Strongly Agree	34	27.2	27.2
Total	125	100	100

The percent of students which agree with statement (56,8 %) is much more higher than percent of students which disagree with this statement (28 %). So H_1 is accepted, according to students' opinion, celebrity advertisements are more influential than non-celebrity advertisements.

H_2 Male endorser is more effective as compared to female endorser.

Table 5: Students' perceptions about the effectiveness of male endorser as compared to female endorser

	Frequency	Percent	Valid Percent
Strongly Disagree	27	21.6	21.6
Disagree	42	33.6	33.6
Neutral	25	20	20
Agree	20	16	16
Strongly Agree	11	8.8	8.8
Total	125	100	100

The percentage of students who disagree with this statement (55,12 %) is slightly bigger than percentage of students which agree (24,8 %). So, H_2 is rejected, in students' view, male endorser is not more effective as compared to female endorser.

H_3 Celebrity has the power to change students' perceptions about the product

Table 6: Influence of celebrity on students' perceptions about the product

	Frequency	Percent	Valid Percent
Strongly Disagree	9	7.2	7.2
Disagree	28	22.4	22.4
Neutral	28	22.4	22.4
Agree	36	28.8	28.8
Strongly Agree	24	19.2	19.2
Total	125	100	100

From the table 6 we can clearly see that 48 % of students believe that celebrity has the power to change their perceptions about the product, while 29,6 % disagree with that statement. The rest

of population is neutral (22,4%). So, H_3 is accepted, students believe that celebrity can change perceptions about products to some extent.

H_4 *There is no relationship between nationality of students and factors that influence decision of choosing celebrity endorser by firms.*

Table 7: Relationship between nationality of students and factors that influence decision of choosing celebrity endorser by firms

Nationality	Popularity	Physical attractiveness	Cost of acquiring celebrity	Other	Total
Bosnian	37	23	17	6	83
Turkish	15	7	5	5	32
Serbian	3	1	0	3	7
Pakistani	1	0	0	0	1
Mongolian	1	0	1	0	2
	57	31	23	14	125

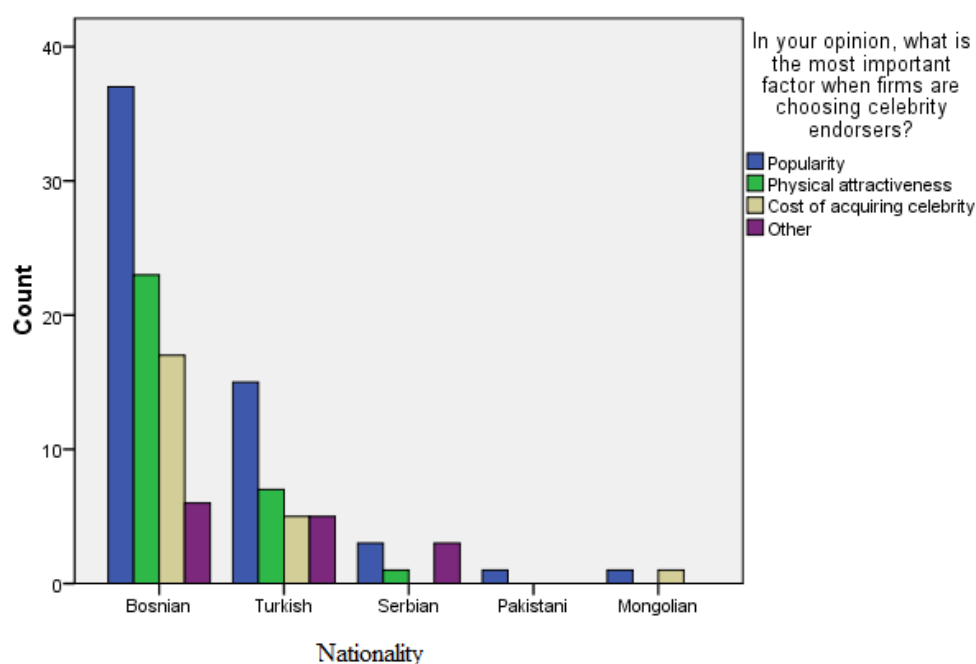


Figure 1. Relationship between nationality of students and factors that influence decision of choosing celebrity endorser by firms

Table 8: Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.36394	12	0.343
Likelihood Ratio	12.91446	12	0.375
Linear-by-Linear Association	0.400787	1	0.527
N of Valid Cases	125		

Chi-Square test is used to analyze is there any relationship between nationality of respondents and factors that influence decision of choosing celebrity endorser by firm. From the table, we can see that p-value is 0.343 and level of significance is 0.05. Since p-value is higher than level of significance, we will accept H_4 . For majority of students, popularity of celebrity is the most important factor.

H_5 There is no relationship between gender of students and type of celebrity who is preferred to be seen in advertisements the most

Table 9: Relationship between gender of students and type of celebrity who is preferred to be seen in advertisements the most

Gender	Athletes	Footballers	Models	Actors	Total
Male	8	30	20	17	75
Female	6	9	22	13	50
Total	14	39	42	30	125

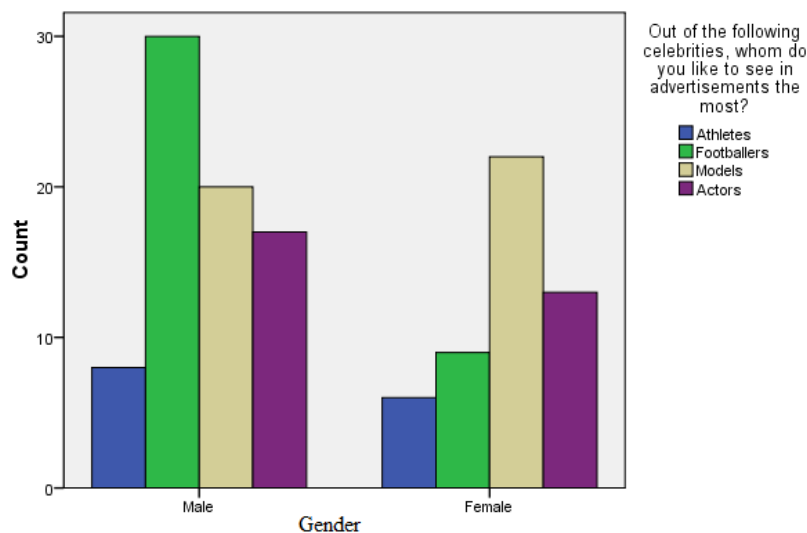


Figure 8. Relationship between gender of students and type of celebrity who is preferred to be seen in advertisements the most

