DAVID SMAHEL

Institute of Children, Youth and Family Research, School of Social Studies, Masaryk University Jostova 10, 602 00 Brno, Czech Republic

AND

KATERINA MACHOVCOVA Institute of Children, Youth and Family Research, School of Social Studies, Masaryk University Jostova 10, 602 00 Brno, Czech Republic

Abstract. The paper deals with differences in the Internet use as a means of communication in the Czech Republic from the point of view of Internet users' gender and age. It aims at depicting the differences in pretending to have a different identity in the virtual environment. The presented questions were included in a questionnaire survey carried out within the framework of the international "World Internet Project" research. The survey sampled 1,832 respondents aged 12 years or more. It has been revealed that, from the point of view of Internet preference as a means of communication, there are only statistically insignificant differences between men and women; however, it is men who tend to claim, more often than women, to be more open on the Internet than in the real world. Furthermore, they also admit pretending a new identity. There have been large differences in virtual communication preference according to the respondents' age: adolescents and young people tend to prefer substantially more often the Internet as a means of communication than older people. At the same time, it is adolescents rather than adults who tend to experiment more with their identity in the virtual environment.

1. Introduction

The submitted paper deals with two main topics from the point of view of gender and age differences: the preference of the Internet as a means of communication and experimenting with the identity in the virtual environment. The topics of virtual identity and the preference of virtual communication seem to be inter-connected, one affecting the other, i.e. the form and way of using the virtual identity influences virtual communication preferences and vice versa (Šmahel, 2003a).

Following the impact of post-modern thinking, the identity may be regarded, above all, as a process of permanent construction and re-construction (McAdams, 1997), which

corresponds to the opinion of Wallace (1999) that experimenting with identity is a necessary component of human development and that the "MAMA" pattern (moratorium / achievement) is a ceaselessly repeated process in the course of human life. According to Wallace, it is the Internet that is an ideal place for identity experiments.

Research shows that it is men rather than women who tend to experiment more frequently with elements of their gender identity (Turkle, 1995, Paul, 2000, and Šmahel, 2003a). One of the possible explanations might be the fact that such state reflects the "real" world situation where, due to a long-lasting history of women's emancipation, women have been socially allowed, and in some cases even encouraged directly, to experiment with traditionally male roles (women in top executive positions, women politicians, women as main breadwinners in the family, etc.), whereas the shift from a male to female role tends to be accepted in a more questionable way. The same may be stated about personality characteristics: a strong rational woman is likely to win social respect, whereas a man showing his emotions will probably end up with contempt and disdain. The Internet environment provides men with a unique opportunity to test behaviour forbidden to them due to social conventions.

According to van Zoonen (2003), communication styles themselves may create barriers to women's proactive participation. Online communication is an important source of information on gender-related behaviour patterns: studies dealing with chatrooms, discussion forums, etc. have shown that the communication style defined as apologetic and consensual prevails among women-dominated groups. On the other hand, masculine communication style, defined as action-oriented, impartial, conflicting, or even aggressive at times, dominates not only on the forums where men outnumber women, but also in mixed discussions (Postmes at al., 2000). Such conclusions were also confirmed by the research carried out by Herring (1996), who identifies a female communication style as supporting, the male one as competitive. Furthermore, she also confirmed the conclusion that online statements tend to me oriented more frequently on men and dominated by men.

In the study of 3,000 online messages, Witmer and Katzmann (1997) showed that in order to show emotions, women tend to use more graphic elements and emoticons than men. Contradictory to this result, Huffaker and Calvert (2005) did not reveal, in a study of blogs, any differences in the extent to which men and women use emoticons. What is more, among those using emoticons, men tended to use them more often than women.

In a quantitative study carried out on 681 adolescents aged between 12 - 20 years, it was revealed (Šmahel & Vybíral, 2003) that there was a group of adolescents who prefer online communication because of the fact that they find it easier to express themselves in the virtual environment, and that the impersonality of the virtual environment helps them express their emotions and frees them of fear when communicating with authorities. It was shown that in general, it is boys who tend to prefer online communication, whereas girls tend to miss non-verbal communication here. Furthermore, it is adolescents without a partner who tend to prefer virtual communication, which might refer to more frequent preferences of virtual communication among people with a certain social handicap.

