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GENDER DIFFERENCES IN INTERNET USAGE

Abstract. The results of the Polish edition of the World Internet Project 2011 indicate gender differences both in the intensity of Internet usage and the ways in which it is used. Women spend less time online, have shorter experience online, and express less openness towards online relationships or services. The main gender difference in the kinds of activities undertaken online concerns entertainment – men engage much more often in activities such as playing games, listening to music or the radio, watching films, or looking for humorous content than women do. Having said that, it should be noted that the differences are not dramatic, indicating the small size of the “gender gap” among Polish Internet users.

Key words: gender, Internet, online experience, attitudes, usage patterns.

1. Introduction

The majority of studies on Internet adoption and usage, together with studies on computer usage, have noted a male predisposition in getting acquainted with new technologies at the level of computer and Internet skills, the range of online activities undertaken, the frequency of appearances, and time spent online.

The fact that men are more advanced in information and communication technologies has usually been explained by indicating three groups of factors: 1) gender expectations with regard to new technologies, with primarily men and boys being encouraged to become engaged in them (e.g. Ilie et al. 2005); 2) gender roles in the home, with women being more burdened than men with housework and care-giving to children and spouse (e.g. Kennedy 2003), which implies that women have less free time at home; 3) gender roles in social relations, with women being communicators and networkers mostly within the “private sphere” of the family circle, and men engaging more in relations in the “public sphere”, including formal contacts such as those demanded in online services (e.g. Robinson, Godbey 1997).

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The vast majority of studies have been done in the United States, where the Internet was earliest adopted into everyday society. To some extent, the results of research in other parts of the world devoted to analyzing gender differences in Internet usage resembled the American findings, which may suggest that similar tendencies exist in women's and men's attitudes towards and abilities in new technologies all over the world. Nevertheless the most recent studies, especially from Western countries, show a diminution in the differences between sexes with regard to computer and Internet usage, with some authors announcing that the "gender gap" has vanished with respect to usage of the new media (e.g. Hu et al. 2009; Thayer, Aray 2006). These new findings have made the gender patterns in the adoption and use of new technologies more complicated, and suggest the dynamic nature of the relationship between gender and Internet usage.

The purpose of our analysis was to determine the key issues in Internet adoption and usage in Poland which are differentiated by gender. Our primary data source was the Polish edition of the World Internet Project 2011, which is the most comprehensive survey on Internet usage by individuals in Poland¹ to date. Our analysis was directed by the following research questions:

1. What are the gender differences in the adoption of the Internet and frequency of its usage?

(Are there more Internet users among men or women in Poland? Which sex has longer online experience? Which sex uses the Internet more frequently?)

2. What are the gender differences in attitudes towards the Internet and use of the medium for developing social relations?

3. What are the gender differences in the ways of using the Internet?

(Which online activities are more popular among men and among women? What kinds of online activities are preferred by each sex?)

4. What is the impact of women's gender role as caregivers to children on their frequency of Internet usage?

The questions were formulated with reference to the main fields of gender differences in Internet usage discussed in the literature. Question 4 relates to interpretation of the lower frequency of women's Internet activities noted in most countries, postulating as a reason the multitude of women's duties connected with the role of mother and wife. Assuming that among the whole set of women's tasks in the family area the most time-consuming tasks relate to caring for children, we decided to limit our analysis of the impact of women's domestic

¹ Social Diagnosis (see Batorski 2011) is another national survey on the social aspects of information and communication technologies in Poland. While it provides rich data, the study takes as units of analysis both households and individuals and the part of survey devoted to the individual use of the Internet is less exhaustive than the corresponding segment of questions in WIP 2011. We adopted as our primary data source WIP 2011, but we also compared our findings from our analysis with the results of Social Diagnosis and other national surveys.

duties on their online activity to a comparison of Internet usage between men and women living with children under 18 years old, and of men and women without minors in their households.

2. Background

The vast amount of research that has been done since the 1960s on access to and use of Information and Communication Technologies (ICT) has shown significant differences in men's and women's attitudes, skills, and practices connected with using computers and the new media.

Studies on computer usage indicate that women on average have less positive attitudes towards computer technology than men, are less willing to use computers, and even given equal access will use them less, express more anxiety than men towards using computers, possess fewer computer skills, and perform jobs connected with ICT much less frequently than men (Batorski 2011; Bross 2005; Comber et al. 1997; Durndell et al. 1987; Kirkup 1995; Scragg et al. 1998; Schumacher, Morahan-Martin 2001; Seybert 2007). The great majority of research was done in North America and other Western countries, but the surveys from other parts of the globe show similar gender differences in the adoption of ICT, though to different degrees (Hafkin, Taggart 2001; Li, Kirkup 2007; Seybert 2007). While the general changes in computer usage in recent decades - which has rendered the computer a standard household device in developed countries - have reduced the gender division in ICT, nonetheless differences persist, especially in non-professional use in the home (Durndell, Lightbody 1993).

