

# Perspectives for Sharing Personal Information on Online Social Networks

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## ABSTRACT

The goal of this research was to study how people feel about sharing personal information on social networks. The research was done by interviews; 50 people were interviewed, mostly from mainland China, Hong Kong, and Finland. This paper presents the included 12 questions and discusses the collected answers. It was discovered, e.g., that 38 out of the 50 answerers use social media every day and share versatile personal information on the Internet. Half of the answerers also share information about other people on the Internet. It was also discovered that compared to male answerers, the female answerers were more active in sharing information about other people. There was a significant variety in opinions: what should be the age limit for sharing personal information online, while 22 out of the 50 answerers felt that there is no need for an age limit at all. According to the answers, only a few people use social media for making new friends. Instead, an important reason for using social media is that their existing friends are using. An interesting finding was that the answerers see the Internet as a part of the real world; the privacy that you have on the Internet is the privacy that you have in the real world.

## KEYWORDS

Information Sharing; Social Media; Social Networks; Personal Information; Privacy

## 1. Introduction

New social media applications are constantly booming. The trend of always increasing number of users who share multimedia content with real or virtual friends was highlighted in a study that measured the consumer usage, attitude, and interest in adopting social media platforms. It was conducted in 29 countries and involved 17,000 individuals [1]. With the even growing popularity and usage of online social media services, people now have accounts (sometimes several) on multiple and diverse services.

The personal information commonly shared on social media includes, e.g., personal identifiers (name, birth date, photos), contact information (email and physical addresses, telephone numbers), social links (friends, interests), and online activities (search history, games). Besides the information that the user knowingly discloses, the use of the network itself reveals information to the

service provider; e.g., IP (Internet Protocol) address, used browser, time of connection, and other visited profiles. This information can also allow the service provider to customize its services on the basis of the secondary data collected. Available information can be used to create a digital footprint of any user using social media services [2-4].

While sharing information is the main purpose of social media, privacy is the major concern; it has been noted that some people aren't concerned about security and privacy on social media sites, although one of their main reasons for using such sites is to share information [5,6]. Also, most users click to accept privacy notices and consent declarations without reading or understanding them [7]. However, the data collected in social networking services tend to last, with the added risk of being linked in diverse ways. This combination of disclosure, storage, and linkage is the core of the privacy prob-

lem. Thus, one important issue related to these different social media applications is the data aggregation (combining seemingly non-sensitive separate bits of information may well reveal additional, possibly sensitive, information). Similar effect can occur when data collected for one purpose are used for a different purpose without the person's approval [8,9].

Individual privacy in social media is an active research area. For example, a study that investigated American, Chinese, and Indian social networking site users' privacy attitudes and practices, based on 924 responses, found the American respondents to be the most privacy concerned, followed by the Chinese and Indians, respectively [10]. In a study, where opinions on individual privacy were collected from 22 people working with different aspects of research and development of the Internet of Things (IOT) in China and Finland, individual privacy problems existing today were stated. In general, the answerers from Finland were less worried about the individual privacy in different IOT applications than the answerers from China [11]. In a yet another study, French and Chinese social network service users did possess significantly different privacy belief and trust. Specifically, French users were found to be more concerned about their privacy while using the Internet and they felt less comfortable in giving personal info [12]. Also, in one study, individuals using Facebook and MySpace expressed similar levels of concern regarding Internet privacy. Facebook users were more trusting of the site and its members, and more willing to include identifying information in their profile. However, MySpace users were more active in the development of new relationships. It was concluded that the interaction of trust and privacy concern in social networking sites is not yet understood to a sufficient degree to allow accurate modeling of behavior and activity [13].