In the same research into adolescents, it was proven that there are connections between adolescent's identity status and their behaviour in the virtual world (Šmahel, 2003b).

The behaviour in the virtual world often corresponds to the adolescent's real identity (and behaviour), whereas it is the safe and anonymous Internet environment that allows the adolescent to dare more than in real life. In the virtual environment, adolescents may explore their values and attitudes, test their norms and rules, and try presenting themselves differently from the real environment. It is boys rather than girls who tend, more frequently, to change their identity on the Internet, behaving in contradiction to parents' rules and norms.

2. Research Questions and Hypothesis

The submitted paper aims at exploring older research projects and hypotheses established on the basis of surveying a sample of adolescents. This paper attempts to verify the hypotheses on the whole population (aged 12 years or more) and compare the results in the adolescent and adult population. The strong point of the existing research lies in a representative research sample for the Czech population (see chapter on methodology).

The basic research question is the gender and age differences in the preference of the Internet as a means of communication and pretending to have a different identity on the Internet. We ask the differences between both sexes in this respect and how the age influences these differences.

The following hypotheses were set for the research:

H1: Men claim more often than women that it is easier for them to express themselves on the Internet than in regular conversation.

This hypothesis was established on the basis of previous research (Šmahel, 2003a), aiming mainly at its verification on adult population.

H2: The overall preference of the Internet as a means of communication is higher among men than women.

This hypothesis also resulted from previous work.

H3: The preference of the Internet as a means of communication changes according to the age: adolescents prefer the Internet in a larger extent.

The hypothesis is based on the assumption that adolescents are more approachable in relation to the use of technology, and they will, consequently, prefer virtual communication. The aim is to compare age groups from the point of view of virtual communication preference.

H4: On the Internet, men pretend to have a different identity more often than women: they often pretend to be someone else.

The precondition to this hypothesis is not only our previous work, but also the work of other authors (Turkle, 1995, Paul, 2000).

H5: Adolescents pretend to have a different identity more often than adults.

This hypothesis stems from the developmental theories of E. Erikson (2002) and J. Marcia (in Macek, 1999), in which a part of the period of adolescence is described as a time of "moratorium". In the moratorium period, the adolescent often experiments with his or her identity, searches for their possibilities, their own self and heads for "identity

achievement", expected in the adult period of life. For instance, in a previous piece of research (Šmahel, 2003b) it was shown that moratorium-status adolescents (according to Marcia's theory) claim more often to be more open on the Internet than in reality and to be different from their real life.

3. Methodology

In September 2005, a quantitative survey was carried out in the Czech Republic in the form of face-to-face interviews when respondents, together with an interviewer, filled in a prepared questionnaire. In total 1,832 respondents aged 12 years or more were surveyed, and the research sample was made representative for the Czech Republic as far as the variables of sex, education, age, region, and the size of the respondent's domicile are concerned. The data collection was performed by a professional agency (STEM) with over-ten-year experience in carrying out representative quantitative surveys.

The survey was included in the World Internet Project, which is a worldwide project aiming at realising a long-term study examining the influence of computers, the Internet and related technologies on the individual, family and society. The project has been organised by the Center for the Digital Future at USC Annenberg (http://www.digitalcenter.org/) in the USA since 2000.

The presented questions (see Q1 - Q5) were only a smaller part of the given questionnaire; they have not been, however, included in the international survey yet. That is why an international comparison related to these questions is not available. Therefore, the survey served as a test of the corresponding questions with the possibility of including them into the international research.

The strong point of the presented research is its representativeness and the size of the research sample; its weak point is mainly related to a very limited possibility to include further questions due to the price of such an extensive survey. Therefore, the hypothesis of a different identity pretence is tested with the help of one question only, which certainly is not an optimal solution.

4. Internet Use in the Czech Republic

First, let us briefly introduce basic data related to the Internet use in the Czech Republic, in order to give the reader an idea of the extent of the Internet use in the Czech Republic, as well as the characteristics of the given sample. Further results concerning the Internet use in the Czech Republic may be found in another article (Šmahel, 2006a).