Since the last decade of the 20th century there have been a growing number of studies on the adoption and use of the Internet. Both academicians and politicians have shown a particular interest on the issue of the digital divide, i.e. the inequalities in access to the new media (which may result from a wide variety of reasons, ranging from the physical lack of access to the Internet in a neighborhood to negative social models associated with its use by some social groups) (Katz, Rice 2002). One of the key determinants of access to the Internet and frequency of its use is invariably gender. Fewer women than men are Internet users, and those who do go online use it on average for shorter periods than men and spend less time online (usually computed as numbers of hours spent online in a week) (Dholakia et al. 2003; Fallows 2005; Kennedy et al. 2003; Seybert 2007). But it should be noted that the situation is dynamic – in the most developed countries the percentage of women using the Internet is nearly or exactly the same as men (Pew Research Center 2012). Nevertheless more women than men are still “newbies” (though differences in the average period of Internet usage in some countries are only a few months), and they use the Internet less frequently than men.

Gender also influences the way in which the Internet is perceived. National and international surveys on new media indicate that in most countries there is a general positive attitude towards the Internet in society, but women are usually slightly more skeptical and less enthusiastic with regard to new information technologies (Ford, Miller 1996; Kennedy et al. 2003). They are also more often confused using new communication tools, especially at work (Ilie et al. 2005). Women are more cautious and suspicious about meeting new people online. Although both sexes strike up similar numbers of acquaintances while using the Internet, women declare more anxiety about this way of entering into relations (Kennedy et al. 2003). When visiting social-networking sites, women concentrate on maintaining and cherishing existing bonds, while men are equally interested in looking for new relations (Muscanell et al. 2012). This may suggest that feminine networking capabilities are limited on the Internet by females' trepidation towards online relations, leading to similar numbers of new online contacts for both men and women (Thayer, Aray 2006).

Key differences in the way men and women use the Internet were found in comparative analyses of the time devoted online by both sexes to communication, education, searching for information and news, performing services (like banking or shopping) and entertainment (a majority of the analyses concern American society). With regard to the first of the areas "More than men, women are enthusiastic online communicators and they use email in a more robust way," states the author of the Pew Internet Project report (Fallows 2005: 4). Similar findings have come from qualitative studies (Boneva et al. 2001; Boneva Kraut 2002). In the non-professional area, both men and women use e-mail primarily for contacts with friends and relatives, but women do so significantly more often than men when it comes to maintaining and developing relations with family members or friends living far away, and women generally find e-mail communication more satisfying than men. Men use e-mail more often than women for maintaining contact with a variety of online groups. This difference is interpreted as females performing their traditional roles as networkers within families and friends' circles online, and men adapting their "natural" task orientation to their usage of the Internet (Kennedy et al. 2003).

The data gathered in the United States indicates the following gender differences in the remaining areas of Internet activities: men spend proportionally more time online than women with respect to 1) searching for information and news (in newspapers, magazines, libraries, discussion forums etc.); the only field where women are more active in looking for information is health; 2) services (looking for information on products, shopping, investing, banking, checking addresses etc.); 3) entertainment (games and visiting hobby sites based on a particular interest, i.e. sport, music, humor, erotic, science etc.) But women spend more time online proportionally than men on activities connected with education (Kennedy et al. 2003; Fallows 2005; Weiser 2004).

There are some discrepancies in the results of different surveys on gender and Internet activities, even within the framework of a single society – like the absence of consensus on which sex uses the Internet more for work-related research (Wellman, Haythornthwaite 2002: 20). There are also a growing number of studies indicating that the “gender gap” in Internet usage is closing in the most digitalized societies (Fallows 2005; Hu et al. 2009; Li, Kirkup 2007; Thayer, Aray 2006; Weiser 2004; Wilson et al. 2003). Women’s online skills are becoming comparable to men’s, and as women become more self-confident Internet users their usage of the Internet becomes more diversified (Hu et al. 2009). The most recent studies done in the countries with the highest levels of Internet adoption yield ambiguous results – the majority of them show a diminution in the gender differences in Internet access and usage, while some reveal persisting dissimilarities or even the engenderment of new disparities (Ilie et al. 2005). Certainly perception and usage of the Internet will evolve all over the world, together with changes in the adoption of the medium and in the medium itself.

3. Data sources

Our primary source of data for our analysis of gender differences in Internet adoption and usage in Poland was the Polish edition of the World Internet Project 2011 (WIP 2011). Poland participated in the project for the second time and the Polish partners of the coordinating organization – the USC Annenberg School Center for the Digital Future – were Agora S.A. and the TP Group.

The survey dealt with a variety of issues connected with Internet usage, including, among others: access to the medium; reasons for and purposes of its usage or non-usage; perceived security of online activities; role of the Internet in maintaining social relations (and the strength thereof); perceived quality of online information; comparison of various information and entertainment sources (Internet, TV, radio, press, social environment); time spent online; time spent by Internet users offline with their families and friends; and activities undertaken online.