TABLE 10: Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.522894	3	0.057
Likelihood Ratio	7.812572	3	0.05
Linear-by-Linear Association	1.675832	1	0.195
N of Valid Cases	125		

Chi-Square test is used to analyze is there any relationship between gender of respondents and celebrity who is preferred to be seen in advertisements the most. From the table, we can see that p-value is 0.057 and level of significance is 0.05. Since p-value is higher than level of significance, we will accept H_5 . Footballers are favorite celebrities for male students, whereas models are favorite celebrities for female students.

Conclusion.

In today's serious advertising clutter, with the purpose to differentiate products from competitors, celebrity endorsement strategy can be a successful competitive tool for companies in established and saturated markets. There will not be place for real product differentiation in markets, as long as the company selects the "right" celebrity.

In this paper, students' perceptions about celebrity endorsements were analyzed. Students believe that celebrity advertisements are more influential than non-celebrity advertisements. Celebrity endorsement advertising strategies can under the right conditions give good reason for the high costs for this kind of advertising. On the other hand, companies must know the fact that the usefulness of celebrity advertising is mostly to the degree of drawing consumers' attention and may not automatically transform to purchase behavior. It is crucial for marketers to be aware of consumer perceptions about celebrity endorsement in this respect.

Even though many studies show that gender or cross gender interactions between endorsers and target segment of customers are assorted and incapable to provide any course to practitioners, (Erdogan, 1999) this study showed that students don't perceive male endorser more effective than female endorser.

Another finding that can be useful information to marketers is that students perceive that celebrity has the power to change their perceptions about the product.

The present research also suggest that marketers should choose celebrity endorser who is the most popular in order to target student population in BiH. Other characteristics of celebrity seem quite irrelevant for students. It is very interesting fact that majority of respondents of all national groups perceive celebrity popularity as the most important factor. There is no a significant relationship between gender of students and celebrity who is preferred to be seen in advertisements. Male students prefer footballers as celebrity endorsers, whereas female students prefer actors as celebrity endorsers. For marketers, it is very important fact when creating advertising messages to student population in BiH. On the other hand there is no significant relationship between nationality of students and factors that influence decision of choosing celebrity endorser by firms

Because this research has concentrated its attention on students, researches conducted in the future can focus on a different range of age and profiles of persons in Bosnia and Herzegovina, which could reveal various viewpoints and information about this topic. The population of Bosnia and Herzegovina is not very big, but in its small size bares great diversity. Thus various researchers targeting various groups of people with different ethnicities and also according to their socio-economic classes need to be conducted.

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Представления студентов о рекламе с участием "звёзд"

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Аннотация. Инструмент рекламы с участием "звёзд" в наши дни стал повсеместным элементом рекламы и коммуникационного менеджмента. Общеизвестно, что реклама с участием "звёзд" может придать продукту или сервису исключительные характеристики, которые в другом случае могли и не «выстрелить». За последние десятилетия появилось огромное количество "звёзд", рекламирующих бренды. Цель данной работы – проанализировать представления студентов Боснии и Герцеговины (далее - БиГ) о рекламе с участием "звёзд". Опросник был составлен и применен для изучения мнения случайно отобранных студентов университета. Было получено 125 ответов. В ходе исследования были протестированы пять гипотез. Данные были проанализированы с применением описательной статистики и критерия хи-квадрат. Критерий хи-квадрат был использован для анализа соотношения национальности респондентов и факторов, влияющих на выбор фирмой звезды для рекламы. Результаты показали, что студенты воспринимают звезд как важный фактор рекламы.

Ключевые слова: реклама с участием "звёзд"; студенты; реклама; представления потребителей.

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A History of Computer-Based Instruction and its Effects on Developing Instructional Technologies

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Abstract. The purpose of the paper is to discuss instructional and technological developments based on the history of computer-based instruction (CBI). Historically, the development of the CBI movement began in earnest at the end of 1960s and in the early 1970s. At that time, computers, for the first time, began to be used in education, basically for teaching language and mathematics. Historically, CBI emerged from the programmed instruction and teaching machines of the middle of the 1950s. Educational computing began with a few large, government-funded projects on mainframe and minicomputers. At this time, several projects were developed to be utilized in instructional processes, such as PLATO and TICCIT. As a result, the developments after the 1970s will be discussed regarding the CBI process so as to indicate new instructional and technological developments as part of new learning technologies from past to present for students and educators in schools.

Keywords: Computer-based instruction (CBI); learning technologies; instructional design and technology (IDT).

Introduction.

It has been approximately 50 years since educators and computer scientists began using computers for instructional purposes. During this time, remarkable advances have been made in computer technology and its availability for instruction. Computer-based instruction (CBI) emerged from programmed instruction and teaching machines in the late 1950s. There are four distinct phases in CBI development and its search for acceptance in education. Each phase is marked by its attitudes towards hardware and software needs, and towards the psychology of learning, and by its interpretations of barriers to wider adaptation in schools. At this time, we can talk about the age of CBI, the age of engineers, the age of acronyms, the age of titans, including artificial intelligence in CBI and authoring languages and the testing of courseware, and the age of small wonders as intelligent tutoring systems (Venezky & Osin, 1991). Educational computing began with a few large, government-funded projects on mainframes and minicomputers. At this time, several projects were developed to use in instructional process. For instance, the PLATO project at the University of Illinois in 1960 was developed and eventually enabled CBI to integrate text and graphics, providing instructors with one of the first programming environments for CBI (Alessi & Trollip, 2001; İpek, 2001).