In the Czech Republic, the Internet use totals 49.6% of the population, whereas the Internet is used 53.9% men and 45.7% women, the difference being significant [$\chi 2$ (1, N = 1823) = 12.08, p = .001, phi = 0.081]. Above all, there are large differences in the Internet use from the point of view of age, which is shown in Figure 1 individually for men and women.



Figure 1 : Internet penetration in the Czech Republic according to the age and sex

The relevant chi-squares showing the differences in the Internet use according to the age are for men as follows [$\chi 2$ (6, N = 865) = 184.39, p = .000, phi = 0.462] and women [$\chi 2$ (6, N = 954) = 227.67, p = .001, phi = 0.489].

On the whole, men spend more time on the Internet than women: men aged 12 years or more spend, on average, 11 hours 38 minutes online a week, whereas women 9 hours 4 minutes (out of those using the Internet); t-test: [t = 3.12, df = 900, p = .002].

Let us show briefly the differences in both sexes from the point of view how they spend time on the Internet. Significance values are not included here, since this is not a major theme of the submitted paper. The categories mentioned below are based on the World Internet Project methodology, shared by all the countries participating in the project. It is men who claimed to perform the following activities on the Internet significantly more often (the figure in brackets represents the percentage of men and women claiming to perform individual activity at least several minutes a week): playing games (42.4% x 32.0%), hobbies (66.1% x 56.1%), visiting sites with sexual content (21.6% x 5.5%), downloading music (32.0% x 19.0%), keeping track of checking or credit card (28.9% x 22.1%), creating and maintaining web pages (13.3% x 5.3%), shopping for or buying goods or services (21.5% x 12.4%), general surfing or browsing (54.7% x 47.1%). On other hand, women claim significantly more often the following activities: reading or searching for medical information (24.0% x 12.7%) and surprisingly searching for jobs or looking at classified ads (39.4% x 32.8%). No significant differences between men and women have been found, however, in the following categories: doing work at home for your job, reading local, national, and international news, religious and spiritual activities, distance learning, reading or searching for information about entertainment, participating in Internet chat rooms, reading and writing e-mail, sending and receiving instant messages and school-related work.

The highest difference between men and women may be seen in the category of "visiting sites with sexual content", which is highly likely to be undervalued by the used method: in a face-to-face interview, the respondents probably "admitted" less frequently dosing such activity. At the same time, it is possible that women's results might be more distorted than those of men due to a stronger gender stereotype. More often, men play games on the Internet and devote the time to their hobbies, whereas women seem to incline to a "more serious" use of the Internet, searching more frequently for medical information and job opportunities. The fact that women seek for job opportunities more often than men is an interesting piece of information, requiring however a deeper analysis related to the job market in the Czech Republic. The research has not uncovered any significant differences between men and women from the point of view of users' communication on the Internet: similar shares of men and women use email, visit chatrooms and discussion forums, and send online messages (ICQ).

5. Hypothesis testing

5.1. DESCRIPTIVE STATISTICS

First, let us present descriptive statistics of the observed questions. In the survey, the respondents were asked the questions mentioned below with the following choice of answers: 1 = I strongly agree, 2 = I rather agree, 3 = I rather disagree, 4 = I strongly disagree, whereas the questions were placed in the battery of items and the respondents were asked to circle the corresponding numbers (i.e. 1 - 4). Ouestions:

Q1: I am more open on the Internet than in reality.

Q2: On the Internet, I also reveal private details from my life which I do not share in everyday life.

Q3: I find it easier to express myself on the Internet than in a normal conversation.

Q4: I can better express my emotions (feelings, senses) on the Internet.

Q5: Sometimes I passed myself off as someone else on the Internet.

The hypothesis of different identity pretence has only been tested with the help of Q5, which was used in the previous research into adolescents (Šmahel, 2003a). This question best saturated the factor of identity experimentation and had a relatively high correlation with the question of pretending to be a person with the opposite sex (r = 0.47, p < 0.01).

Table 1 shows descriptive statistics of the given questions.