The respondents constituted a random-quota representative sample of Poles aged 15+; the sample included 954 men and 1046 women (52.3%). The interviews were made in homes, face to face, and with the use of computer (CAPI). Data was gathered over the period 11 May – 6 June 2011.

As supplementary data sources for our research we used:

- The Polish Public Opinion Research Center’s studies “Current problems and events”
 - carried out on a random-quota representative sample of Poles aged 18+ (N =1017) in May 2012 (CBOS 2012),

- carried out on a random-quota representative sample of Poles aged 18+ (N=1189) in May 2011 (CBOS 2011),
- carried out on a random-quota representative sample of Poles aged 18+ (N=1205) in March 2008 (CBOS 2008).
- Social Diagnosis – study on the objective and subjective quality of life in Poland – carried out on a random-quota representative sample of Polish households (N=12386) and their members aged 16+ (N=36753) in March 2011 (Bator-ski 2011).

Unless otherwise stated, the results presented in this paper come from Polish edition of the World Internet Project (WIP 2011).

4. Results

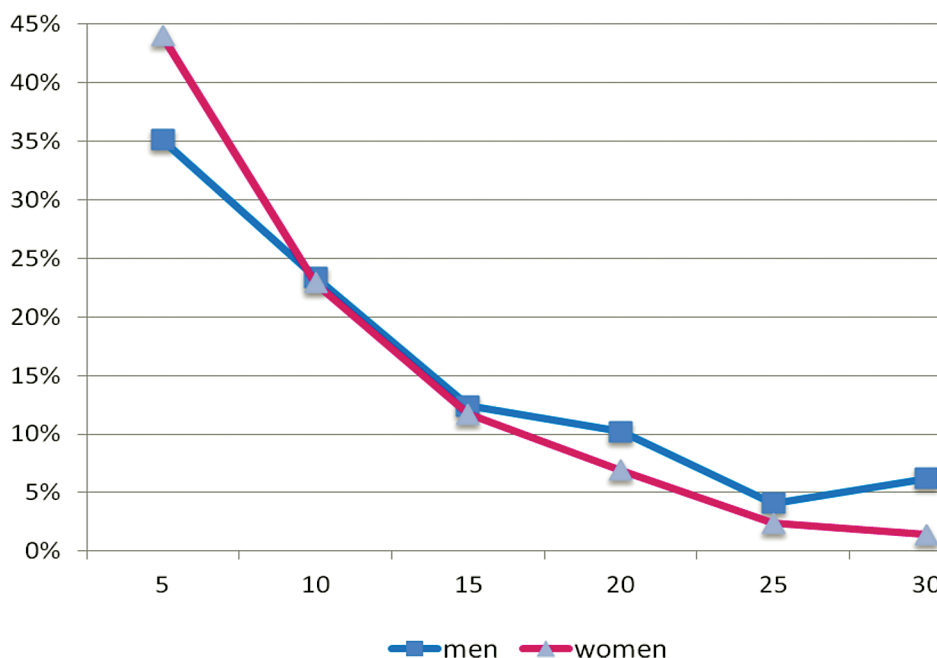
4.1. Internet adoption and frequency of usage

A similar percentage of men and women in Poland have access to the Internet. WIP 2011's data indicates that 61.1% of men and 62.1% of women are Internet users. According to data from the Social Diagnosis, there is a slight preponderance of male Internet users, with 62.0% of men using the medium and 58.1% of women. In any case, due to the numerical majority of women in Polish society, there are more female than male Internet users overall.

Men have longer experience as Internet users. The average duration of Internet usage for men in WIP 2011 amounted to 6.51 years, while for women it was 6.05 years. The length of experience determines the versatility of Internet applications used (Quan-Haase et al. 2002), and the shorter women's experience could be one of the reasons why the range of online activities undertaken by female Internet users is smaller than that of male users. This lower versatility of women's online operations is confirmed by the results of both WIP 2011 and Social Diagnosis 2011.

In addition, men are more intense users: on the average men are online in the home for 12.08 hours per week, while the figure for women is 9.05 hours. This difference is important, as home is the primary site for Internet usage in Poland. If we compare categories of Internet users arranged according to the number of hours spent online weekly, we find that in the first category – with use ranging from 0 to 5 hours a week – women significantly outnumber men, while in all other categories (ranging from 6 to 120 hours), men outnumber women. This categorization is presented in Chart 1 below for the categories from 0 to 30 hours.

Chart 1. Percentages of male and female Internet users being online in the home for respectively 0–5, 6–10, 11–15, 16–20, 21–25 and 26–30 hours a week.