After developing new technologies, educational computing created new instructional applications in education. At this time, hundreds of research studies were performed attempting to prove that using computers to teach something is better than using books, teachers, films or traditional methods. CBI has been advocated by reviews of these studies (Kulik & Kulik, 1986). Several meta-analysis studies have been completed by Kulik and colleagues. Intelligent CBI was discussed as a new topic in addition to conventional CBI (Venezky & Osin, 1991). In the field of computer-based instruction, personal computers were first used to support education for individual learners in the 1980s, World Wide Web (WWW) technologies were first used to support

e-learners in the 1990s, and mobile devices and wireless technologies were first used to support education for mobile learners in the 2000s.

A history of CBI and Instructional Methodologies

Computer-aided instruction (CAI) was used interchangeably with CBI and has gained acceptance in educational settings from kinder garden classrooms through to graduate schools. In general, CBI is the process of instruction, as instructional computer programs are defined by a variety of names, as follows: *computer-assisted/aided instruction (CAI)*, *computer-based education (CBE)*, *computer-assisted learning (CAL)*, *instructional applications of computers (IAC)* and *computer-based instruction (CBI)*.

In this paper, we prefer to use 'CBI' because our emphasis is on instruction rather than education, and because education is also a broad term. According to this approach, instructional methodologies for effective instruction should cover four phases in presenting information, guiding the student, enabling practice by the student and assessing student learning (Alessi & Trollip, 2001; İpek, 2001). There are several instructional methods in CBI such as tutorials, drills, simulations, games, animations and tests. CBI includes the following developments in history. The period of Plato, Socrates and Aristotle includes perception and thinking for learning as Middle Ages knowledge. When we reach the 20th century, Skinner talked about programmed instruction and a teaching machine in relation to Pressey's work at Ohio State University in the 1920s, construing it as a scoring machine. For this reason, Skinner - who had developed a widely accepted theory of learning based on techniques originally designed for training rats and pigeons - become interested (in the early 1950s) in machines that could implement his approach to instruction and learning strategies. Skinner, for the first time, had the idea to develop CBI. Afterwards, a new aspect of programmed instruction was considered on branching, initiated by Crowder in the 1960s. Thus, the roots of CBI are based on the theory of operant conditioning developed by Skinner. His theory was then applied to human learning (Skinner, 1954, 1963). Of course, and at first, CBI was designed as a poor technique for all instructional processes. Taylor (1980) considered instructional computing activities as a tool for both tutor and tutee. Computers can be used as a tool and teach any content as a private teacher (tutor), and the computer itself can learn from the student (tutee) and then teach content well, such as using Logo for geometry instruction.

CBI Methods and Instructional Programs

According to the model we have so far described, instructional programs include several types of CBI programs. CBI programs are defined as tutorials, hypermedia, drills and practice, simulations, games, animations, web-based learning and tests. There are various close relationships between cognitive psychology and CBI processes. Thus, the constructivist approach as a theory of learning was criticized for using computers and multimedia. Well-known educational technology leaders in the constructivist corner of the triangle include Duffy & Cunningham (1996), Jonassen (1991) and Schank & Cleary (1995). More moderate constructivist approaches have been suggested by numerous educators. In the cognitive corner of the triangle, there are many educators and instructional designers, including Rieber (1992), Reigeluth (1996) and Jacobson and Spiro (1995), who have considered how instructional processes should depend on goals, learners and content. According to them, instructional environments must include a combination of behavioural, cognitive and constructivist approaches. In addition, in the behaviourist corner of the triangle, educators and designers support much a more directed approach to instruction and the use of the instructional systems in their design methodology. Today, designing CBI has changed given technological developments, and changing needs and learning theories. However, conventional CBI from Skinner to the present has seen new improvements such as intelligent CBI methods, expert systems and other technological developments based on the history of CBI. These new techniques can be defined as elements of CBI - for instance, hypermedia, hypertext and also multimedia. Recently, the concept of 'CBI' has changed as interactive multimedia for learning with new technologies has been introduced (Alessi & Trollip, 2001).

Tutorials: Tutorial programs aim to teach a subject in a course. In a tutorial, information is presented and learner is guided through the initial use of information and skills. The learner practices and then learning occurs. Tutorials, in their sequence and structure, include questions, responses, the judgment of responses, feedback or remediation and learner control. It uses

hierarchical, web and matrix structures for organizing skills and effective teaching. There are linear and branching tutorials for the organization and sequencing of program segments.

Hypermedia: Today, hypermedia is becoming a common methodology that is delivered on the Web, on CD, and on other digital media. Hypermedia is used interchangeably with hypertext. Hypertext is a non-linear and non-sequential piece of writing in a text that was first defined by Vannevar Bush in 1935, with the first publication of the idea in *Atlantic* magazine in 1945. Theodor Nelson coined the terms “hypertext” and “hypermedia” in 1965 and he has acted as an evangelist for the concepts ever since. His definition of hypertext is computer-supported non-sequential writing. He created the Xanadu® plan and also sought to serve hundreds of millions of users simultaneously by using a world-wide network (Horn, 1989). Hypermedia indicates the technological point of developing multimedia and linking information resources. This is because hypertext indicates nodes and buttons (links). Buttons represent the function of hypermedia. Multimedia uses these functions to develop instructional materials by using video and sound for presenting and learning content in instructional environments (Alessi & Trollip, 2001; İpek, 2001).

Drill practice: Some methodologies can be defined as more constructivist, whereas others are more objectivist in nature. Drills, like tutorials, more frequently represent objectivist approaches. Drills are frequently used for practice on a course. They are not used for teaching learners. In this way, students try to remember information and knowledge for problem-solving when they use it. Developing a drill structure includes selecting items, questions and responses, judging responses, and feedback in a flowchart. The drill programme should be about fifteen minutes long so as to increase motivation by using games, cooperative learning, competitions, setting reasonable and relevant procedures, displays and short drill sessions.

Simulation: Simulations are developed and perceived as being more interesting and motivating than many other methodologies. They provide a better environment for learning by using the computer technology in a real world situation. Simulations have advantages and disadvantages based on the various types of simulations and conventional CBI design in learning. Today, animations have been developed as a form of feedback in simulations to motivate learner performances and display procedures in learning - that is, they present entertainment facilities as well as learning strategies in classes. The factors in simulations are defined in terms of fidelity, delivery mode, instructional strategy and other components including the objects, precision, type of reality, sequence, solutions, time frame and role of the learner.