	Q1 (%)	Q2 (%)	Q3 (%)	Q4 (%)	Q5 (%)	
Strongly agree	6.1	2.7	5.8	3.8	4.1	
Rather agree	25.8	12.2	26.4	23.6	11.1	
Rather disagree	38.4	32.7	37.5	35.6	20.0	
Strongly disagree	29.7	52.4	30.3	37.0	64.7	
Total	100.0	100.0	100.0	100.0	100.0	
Mean	2.92	3.35	2.92	3.06	3.45	
Std. deviation	0.89	0.80	0.89	0.87	0.85	

Table 1: Frequencies of basic questions

In total, 31.9% of the Internet users agree on the statement that they are more open on the Internet than in reality (Q1) and 32.2% agree that it is easier for them to express themselves on the Internet than in reality (Q3). A relatively smaller share of respondents claimed to express their emotions better on the Internet (Q4: 27.4% in total), and the total of 14.9% agree on the fact that they uncover such details of their lives on the Internet that they do not communicate in reality (Q2). Similarly, a smaller share of respondents agrees that they have pretended to be someone else on the Internet: 15.2% in total. It seems that the share of people pretending to have a different identity in the virtual environment is quite lower than commonly expected.

5.2. GENDER DIFFERENCIES

Table 2 shows the t-test results of analyses items according to the respondent's sex.

Item	Gender	N	Mean	Std. Deviation	t	df	Sig (2- tailed)
Q1	Men	463	2.85	.893	-2.318	896	.021
QI	Women	435	2.99	.884	-2.316	890	.021
Q2	Men	464	3.33	.784	676	897	.499
	Women	435	3.37	.808			
Q3	Men	464	2.88	.886	-1.420	898	.156

Table 2: How men and women differ? (t-test analysis)

	Women	436	2.97	.894			
Q4	Men	464	4 3.03 .899 047	947	898	.344	
Q4	Women	436	3.09	.834	747	090	.344
Q5	Men	464	3.38	.885	-2.832	896	.005
	Women	434	3.54	.798			

It is clear that hypothesis H1 has not been verified (see O3): men do not claim more often than women that it is easier for them to express themselves on the Internet than in regular conversation. However, it is men who tend to assert more often than women that they are more open on the Internet than in reality (see Q1) and also they have admitted more often being someone else on the Internet (see Q5). Consequently, hypothesis H4 has been validated. What was also interesting to observe were the differences in the answers given by men and women in various age groups. When analysing responses to O5 among adolescents in the age groups of 12 - 15 years and 16 - 20 years, there have been no significant differences between boys and girls. Hence, adolescent boys and girls pretend, in a similar extent, to be someone else on the Internet. The largest and significant differences between men and women have been revealed, as far as the question of pretended identity is concerned, in the age category of 31 - 40 years [t = -3.38, df = 165, p = .001]. Surprisingly, men in this age category claim significantly more often than women that they have tried pretending to be someone else on the Internet; the difference were not significant in other age groups. As far as question Q3 (expressing themselves easier on the Internet) is concerned, statistically significant differences have not been found in any age group. Similarly, the biggest difference between men and women in the home Internet use per week (in hours) was found in this age group: 31-40-year-old men use the Internet about 5 hours more per week than women (9.07 vs. 14.07 hours). This difference probably influence the amount of pretending on the Internet: men spend more time there and have more opportunities to pretend to be someone else.

5.3. PRETENDING: AGE COMPARISON

Now, let us have a look at the differences in the answer to the question related to experimenting with the respondent's identity according to their age. The following age categories have been selected for the analysis: 12 - 15 years, 16 - 20, 21 - 30, 31 - 40, 41 - 50, and 51 years and more (the sample did not contain a sufficient number of respondents – Internet users for setting up an older age group). At first, their replies were compared with the help of the one-way Anova test showing significant *F* (5, 896) = 12.71, *p* = .000, Eta² = 0.067. The differences are shown in Figure 2.



Figure 2: "Sometimes I passed myself off as someone else on the Internet" according to the age

The differences in the answers given by individual age groups are obvious: the total of 28% of the respondents aged between 12 - 15 years agree that they have tried being someone else on the Internet, whereas the same said the total of 9% of the respondents aged 51 years or more. Consequently, hypothesis H5 has been verified: adolescents in the age groups of 12 - 15 and 16 - 20 years pretended to have a different identity more often than adults. The differences are also significant from the point of view of comparing the groups of 12 - 20 year olds and those aged 21 years or more: F(1, 896) = 41.33, p = .000, Eta² = 0.044.