Source: WIP 2011

4.2. Attitudes toward the Internet in general and toward its impact on social relations

There was no direct question on attitudes towards the Internet in the WIP 2011, so we used the results of the CBOS study of 2008, where respondents were asked if new technologies, like the Internet and mobile phones, made the world a better or worse place. Nearly half of all respondents (49.4%) claimed that the new technologies have changed world for better, less than one third (30.5%) claimed that they have caused neither positive nor negative changes, 7.6% had no opinion on the matter, and 12.6% believed that new technologies have made the world worse. Women's attitudes towards new technologies are, however, significantly less positive than men's, with only 45.1% of women claiming new technologies have had a beneficial influence, versus 54.1% of men.

Table 1. Attitudes towards new technologies

Have the new technologies, like Internet and mobile phones, made the world better or worse?	Men	Women	Difference
	in percentage points		
Better	54.1	45.1	9.0
Worse	9.8	15.0	5.2
Neither better nor worse	29.2	31.7	2.5
Difficult to say	6.8	8.2	1.4

Source: CBOS 2008.

WIP 2011 contained questions which enabled us to compare men's and women's views on the Internet with respect to anxiety connected with online activities, openness towards meeting new people online, and developing existing offline relations on the Internet.

The questions on anxiety (or trepidation) experienced with using the Internet concerned making transactions via the Internet (using payment cards), online banking, and securing one's identity online. There were four possible answers, ranging from "I am not afraid at all" to "I am really very afraid". Generally interviewees declared an absence or only a slight concern for these issues (approximately three quarters of all respondents). Yet men expressed less anxiety with using online services or just being online than women. Table 2 presents the percentages of men and women who stated that they were not afraid at all of online transactions, banking, or the risk of identity theft.

Table 2. Percentages of respondents declaring a lack of concern with security risks connected with particular online activities

Category of activities	Men	Women	Difference
	in percentage points		
Transactions <i>via</i> Internet	34.5	32.7	1.8
Online banking	46.6	43.2	3.3
Identity theft	39.5	34.9	4.6

Source: WIP 2011.

The great majority of both male and female users declared that the Internet either has had no impact on the frequency of their contact (online and offline) with various groups, or that it has increased their contact with those groups; only a few interviewees (3.5%-6%) asserted that Internet diminished their contact with

various social milieu. Men were more optimistic than women when it came to the increase in frequency of getting in touch with selected groups. The questions concerned contacts with 1) people sharing the respondent's hobbies/recreational activities; 2) people sharing respondent's political views; 3) people sharing respondent's religious beliefs; 4) family; 5) friends; 6) people in respondent's profession. With regard to all the groups, men more often than women stated that the Internet increased or even "greatly increased" their contacts. The biggest gender difference concerned developing contacts with people sharing the respondent's interests, while the smallest difference – only 0.1 percentage points – regarded relations with the family.

Table 3. Percentages of respondents declaring an increase or great increase in their contacts with selected groups due to Internet usage

Using Internet increased or greatly increased my contacts with:	Men	Women	Difference
	in percentage points		
People sharing my hobbies/ recreational activities	44.4	36.5	7.9
People sharing my political views	20.8	17.4	3.4
People sharing my religious beliefs	15.1	14.0	1.1
Family	39.3	39.2	0.1
Friends	52.0	48.4	3.6
People in my profession	30.1	26.5	3.6

Source: WIP 2011

Women's greater aloofness in developing their networks online, especially with respect to meeting new people, is confirmed by yet another survey. According to CBOS 2012, 32% of men who were Internet users struck up at least one acquaintance online, compared to only 14% of women who were Internet users, which indicates that men are more than twice more willing to or more skilled in meeting new people online than women. In 2011 the difference was not so big, with 22% of men striking up acquaintances online versus 17% of women (CBOS 2011), but men's greater openness in the area of developing new relationships seems to be a stable feature.

4.3. Ways of using the Internet

The respondents' in WIP 2011 who declared themselves as Internet users were asked to determine if - and how often - they performed various activities

online. They were presented with a list of 37 activities grouped into the following categories: communication, information, entertainment, services, and education. We compared, by gender, the percentages of Internet users undertaking chosen activities:

- at least once a week (this could be interpreted as “activities usually undertaken online”),
- at least once a day (this could be interpreted as “activities undertaken online by the most intense users and the most important activities undertaken online by the average users”).

The Internet users undertaking chosen activities at least once a day constituted a subset of the Internet users undertaking those activities at least once a week.

4.3.1. Most popular online activities

Table 4. Most popular online activities undertaken by Internet users at least once a week

Top ten online activities undertaken by male Internet users at least once a week	Percentage of all male Internet users	Top ten online activities undertaken by female Internet users at least once a week	Percentage of all female Internet users
Checking e-mails	74,30	Checking e-mails	73,60
Surfing or browsing the Web	73,30	Surfing or browsing the Web	71,40
Looking for news – local, national, international	71,40	Looking for news – local, national, international	68,30
Instant messaging	50,20	Visiting social networking sites	49,00
Sending attachments with e-mails	47,00	Finding or checking a fact	46,90
Finding or checking a fact	45,20	Instant messaging	44,10
Visiting social networking sites	43,60	Sending attachments with e-mails	44,10
Downloading or listening to music	36,90	Looking up a definition of a word	32,90
Looking for jokes, cartoons, or other humorous content	34,20	Looking for health information	28,80
Visiting video-sharing sites	34,00	Getting information about a product	28,20

Source: WIP 2011.

