

Poster: Friendship in German Online Social Networks

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1. INTRODUCTION

The notion of friendship has rapidly changed in the last years with the emergence and growth of Online Social Networks (OSN). A definition of a true friend is certainly difficult to provide and is not the topic of this work. Important is that a friend is a trusted person who is allowed to know more about our thoughts, attitudes and personal life than a non-friend. We investigate whether the people make a difference between their friends in “real life” and their friends in OSN. The presented results are part of a larger study that considered privacy awareness, trust and friendship of German OSN users [7].

Analysis of OSN friendships received close attention in the last years [6, 8]. However, not many works investigated the relationships between online and offline friendships. boyd [5] discusses the meaning of friendship and states that OSN friends are not the same as real-life friends, giving many examples, but no statistical data. Ahn et al. investigate whether the growth patterns of personal online social networks resemble the growth patterns of real-life social networks [2]. In contrast, we present a survey of more than 300 OSN users that were asked, among other things, questions about their OSN relationships.

2. RESEARCH QUESTIONS

To gain a first insight into the German data protection regulations, user behavior, and political issues in OSN from an expert view, five German certified data protection officers were interviewed. One of them was Dr. Thilo Weichert, who leads the battle with Facebook over the ban of the Like-button, because its use is not compliant with the German privacy laws. Asked about friendships in OSN, the interviewees expressed quite different opinions. One of them expects the friendships in OSN to closely resemble the real-life friendships. Another said that the OSN contacts would never be able to be as close as the real-life contacts. All respondents expressed the concern that the non-participation in OSN can in the future make people a social outcast, such that most people will be forced to participate. Here, one of the respondents thinks that the users with higher education level will be able to withstand the pull of the OSN better, because they can better understand the risks.

With the input of the data protection experts, several research questions were formulated and a questionnaire with 29 questions (4 of them demographical) was designed. In this poster we report our investigation concerning the following questions:

Do the OSN members distinguish between friendships and acquaintanceships in OSN? Are the OSN friends also real-life friends? With respect to this questions, are there any differences according to gender, age and education?

3. DATA COLLECTION AND EVALUATION

The questionnaire was distributed online and offline. Within nine weeks, 113 responses came from the online survey, and 236 responses from the offline survey were won. 342 of the responses were correctly filled in, with 306 of these responses coming from OSN members. 56% of the test persons are male. 8% of the probands are younger than 14 years, 10% are between 14-17 years, 36% between 18-21 years, 15% between 22-25 years, 18% between 26-30 years, 11% between 31-40 years and only 2% are older than 40 years. We defined four education levels: (1) school children, (2) German high school certificate that does not qualify for a university admission, (3) German high school certificate with university admission and (4) university degree or higher. 12% of the probands belong to education level 1, 16% to education level 2, 47% to education level 3 and 25% to education level 4.

To reduce the high complexity of the many variables into a manageable number of interpretable latent factors we used the principal component analysis (PCA) with Varimax rotation based on the Kaiser normalization [3]. The analysis found four factors that we named “Knowledge of data protection”, “Sensibility to data protection”, “Trust in OSN” and “OSN friends versus real-life friends”. The latter factor contains the following correlating questions with a factor loading greater than 0.4:

- I frequently have contact to $x\%$ of my OSN-friends. (five possible interval values for x were provided, factor loading=0.63)
- I trust the people who have access to my data. (factor loading=0.57)
- I remember the names of all my OSN friends. (factor loading=0.48)
- All my OSN friends have access to my whole data. (factor loading=0.46)

The last three questions were rated according to a 5-point Likert item.

The answers to these questions can help to understand whether OSN friends are real friends or just loose contacts. We analysed the above factor according to the attributes age, gender and education.

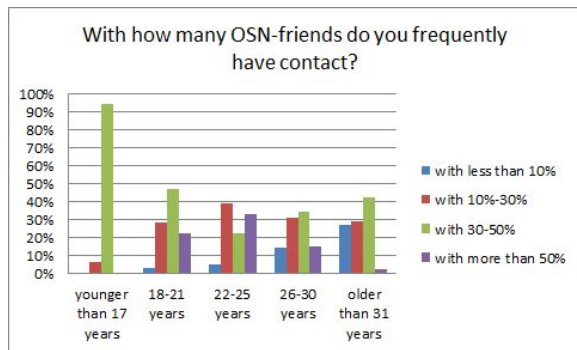


Figure 1: Contact frequency with OSN friends.

4. RESULTS

Only 19% of the probands allow all their friends access to all their data. The fact that OSN users do not show their whole data to every OSN friend indicates that they at least *intend* to separate their OSN friends into acquaintances and close friends, even if answers to such questions are frequently not consistent with the real behavior [1].

45% of the OSN users have frequent contact with only 30% of their online friends. Although the contact frequency not always indicates the real friendship, it still indicates that most OSN contacts are probably not very close friends. Women are more in touch with their OSN friends than men. Nevertheless, only 13% of men and 22% of women have frequent contact with more than 50% of their online friends.

Furthermore, the frequency of being in touch with OSN friends decreases with rising age. 87% of the school children (14-17 years), but only 17% of people older than 30 years have frequent contact with more than 30% of their friends (Figure 1).

Figure 2 shows the results of ANOVA of the friendship factor with respect to education. It is interesting to see that with the end of the school education, the OSN friendship behavior shows much more variance than that of the school children. Most variance is found in the education group 3. This group mostly consists of university students.

5. CONCLUSION AND FUTURE WORK

The results presented above indicate that most people make a difference between their OSN friends and their real-life friends, and the attitudes to online friendships differ according to age, gender and education.

In this poster abstract we only concentrate on some of our findings. For example we do not present the results of our study concerning privacy awareness and trust in OSN. It would also be interesting to compare the privacy concerns and other OSN factors of German users to these of users in other countries [4]. We also plan to conduct an experimental study of the relationship between the questionnaire results and the real behavior of the OSN users. Although this research question is not new [1], we think that especially the aspect of friendship needs further investigations.

6. REFERENCES

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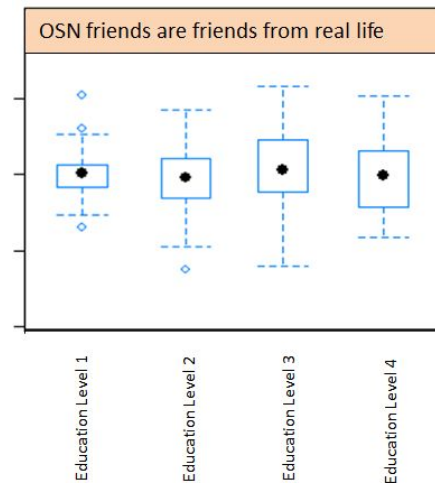


Figure 2: Variance of the OSN friendship factor according to education. Education levels: 1 = school children; 2 = German high school certificate that does not qualify for a university admission; 3 = German high school certificate with university admission; 4 = university degree or higher.

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