Gender differences in using Facebook—preliminary analysis

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Abstract

The aim of the study was to examine gender differences in styles of using Facebook in order to see what motivates males and females when using social media. Different styles of using Facebook were proposed: Facebook as an integral part of life, Celebrities of Facebook, Gamers, Aware self-presenters, Fanpage members and Information seekers. Gamers do not differentiate Facebook users therefore it was not used in analysis. Previous studies showed that women more frequently than men spend more time than they intended on Facebook, sometimes feel addicted to Facebook, post public messages, post photographs, write private messages, use Facebook to follow the agenda and as a teaching resource. On the other hand men are more likely to use social media and Internet to dating purposes, make new friends, play games, discuss and learn about events. The sample consisted of 433 students (262 females, 171 males). The mean age of sample was $M = 20.98$ ($SD = 2.64$) Valid and reliable psychometric tools were applied. Hypotheses were partially confirmed. Females' subjective time spending on Facebook was higher than males'. Females were more likely to treat Facebook as integral part of life, to be aware self-presenters and information seekers than males. Moreover, number of Facebook friends showed considerable trend toward significance in favor of females. There were no gender differences observed in terms of time spending on Facebook, being celebrity of Facebook or being fanpage member. The results showed that gender is significant variable in terms of using Facebook. The potential role of personality should be investigated in future studies.

1. Introduction

Facebook in a very short time became one of the most popular websites. It is associating the largest number of members (1.39 billion members) and every year this number increases (GlobalWebIndex 2015). All because Facebook caters to individualistic needs like admiration seeking and the need to stand out (Kreft 2012). In the light of those conditions it is important to understand which needs of given person are fulfilled via certain Facebook use and how those needs manifest itself in the social media.

Social Network Sites like Facebook created opportunity to use Internet as an extension of real life social interactions and to follow other people's lives moment by moment (Boyd & Ellison 2007; ul Haq & Chand 2014). Kuś and Szulżycki (2014) claim that Facebook usage styles differs from user to user and that there are six different styles of usage: (1) *Facebook as an integral part of life* which is related to general intensity of the use of Facebook, its predominance among everyday activities and high value attributed to feedback from other Facebook users, moreover authors claim that this also a general level of Facebook activity, (2) *Celebrities of Facebook* for these people popularity is the most important aspect of the Facebook, they also publish the largest number of posts, further their presence is visible and expansive (3) *Gamers*, for these members of Facebook gaming is the most dominant form of using Facebook, (4) *Aware self-presenters* carefully choose the content published on Facebook, because it is a platform where they can create their own virtual showcase, (5) *Fanpage members*, their main activity on Facebook is to visit their favorite fanpages discussions, (6) *Information seekers* treat Facebook as a source of information and like Fanpage members they mostly visit fanpages on Facebook but they do it passively. Although theoretically all subscales are valid and should be used, from practical perspective *Gamers* do not differentiate users, probably due to decreasing popularity of

Facebook games in Poland, and therefore cannot be used in any analysis. However, on the grounds of previous researches there are other variables which can be clustered as styles of usage of Facebook: the amount of time which is spent on Facebook, the number of Facebook friends and the frequency of updates of Facebook status (Marshall et al. 2015; Rae et al. 2015; Thompson & Lougheed 2012).

Gender is one of the most basic demographic variables and therefore its differentiating effect have been studied in many fields of psychology including Internet usage (Byrnes et al. 1999; Else-Quest et al. 2006; Else-Quest et al. 2010; Joiner et al. 2012; Ono & Zavodny 2016). Compared with women, men on average have higher frequency of Internet use, higher intensity of use, and broader range of online activities. What's more men more frequently visit pornography and gambling sites, discussion groups and play online games. On the other hand, women more willingly use Internet to communication and social support such as email and Social Network Sites (Ono & Zavodny 2016; Joiner et al. 2012). Facebook as the social media site with the biggest number of users seems to be the best one to study patterns of users activity in social networks. However, those patterns may be different in other Social Network Sites and even in another time periods on Facebook, because the social media is constantly changing itself and creating new possibilities, redesigning existing ones and resigning from those which were not used by the users.