Table 5. Most popular online activities undertaken by Internet users at least once a day

Top ten online activities undertaken by male Internet users at least once a day	Percentage of all male Internet users	Top ten online activities undertaken by female Internet users at least once a day	Percentage of all female Internet users
Checking e-mails	52,50	Checking e-mails	51,40
Surfing or browsing the Web	50,10	Surfing or browsing the Web	43,20
Looking for news - local, national, international	38,60	Looking for news - local, national, international	29,50
Instant messaging	29,40	Visiting social networking sites	25,50
Visiting social networking sites	21,80	Instant messaging	23,00
Sending attachments with e-mail	18,20	Sending attachments with e-mail	18,10
Downloading or listening to music	16,10	Downloading or listening to music	10,20
Visiting video-sharing sites	15,80	Visiting video-sharing sites	9,10
Finding or checking a fact	15,40	Getting information for school related work	7,50
Playing games	14,00	Making or receiving phone calls over the Internet	7,20

Source: WIP 2011.

Female and male users are similar in their most popular activities – both those undertaken at least once a week as well as those undertaken daily. Checking e-mails is always in the top position, followed by browsing the Web and then looking for news.

Interesting differences are visible when we compare the remaining most popular online activities undertaken at least once a week. Women's activities from positions 4-10 belong to five categories: communication (instant messaging, sending attachments with e-mails), information (looking for health information), entertainment (visiting social networking sites), education (finding or checking a fact, looking up a definition of a word) and services (getting information about a product). Men's activities from positions 4-10 belong to only three categories: communication (instant messaging, sending attachments with e-mails), entertainment (visiting social networking sites, downloading or listening to music, looking for humorous content², visiting video-sharing sites) and education (finding or

² Originally the question in the survey – „How often do you look for jokes, cartoons, or other humorous content?“ – was categorized as „looking for information,“ but we believe that it should be categorized as „entertainment.“

checking a fact). These differences can be interpreted as reflecting men's greater proclivity for using the Internet for entertainment and recreational purposes.

Comparison of the most popular online activities undertaken on a daily basis shows smaller gender differences in terms of categories of the activities. Both sexes engage in activities from three categories: communication (both sexes: instant messaging and sending attachments with e-mails, with women also calling over the Internet), entertainment (both sexes: visiting social networking sites, downloading or listening to music, visiting video-sharing sites, with men also playing games). and education (men: finding or checking a fact, women: getting information for school-related work). Men seem to be more interested in entertainment than women do and women seem more keen on communication than men, but the differences are smaller than those concerning activities performed at least once a week, which can suggest decreasing gender differences between the most intense users.

4.3.2. The greatest differences in frequency of performing online activities

Generally, men are online more often than women, so it is not surprising that they perform most online activities more frequently than women. The few exceptions, i.e. when women more frequently perform an activity than men, concern looking for health information (among activities performed at least once a week), visiting social networking sites (among activities performed at least once a week and at least once a day) and looking up a definition of a word (among activities performed at least once a week and at least once a day). Regarding categories of activities, women more often than men perform activities belonging to the category of education (looking up a definition of a word, finding or checking a fact, getting information for school-related work); these activities are primarily undertaken by younger users, which indicates either a greater proclivity of female students to fully take advantage of the educational capabilities of the Internet, or is a derivative of the greater diligence of girls as students.

Table 6. Online activities undertaken more frequently by women than by men

Online activities undertaken AT LEAST ONCE A WEEK performed more frequently by women	Difference in percentage points between female and male Internet users
1	2
Looking for health information	12.10
Visiting social networking sites	5.40

Online activities undertaken AT LEAST ONCE A DAY performed more frequently by women	Difference in percentage points between female and male Internet users
3	4
Visiting social networking sites	3.70
Getting information for school-related work	1.80

Table 6. (cont)

1	2	3	4
L ooking up a definition of a word	4.60	Looking for health information	1.20
F inding or checking a fact	1.70	Looking up a definition of a word	1.10
G etting information for school-related work	1.60	Commenting on other people's blogs, message boards, etc.	0,60
R eadng web-logs (blogs)	1.00	Posting photos or pictures on the internet	0,20
L ooking for jobs, work	0.90	Investing in stocks/funds/bonds	0,10
L ooking for travel information	0.70	Getting information about a product	0,10
G etting information about a product	0.30		

Source: WIP 2011.