Instructional games: Games have a number of advantages for children as learning environments. Many educators around the world consider games to be appropriate for young people. In fact, games can be used at different levels, with very different types of learners. As well as children, they are also used at college level for more mature students. Basically, instructional games should provide clear objectives to make learning a reality and use sensory and cognitive curiosity to maintain motivation. After providing all the necessary information, games offer reward learning rather than luck, recognize the winner, clear the display, and then give a final message at the end. Factors in games are defined in terms of goals, rules, players, equipment, directions, constraints, penalties and choices.

Tools and learning environments: This aspect differs from the conventional methodologies in CBI in three ways. First, the types of software discussed here are more varied and difficult to define than most of the CBI methodologies. Second, much of the software indicated in this paper reflects a more constructivist approach to learning and teaching. The constructivist approach, for the first time mentioned in the 1990s, affects the learning process as a learning theory, not as an instructional design (ID) model. However, without a strict approach, instructional design models can be used to apply the principles of constructivist theory in learning and designing CBI methods (Alessi & Trollip, 2001; Seels & Glasgow, 1998; van Merriënboer, 2007). Third, we do not list and analyse the elements of tools and open-ended learning environments, as indicated by Taylor (1980), such as tutor, tutee, nor the tools for using computers in classrooms. For designing CBI programs, motivation and screen design procedures have been concerned with effective teaching with computers. Recently, computers have been used as a tool for writing, drawing, planning, calculating and communicating. At present, electronic performance support systems (EPSSs), microworlds such as LOGO and learning tools, have become popular and assisted learners in studying, organizing and understanding new skills. Jonassen (2000) has also defined them differently, using a new term ‘mindtools’. The term enhances critical thinking and defines their use

in a variety of situations and controlling learner. In addition, mindtools generally provide collaboration and active and constructive learning, and are used in authentic learning contexts. There is also concept mapping, semantic networks, expert systems and simulation tools. They can be used as tools and as examples of learning environments and have been developed by instructional technologists. The term 'open-ended learning environment' (OLES) was defined for solving meaningful problems and learning from errors (Hannafin, Land & Oliver, 1999). The idea was used as part of the constructivist approach at that time.

Tests: Assessment, as a phase of an instructional model, is an essential aspect of all quality instruction as well as of instructional design models. This aspect deals with the construction of tests and their administration. Computers can also assist in test construction by generating items and performing item analysis. Today, computerized tests can be developed with web and Internet tools, with various advantages and disadvantages, as well as for traditional test construction.

Web-based learning: This part discusses the use of the WWW, which is part of the Internet, as a new method for delivering instructional materials for learning and teaching. Before discussing this method, we can ask what the WWW is. We start with technical improvements and explanations. The WWW was first used as part of the Internet which, in the 1960s, was called 'ARPANET' for the Army's Advanced Research Projects Agency Network, to provide communications with computers and people at the different locations in USA. The network began with government and universities and then became commercial for those who wanted to take advantage of it. Today, websites are developed for public or private use. Web-based learning includes network standards, platforms, delivery instructions, communications, methodologies for learning and integrating media or tools for distance learning, and managing and integrating learning activities based on hypertext and hypermedia formats as well as multimedia components.

New Technologies with Multimedia Instruction

All new technologies for IDT were originally to be used for designing instruction in distance learning, which includes e-learning, email, CD-ROM, DVD, the Web, Internet-based instruction tools and other learning tools. With new technologies, the concept of e-learning as a part of distance learning has developed new roles to define its functions based on different kinds of e-learning. E-learning is an emerging technology for faster and more efficient knowledge management and transfer. The various kinds of e-learning and their methods can be defined as follows below.

Traditional e-learning is the basic way of creating e-learning modules. **Rapid e-learning** emerged as an important trend from the e-learning market with the beginning of the conversion and expansion tools of PowerPoint and Flash in 2003-2004. E-learning has been expanding rapidly over the course of the last decade, with the notable drawback of the complexity of its development. Rapid e-learning is a way to build e-learning courses. It provides for the very quick transfer of knowledge, fast developing processes at a low cost and has a real impact on performance.

Mobile e-learning (or 'm-learning') is e-learning taken mobile. It merges education with mobile technology. Over the last decade, m-learning has moved from a small research field to an array of relevant tools used by schools, workplaces, museums, cities and rural areas around the world. It is also collaborative, like most other forms of e-learning. Interaction is fast and easy, and so feedback and tips are nearly instantaneous. Another advantage of m-learning is compatibility. One of the biggest incompatibilities is that of flash e-learning, with Apple's iPods and iPhones. Flash simply will not run on the iOS. Format design is also an important activity for m-learning as well as CBI screens. Screen and key sizes need to be taken into account, as well as the compatibility of file formats and conventional CBI screen design.

If we are to look at the effectiveness and interactivity for flash e-learning, we may conclude that that it is the way to go for our e-learning modules. Flash e-learning allows individuals to create animated characters and immersive environments, simulate interactions, dynamically test everything that is needed with feedback and create interactive learning games without expensive programming. Companies such as U&I Learning (2012) use and recommend Raptivity for the creation of Flash e-learning modules. This software creates didactic Flash animations based on models, without any programming. There are over 200 animations ready for use or rapid-learning. U&I Learning offers cost-effective, learner-friendly, customized asynchronous Flash e-learning solutions that are globally scalable. These activities can be used effectively in distance education as

a part of intelligent CBI design. The company deals with developing types of e-learning content. Businesses traditionally focus on skills and human performance.

Blended learning, ever more valued by companies, refers to a mix of different learning environments. It gives learners and teachers a potential environment in which to learn and teach more effectively. Teachers can combine multiple teaching methods. For instance, they could give a face-to-face class to present content, and then follow up with materials online. Another possibility lies in integrating e-learning with a Learning Management System (LMS) using computers in a physical classroom, along with face-to-face instruction. In addition to these developments in CBI and distance education, instructional games as a method of CBI – called ‘serious games’ – can serve as more than pure entertainment. This indicates the use of technologies for industries like defence, education, scientific exploration, healthcare, emergency management, city planning, engineering, religion and politics, as well as military industries because of their higher costs. Rapid production and rapid instructional design models can be used effectively in gaming technology today.