Also, the behavior and thoughts of active users of social media, the teenagers, have been studied. Teens share a wide range of information about themselves on social media sites; also the sites themselves are designed to encourage the sharing of information and the expansion of networks. However, few teens have a fully public approach to social media. Instead, they take a selection of steps to restrict and prune their profiles, and their patterns of reputation management on social media vary greatly according to their gender and network size; girls are more likely than boys to restrict access to their profiles. These are among the key findings of a survey of 802 teens, which examined their privacy management on social media sites [14]. In addition, according to a survey of 802 parents and their teenage children, most parents of teenagers are concerned about what their teenage children do online and how their behavior could be monitored by others. Some parents are taking steps to observe, dis-

cuss, and check up on their children's digital footprints [15]. In a yet another study, it was found out that students are more likely to have a private profile in social media if their friends and roommates also have. In addition, women are more likely to have private profiles than men, and having a private profile is associated with a higher level of online activity [16]. A gender gap when it comes to the way male and female social media users choose to manage their profiles was also found in another study [17]. According to findings of this study, women are much more conservative in the basic settings they choose in social media; 67% of female profile owners restrict access to friends only compared with 48% of male profile owners.

In this study, "social media" refers to social networking sites, like Google+, Facebook, and LinkedIn, as well as to information- and media-sharing sites, like Twitter and Instagram. This work shares some similar objects to the studies above. The goal is to gather the thoughts that people have about sharing their own personal information, as well as sharing personal information about other people in social media. It has been stated that what really haunts people is typically user-generated content, *i.e.*, information that people themselves, their friends, and other social media users upload to social media websites [7]. It has also been stated that privacy problems are not caused by the technology alone, but primary through activities of people, businesses, and governments [18].

## 2. Survey

For this research, 50 people from Asia (38 people) and Europe (12 people) were interviewed. Most of the answerers were from mainland China, Hong Kong, and Finland, but there were also individual answerers from Singapore, Ireland, and Russia. People of different age and of both gender (see [Table 1](#)), were interviewed. Personal interviews were conducted by an associate of the researcher, and they took place at a neutral, public place. Some of the interviews were done by private e-mails between the researcher and the answerer, and some of the answers were collected with an Internet questionnaire. This study consists of 12 questions that are listed in [Table 2](#).

## 3. Results and Discussion

Question 1 wanted to know how often the answerers use

**Table 1. Genders, age groups, and nationalities of the answerers in this study.**

| Gender |    | Age group |     |         | Nationality |         |       |          |
|--------|----|-----------|-----|---------|-------------|---------|-------|----------|
| All    | M  | F         | <20 | 20 - 30 | 30 - 40     | 50 - 60 | Asian | European |
| 50     | 31 | 19        | 3   | 40      | 6           | 1       | 38    | 12       |

**Table 2. Questions of the study.**

- 
1. How often do you visit social networking websites?
    - <1 day per week
    - 1 to 3 days per week
    - 4 to 6 days per week
    - Everyday
  2. Why are you using these?
    - Because your friends are using
    - Because it is an easy way to get new information
    - Because you want to share something interesting with others
    - Because you want to make new friends
    - Because it is easy to keep contact with friends abroad
    - Because it can closer the relationship between people
    - Because you want to record important things in your life
    - Other
  3. What personal information do you share on the Internet?
    - Photo
    - Name
    - Age
    - Gender
    - Nationality
    - Birthday
    - Relationship status
    - Home address
    - Mobile number
    - E-mail address
    - Workplace
    - Education background
    - Other
  4. Who has access to your information?
    - Your family members
    - Your boyfriend/girlfriend/spouse
    - Your friends
    - Your colleagues
    - Anyone
    - Other
  5. What are your considerations before you share some information?
    - Importance of information
    - Safeness of website
    - Necessity of sharing
    - Number of possible viewers
    - Identity of possible viewers
    - Possible consequences of sharing
    - Other
  6. Do you share information about other people on the Internet? Yes/No
  7. Do you ask for permission before sharing the information? Yes/No
  8. Why/Why not?
  9. Do you think there should be an age limit for people to share their information on the Internet? If yes, what is the appropriate age?
    - <10 years old
    - 10 - 13 years old
    - 14 - 17 years old
    - 18 - 21 years old
    - >21 years old
    - No age limit required
  10. Informational privacy is the right of an individual to exercise control over the collection, use, disclosure, and retention of his or her personal information. Do you think there are differences between privacy on the Internet and privacy in the real world? Yes/No
  11. If yes, what are the differences?/If no, why?
  12. How much do you think a person can currently affect his/her own individual privacy on the Internet? Scale = 1 - 5, where  
1 = A person can completely control his/her own individual privacy, 5 = A person has no control over his/her own individual privacy
-

social networking websites. The answers can be seen in **Table 3**. According to these results, 38 answerers out of the total 50 use social media every day. Only 4 answerers use social media less than 1 day a week. These numbers can also be supported by a study published at the beginning of 2012, where it was found out that two-thirds of online adults have a profile on a social networking site [17].

