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# THE USE OF THE INTERNET THROUGH THE PRISM OF GENDER DIFFERENCES AMONG UNIVERSITY STUDENTS IN THE BALKANS<sup>*a*</sup>

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### Abstract

The aim of this paper is to offer a gender-differentiated analysis based on the obtained gender-sensitive data and on existing differences regarding the use of Internet content. The main issue of this research concerns the examination of gender differences regarding the use of the Internet among university students of three Balkan countries. The analyses are based on the findings from the fieldwork study entitled "Cultural orientation of actors/students, interethnic relations, national identity and culture of peace in the Balkans", conducted on the sample of a total of 2,400 student respondents in three university centres (Niš/Serbia, Bitolj/FYR Macedonia, and Veliko Trnovo/Bulgaria). The results indicate that gender differences do matter with respect to the use of the Internet in all three observed countries and that there are differences in the obtained results between each country. Namely, in Bulgaria we have encountered statistically significant differences in only three out of twelve items, while in both Serbia and FYR Macedonia we observed them in five out of twelve items. As regards the matter of reducing gender differences in the use of new technologies among student population, this result may indicate slight progress in Bulgaria in comparison to Serbia and FYR Macedonia, Bulgaria being a member of the EU.

Key words: student population, the Balkans, gender differences, use of the Internet

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# КОРИШЋЕЊЕ ИНТЕРНЕТА КРОЗ ПРИЗМУ РОДНИХ РАЗЛИКА СТУДЕНТСКЕ ПОПУЛАЦИЈЕ НА БАЛКАНУ

#### Апстракт

Овај рад има за циљ да представи родно диференцирану анализу полазећи од добијених података истраживања о значајним разликама које постоје у коришћењу садржаја на интернету. Основни проблем овога истраживања односи се на испитивање родних разлика у коришћењу интернета код популације студената из три балканске земље. Анализе се базирају на налазима теренског истраживања под називом "Културна оријентација актера/студената, међуетнички односи, национални идентитет и култура мира на Балкану", на узорку од укупно 2400 испитаника студентске популације у универзитетским центрима (Ниш/Србија, Битољ/Македонија, Велико Трново/Бугарска). Резултати указују на постојање родних разлика у коришћењу интернета у све три посматране државе, али такође указују на постојање разлика између добијених резултата у свакој држави понаособ. Наиме, у Бугарској су добијене статистички значајне разике само у 3 од 12 варијабли, а у Србији и Македонији по 5. Овај резултат може значити да је Бугарска, као земља чланица Европске уније, одмакла корак даље од Србије и Македоније на путу смањивања родних разлика у погледу коришћења нових технологија међу студентском популацијом.

**Кључне речи:** студентска популација, Балкан, родне разлике, коришћење интернета

### **INTRODUCTION**

Current popular research topics related to gender differences and gender relations have opened up new fields in sociological research. One of those issues is the use of the Internet. On the one hand, the Internet as a new communication channel is declared to be the culprit of communication impoverishment and represented as a safe path to social isolation. On the other hand, it is depicted as an instrument for intensifying communication, stronger social bonds, and improved social activity (Nie & Hillygus, 2002). The increasingly present "cyber communication"<sup>1</sup> offers a possibility of satisfying numerous human needs in a singular fashion, first and foremost the need for contact. One possible interpretation indicates that a person, incapable of manifesting important aspects of his/her personality in his/her direct environment, seeks an adequate social framework where these needs can be satisfied (Bargh & McKenna, 2004). Thus, "the Internet is becoming an ever growing global means of communication, a source of information and a kind of cultural phenomenon which extends the boundaries of the possible beyond any foreseen proportions" (Mrda, 2004, p.171-172).

<sup>&</sup>lt;sup>1</sup> Cyber communication, or digital communication, is a broad term applied to communication facilitated by the Internet but also by multimedia (Severin & Tankard, 2001).