Instructional Design and Technological Issues

In the field of IDT, new trends and issues have been considered recently as well as human performance, rich media and practice. The definition of the field is based on the psychological foundations of instructional design and the audio-visual instruction movement during World War II, including instructional technology developments, films, instructional TV and instructional design models and systems approach in the 1960s and 1970s. At that time, many scholars such as Skinner, Gagne, Merrill, Bloom, Tyler, Briggs, Mager, Finn, Miller, Glaser, Dale and Berlo, have made contributions in developing instructional design (ID) and instructional technology (IT). In recent years, rapid advances in computer and digital technology and new learning technologies in CBI, including the Internet, have led to a rapidly developing interest in - and use of - these media for instructional purposes (Reiser, 2007). In the 1980s and 1990s, several instructional design models and the effects of learning with technology were discussed and effectively used in classrooms and industry. Several ID models introduced by Dick and Carey (2005), Seels and Glasgow (1998), van Merriënboer (2007) (holistic design and complex learning, 4C/ID) and others, have been developed and used in CBI design over the last four decades.

The ISD approach includes, analysis, design and development phases. The analysis phase is often called ‘front-end analysis’. During front-end analysis, a *needs assessment* or analysis is performed to determine and articulate the business unit or customer's learning, training and performance needs (DeSimone, Werner, 2012). In addition to a generic model, the ADDIE model has five phases, including analysis, design, development, implementation and evaluation steps. The ADDIE model is widely used in designing CBI lessons. Basically, each ID model in the field of IDT uses similar steps for instruction and CBI programmes. ADDIE first appeared in 1975. It was created by the Centre for Educational Technology at Florida State University for the US Army and was then quickly adapted by the entire US armed forces. Thus, we also attended our first presentation on CBI given by Merrill and his colleagues in 1989 at the University of Pittsburgh, which dealt with learning emergency help for the Army during war by using interactive video and CBI design programs. The presentation was very interesting for the field of IDT. Today, new learning technologies support more and more instructional design procedures so as to develop efficient and effective learning environments for schools and industries as well as military education.

Conclusion.

Instructional technologies and their use at different educational levels and in different sectors are to be started effectively for different working areas. In this way, there are so many high quality materials that are used in our classrooms. Conventional CBI generates new learning environments with instructional design approaches and e-learning technologies. Elements of CBI, including hypertext, hypermedia and multimedia, produce effective learning strategies as a part of artificial intelligence and expert systems. The IDT field helps in developing new learning materials in schools, industries and the military as well. Although teaching and learning conditions have changed, the effects of CBI continue to develop human performances and learning characteristics by the use of new learning technologies in classrooms and businesses. Today, traditional CBI has

extended to knowledge management systems to develop web-based learning, e-learning, distance education and online systems, from face-to-face learning to virtual classrooms. As a result, instructional developments based on CBI theories will continue, in lifelong learning programs, to solve instructional or non-instructional problems in schools and societies. IDT approaches may produce new methods of instructional design by means of e-learning tools and rapid instructional design with technologies for multimedia learning and future network design systems.

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История компьютерного обучения и его влияние на развитие технических средств обучения

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Аннотация. Цель данной работы – изучить образовательные и технические разработки, основанные на истории компьютерного обучения (КО). Исторически, развитие движения КО началось в конце 1960-х – начале 1970-х гг. В то время компьютеры стали впервые использоваться в образовании, в основном для обучения языкам и математике. Исторически, КО развилось из программируемых обучающих машин середины 1950-х гг. Обучение с помощью компьютеров началось с нескольких крупных проектов центральной ЭВМ и мини-ЭВМ, финансируемых правительством. В это время несколько проектов, такие как PLATO и TICCIT стали разрабатываться для использования в процессе обучения. В результате, разработки после 1970х гг. будут обсуждаться в отношении процесса КО для определения новых образовательных и технических разработок как часть новых образовательных технологий для студентов и школьных учителей.

Ключевые слова: компьютерное обучение (КО); образовательные технологии; педагогическое проектирование и технология (ППТ).

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**Interdisciplinary Approach to the Mental Lexicon: Neural Network
and Text Extraction From Long-term Memory**

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Abstract. The paper touches upon the principles of mental lexicon organization in the light of recent research in psycho- and neurolinguistics. As a focal point of discussion two main approaches to mental lexicon functioning are considered: modular or dual-system approach, developed within generativism and opposite single-system approach, representatives of which are the connectionists and supporters of network models. The paper is an endeavor towards advocating the viewpoint that mental lexicon is complex psychological organization based upon specific composition of neural network. In this regard, the paper further elaborates on the matter of storing text in human mental space and introduces a model of text extraction from long-term memory. Based upon data available, the author develops a methodology of modeling structures of knowledge representation in the systems of artificial intelligence.

Keywords: mental lexicon; text extraction from memory; associative-semantic networks; regular and irregular morphology; connectionism; human brain; artificial intelligence.

Introduction.

The problem of mental lexicon organization became one of the discussed topics in psycho- and neurolinguistics from late 20th to early 21st cc. Representatives of various fields (linguists, specialists in computer modeling, neurophysiologists and cognitive psychologists) have scrutinized the topic. Specialized research editions are published, devoted this scientific field ("The Mental Lexicon Journal", "Brain and Language", "Cognitive neuropsychology", "Journal of Neurolinguistics" etc.), and in Canada annual conference is convened entitled (International Conference on the Mental Lexicon).

The interest to this problem emerges from the rapid development of cognitive science, which became leading research paradigm in 21st century. Sciences got fuzzy borders within it, which allowed casting a complex interdisciplinary glance at the problem concerned. It is obvious today data by any single science absolutely not enough for the solution of such fundamental questions as the structure of the brain, language and mind: "Synthesis of the humanities and natural-scientific knowledge is not optional decoration and fashion tribute but necessary condition of scientific progress: major linguistics questions cannot be solved without consideration of the facts of biology and psychology..." [25, p. 329–330].