The possible reasons for their use of social media were asked in Question 2, and the answers can be seen in **Table 4**. Two of the most popular reasons were “because your friends are using” (42 answerers out of the total 50) and “because it is an easy way to get new information” (41/50). Many of the answerers gave more than one reason. Quite surprisingly, only 4 people answered their reason for the use of social media to be making new friends. There were 3 answerers who had some other reason for their use and one of them explained the reason to be “work-related”. Nowadays many people have a “work profile” on social media and this profile may be totally separated from their real-life friends. It can also be assumed that different social media sites are used for different reasons. This was also discussed in a study where a comparative analysis showed that Facebook is about having fun and knowing about the social activities occurring in one’s social network, whereas instant messaging is geared more toward relationship maintenance and development [19].

In Question 3, it was asked what personal information the answerers are willing to share on the Internet. These

results can be found from **Table 5**. As natural, name (45/50) and photo (42/50) were the most shared pieces of information. It should be noted, however, that many people have to share their photo, name, mobile number, and e-mail address on the Internet because of their work. However, 32 people out of the total 50 also share their birthday on the Internet, which probably is not needed for work. The natural next things to ask in Question 4, was who has access to that shared information. These results can be seen in **Table 6**. Only 9 out of the total 50 answerers allow anyone to see their information. These answerers probably include people who have to share something because of their work. This result is in line with the results achieved in [14]. Only 24 and 21 answered their family and spouse, respectively, to have access to their information, whereas 43 out of the total 50 answered that their friends are allowed to see their information. Some people probably count their spouse and family into their “Internet-friends”. However, not everybody just wants to share the same information with their family and with their friends.

In Question 5, the possible considerations before sharing personal information on the Internet were asked. The importance of the information (31 answerers out of the total 50) and the necessity of sharing (27/50) were the most often mentioned considerations. Instead, the number (12/50) and identity (17/50) of the possible viewers were the least mentioned considerations. Again, many people gave more than one answer. These results are presented in **Table 7**.

**Table 3. Answers to Question 1; How often do you visit social networking websites (How many days a week)?**

|            | All N = 50 | Male N = 31 | Female N = 19 | Asian N = 38 | European N = 12 |
|------------|------------|-------------|---------------|--------------|-----------------|
| <1 day     | 4          | 2           | 2             | 1            | 3               |
| 1 - 3 days | 2          | 1           | 1             | 0            | 2               |
| 4 - 6 days | 6          | 5           | 1             | 5            | 1               |
| Every day  | 38         | 23          | 15            | 32           | 6               |

**Table 4. Answers to Question 2; Why are you using these?**

|   | All N = 50 | Male N = 31 | Female N = 19 | Asian N = 38 | European N = 12 |
|---|------------|-------------|---------------|--------------|-----------------|
| Because your friends are using                              | 42         | 25          | 17            | 34           | 8               |
| Because it is an easy way to get new information            | 41         | 24          | 17            | 33           | 8               |
| Because you want to share something interesting with others | 21         | 11          | 10            | 16           | 5               |
| Because you want to make new friends                        | 4          | 3           | 1             | 3            | 1               |
| Because it is easy to keep contact with friends abroad      | 27         | 16          | 11            | 23           | 4               |
| Because it can closer the relationship between people       | 18         | 10          | 8             | 14           | 4               |
| Because you want to record important things in your life    | 14         | 4           | 10            | 11           | 3               |
| Other   | 3          | 2           | 1             | 0            | 3               |