Gender identity is one of the key dimensions of personal identity. The formation of gender identity, in a broad feminist theoretical oeuvre, is a process of social shaping of biological sex. Therefore, there is the request to leave the definition of men and women according to their biological resources and to introduce the distinction between "sex", as a biological determinant (people are born as either a male or a female person), and "gender", as a socio-cultural determinant. Masculinity (socially constructed identity of a man) and femininity (socially constructed identity of a woman) imply differences in the roles and activities, but also differences in the ways of expressing feelings, dressing, manners - hence the phrase "two separate socially constructed gender cultures" (Levit, 1998). An understanding of gender distinctions as a product of historical, cultural, and social circumstances is advocated, which implies rejection of the "biological givens" (Ortner, 2003, p. 146-206). The process of forming a biological sex is determined by a social/historical moment and it relates to "social and personal perception of an individual regarding the issue of belonging, i.e. of not belonging to his/her biological sex. It implies two aspects: individual and social. At an individual level it is determined by a biological sex and resulting socialisation, as well as by personal wishes, desires, and preferences. On a social level, it is part of a wider social reality – economic, political, cultural, subcultural, racial, gender, etc." (Jarić, 2002, p. 6)

With the help of the Internet, the boundaries between the virtual and the real world are lost, so a space is created for the expression of different identities and desired characteristics of their own personality, which are expressed in real life. The same option is offered to women and men (Dragojlov, 2006/2007). Changing gender is a chance of exploring the conflicts which are the result of gender differences. The whole world is a stage, in the opinion of Erving Goffman, so life on screen is an easy way to introduce oneself as different (Goffman, 2000), but the online world is also used to avoid real life.

The viewpoints presented in this paper are the framework for the presentation of a gender-differentiated analysis that is based on the data obtained from empirical research on significant differences in the use of Internet content among university students. This analysis is preceded by consideration of gender identity in the virtual environment based on the findings from previous studies, which served as the basis for the design of the research presented in this paper.

## GENDER IDENTITY IN A VIRTUAL ENVIRONMENT

According to Tajfel and Turner's (1986) social identity theory, identity construction is a process in which an individual encounters social, economic, and cultural matrices, and conscious and unconscious

events and norms, the result of which are different identities in a particular social space and time. Hence, identity disclosure requires that the process of its shaping is contextualized, accompanied by constant observation of predisposing factors, as well as conditions that limit its construction. Considering that personal attitudes towards classification into particular identity categories are an important dimension, it is necessary to first examine that which is marked as important in personal attitude.<sup>2</sup>

In recent years there has been increased talk about the virtual environment as the context of identity construction. The fact is that until some time ago men "ruled" the world of computers, cars, and mobile phones. The world of technology "belonged" to men since it was considered that women did not "naturally" belong in this world. Linda Dement claims that "the computer is one of the most important toys in our dominant male culture" (Dragojlov, 2006/2007). However, in the age of information and computer technologies, especially the Internet, women face new possibilities, so that rooted stereotypes about technology as a primarily male sphere of interest are starting to crumble. Nowadays it is customary for women to use computers and the Internet as the largest information network. On the Internet one can establish multiple identities or use fluid and unstable gender boundaries: women and men can present themselves as they wish, i.e. they can discard the imposed traditional gender roles and construct completely new identities. In other words, they can choose to present themselves as someone different from who they are in their real lives. Technology is the means of redefining body and identity concepts and it "blurs the boundaries of our physical bodies" (Gidens, 2003, p. 122). Hence, the Internet is a significant social laboratory intended for experimenting with constructions and reconstructions of one's own identity. Within a symbolic context created through communication technology, it is once again possible to formulate an identity of a "woman" and a "man".

Numerous studies, some of which will be mentioned in this paper, have shown that an individual's gender is an important factor in the process of interaction with computers. Gender differences appear in relation to all Internet services, including its use in solving professional tasks, playing games, carrying on network interaction, etc. If we take into consideration the fact that the Internet became available to a wider population during the 1990s (Cumming, 1995), it can be expected that there should be various studies dealing with the influence of gender differences on the use of this technology. As a result of an analysis of published papers and research studies, the period from the mid-1990s until the present day can be divided into two segments – before and after

<sup>&</sup>lt;sup>2</sup> The findings of a research on identity construction through establishment of the dominant relationship with identity categories on the example of a Serbian subsample are presented in Stjepanović and Zaharijevski, 2008.

the year 2000, because both the results and the research problems are different with respect to this particular year. Before 2000 the differences were primarily examined from the standpoint of Internet access and the frequency of use and rarely from the standpoint of content analysis, and since men were quicker to accept this technology, all research studies regarding gender differences in that period showed differences that mostly related to access and frequency of use, but they became invisible by 2000 (Ono & Zavodny, 2003).