5.4. INTERNET PREFERENCE SCORE

Furthermore, let us present the score of the preference of the Internet as a means of communication, which consists of the sum of the above mentioned items -Q1 + Q2 + Q3 + Q4, Cronbach's Alpha = 0.872. Quite clearly, the score is relatively consistent. The score will be used to verify hypotheses H2 and H3.

Again, the results of men and women have been compared using a t-test; however, the differences not being significant [t = -1.55, df = 895, p = .120]. Hypothesis H2 has not been confirmed: men do not prefer virtual communication more than women. The differences between men and women have also been tested with respect to the above mentioned age groups. Although men in all age groups have shown a higher score in

the virtual communication preference, the differences have never been significant on the level p < 0.05. The largest difference between men and women has been found in the group of 41-50-year-old respondents [t = -1.84, df = 154, p = .067].

Table 3 shows the average score values of the preference of the Internet as a means of communication in individual age groups: the lower the score, the higher the preference of the Internet as a means of communication.

	Mean – Internet		
	preference		Std.
Age	score	Ν	Deviation
12-15 years	11.2917	96	2.98740
16-20 years	11.3960	149	2.68333
21-30 years	11.7990	194	3.09367
31-40 years	12.4941	170	2.84978
41-50 years	13.1795	156	2.65546
51 years and more	13.1145	131	2.75860
Total	12.2422	896	2.93209

Table 3: Internet preference score

The differences of the average values have appeared to be significant F (5, 890) = 11.82, p = .000, Eta² = 0.062. Besides, the differences are also significant when comparing 12-20-year-olds (adolescents) and 21-and-more-year-olds (adults): F (1,895) = 31.93, p = .000, Eta² = 0.034. Consequently, hypothesis H3 has been verified: the preference of the Internet as a means of communication changes with the respondents' age. It is adolescents who prefer the Internet more frequently than adults.

5.5. OTHER FACTORS?

We have also attempted to search for connections between the Internet preference level and the way of using the Internet. A very weak, however statistically significant, correlation (Pearson) has been found between the number of hours spent on the Internet per week and the score of virtual communication preference (r = -0.11, p < 0.01). A relatively stronger correlation has been revealed between the hours spent on the Internet per week and the time spent playing computer games per week (r = -0.17, p < 0.01) and on-line messaging (ICQ) (r = -0.20, p < 0.01). People preferring virtual communication tend to play computer games more and spend more time than other on-line messaging. However, no connection between how long they have been using the Internet (years and months) and the score of the virtual communication preference has been revealed.

What has also been shown in the connection between pretending to have a different identity in the virtual environment and the score of the virtual communication preference (Pearson r = 0.48, p<0.01). People preferring virtual communication tend to pass themselves off as someone else on the Internet more often, pretending to have a different identity.

But we can also find other factors which are related to the score of the Internet preference and pretending on the Internet. We found a positive correlation between the Internet preference level and trusting the information on the Internet ("How much of the information on the World Wide Web overall do you think is reliable and accurate?"). People who believe more the Internet information tend to prefer more virtual communication: the Internet preference score is higher F(4, 817) = 4.65, p = .001, Eta2 = 0.022. Similarly, people who have higher confidence in the people running on the Internet ("Tell me how much confidence you have in the people running on the Internet"), have a higher Internet preference score F(4, 894) = 15.36, p = .000, Eta2 = 0.065. The overall trust in the Internet and people on it influences the Internet preference level. Again, adolescents tend to trust more in the Internet than adults. This type of trust is probably also connected with a higher confidence in technology in general, but we did not measure this in our research.

6. Conclusions and Discussion

The presented research on a representative sample of the population has shown that almost a third of Internet users in the Czech Republic claim to be more open on the Internet than in real life, whereas it is men who tend to agree on that more frequently than women. Furthermore, almost a third of them also agree that it is easier for them to express themselves on the Internet than in real life, without any statistically significant differences between men and women. A potential hypothesis expecting men to be more open on the Internet since they find it easier to express themselves and their emotions better in the virtual contact has not been verified in the given survey. The differences in preferring virtual communications are not, between men and women, statistically significant in any of the observed age groups. Therefore, men tend to perceive themselves as more open on the Internet, without finding such environment "a better place for communication". That is why we can only speculate if such phenomenon could be caused by stronger concerns of women in virtual communication, when a woman may be, more often than a man, worried about being open even in an anonymous contact, since she tends to perceive a man as a potential assailant or aggressor. This hypothesis is supported by another finding - women tend to meet friends found on the Internet face-to-face less often than men, although women and men have the same number of friends on the Internet (Šmahel, 2006b). What may also be influential is the fact that men tend, more frequently than women, to pretend to have a different identity, allowing them to be more open. There is no connection between higher openness of men and the length of using the Internet (in years).