Research shows that there are plenty of inequalities between men and women in case of motives, activities and perception of social media usage. First of all, women are generally more likely than men to use social media, but after examining particular websites this disproportion is statistically significant only in case of MySpace (Hargittai 2007), but on the other hand, women spend higher percentage of their daily Internet time on Facebook which is not visible when they are asked about amount of minutes spent on the social media (Thompson & Lougheed 2012). Further, women report that they are more likely than men to spend more time than intended on Facebook, lose sleep because of Facebook, create negative body image after seeing pictures posted by others, feel stressed while using Facebook, feel anxious when they cannot access Facebook and sometimes feeling addicted to it (Thompson & Lougheed 2012). Moreover, women more frequently post public messages (visible for profile owner and other Facebook users), post photographs and send private messages as well as friend request (Muscanell & Guadagno 2012) and use Facebook to follow the agenda as well as a teaching resource (Mazman & Usluel 2011). In contrast, men more often use social media for dating purposes, making friends, playing games, learning about events and discuss via Internet (Raacke & Bonds-Raacke 2008; Muscanell & Guadagno 2012; Joiner et al. 2012). Additionally, former studies are inconsistent in terms of whether or not women and men vary in number of Facebook friends (Raacke & Bonds-Raacke 2008; Thompson & Lougheed 2012), which may be somehow connected with different motives behind having Facebook friends. Women more often than men use Facebook to maintain existing relationships while men more willingly make new ones (ul Haq & Chand 2014; Mazman & Usluel 2011).

The aim of this research was to examine gender differences in styles of Facebook usage. More precisely what motives females and males to use Facebook and how their activity qualitatively differ from each other.

On the basis of previous research and theoretical framework it is presumed that women spend more time on Facebook, both subjectively (H1a) and objectively (H1b) and that women have different than men number of Facebook friends (H2). It is also hypothesized that women more frequently than men use following styles: Facebook as an integral part of life (H3a), Aware self-presenters (H3b), Information seekers (H3c) and Celebrities of Facebook (H3d). Furthermore, it is presumed that men more willingly than women use Fanpage members style in Facebook activity (H_4).

2. Methods

Participants. Four hundred thirty three students took part in this study: 262 women (60.5%) and 171 men (39.5%). The mean age of sample was $M = 20.98$ ($SD = 2.64$). Participants

were from different universities (University of Gdańsk, the Nicolaus Copernicus University in Toruń, Gdańsk University of Technology) and from technical high school in Włocławek. Students were from different faculties, courses of study, years and modes of study.

Measures. Intensity of using Facebook questionnaire (Kuś & Szulżycki 2014), is a scale created to discriminate Facebook users in terms of specific styles of their activity. Authors proposed six factors. In this study five of them ware used: Facebook as an integral part of life containing 14 items, Celebrities of Facebook containing 9 items, Aware self-presenters containing 7 items, Fanpage members containing 9 items and Information seekers containing 6. The response alternatives range from (1) *disagree strongly* to (4) *agree strongly*. It showed good validity and reliability in the study, the Cronbach's alpha reliability coefficient for Facebook as an integral part of life was .90, for Celebrities of Facebook was .74, for Aware self-presenters was .81, for Fanpage members was .72 and for Information seekers was .66.

Additionally, participants reported their number of Facebook friends, time they spend actively using Facebook during the day and subjective estimation of time spending on Facebook on the scale from (1) *very little* to (10) *a lot*.

Procedure. Data collection used convenience sampling. Students were invited to participate anonymously in the study during lectures or classes, all of them agreed to do so. Part of sample (41.3%) completed the questionnaire featured on social network (Facebook). Questionnaire completion took approximately 20 minutes. Participation in the study was anonymous and no monetary or other material rewards were offered.

Statistical analyses. Means and standard deviations were calculated. Seven Student *t*-tests for independent groups ware performed in which gender was grouping variable and components of using Facebook (time spending on Facebook, subjective time spending on Facebook, Facebook as an integral part of life, celebrities of Facebook, aware self-presenters, fanpage members and information seekers) ware dependent variables. Test including number of Facebook friends was two-titled and others tests were one-tailed. Hypothesis including number of Facebook friend is exploratory. Previous research clearly indicate directional hypothesis in other tests. The significance level was set to $\alpha = .05$. For all the Student's test preliminary analyses were conducted to ensure no violation of the assumptions of normality, significant outliers and homogeneity of variances. Significant outliers included Facebook fiends and time spending on Facebook. They were handled with assignment of the new values which were equal to the highest values included in boxplots whiskers. All statistical analyses were conducted in IBM SPSS 23.

3. Results

Tab.1 presents mean scores, standard deviations for the study variables in groups of males and females as well as the *t* statistic.

The independent samples Student *t*-test analysis showed that females' subjective time spending on Facebook was significantly higher than males' ($t_{(426)} = -2.55$, $p < .01$, Cohen's $d = .25$). There were also a number of gender differences in participants' styles of using Facebook. Females were more likely to treat Facebook as integral part of life ($t_{(418)} = -3.26$, $p < .001$, 95%, Cohen's $d = .33$) more likely to be aware self-presenters ($t_{(416)} = -3.16$, $p < .001$, Cohen's $d = .32$) and information seekers ($t_{(423)} = -3.97$, $p < .001$, Cohen's $d = .40$) than males. Moreover, number of Facebook friends showed considerable trend toward significance in favor of females ($t_{(425)} = -1.84$, $p = .066$, Cohen's $d = .18$). There were no gender differences observed in terms of time spending on Facebook, being celebrity of Facebook or being fanpage member.