#### Research on Internet use and gender differences before 2000

Various research studies from this period confirmed the existence of gender differences, which could be detected from the earliest age, whereby men held a dominant position regarding the frequency of use (Colley, Gale & Harris, 1994; Jackson, Ervin & Gardner, 2001; Miller, Schweingruber & Brandenberg, 2001). Some studies confirmed gender differences regarding the relationship with computers due to the experience factor and attitudes towards them. In comparison with men, women had less experience working with computers and they mostly used computers at work, in order to perform routine office tasks (Kaplan, 1994). However, when the researchers controlled the level of tasks that were considered either male or female, and/or observed differences in previous experience with computers, gender differences almost entirely lost their significance (Dyck & Smither, 1994). Apart from the fact that the frequency of use was the dominant gender-related difference during this period, the study conducted by Passig and Levin showed that the same difference was also dominant among young people. As regards university students, according to numerous studies, male students had more positive attitudes towards computers in comparison to female students, as they expressed more interest in them and had more confidence about their computer abilities (Passig & Levin, 1999).

There are only a small number of studies from this period that dealt with the deeper causes of gender differences in the use of the Internet. One of them examined anxiety as a cause for a more positive attitude of men than women towards work on computers (Whitley, 1996) and found a moderate difference between men and women regarding their personal anxiety connected with computer use: women expressed a higher level of anxiety in comparison to men and showed a higher degree of negative attitude regarding the influence of computers on society. The analysis of this study showed that gender differences regarding the attitude towards computers were partially connected with the differences in anxiety: when anxiety was under control, it appeared that there was a very small difference between men and women regarding their attitude towards computers. It appears that anxiety does mediate certain gender differences in attitudes towards computers.

### Research on Internet use and gender differences after 2000

In the period after 2000, the study of gender differences became more focused on specific problems, bearing in mind that men and women became equal concerning Internet availability and frequency of use (Ono & Zavodny, 2003). It is a period of rapid development of Internet technologies, and their use is a significant part of the socio-economic aspect, because groups that do not use new technologies are heavily deprived, particularly in terms of finding a job, educational opportunities, and political participation (Norris, 2001). Therefore, the aspect of competence for using modern technologies is perceived as very important for studying the gender gap. Certain studies indicate that gender differences in using the Internet are conditioned by the level of computer competence, especially concerning specific applications, which are an unavoidable component of new technologies (Lin, Shih & Lu, 2013). For many years it has been a prevailing attitude that men are dominant regarding the competence for using new technologies, that they are more interested in them, and that they are more capable of understanding computers (Newton, 2001). New research studies confirm these beliefs, stating that, as far as professional orientation is concerned, men are more dominant in professions dealing with new technologies and that women are more reluctant to choose computer programming as their career (Varma, 2009; Alvarado, Dodds & Libeskind-Hadas, 2012; Patitsas, Craig & Easterbrook, 2014).

Since gender differences regarding competence for using new technologies are still present, researchers seek new approaches to minimise the differences. In that context, the issue of selecting appropriate teaching methods is emphasised, especially regarding the matter of providing concrete instructions that can contribute to the reduction of gender differences in the development of competences in using modern technologies. The results of research studies show that, without explicit instructions, boys do perform better, which can be explained by their higher interest and by their more pronounced self-confidence about working with new technologies (Schaumburg 2004, Jones, Ramanau, Cross & Healing, 2010).

Some research studies proved that gender differences do not play a significant role in the process of learning via new technologies, and that a student's performance is largely influenced by competence awareness, as well as by previous experience (Tekinarslan, 2011; Litt, 2013; van Deursen & van Dijk, 2011). In contrast, some findings indicate that there are gender differences among students regarding their confidence about learning via the Internet. The differences are the most prominent regarding the items asking if learning depended on one's predispositions or on one's hard work and dedication, where it was proved that men were inclined to believe that learning outcomes mostly depend on predispositions, while women had more sophisticated beliefs and preferred hard work and dedication. It is interesting that this research proved statistically significant differences, which showed

that men used the Internet more frequently for educational purposes (Aktürk, 2014). For the process of learning supported by new technologies, it is extremely important to know how to handle information, i.e. to find, classify, analyse, and categorise certain information that constructs a student's system of knowledge. Learning through research, browsing certain websites, and handling information requires a set of cognitive skills that encompass the ability to identify the purpose of the research, to locate suitable information resources, to select and organise significant information, and to synthesise information from multiple sources into a meaningful whole (Zhou, 2014).