**Table 5. Answers to Question 3; What personal information do you share on the Internet?**

|                      | All N = 50 | Male N = 31 | Female N = 19 | Asian N = 38 | European N = 12 |
|----------------------|------------|-------------|---------------|--------------|-----------------|
| Photo                | 42         | 24          | 18            | 32           | 10              |
| Name                 | 45         | 28          | 17            | 33           | 12              |
| Age                  | 23         | 14          | 9             | 18           | 5               |
| Gender               | 39         | 22          | 17            | 33           | 6               |
| Nationality          | 27         | 16          | 11            | 19           | 8               |
| Birthday             | 32         | 16          | 16            | 26           | 6               |
| Relationship status  | 14         | 9           | 5             | 10           | 4               |
| Home address         | 2          | 2           | 0             | 1            | 1               |
| Mobile number        | 4          | 3           | 1             | 2            | 2               |
| E-mail address       | 23         | 14          | 9             | 20           | 3               |
| Workplace            | 12         | 7           | 5             | 6            | 6               |
| Education background | 25         | 14          | 11            | 17           | 8               |
| Other                | 1          | 1           | 0             | 1            | 0               |

**Table 6. Answers to Question 4; Who has access to your information?**

|            | All N = 50 | Male N = 31 | Female N = 19 | Asian N = 38 | European N = 12 |
|------------|------------|-------------|---------------|--------------|-----------------|
| Family     | 24         | 17          | 7             | 20           | 4               |
| Spouse     | 21         | 13          | 8             | 17           | 4               |
| Friends    | 43         | 27          | 16            | 35           | 8               |
| Colleagues | 22         | 14          | 8             | 17           | 5               |
| Anyone     | 9          | 5           | 4             | 5            | 4               |
| Other      | 2          | 1           | 1             | 1            | 1               |

**Table 7. Answers to Question 5; What are your considerations before you share some information?**

|                                  | All N = 50 | Male N = 31 | Female N = 19 | Asian N = 38 | European N = 12 |
|----------------------------------|------------|-------------|---------------|--------------|-----------------|
| Importance of information        | 31         | 22          | 9             | 26           | 5               |
| Safeness of website              | 24         | 15          | 9             | 17           | 7               |
| Necessity of sharing             | 27         | 16          | 11            | 20           | 7               |
| Number of possible viewers       | 12         | 6           | 6             | 10           | 2               |
| Identity of possible viewers     | 17         | 11          | 6             | 13           | 4               |
| Possible consequences of sharing | 20         | 13          | 7             | 12           | 8               |
| Other                            | 0          | 0           | 0             | 0            | 0               |

In Question 6, it was asked if the answerers share information about other people on the Internet. The answers are shown in [Table 8](#). According to these results, about half of the answerers (26 answerers out of the total 50) do share information about other people. It can be seen that among the male answerers, there are less people

(12/31) who share information about other people than among the female answerers (14/19). In Question 7, more information was asked from those who do share information about other people, particularly, do the answerers ask for permission before sharing the information. These answers can be seen in [Table 9](#). As can be seen,

out of the total 26 answerers, who share information about other people, 18 say that they also ask for permission before sharing. It can also be seen that male answerers (10/12) ask for permission more often than female answerers (8/14). These are interesting findings as in earlier studies, e.g., [14,16,17] it has been found out that compared to male users, female social media users are more concerned about the privacy of, at least, their own profile. In Question 8, it was asked Why/Why not do the answerers ask for permission before sharing information about other people. Examples of the most common given answers are presented in Table 10. The main reasons for

not sharing were, as one can expect, courtesy and respect to other people’s privacy. On the other hand, in other answers, it was stated many times that there is no need to ask for permission before sharing information about other people. It was also mentioned that the shared information is nothing important and that is why the people will not mind the sharing.

In Question 9, it was asked if there should be an age limit for people to share their information on the Internet. The results can be seen in Table 11. Almost half of the answerers (22 answerers out of the total 50) felt that there is no need for an age limit and 5 answerers felt that

**Table 8. Answers to Question 6; Do you share information about other people through the Internet?**

|     | All N = 50 | Male N = 31 | Female N = 19 | Asian N = 38 | European N = 12 |
|-----|------------|-------------|---------------|--------------|-----------------|
| Yes | 26         | 12          | 14            | 19           | 7               |
| No  | 24         | 19          | 5             | 19           | 5               |

**Table 9. Answers to Question 7; Do you ask for permission before sharing the information?**

|     | All N = 26 | Male N = 12 | Female N = 14 | Asian N = 19 | European N = 7 |
|-----|------------|-------------|---------------|--------------|----------------|
| Yes | 18         | 10          | 8             | 13           | 5              |
| No  | 8          | 2           | 6             | 6            | 2              |