Verbalized knowledge stored in human brain has been referred to as mental lexicon in present-day academic world; in fact it is interior language system. Mental lexicon includes the special skills, "a certain amount of resources and funds, aimed at assisting the speech activity" [21, p. 378]; "Mental lexicon is the sum of human knowledge about words, their meaning and the relationship between those words. It is arranged by the rules that represent the orthographic, phonological and semantic characteristics of words" [24, p. 236]; "Mental lexicon is considered as storage of declarative knowledge and as an analog of semantic memory" [22, p. 27].

In this paper the author surveys the main problems connected with the principles of mental lexicon organization. Question about the type and nature of mental representation as well as problems of storing them in human long-term memory are discussed.

The goals of this paper are:

1. To present a novel model of process text extraction from long-term memory.

2. To describe a method of modeling structures of knowledge representation in the systems of artificial intelligence.

Studies devoted to the problems of mental lexicon do not place special emphasis upon the issue of text storage in long-term memory and the process of its extraction during recollection. Moreover in the field of cognitive modeling and artificial intelligence insignificant attention has been paid to the modeling of language as psychical construction, which diminishes the efficiency of the works mentioned, because the creation of strong artificial intelligence is impossible should its algorithms not encompass principles of human language organization. Therefore the goal of this paper is to produce our vision of these problems and to represent our findings.

Regular / Irregular Morphology within the Mental Lexicon

One of the most urgent and studied question is the specificity of processing regular and irregular morphology in mental lexicon. Researches of the processing English past-tense regular and irregular verbs show that there are two main opposite view on the problem of the functioning the mental grammatical rules in the brain. First approach, modular or dual-system, suggests that regular and irregular forms are processed by two distinct brain mechanisms: regular verbs are computed by rule-processing system, while irregular verbs are processed in associative memory [13; 16]. Second approach, the connectionist and the network or single-system, postulates that both regular and irregular grammatical forms are processed by single mechanism in associative memory [12].

M. Ullman and his colleagues researched peoples with several brain disorders. Their studies show that Parkinson's patients with defective Broca's area do more mistakes in regular than irregular verbs. In contrast, Alzheimer's patients with defective Wernicke's area do more errors in irregular versus regular verbs. On the basis of these data human language competence was divided into mental lexicon and mental grammar by supporters of modular or dual-system approach.

However, many other studies convincingly demonstrated that all language processes are computed by single system in associative memory and disturbance in system may lead to selective disorders in speech production [12, p. 208; 3]. Moreover research of the processing Russian verbs with richly inflected morphology suggests that factors such as frequency, analogy and probability play a major role in mental lexicon. Besides in complicated inflected language such as Russian it is difficult to identify regular / irregular verb because there are many verb classes [5; 6].

Therefore the division into the mental lexicon and mental grammar is irrelevant for languages with richly inflected morphology. Experimental data suggest that "morphological and syntactic (i.e. grammatical) information about word is represented in mental lexicon" [22, p. 27]. There isn't a boundary between lexicon and grammar in human brain. Thus all knowledge about language including several grammatical rules is stored in mental lexicon.

Representation of Knowledge in Human Long-term memory

One more problem connected with mental lexicon besides morphological processing is the topic of basic component within mental lexicon. In traditional linguistics the lexicon is register of the word. However, mental lexicon is not only words' list. It includes a lot of lexemes, phrases, idioms, texts and several mental grammatical rules.

Many various studies suggests that basic component of mental lexicon is the word [4; 17; 19; 23]. In this context it is necessary to understand how words are stored in long-term memory. What are lexemes in human brain? How are they interrelated? How are multimorphemes and polysemantic words represented in mental lexicon? How is lexical access realized? And finally, what is information stored with the words in human mental lexicon?

First of all it is necessary to mention that several specialists write about the word as a unit in mental lexicon. We disagree with this proposition because we firmly convinced that there aren't stand-alone units in the brain. Every word or concept is connected with countless other words / concepts. *Therefore we suppose that more correctly to consider word as the basic component but not as a unit.*

As we know, mental lexicon is the verbal part of long-term memory; long-term memory in turn is the product of the brain. Consequently mental lexicon, long-term memory and the brain have the same structure. It is known that a lot of neurons in the brain are connected in a complex network for any cognitive processes by means of neurotransmitters [1; 9]. Therefore we convince that *cortical representation of language as well as cortical representation of knowledge is the*

network representation. Besides the fundamental type of connects in mental lexicon is associations that we have shown previously [18]. Such associative-semantic network models consistent with the recent data of neuroscience.

Thus mental lexicon in the brain is constructed on the principle of network. Moreover it has a hierarchical structure but that we will discuss in the next section of this paper. So how are knowledge represented within network? How are mental representations organized? And how do we find the necessary word in our mind without trouble (the problem of lexical access)?

Neurolinguistic studies suggest that lexical access is a complexity psychical process which includes several levels of processing [4; 8]. A. Caramazza, for example, points: "The dominant view is that lexical access involves at least two distinct stages of processing. The first stage involves the selection of a semantically and syntactically specified lexical representation or lemma; the second stage involves the selection of its corresponding lexical-phonological representation or lexeme" [4, p. 177]. Furthermore often one word has several meanings and lexical access becomes more complicated in this case [2].

In reality lexical access is the process of search the mental information in the neural network because every word is a "label" for the concept. We have already discussed that word / concept is the basic component in mental lexicon. However, what does it mean? How are word / concept represented in the associative-semantic network of the mental lexicon?

As we know now, early versions of the semantic networks are more simplified than in point of fact. For example, G. Scragg mentioned that semantic network is the sum of graphs. Each of graphs is the concept or mental representation; all graphs are connected with one another [14]. However, today, from the viewpoint of the *connectionism*, this proposition is not entirely true.

Connectionism as one of the approaches within cognitive science was founded in 1980, when J. McClelland and D. Rumelhart developed the interactive model of processing information [11]. It is important to accent that this model is based on the idea of *parallel distributed processing* of information. We know speed transmission of nerve signal between neurons is slowly; at the same time the cognitive processes go very fast. How is it realized? And connectionists give the convincing answer: it is realized by the parallel distributed processing of information.