The time spent on social networks significantly attracts the interest of researchers. It is well known that social networks draw constant attention of young people, who use them for entertainment, to socialise, to make friends, etc. Some authors believe that the interests of young people in certain social networks are different and that there are gender differences regarding the preference for certain content (Colás, González & de Pablos, 2013).

Facebook is an absolutely dominant social network, which includes more than a billion users who are active at least once a month. Research studies show that Facebook is an extremely significant part of students' social culture and that more than 80% of students consider Facebook a part of their everyday activities. Gender differences are present in the frequency of use of Facebook and other social networks, whereby female users spend much more time performing the activities associated with these networks (Thompson & Lougheed, 2012). Research data show that women are very attached to Facebook, that they lose sleep over it, spend more time on the network than they initially planned, and change their opinion of themselves under the influence of Facebook, and that they sometimes experience stress and feel addicted to Facebook. Considering that the time young people daily spend on the Internet and social networks increases annually, such condition is a cause of researchers' concern due to the emergence of compulsive Internet use. Namely, some studies proved the connection between gender and compulsive use of social networks, whereby female compulsion is more dominant (De Cock, Vangeel, Klein, Minotte, Rosas & Meerkerk, 2014).

On the basis of numerous available research studies, we can conclude that the differences between men and women regarding the manner in which they use the Internet still exist, as well as that these differences vary and depend on a specific goal set within a research (content, competence, previous experience, safety, etc.).

# THE ANALYSIS OF GENDER DIFFERENCES IN USING THE INTERNET ON THE BASIS OF DATA FROM AN EMPIRICAL RESEARCH

*Research scope and aim*: This research is aimed towards studying cultural determinants of the region and the quality of social changes in post-socialist Balkan societies by examining the impact of the current process of transition, globalization, and European integrations on the transformation of identity, interethnic relations, and building of a culture of peace, from socio-cultural, economic, political, and demographic perspectives. For the purpose of this paper, we focus on the part of research results pertaining to the use of the Internet in relation to the gender structure of respondents. Accordingly, this paper presents a gender-differentiated analysis of the obtained gender-sensitive data and the differences regarding the use of Internet content, starting from the assumption that gender is an important factor in an individual's interaction with computers. This part of the research is based on the following questions and tasks:

1. What are the attitudes of students regarding Internet use (participation in social networks, playing online games, Internet phone calls, reading and downloading of magazines, search for knowledge, downloading of movies and music, e-commerce, etc.) in relation to the gender structure of the sample in Bulgaria, Macedonia, and Serbia?

2. Testing of statistically significant differences in the attitudes of students regarding Internet use in relation to gender as an independent variable.

*Research sample*: The sample of the research entitled "Cultural orientation of actors/students, interethnic relations, national identity and culture of peace in the Balkans"<sup>3</sup> is composed of student respondents from three university centres (Niš/Serbia, Bitolj/FYR Macedonia, and Veliko Trnovo/Bulgaria). The research was conducted in December 2012 in Serbia and in January 2013 in FYR Macedonia and Bulgaria. The sample of 2,400 respondents was divided into three subsamples with the identical number of respondents (800). This is a sub-cluster type of sample designed to secure the presence of students with specific socio-demographic characteristics significant for the examined issue (professional and academic background, year of study) at the level of

<sup>&</sup>lt;sup>3</sup> The research was conducted by the Centre for Sociological Research of the Faculty of Philosophy in Niš under the co-ordination of prof. Dragana Stjepanović-Zaharijevski and within the scientific project *Tradition, Modernization, and National identity in Serbia and in the Balkans in the Process of European Integrations (179074)*, which was financed by the Ministry of Education, Science and Technological Development of the Republic of Serbia.

subsamples for each university centre by a specific selection of units in every segment of sampling. The presence of respondent groups, according to the said characteristics and according to some other particularities of the population significant for the research, was secured by a random selection procedure in each stage of sample construction on the one hand, and by consideration for the proportions related to the share of students in certain faculty groups, as well as their number in certain faculties within a group, on the other hand.