However, the virtual communication preference changes substantially with the Internet user's age: the older the person is, the less they prefer the Internet as a medium, whereas

the Internet preference curve levels off approximately from 41 years of age. The highest preference of the Internet as a means of communication has been found among 12-20-year-old adolescents. A question that arises is whether the high Internet preference is caused by particularities of adolescent period, or theoretically, by a general more positive approach to technology among young people. Undoubtedly, future trends will be interesting to follow: will the Internet preference score be stable in time (older users will less prefer the Internet) or will it tend to increase (the preferences of the younger will remain the same even later in life)?

It has been shown that online communication preference does not depend on the time spent on the Internet, and the connection with the hours spent online per week is also very low. What has been found, however, is a link between playing online games and online messaging and online communication preference. These factors are, nevertheless, inter-connected: a person preferring Internet communication spends more time playing games and communicating via online messengers, which are most often used when communication preference and time spent in chatrooms has been revealed. In other words, people preferring online communication tend probably to communicate with their friends (since online messenger are concerned) rather than with strangers (which happens more in chatrooms).

The research has verified the hypothesis that it is men who tend to experiment with their identity on the Internet more frequently than women (Turkle, 1995, Paul, 2000); the biggest difference between men and women has been found in the group of 31-40-year-olds, though. It may only be guessed what the exact cause of such difference in this particular age group is. Perhaps, the woman's identity is, in this stage of life, more settled (closed) when bringing up her children, whereas men might have the tendency to fulfil the "MAMA" (moratorium / achievement) pattern (Wallace, 1999), trying to further explore their own identity in a greater extent than women. But men in this age group also spend about 5 hours per week more on the Internet than women, which probably influences the difference in pretending between 31-40-year-old men and women. Men spend more time on the Internet and have more opportunities "to play" other identities.

As far as pretending to have a different identity is concerned, large differences have been found, above all, from the point of view of age, when the tendency to experiment with their identity has been the highest among 12-15-year-old adolescents and slightly lower among those aged between 16 - 20 years, then decreasing gradually until 40 years of age. Such findings correspond to Erikson's theory (2002) in which adolescents show a higher level of identity exploration, the Internet being only one of the tools which may be used. However, this theory does not explain, for instance, the differences between 31-40-year-old and older Internet users. The difference between adolescents and adults cannot be explained by the amount of time on the Internet, but there are probably also other factors which influence this result, such as trust in the information on the Internet, confidence in on-line people, etc. The overall trust of young people in the Internet is probably higher than in the adult group.

As mentioned above, the strong point of the presented survey lies in the representativeness of the research sample for the Czech Republic. On the other hand, what was conceived as a restriction was a very limited number of questions used in

order to verify the given hypotheses. So as to confirm our conclusion, it would be necessary to make use of better quality operationalisation of individual concepts, as well as creating more abundant scales. Furthermore, it is also necessary to bear in mind the limits of a questionnaire survey, in which respondents express their perceived behaviour on the Internet only. The fact that they claim to be more open on the Internet does not equal, in fact, whether and how they are more open. Therefore, our conclusions are related to the respondents' perception of their behaviour on the Internet. For instance, in order to verify such conclusion, an experimental design study might be used. Another option to be considered is including the same items into the international research (World Internet Project). The comparison of more and less "Internetdeveloped" countries might reveal many of the questions mentioned above.