Moreover connectionism postulates that concepts / mental representations *aren't contained* in network: graph of the semantic network is not concept. It is feature / characteristic of the mental representation. These features or characteristics are activated and graphs connected with it are activated too. As a result an all large area of activated network is the structure of knowledge. Some scientists write that "concepts are not defined in a knowledge net, but their meaning can be constructed from their position in the net" [10, p. 165]. Furthermore that extensive network site, which constructs a concept, has connects with countless of other graphs and mental representations; and in the speech activity it attracts the giant cluster of various information.

If the concept is constructed in the brain so complicated and includes countless of components, then how is the whole text represented in the mental lexicon? And how is process of text extraction from long-term memory during recollection realized? Below we produce our model of this psychical process.

Text Extraction from Long-term Memory

Previously we have already considered the basic ideas connected with the mental lexicon. Now we are going to discuss the problem of text representation in the long-term memory and its extraction during recollection. Prior to present our model of this psychical process we should touch upon the topic of mental lexicon's nucleus. Experimental data suggest that the nucleus of mental lexicon is the most active part in it: "Elements of crossing the most of connects are the most active part of the mental lexicon's nucleus" [20]. The nucleus of mental lexicon includes the most general words or concepts, which have maximum connects with other. Moreover the process of lexical access begins from the activation of nucleus. Thus mental lexicon has a hierarchical structure, in which the nucleus is an apex (Fig. 1).

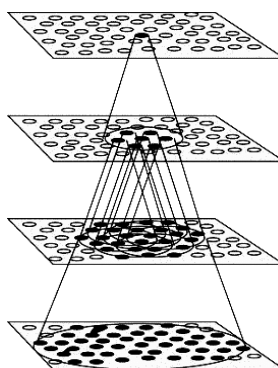


Fig. 1. Hierarchical structure of Mental Lexicon with the nucleus on the apex

Based on the connectionist approach we think that text as well as concept or mental representation has a distributed organization. There isn't a special place in the brain where text is stored; it is scattered all over the neural network. And text extraction from long-term memory is a complicated psychical process including a lot of operations and realizing in several stages.

The first step of recollection connects with an activation of *semantic kernel* of the text, i.e. those parts of the network, which construct the key words or concepts. As a rule it is the most general knowledge in the mental lexicon. However, it is important to mention that initially *the concepts are activated not from this text*. At first the general mental representations, which are in the nucleus of mental lexicon, are activated and then they activate those graphs or part of network, which construct the basic concepts of the text.

For example, have a look at the sentence "*Forty-years-old Mary moves the chair*". Although in the text tells about Mary, initially that part of the network, which constructs the concept '*human*' (generally), will be activated. Then concept '*human*' in turn will activate the part of the network connected with it, which will construct concept '*woman*', and at the same time will inhibit concepts '*man*', '*boy*', '*girl*' etc. Moreover, the parallel activation of other mental representations will be realized. Other parts of the nets will be activated and will construct the concepts '*to do*' (generally) and '*things*' (generally) etc. It should be mentioned that all activated parts of network will be connected with one another by associative-semantic links (Fig. 2).

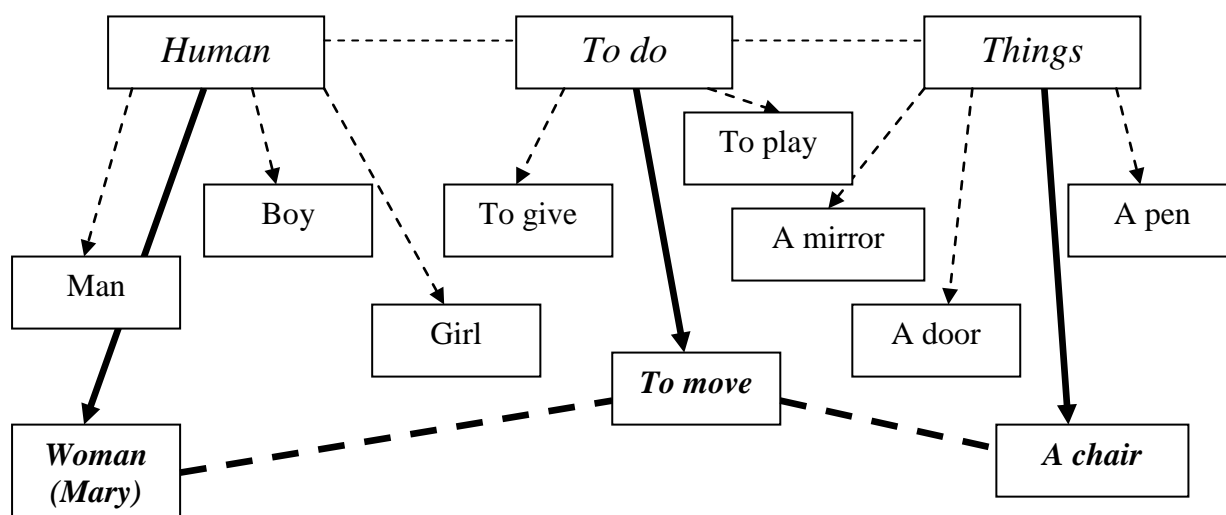


Fig 2. Model of the text extraction from long-term memory (the case of the one sentence)

Thus on the first step of text extraction the process of activation the several associative-semantic network's parts, which construct a semantic kernel of the text is realized.

The second step includes an expansion of nets: more graphs and parts of the network activates, and special concepts of the text connects with one another. Here may be a *process of*

substitution the text component. Concepts, which locates in semantic kernel of the text, almost aren't incurred these process, but special concepts are incurred. We think that it is associated with the spreading-activation theory of human semantic processing [7]. According to this theory the intensity and distance between concepts are different; and mental representations, which are closely connected ('fire' and 'red') have more strong connection than other ('fire' and 'water').

Thus probability of change as more as the special concepts are closely. For example text tells "There is a heavy rain in summer". Then 'summer' may changed in 'autumn' during recollection, because 'heavy rain' is connected more strong associative-semantic links with 'autumn', than with the 'summer'.

So the text extraction from long-term memory is the most complexity psychical process, which includes a lot of operations and is realized in several stages that we have demonstrated above.