The data was collected using a survey, which included a series of topics, significantly wider in scope than those presented in the paper (Petrović, 2014, p. 11-14).

We used the following methods to calculate statistical parameters: arithmetic mean (AM), standard deviation (SD), degree of freedom (df), as well as t-test with t and p parameters for the purpose of ascertaining statistical significance. Data processing was performed by means of SPSS 20 software.

## The use of the Internet among university students in Bulgaria, FYR Macedonia and Serbia

Table 1 shows the results of data processing on a sample of students from Bulgaria. Since we used a Likert scale for respondents' degree of agreement or disagreement with the offered twelve items by means of t-test analysis, i.e. by intersecting the independent variable, which is gender, with the dependent variable, which is the research task related to Bulgaria, we obtained t-test, df, and p values, the three of which are statistically significant at the level of 0.05. They are marked with an asterisk (\*) in Table 1. The items that provided statistically significant differences are items numbered 1, 5, and 9, and these are related to the use of the Internet for the purpose of social networking (Facebook, Twitter, etc.), music, films, videos, downloads, as well as Internet banking. By detailed examination of the values of arithmetic means in the three highlighted items, we reached the conclusion that male respondents use the Internet far more frequently to participate in social networks, while the opposite (emphasised female preference in comparison to men) is true of the remaining two items (music, film, games, downloads, and Internet banking). The data shows that male students in Bulgaria mostly use the Internet as a means of communication, i.e. to maintain connections with other people via social networks, which can be interpreted as a model of compensating for poor social relations in their real life. The obtained difference in attitudes regarding the fifth item justifies the fact that the Internet, as a form of entertainment, is more present in the lives of female respondents. The fact that does not meet our expectations is that female students use the Internet more frequently to check their bank account balance, as well as to perform transactions. It is important to emphasise that no statistically significant difference was observed in the attitudes of the respondents in terms of their gender when referring to those claims that are directly connected with the process of learning via the Internet.

	Gender	AS	SD	t-test	df	р
1. Participation in social	Male	1.34	0.61			
networks (Facebook,				3.340	309.226	0.000*
Twitter, etc.)	Female	1.18	0.43			
2. Online video gaming	Male	2.13	2.33			
				- 0.365	527	0.238
	Female	2.18	0.68			
3. VoIP, video conferencing	Male	1.87	0.71			
				2.078	529	0.310
	Female	1.75	0.63			
4. Reading or downloading	Male	1.41	0.62			
online magazines/journals				- 2.355	531	0.227
or information websites	Female	1.54	0.62			
5. Downloading music, films,	Male	1.21	0.46			
video games, and other	<b>F</b> 1	1.20	0.40	- 2.073	430.935	0.000*
entertaining content	Female	1.30	0.49			
6. Browsing the Internet in	Male	1.22	0.47	1 100	520	0 105
order to acquire knowledge	<b>E</b> 1.	1.22	1.00	- 1.102	532	0.125
in any field	Female	1.32	1.22			
7. Browsing the Internet in	Male	1.22	0.42	0.000	521	0 101
order to comply with	Famala	1.25	0.42	- 0.690	531	0.191
8 Society information that	Female	1.23	0.45			
8. Seeking information and	Male	1.55	0.49	0.420	520	0.480
	Famala	1 37	0.40	- 0.439	550	0.480
9 Online banking	Male	2 30	0.49			
). Online banking	whate	2.57	0.72	- 2 284	383 701	0.032*
	Female	2 53	0.66	2.204	505.701	0.052
10 Buying and selling goods	Male	2.55	0.00			
and services via the Internet	maie	2.02	0.70	- 2.042	529	0.223
(e-commerce)	Female	2.15	0.69	2.012	52)	0.220
11. Downloading software	Male	1.68	0.70			
	1,1410	1100	01/0	- 6.971	529	0.369
	Female	2.13	0.72			
12. Using services related to	Male	1.95	0.69			
travelling and				- 0.279	530	0.870
accommodation	Female	1.92	0.70			

 Table 1. The use of the Internet according to gender structure of the sample in Bulgaria