It has been shown that men and women prefer the Internet as a means of communication in a similar extent; adolescents and young Internet users have demonstrated a substantially higher level of online communication preference. As a result, it is young people who use fully the possibilities provided by modern technologies, even preferring virtual to real contact at times. We do not have the courage to assess, either positively, or negatively, such findings, since virtual communication brings definitely advantages and inconveniences. A question that lies ahead is how online communication preferences will change in the future: will we witness a permanent increase in virtual contact popularity or will its popularity remain de facto constant in relation to age? In the future, virtual communication popularity will definitely depend on what technologies themselves will allow us to do. Currently, an overwhelming majority of online communication happens via a written text, whereas IP telephony and video-calls are becoming more and more common. Are Internet users actually interested in shifting from a more anonymous text contact to less anonymous forms? How will technologies themselves affect communication? The answers to these questions will definitely be found in the future and subsequent research projects. The presented research might be considered as a small contribution to a large mosaic "put together" by social sciences in an attempt to understand communication phenomena and new media.

Acknowledgements

David Smahel and Katerina Machovcova acknowledge the support of the Czech Ministry of Education, Youth and Sports (VZ 0021622406) and Faculty of Social Studies, Masaryk University in Brno.

References

Erikson, H., E.: 2002, Dětství a společnost. Praha: Argo.

Gross, E. F.: 2004, Adolescent Internet use: What we expect, what teens report. *Journal of Applied Developmental Psychology*, 24, 633-649

Huffaker, D. A., and Calvert, S. L.: 2005, Gender, identity, and language use in teenage blogs. *Journal of Computer-Mediated Communication*, 10(2), article 1. Downloaded 2.2.2006 from http://jcmc.indiana.edu/vol10/issue2/huffaker.html

Herring, S. C.: 1996, Posting in a different voice: Gender and ethics in computermediated communication. In C. Ess (Ed.), *Philosophical perspectives on computermediated communication* (pp. 115-145). Albany: SUNY Press.

Macek, P.: 1999, *Adolescence: psychologické a sociální charakteristiky dospívajících.* Praha: Portál.

McAdams, P. D.: 1997, The Case for Unity in the (Post)Modern Self. In Ashmore, D. R. & Jussim, L. (Eds.), *Self and identity*. New York, Oxford: Oxford University Press.

Paul, E.L. (Ed.): 2000, *Taking Sides*. *Clashing views on Controversial Issues in Sex and Gender*. Dushkin/McGraw-Hill.

Postmes, T., Spears, R., & Lea, M.: 2000, The formation of group norms in computermediated communication. *Human Communication Research*, 26, 341-371.

Šmahel, D.: 2003a, Adolescents and the Internet: identity, relationships and communication. Ph.D. Thesis. Brno: Masaryk University.

Šmahel, D: 2003b, Souvislosti reálné a virtuální identity dospívajících [Links between real and virtual identities of adolescents]. In Mareš, P & Potočný, T. (Eds.) *Rodiny, děti a mládež v období transformace*. Brno : Barrister & Principal, 2003. 315-330.

Šmahel, D. & Vybíral, Z.: 2003, Komunikace uživatelů internetu: Co výzkumy zjistily a jaký výzkum potřebujeme? [Internet users' communication: what has research found and what research we need?] In Mareš, P & Potočný, T. (Eds.) *Modernizace a česká rodina*. Brno: Barrister & Principal, 2003. 299-314

Šmahel, D.: 2006a, Czech Internet report: The rise of the Internet generation?. In: *Cyberspace 2005*. Polcak, R., Skop, M. & Smahel, D. (Eds.) Brno: Masaryk University. Download: http://www.terapie.cz/smahelen/

Šmahel D.: 2006b, Bojí se ženy více než muži lidí z internetu? [Who is more afraid of the people from the Internet? Men or women?], *ISDN.cz*, 12.4.2006, Download: http://www.isdn.cz/clanek.php?cid=7694

Turkle, S.: 1995, Life on the Screen. New York: Simon and Schuster.

Wallace, P.: 1999, *The psychology of the Internet*. Cambridge: Cambridge University Press.

Witmer, D. F., & Katzman, S. L.: 1997, On-line smiles: Does gender make a difference in the use of graphic accents? *Journal of Computer-Mediated Communication*, 2 (4). Downloaded 2.2.2006 from http://jcmc.indiana.edu/vol2/issue4/witmer1.html

Zoonen, L.: 2002, Gendering the Internet. Claims, Controversies and Cultures. In *European Journal of Communication*, 17/1. Sage Publications. Downloaded 10.10.2005 from Proquest database.