With regard to those online activities which are performed more frequently by men, the biggest difference between sexes concerns primarily entertainment activities. This applies to the six greatest differences with reference to activities undertaken at least once a week. With regard to activities undertaken on a daily basis, entertainment activities again constitute the majority in the group where the differences between sexes are greatest, but on the first two positions are activities connected with education and looking for information. Those two activities – “finding or checking a fact” and “looking for news – local, national, international” – are not much more popular among male users than among female users if we compare activities undertaken at least once a week or once a month. Therefore we can presume that the main reason for their greater popularity as daily activities between male and female users is the fact that women on the average spend much less time online than men do.

Table 7. Online activities undertaken more frequently by men than by women (when the difference is greater than 5 percentage points)

Online activities undertaken AT LEAST ONCE A WEEK performed more often by men (when the difference in percentage points>5)	Difference in percentage points between male and female Internet users	Online activities undertaken AT LEAST ONCE A DAY performed more often by men (when the difference in percentage points>5)	Difference in percentage points between male and female Internet users
1	2	3	4
D ownloading or listening to music	11.6	Finding or checking a fact	14.3

Table 7. (cont)

1	2	3	4
Playing games	11.0	Looking for news – local, national, international	9.1
Visiting video-sharing sites	10.6	Surfing or browsing the web	6.9
Looking for jokes, cartoons, or other humorous content	8.8	Playing games	6.8
Downloading or watching videos	8.1	Visiting video-sharing sites	6.7
Listening to a radio station online	8.0	Instant messaging	6.4
Instant messaging	6.1	Downloading or listening to music	5.9
Making or receiving phone calls over the Internet	5.1		

Source: WIP 2011.

4.3.3. Categories of online activities preferred by each sex

Comparison of the frequencies of various online activities with regard to sex does not yield clear information with respect to which categories of activities (communication, information, entertainment, services, and education) are preferred by which sex, because men, on average, perform most activities more often than women. Therefore we compared separately for each sex and each frequency (at least once a week and at least once a day), the shares consisting of the numbers of users performing activities in each category divided by total number of users undertaking any activity at the chosen frequency.

Table 8. Shares of categories of online activities performed at least once a week

Category of activities	Men	Women	Difference in percentage points (positive when the men's share is larger, negative when the women's share is larger)
	in percentage points		
1	2	3	4
Communication	32.19	32.06	0.13
Information	13.95	16.46	-2.51
Entertainment	34.43	30.23	4.20
Services	8.56	8.63	-0.07

Table 8. (cont)

1	2	3	4
Education	10.87	12.62	-1.75
Total	100.00	100.00	

Source: WIP 2011.

Table 9. Shares of categories of online activities performed at least once a day

Category of activities	Men	Women	Difference in percentage points (positive when the men's share is larger, negative when the women's share is larger)
	in percentage points		
communication	36.58	40.22	-3.64
information	13.96	14.34	-0.38
entertainment	37.84	35.94	1.90
services	4.10	3.78	0.32
education	7.52	5.72	1.80
total	100.00	100.00	

Source: WIP 2011.

The lists of shares of online activities also do not provide us with unequivocal information on preferred categories of activities, since we do not know the amount of time in different social categories devoted to various kinds and categories of online activities (i.e. how many minutes/hours a day/week/month do they spend on each activity).³ Such data is not available with respect to Polish Internet users at present. We cannot assume that a person who spends three minutes a day on online banking and five hours a day on playing games online is equally fond of both activities (there can be other determinants of the amount of time connected with the character of each activity).

Nevertheless a comparison of shares of time spent on online activities between sexes enables us to assess the relative popularity of each category. Comparing shares of men and women we can presume which category is more important for which sex. And as we could also assume, based on the literature, men are more keen on entertainment online than women. The difference in percentage points for shares for the activities performed at least once a week amounts to 4.2, while for the activities performed at least once a day it equals 1.9. Communication seems to be more important for women than for men when we compare Internet users being online every day (the difference in percentage points amounting to 3.64). Yet if we compare all

³ The diverse number of activities in each category can also be problematic for making such comparisons.

Internet users who are online at least once a week (i.e. those being online every day and the rest being online at least once a week), we see that men's share in activities within the communication category is similar to women's (32.19% vs. 32.06%). This situation could be influenced by the fact that Internet users who are online only a few times or even once a week (and in that category there are more women than men) will likely include more persons who are not very advanced in Internet usage, and therefore use fewer of its functions. Women who are online once, twice, or three times a week may in fact focus on some of its communication functions, but if it would be only one or two functions then in our comparison it would not count as a big share. Regarding the remaining categories – information, education, and services – among Internet users online every day men seem to perform activities from those categories slightly more often than women do, yet the overall differences are small, amounting only to 1.9 percentage points. Among all Internet users who are online at least once a week (i.e. those being online every day and the rest being online at least once a week), women undertake activities connected with searching for information, education, and services slightly more frequently than men. This may suggest that if we think about activities usually undertaken online (i.e. once a week or more frequently), women have more balanced shares of different categories of activities, while for men the clearly dominating share is entertainment.