\* Differences are significant at the level of 0.05

Table 2 shows the results of data processing on the sample of students from Macedonia. Analysis of the results for the offered 12 items checked the

degree of concurrence of the respondents according to their gender structure. The calculated t-test showed that there are statistically significant differences between the attitudes of male and female respondents regarding the use of the Internet. As shown in Table 2, the difference was observed in five out of twelve claims, and these were marked with an asterisk (\*). The claims in which respondents' attitudes do not concur relate to their activities on social networks (Facebook, Twitter, etc.), reading or downloading online newspapers/magazines or information websites, music, films, games, downloads, browsing the Internet for the purposes of knowledge acquisition, and complying with academic obligations. The male respondents agreed with all the stated claims to a higher degree as opposed to the other examined category. Result analysis revealed that, in comparison to female students, male students in Macedonia use the Internet to a far greater extent to make friends on social networks, as well as to obtain information, have fun, and study.

We also conducted the research on the use of the Internet according to gender structure in Serbia. Table 3 presents statistically significant differences (p<0.05) between the respondents of different gender with respect to five items. If one considers only those claims in which a statistically significant difference was observed, one can conclude that male respondents agree to a higher degree in relation to the second tested category, in the ratio of 4:1. Female respondents agreed to a larger degree only with the claim pertaining to the use of the Internet to check the bank account balance and perform transactions, i.e. for Internet banking. This information concurs with the results of the research conducted in Bulgaria. The claims with which the male respondents in Serbia agreed relate to a larger extent to the use of the Internet for social networking, downloading entertaining content, music, and films, as well as for education via the Internet (browsing the Internet to acquire knowledge in any field and comply with academic obligations).

By comparing the obtained results of the research conducted in all three countries, we reached the following conclusions: the Internet as a means of communication is almost equally present among male students in Bulgaria, FYR Macedonia, and Serbia when compared to female students; as opposed to female respondents, male respondents in FYR Macedonia and Serbia use the Internet more frequently to download entertaining contents, while the situation in Bulgaria is quite the opposite; the use of the Internet for education (acquiring knowledge and complying with academic obligations) is much more present with Serbian and Macedonian male students, as opposed to their female counterparts in these countries. In this research, only Macedonian students stand out with respect to using the Internet to obtain information (reading or downloading online newspapers/magazines or information websites).

Table 2. The use of the Internet according to gender structure of thesample in FYR Macedonia

		Gender	AS	SD	t-test	df	р
1.	Participation in social	Male	1.35	0.62			
	networks (Facebook, Twitter,				2.032	674.255	0.000*
	etc.)	Female	1.26	0.53			
2.	Online video gaming	Male	1.95	0.76			
					- 1.835	793	0.868
		Female	2.05	0.77			
3.	VoIP, video conferencing	Male	1.79	0.69			
					0.101	793	0.263
		Female	1.78	0.71			
4.	Reading or downloading	Male	1.57	0.68			
	online magazines/journals				2.085	700.742	0.009*
	or information websites	Female	1.47	0.62			
5.	Downloading music, films,	Male	1.51	0.68			
	video games, and other				2.036	689.913	0.001*
	entertaining content	Female	1.42	0.61			
6.	Browsing the Internet in order	Male	1.51	0.67			
	to acquire knowledge in any				1.841	679.166	0.001*
	field	Female	1.42	0.58			
7.	Browsing the Internet in order	Male	1.52	0.67			
	to comply with academic				2.914	672.669	0.000*
	obligations	Female	1.39	0.58			
8.	Seeking information that	Male	1.67	0.71			
	relates to education and				1.562	793	0.165
	courses	Female	1.59	0.67			
9.	Online banking	Male	2.16	0.78			
					- 2.438	790	0.658
		Female	2.30	0.76			
10.	Buying and selling goods and	Male	2.17	0.79			
	services via the Internet				- 1.819	793	0.557
	(e-commerce)	Female	2.28	0.78			
11.	Downloading software	Male	1.90	0.79			
					- 2.986	793	0.664
		Female	2.06	0.79			
12.	Using services related to	Male	1.92	0.76			
	travelling and				0.836	793	0.408
	accommodation	Female	1.88	0.76			

 $\ast$  Differences are significant at the level of 0.05

Table 3. The use of the Internet according to gender structure of thesample in Serbia

