Self-disclosure online and offline: the Effect of Age

Yadviga SINYAVSKAYA[1] and Olessia KOLTSOVA
National Research University Higher School of Economics, Laboratory for Internet Studies, Saint-Petersburg, Russia

Abstract. In this research, we study how people of different ages disseminate personal information in a social networking site (SNS) and regulate access to their profiles. We focus on Vkontakte as the most popular SNS in Russia and obtain both observational data on privacy settings and self-reported data on users' offline behavior from 145 respondents. We also reveal the types of information that is most often hidden online. Contrary to our expectations, the results show the negative relationship between age and privacy regulation. In addition, the information about personal preferences and views tends to be more concealed than contact information.

Keywords. Privacy, self-disclosure, Social Networking Site (SNS)

1. Introduction

Growth of Social Networking Sites (SNS) has brought about various privacy concerns and risks of which users are not always aware. This unawareness might be stronger among those who were socialized in the "pre-Internet era".

Previous research on age and online privacy yields inconsistent results: some studies point out that personal boundaries become tougher with age [1-2], however others claim them to expand [3]. One argues that it related with self-disclosure patterns in face-to-face communication: some people tend to be more open in "real" world rather than in virtual space [4].

This work aims to investigate how people of different ages disseminate personal information in an SNS and regulate access to their profiles. More specifically, we examine the difference between self-disclosure towards friends and strangers in relation to age. In addition, we find out what types of personal information tend to be disseminated more easily to SNS users, and what types are the most concealed.

2. Data and method

We analyze a sample of 145 users of the most popular Russian SNS VKontakte aged from 14 to 82. All of them have consented to fill in the survey and to give the researcher the level of access to their VKontakte pages they provide to their friends.

Unlike most studies that use self-reported data only, we start from hand-coding user SNS pages and calculating indices of their self-disclosure towards friends and strangers. Indexes were calculated using a frequency-based method described in [5]. This approach assigns unequal weights to instances of disclosure of different items, such as telephone numbers or musical tastes. By aggregating these weights, the approach calculates general privacy score for each user.

[1] Corresponding Author, Corresponding author, Book Department, IOS Press, Nieuwe Hemweg 6B, 1013 BG Amsterdam, The Netherlands; E-mail: bookproduction@iospress.nl.

We also evaluate the level of self-disclosure in face-to-face communication via an online survey that partly applies Jourard Self-Disclosure Questionnaire (Jourard, 1959). From it, we have selected 16 aspects that could be matched to respective online behavioral patterns (e.g. disclosure of cultural preferences).

3. Findings

3.1. Age and Self-disclosure online

Unsurprisingly, people turn to be more open to their friends than to strangers online, however these two indices of self-disclosure are positively correlated ($r=0.575$, $p<0.01$). We also find a weak positive relationship between age and the level of general self-disclosure to strangers ($r=0.219$, $p<0.01$), but not to friends. That is, older users provide a bit more information on their accounts to unacquainted people than younger users.

A closer look at the data reveals a mixture of two distributions: a cluster of users with nearly linear dependence between the indices of openness to friends and strangers, and a cluster of those who are firmly closed from online strangers but are highly open to online friends. This distribution is most probably explained by the fact that accounts in these two clusters differ in privacy settings: the former do not limit the access to profile information, while the latter grant access to their data to befriended accounts only. This means that for open accounts the amount of disclosed information both to friends and strangers is a function of the number of fields a user chooses to fill in, while application of privacy settings cuts off strangers from large bulks of the already filled in fields at a time.

To overcome a possible bias that may follow from this, the sample was divided into two groups: the former who keep the profile open ("open" accounts, 58 users) and the latter who had applied some privacy settings ("restricted" accounts, 87 users). We compared the amount of information hidden from strangers by closed accounts with the amount of information not provided by open accounts, and we found no statistically significant difference between them. In addition, we found out that closed accounts are more typical of younger users ($r=0{,}326$, $p<0.01$) which turns to be the main reason of the general correlation between age and self-disclosure. However, when studying the groups of open and closed accounts separately, we observe no correlation between the age and the amount of disclosed information within any of these two groups.

To sum up, user age is related to privacy regulation, but not to self-disclosure: younger users are more inclined to regulate the access to their SNS profiles than older individuals.

3.2. Sensitivity of profile information and age

The procedure of calculation of individual privacy scores yielded the scores of sensitivity (β) of each profile item – that is, we found out what types of information was most often hidden both from friends and from strangers. We consider this information the most sensitive; figure 1 presents types of information ranked by sensitivity (0 – the most sensitive; 1 – the least sensitive). It turns out that in general the information of personal preferences, views and tastes is the least disclosed, (although home address is the most sensitive of all). Our point-by-point analysis of relationship between age and specific information disclosure has revealed only one significant relationship: older users tend to disseminate the information about political views a bit more than younger ones ($r=0{,}261$, $p<0.01$).

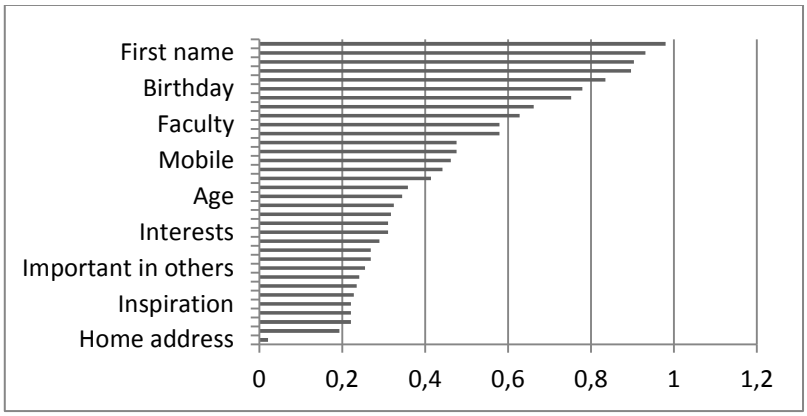

Figure 1. The sensitivity of personal information in Vkontakte SNS

3.3. Self-disclosure online and offline

Levels of offline and online self-disclosure are not correlated; on the whole, respondents report higher levels of offline openness than they actually demonstrate online.

4. Conclusion

Our study shows that user age is related to privacy regulation, but not to self-disclosure: younger users are more inclined to regulate the access to their SNS profiles by privacy settings than older citizens. Personal preferences and views get more concealed by users than most contact information, except home address. High sensitivity scores of these profile items may indicate their low value for users who choose not to fill in the respective fields rather than the true desire of individuals to hide their views than. By contrast, low sensitivity of contact information may indicate its high value for increasing individual social capital: it may help users to find like-minded people with similar backgrounds. It turns out also that offline and online realities are not closely related: most people report high levels of offline openness, while their self-disclosure behavior online may vary.

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