4.4. Impact of women's nurturing role on their frequency of Internet usage

In order to determine the impact of women's nurturing role on their Internet usage we compared the mean time spent online by men and women living in households 1) with no children under 18 years old, 2) with one or more children under 18 years old. Of course living with an under-age child (minor) does not have to mean taking care of the child, but in most cases it was parents living with their under-aged children and we found it to be the best predictor (since there was no question on upbringing children).

Both men and women living with minors spend less time online than men and women without children in their households. For men the difference equals 2 hours and 30 minutes a week (13.18 hours a week vs. 10.68 hours a week), which means that the time which men with children spent online amounted to 81.02% of the time online spent by men without children in their households. For women the difference equaled 1 hour and 43 minutes a week (9.67 hours a week vs. 7.96 hours a week), what means that the time which women with children spent online amounted to 82.29% of the time online spent by women without children in their households. Thus the relative difference is slightly smaller for women than for men. The situation needs further analysis, but one may suppose that even if women are more burdened with child care than men, they also spend more time at home if they engage in child care, especially if it comes to maternity or parental leave, which women take much more often than men.

Interestingly, more respondents with minors in their households are Internet users than respondents living without children in the home. In the first group Internet users constitute 50.8%, while in the second – 80.4% (and there are very small gender differences). In order to eliminate possible age impact, we compared subsamples of people under 50 years old, living both with and without children in their households. In the first group Internet users constituted 66.0%, and in the second 83.1% (with nearly no gender differences in the second group and a difference of 5.2% in the first group). In the subsample including persons under 50 years old the difference in the percentage of Internet users between respondents living with children and respondents without children in their households is smaller than for the whole survey sample, yet once again those living with minors much more often are Internet users than those not living with children under 18 years old.

Living with children does not influence the type of online activities performed by either sex. As with population as a whole, men are more fond of entertainment online than women, while for women communication activities seem to be slightly more important than for men. Regarding the greatest differences in popularity of concrete online activities, once again like the population as a whole men definitely more often than women download or listen to music, visit video-sharing sites, and play games, while women considerably more frequently look for health information.

5. Conclusions

Similar proportions of men and women in Poland use the Internet (about 60%), yet women on average have a shorter online experience (with a mean difference of half of a year), are less versatile users, and spend less time online (women's average time online equals 75% of men's average time on the Internet). The view of Poles regarding the introduction of ICT into their everyday lives is generally positive, however women are more skeptical about the Internet's influence on society as a whole, the security of Internet usage, and developing and maintaining one's social network online (with the exception of contacts with relatives, where men and women have equally positive attitudes towards Internet usage).

The most significant gender difference in Internet usage patterns lies in men's greater interest in the entertainment function of the medium. Entertainment constitutes a much greater share in all men's online activities than women's. The differences in Internet usage are larger for the less intense users (with more time spent online by men) than for persons using the Internet on a daily basis. This can be taken as a sign that the gender gap is closing between the most advanced Internet users. With the progressive popularization of ICT applications in the ev-

eryday life of Poles, one can expect a further narrowing of the existing gender gap (a trend already observed in some Western countries).

The set of the most popular online activities is similar for both sexes, including checking e-mails, surfing or browsing the Web, and looking for news. With regard to online activities undertaken on a daily basis, the category of activities defined as communicative (like e-mailing, instant messaging, or updating one's status) constitutes a greater share of women's online operations than of men's; nevertheless, when we refer to all activities usually undertaken online (i.e. several times per day, once per day, several times per week or once per week) communicative activities constitute a similar share of all women's and men's online operations. Depending on the chosen frequency of online activities one can also observe gender differences in the fields of information, education, and services, yet they are rather small and require further studies with respect to their determinants.