		Gender	AS	SD	t-test	df	р
1.	Participation in social	Male	1.54	0.68			
	networks (Facebook,				4.813	621.085	0.000*
	Twitter, etc.)	Female	1.32	0.57			
2.	Online video gaming	Male	2.11	0.75			
					- 4.339	803	0.942
		Female	2.33	0.68			
3.	VoIP, video conferencing	Male	2.03	0.71			
					- 1.632	808	0.276
		Female	1.95	0.73			
4.	Reading or downloading	Male	1.50	0.63			
	online magazines/journals or				- 0.165	805	0.503
	information websites	Female	1.51	0.61			
5.	Downloading music, films,	Male	1.41	0.56			
	video games, and other				1.070	678.447	0.058*
	entertaining content	Female	1.37	0.53			
6.	Browsing the Internet in	Male	1.38	0.53			
	order to acquire knowledge				2.143	646.787	0.000*
	in any field	Female	1.30	0.47			
7.	Browsing the Internet in	Male	1.42	0.55			
	order to comply with				3.221	625.710	0.000*
	academic obligations	Female	1.30	0.47			
8.	Seeking information that	Male	1.69	0.66			
	relates to education and				2.292	805	0.645
	courses	Female	1.58	0.63			
9.	Online banking	Male	2.69	0.55			
					- 1.497	677.906	0.017*
		Female	2.75	0.53			
10.	Buying and selling goods	Male	2.41	0.64			
	and services via the Internet				- 3.214	804	0.194
	(e-commerce)	Female	2.56	0.63			
11.	Downloading software	Male	1.83	0.78			
					- 8.621	803	0.435
		Female	2.30	0.74			
12.	Using services related to	Male	2.25	0.67			
	travelling and				1.589	802	0.659
	accommodation	Female	2.17	0.71			
	* Differences a	are signifi	cant at	the leve	el of 0.05		

## CONCLUSION

One of the key theoretical assumptions of this study pertains to the formation of identity, which takes place in the cultural and social environment, with individual choices. It was presumed that the virtual environment is a significant context for gender identity construction, where the concepts of body and identity are redefined and opportunities to change gender boundaries are created with the help modern technologies. Hence, the Internet is viewed as a technology of gender identity deconstruction, as it provides an indefinite variety of content and thus, to a greater or lesser extent, steps out of the matrix of stereotypical gender patterns.

Research of Internet use according to gender structure provided answers to numerous questions about different gender distribution, based on which conclusions on gender inequalities are made. A number of studies presented in this paper indicate that there are gender differences in relation to the various services of the Internet, and that gender is an important factor in the interaction with computers, whereby online space is a more "masculine" than "feminine" world of communication (Newton, 2001). According to available research, while the gender gap existed in the unequal access to and the frequency of use of modern technology before 2000, after 2000 it became invisible, but with significant differences in competencies, which contribute to greater confidence of men about working with new technologies (Schaumburg 2004; Jones, Ramanau, Cross & Healing, 2010).

Empirical research of the cultural orientation of the student population in three university centres in Bulgaria, Serbia, and Macedonia, based on examination of Internet use among male and female students, confirmed the main findings of other foreign studies about the dominance of men in the world of computers, but also highlighted an important fact: the Internet as a means of communication is used to a greater or lesser extent by both men and women.

The results presented in this paper indicate that there are statistically significant gender differences regarding the use of the Internet in all three observed countries and that there are differences between the obtained results in each particular country. Namely, in Bulgaria we encountered statistically significant differences in only three out of twelve items, while in both Serbia and FYR Macedonia we observed them in five out of twelve items, which led us to a conclusion that in terms of reducing gender differences regarding the use of new technologies among the student population, this result may suggest slight progress in Bulgaria in comparison to Serbia and FYR Macedonia. Different choices of male and female students appear in the variables that are mainly related to entertainment: male students use the Internet mostly to participate in social networks, while female students mostly download entertaining content and deal with Internet banking. There were no significant differences regarding the items dealing with a more serious use of new technologies (learning and complying with academic obligations), which is an important finding that completely differs from the one presented in the review of foreign research (Aktürk, 2014). This is an encouraging piece of information, which should be perceived in the context of deconstruction of traditional gender patterns under the influence of a European system of values. In Serbia and FYR Macedonia one can observe more pronounced gender differences with respect to the use of new technologies: the Macedonian sample of the student population is characterized by statistically significant differences in favour of male students, because their distribution is higher in Internet use for entertainment, learning, developing friendships on social networks, downloading, and information websites; Serbian male students express a higher level of agreement in comparison to female students regarding the use of the Internet for social networking, downloading of entertainment content such as music or films, as well as regarding those claims that are directly connected with education via the Internet.