Tab. 2 Mean scores, standard deviations and *t* statistics in groups of males and females.

	Males		Females		
Independent variable	Mean	Standard deviation	Mean	Standard deviation	t
Time	2.60	2.26	2.80	2.36	−.86
Subjective time	5.52	2.27	6.12	2.45	−2.55**

	Males		Females		
Independent variable	Mean	Standard deviation	Mean	Standard deviation	t
Facebook friends	395.70	261.41	439.74	227.213	−1.84
Facebook as integral part of life	29.31	8.14	32.10	8.83	−3.26***
Celebrities of Facebook	16.05	4.11	15.31	4.26	1.77
Aware self-presenters	16.12	4.43	17.55	4.55	−3.16***
Fanpage members	19.62	4.74	19.61	4.22	.03
Information seekers	15.47	3.07	16.71	3.20	−3.97***

*$p < .05$, ** $p < .01$, *** $p < .001$

4. Discussion

Hypothesis 1 was partially confirmed. Even though females estimation of time spending on Facebook was higher than males, there was no difference in real time spending on it. Consequently, women more often consider that they give a lot of time over Facebook in comparison to men, although the amount of time (measured in hours) spending on Facebook is the same to men as well as women. This could be because of the fact that perceived loss of control in using Facebook is more often reported by female than male, which could be related to higher tendency to consider oneself as addicted to Facebook among females (Thompson & Lougheed 2012).

Hypothesis 2 was not confirmed. There were no differences in women and men in terms of number of Facebook's friends. Despite the fact that there was no statistically significant differences between women and man, the strong tendency to have more friends on Facebook among women was observed. Furthermore, number of Facebook's friends could be conditioned by need of establishing relationships or desire to be popular. Such motivations may differ users of Facebook not only because of gender but also because of sociodemographic and cultural factors, their personality traits or self- esteem (Nadkarni & Hofmann 2012).

Hypothesis 3 was partially supported. Females more frequently than males treat Facebook as an integral part of their life, which means that they strongly connect their daily rhythm to using Facebook and it is the most significant page for them (Kuś & Szulżycki 2014) which is congruent with other studies (Thompson & Lougheed 2012; Joiner et al. 2012) and could be explained that female more willingly use Internet to interact with others and to search social support (Ono & Zavodny 2016).

What is more, females more often than males treat their Facebook accounts as their own virtual showcase, which is related to using Facebook as aware self-presenter. It could be related to significance assign to others and in this context Facebook profile could be another way to communicate with other users. Another issue is physical attractiveness which is one of the most elementary criteria people use when forming impression about others both online and offline (Nadkarni & Hofmann 2012). Furthermore, previous studies show that people paid more attention to the physical appearance (main profile photograph) of female than of male profile owners and to the personal information (likes and interests) of male than female profile owners (Seidman & Miller 2013). Females could assign a greater value to contents publishing on Facebook especially to photos, because it could raise their 'online physical attractiveness' and simultaneously increase their matrimonial chances.

Information seekers was also the style of using Facebook which has been more often represented in group of females, which is congruent with other studies (Gulnar et al. 2010). It could be due to the fact that on Facebook commercials, interest groups and lifestyle pages largely respond to stereotypically women's interests (Sotrender 2016).

On the other hand, there are no differences between female and male in being celebrity of Facebook, which suggests that gender is not a good predictor of visible and expansive behaviors online. A study by Christofides and colleagues (2009) examined whether the need for popularity, self-esteem, trust and general tendency to disclosure are associated with online disclosure. Moreover, the tendency to disclosure and the need for popularity were the only two

significant predictors of information disclosure on Facebook. This should be considered in the future studies concerning celebrities of Facebook.

Hypothesis 4 was not confirmed. Male and female are involved in fanpage groups in the same extent and they both take part in discussions actively. This result is contrary to previous researches (Wallace 2001; Teo & Lim 2000).However, it could be a result of the women's growing participation in public debates and societies whicht could have an impact on a rebalancing the contribution to online activities.

This study investigating gender differences in time and styles of using Facebook has some limitations. Since the data was obtained by self-reporting method, the results may suffer from general weakness related to this methodology. Sample was not selected randomly, therefore, the results may be generalized to the population with some reservation. Moreover, the potential role of the sociodemographic and cultural factors, personality traits like extraversion, neuroticism or narcissism and also need for popularity and general tendency to disclosure should be investigated in terms of styles of using Facebook. Another issue is to select more reliable indicators of subjective and objective time of using Facebook because in the study participants estimated time spending on Facebook with different accuracy.

Despite of the fact that study has some limitations it sheds some light on the phenomenon of the differences among females and males in using Internet, especially Social Network Sites. The results show the need to further exploration of gender differences in styles of Internet and social media usage because such studies could have an invaluable contribution to understanding the significance of gender as an important factor determining social behaviors.

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