References

- Batorski D. (2011), *Korzystanie z technologii informacyjno-komunikacyjnych*, [in:] *Social Diagnosis 2011 Objective and subjective quality of life in Poland – Report*, [Special issue], "Contemporary Economics", vol. 5, no. 3.
- Boneva B., Kraut R., Frohlich D. (2001), *Using E-mail for Personal Relationships: The Difference Gender Makes*, Human-Computer Interaction Institute. Paper 87. <http://repository.cmu.edu/hcii/87>, (accessed on 20.11.2012).
- Boneva B., Kraut R. (2002), *Email, Gender, and Personal Relationships*, [in:] Wellman B., Haythornthwaite C. (eds.), *The Internet in everyday life*, Malden/Oxford/Melbourne/Berlin: Blackwell Publishers.
- Broos A. (2005), *Gender and Information and Communication Technologies (ICT) Anxiety: Male Self-Assurance and Female Hesitation*, "CyberPsychology & Behavior", vol. 8, no. 1.
- Comber C., Colley A., Hargreaves D. J., Dorn L. (1997), *The effects of age, gender and computer experience upon computer attitudes*; "Educational Research", vol. 39, no. 2.
- Dholakia R.R., Dholakia N., Kshetri N. (2003), *Gender and Internet usage*, [in:] Bidgoli H. (ed.), *The Internet Encyclopedia*, New York: Wiley.
- Durndell A., Lightbody P. (1993), *Gender and computing: change over time?*; "Computers & Education", vol. 21, no. 4.
- Durndell A., Macleod H., Siann G. (1987), *A survey of attitudes to, knowledge about and experience of computers*, „Computers & Education”, vol. 11, no. 3.
- Fallows D. (2005), *How Women and Men Use the Internet*; Pew Internet & American Life Project, Washington D.C.
- Ford N., Miller D. (1996), *Gender differences in Internet perceptions and use*, London, Aslib Proceedings, vol. 48, no. 7–8.
- Hafkin N., Taggart N. (2001), *Gender, Information Technology, and Developing Countries: An Analytic Study*, Office of Women in Development, Bureau for Global Programs, Field Support and Research, United States Agency for International Development.
- Hu T., Zhang P., Zhang X., Dai H. (2009), *Gender Differences in Internet Use: A Logistic Regression Analysis*, San Francisco, AMCIS Proceedings Paper 300. <http://aisel.aisnet.org/amcis2009/300>, (accessed on 15.11.2012).

- Ilie V., Van Slyke C., Green G., Lou H. (2005), *Gender Differences in Perceptions and Use of Communication Technologies: A Diffusion of Innovation Approach*, "Information Resources Management Journal", vol. 18, no. 3.
- Katz James E., Rice Ronald E. (2002), *Social Consequences of Internet Use: Access, Involvement, and Interaction*; Cambridge MA: MIT Press.
- Kennedy T., Wellman B., Klement K. (2003), *Gendering the Digital Divide*, "IT & Society" vol. 1, no. 5.
- Kirkup, G. (1995), *Gender issues and learning technologies*, "British Journal of Educational Technology", vol. 26, no. 3.
- Li N., Kirkup G. (2007). *Gender and cultural differences in Internet use: A study of China and the UK*, "Computers & Education", vol. 48.
- Pew Research Center (2012), *Internet & American Life Project's Tracking Survey conducted July 16 – August 7, 2012*, <http://pewinternet.org/Static-Pages/Trend-Data-%28Adults%29/Whos-Online.aspx>, (accessed on 15.11. 2012).
- Quan-Haase, A., Wellman, B., Witte J.C., Hampton K.N. (2002), *Capitalizing on the Net: Social Contact, Civic Engagement, and Sense of Community*, [in:] B. Wellman, C. Haythornthwaite (eds.), *The Internet in everyday life*, Malden–Oxford–Melbourne–Berlin: Blackwell Publishers.
- Robinson J.P., Godbey G. (1997), *Time for Life: The Surprising Ways Americans Use Their Time*, University Park: Pennsylvania State University Press.
- Scragg G., Smith J., Geneseo S. (1998), *A study of barriers to women in undergraduate computer science*, Atlanta, GA: SIGSCE technical symposium on Computer science education.
- Schumacher P., Morahan-Martin J. (2001), *Gender, Internet and computer attitudes and experiences*, "Computers in Human Behavior", vol. 17, no. 1.
- Seybert H. (2007), *Gender differences in the use of computers and the Internet*, Eurostat Report 119/2007. http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-SF-07-119 (accessed on 16.11. 2012).
- Thayer S.E., Aray S. (2006), *Online Communication Preferences across Age, Gender, and Duration of Internet Use*, "Cyberpsychology & Behavior", vol. 9, no. 4.
- Wellman B., Haythornthwaite C. (2002) *The Internet in Everyday Life. An Introduction*, [in:] B. Wellman, C. Haythornthwaite (eds.), *The Internet in everyday life*, Malden–Oxford–Melbourne–Berlin: Blackwell Publishers.
- Wilson K.R., Wallin J.R., Reiser C. (2003), *Social Stratification and the Digital Divide*, "Social Science Computer Review", vol. 21, no. 2.

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GENDEROWE ZRÓŻNICOWANIE SPOSOBÓW POSŁUGIWANIA SIĘ INTERNETEM

Streszczenie. W artykule zaprezentowano wyniki polskiej edycji badania World Internet Project, gdzie wskazano na zróżnicowanie ze względu na płeć społeczno-kulturową zarówno jeśli chodzi o częstotliwość korzystania z Internetu, jak sposobu w jaki jest on używany. Główna różnica dotyczy wykorzystywania Internetu w celu rozrywki (gry, słuchanie muzyki, oglądanie filmów) częściej przez mężczyzn niż kobiety. W raporcie nie stwierdzono jednak znaczących dysproporcji ze względu na płeć społeczno-kulturową (*gender gap*) między polskimi użytkownikami Internetu.

Słowa kluczowe: Internet, płeć, rozrywka, częstotliwość.