Despite the fact that female students use all the facilities offered on the Internet, these findings suggest that there is greater technological literacy of male students, which consequently provides them with a better chance of further education and finding employment, and greater social and economic mobility. The finding could be explained by men expressing bigger interest than women, which results in their greater confidence about working with new technologies (Schaumburg 2004, Jones, Ramanau, Cross & Healing, 2010). Although the assumption is that the female students spend significantly more time on activities related to social networks, which is the conclusion of foreign studies (Thompson & Lougheed, 2012) and expected gender-stereotyped behaviour, the findings of our research on the student population of the three university centres in the Balkans showed that male students are dominant in this sphere of communication, indicating a shift from the usual gender-stereotyped behaviour patterns.

Computer technology and the Internet are global means of communication and cultural phenomena that push the boundaries of time, space, value patterns, and behaviour, offering new possibilities "in which subjects build for themselves a new identity of the available cultural material, and thus redefine their own position in society" (Castells, 2002). It is indisputable that there is a gender gap in Internet usage, but it is also indisputable that women irreversibly stepped into this virtual world. Consequently, considering the symbolic context created by communication technologies, this separation has a tendency of convergence and thus provides an expansion of both biological boundaries and socio-cultural gender identities.

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# КОРИШЋЕЊЕ ИНТЕРНЕТА КРОЗ ПРИЗМУ РОДНИХ РАЗЛИКА СТУДЕНТСКЕ ПОПУЛАЦИЈЕ НА БАЛКАНУ

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#### Резиме

Овај рад је понудио родно диференцирану анализу полазећи од добијених родно осетљивих података и разлика које постоје у коришћењу интернет садржаја. Анализе су базирне на налазима теренског истраживања под називом "Културна оријентација актера/студената, међуетнички односи, национални идентитет и култура мира на Балкану", на узорку од укупно 2400 испитаника студентске популације у универзитетским центрима (Ниш/Србија, Битољ/Македонија, Велико Трново/Бугарска). Резултати су показали постојање родних разлика у коришћењу интернета у све три посматране државе, али такође и постојање разлика између добијених резултата у свакој држави понаособ.

Једна од кључних теоријских поставки овога рада односи се на обликовање идентитета, које се одвија у културном и друштвеном окружењу, уз индивидуалне изборе. Пошло се од претпоставке да је виртуелно окружење значајан контекст конструкције родних идентитета, где се уз помоћ коришћења савремене технологије редефинишу концепти тела и идентитета и стварају могућности за померање родних граница.

Истраживања коришћења интернета према полној сруктури обезбеђују одговоре на бројна питања о различитој родној дистрибуцији на основу које се закључује о родним неједнакостима. Анализа објављених истраживања је подељена у две целине – период пре 2000. и период после 2000. године. Док је до 2000. године постојао је родни јаз у неједнаком приступу и фреквенцији коришћења савремених технологија, дотле, после 2000. ове разлике постају невидљиве, али уз значајне разлике у компетенцијама, које, према доступним истраживањима, доприносе већој сигурности мушкараца у раду са новим технологијама.

Спроведено емпиријско истраживање културних оријентација студентске популације у три универзитетска центра Бугарске, Србије и Македоније, на

основу испитивања коришћења садржаја интернета међу студентима и студенткињама, потврђује главни налаз иностраних истраживања о доминацији мушкараца у свету рачунара, али, такође, указује на поједине специфичности региона. Добијени налази упућују на закључак о већој технолошкој писмености студената мушког пола, која им онда обезбеђује боље шансе за даље школовање и запослење, као и већу социјалну и економску покретљивост. Иако је претпоставка да студенткиње значајно више проводе у активностима везаним за друштвене мреже, што јесте закључак иностраних истраживања, налази представљеног истраживања студентске популације три универзитетска центра на Балкану показују да примат и у овој сфери комуникције имају мушкарци, што указује на померање од устаљеног родно стереотипног обрасца понашања.