Cognitive Modeling and Problems of Creation the Artificial Intelligence

The cognitive modeling of psychical processes in the systems of artificial intelligence is the question of the hour. Problems of creation the artificial intelligence is also the part of cognitive science. Computer models, which can perform certain algorithms, are developed at present. Some results have already achieved in these field of research.

However, there are a lot of shortcomings in existing systems. We suppose it is connected with the fact that principles of human language organization (i.e. mental lexicon) aren't considered. Meanwhile, we are convinced that *creation of strong artificial intelligence is impossible should its algorithms not encompass principles of human language organization.*

Currently we conduct an investigation at Laboratory for Robotics and Artificial Intelligence at Immanuel Kant Baltic Federal University by the modeling of cognitive processes by means of artificial growing neural networks. The Laboratory has high-class android robot AR-600, which was developed by Russian scientific company "The Android Technology".

In order to modeling the structure of knowledge representation (mental lexicon) we use the described above hierarchical model of the mental lexicon, in which associations are the fundamental types of connects. Moreover, we use our model of process the text extraction from long-term memory. These algorithms, which should underlie of our model will help to modern and improve existent systems because they aren't imitation of cognitive processes. These algorithms is similar to processes in the human brain.

Our work is based on the modified version of the associative SOINN (Self-organizing incremental neural network) [15]. Input information from every sensory systems of robot goes into the specific SOINN, where the multistage structure of patterns and classes is formed. The information clustered in this layer participates in constructing of associative layer, which includes one neuron-prototype from each class from each system. Relations between two neurons-prototypes means that there are associations between them (Fig. 3).

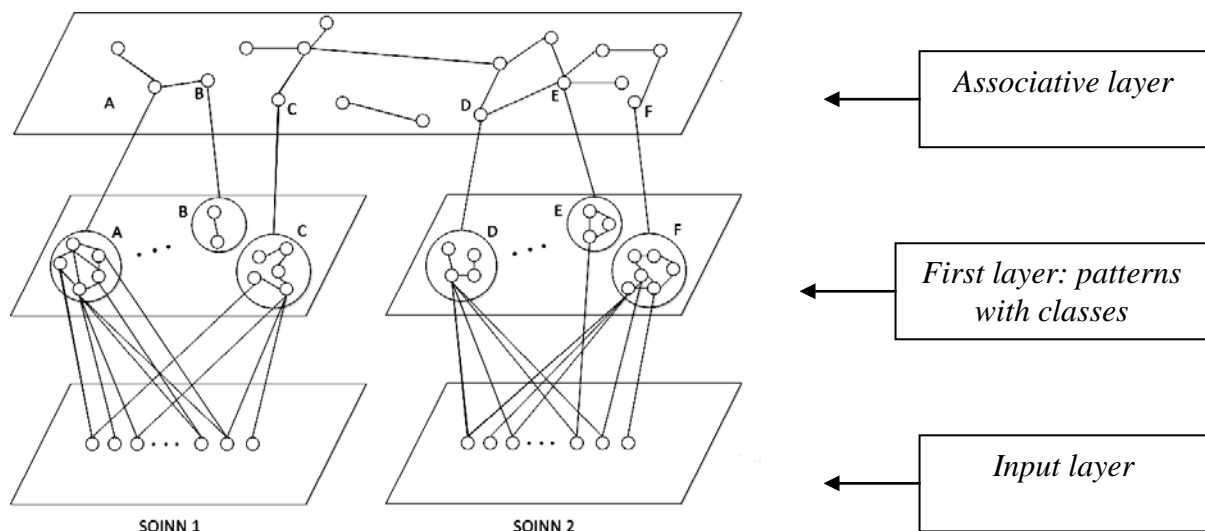


Fig. 3. The modified version of SOINN with associative memory

It is known that children's nucleus of mental lexicon is formed in the first years of life; and then augmentation nets and expansion of mental lexicon are realized. Therefore, we decided to repeat human ontogenesis (i.e. initially we constructed within system those words / concepts, which are "members" of nucleus); so we realized the model that is similar to development of human brain.

We showed to robot several things and at the same time named it (from the nucleus of mental lexicon), in order to establish the associative relations between visual and sound images. Moreover, we gave in arms of robot those things in order to tactile sensations are recorded in memory.

This study had just begun. We construct the nucleus of mental lexicon but then associative-semantic network in the robot will grow *independently*. The microphones and cameras at the Laboratory will be turned for constant input of information. And new knowledge and relationship well are formed by oneself. Then received the some results we can compare it with natural development of the human brain.

Conclusion.

In this paper we have discussed the problem of mental lexicon organization, which is the one of the most complicated topic in cognitive science. Goals of the paper were: 1) present our model of text extraction from long-term memory; 2) describe a method of modeling the structure of knowledge representation in the systems of artificial intelligence.

We suggest that text extraction from memory is a complexity psychic process, including a lot of mental operations and stages. We also show that creation of strong artificial intelligence is impossible should its algorithms not encompass principles of human language organization because *word* is only way to name the mental representation.

Thus we hope that our investigations and developed models will complementary clarify the problems of mental lexicon organization and knowledge representation.

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УДК 81.23+004.82

Междисциплинарный подход к ментальному лексикону: нейронная сеть и извлечение текста из долговременной памяти

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Аннотация. Рассматриваются принципы организации ментального лексикона в свете современных исследований в психо- и нейролингвистике. Комментируются два основных подхода к проблеме его функционирования – модулярный или двусистемный, разрабатываемый в рамках генеративизма, и противоположный, односистемный, представителями которого являются коннекционисты и сторонники сетевых моделей. Отстаивается точка зрения, согласно которой ментальный лексикон – это сложное психическое образование, опирающееся на специфическое построение нейронной сети. В этой связи обсуждается вопрос хранения текста в ментальном пространстве человека и представляется модель извлечения текста из долговременной памяти. На основе имеющихся данных разрабатывается методика моделирования структур представления знаний в системах искусственного интеллекта.

Ключевые слова: ментальный лексикон; извлечение текста из памяти; ассоциативно-семантические сети; регулярная и нерегулярная морфология; коннекционизм; человеческий мозг; искусственный интеллект.