**Table 10. Question 8; Why/Why not?**

| YES |  |
|-----|--|
| •   | “May contain sensitive information”  |
| •   | “To respect my friends and protect their privacy to some extent”   |
| •   | “A basic courtesy is to respect the privacy of others”   |
| •   | “It’s their privacy and the rights remain with them.”  |
| •   | “Respect”  |
| •   | “Privacy”  |
| •   | “Public image matters.”  |
| •   | “If I would share, I would ask, naturally.”  |
| NO  |  |
| •   | “No need. If it’s too bad, I won’t.”   |
| •   | “They know what I do.”   |
| •   | “If they don’t like they will del tag.”  |
| •   | “I think they won’t feel bad for the sharing.”   |
| •   | “Just small things, not important!”  |
| •   | “Because I think the information will not affect the person in a bad way. For example I will share a photo which is my friend and I stay together and do something together. It is somehow like information that sharing what my friend and I has done. Some photo will be eliminated instead of uploaded such as a naked photo of my friend.” |
| •   | “It seems not necessary to ask for permission.”  |
| •   | “They didn’t ask for.”   |

the age limit should be under 10 years. However, there were also 11 answerers who felt that the age limit should be over 18 years. Thus, there is a significant variety in opinions. Currently the age limit in many social networking sites is 13 years. However, in many social networking websites the age verification systems can be passed solely by the children lying about their age.

In Question 10, it was asked if the answerers feel that there are differences between privacy on the Internet and privacy in the real world. The answers can be found from [Table 12](#). More information about the possible differences was asked next, in Question 11, and the examples of the most common given answers are presented in [Table 13](#). Out of the total 50 answerers, 26 felt that there is a difference. In many answers it was stated that it is easier to share information on the Internet and also easier to find information about other people from the internet. Thus, it is easier to keep your privacy in the real world. However, one interesting point was noticed; many of the answerers feel that the Internet is part of the real world, “just another different platform of social network only”. This is natural for the younger people, since they have never known a world without the Internet or mobile phones. Thus, the privacy that you have on the Internet is the privacy that you have in the real world.

Question 12 asked how much do the answerers think a person can currently affect his/her own individual privacy on the Internet; scale = 1 - 5, where 1 = A person can completely control his/her own individual privacy and 5 = A person has no control over his/her own individual privacy. These answers are presented in [Table 14](#). None of the answerers felt that a person can completely control his/her own individual privacy. In addition, 5 of the 50

answerers felt that a person currently has no control over his/her individual privacy on the Internet. The average value of all the answers was 3.3. The same question was part of a study done in Finland, where the average value of all the answers among 22 people (11 Finnish people working with different aspects of IOT development and 11 ordinary Finnish people) was 2.6 [20]. In a yet another study, where 22 people working with different aspects of IOT development were interviewed in Finland and in China with the same question, it was found out that the answerers from Finland were less worried about the individual privacy on the Internet than the answerers from China [11]. Unfortunately, the same kind of comparison cannot be done in this study, as there are significantly different amounts of answerers from different countries.

#### 4. Conclusion

In this study, thoughts about sharing personal information on online social networks were collected by interviews. The interviewees were mostly from mainland China, Hong Kong, and Finland. Most of the answerers use social media every day and share versatile personal information on the Internet. However, only a few answerers use social media for making new friends. Instead, they use social media because also their existing friends are using. Other findings of this study include that about half of the answerers also share information about other people through the Internet. Some of them do not feel the need to ask for permission before sharing, but most of them feel that courtesy and respect of privacy require them to ask for permission. It was also found out that female answerers were more active than male answerers in sharing information about other people. In addition,

**Table 11. Answers to Question 9; Do you think there should be an age limit for people to share their information through the Internet? If yes, what is the appropriate age?**

|         | All N = 50 | Male N = 31 | Female N = 19 | Asian N = 38 | European N = 12 |
|---------|------------|-------------|---------------|--------------|-----------------|
| <10     | 5          | 3           | 1             | 3            | 1               |
| 10 - 13 | 4          | 2           | 2             | 2            | 2               |
| 14 - 17 | 8          | 4           | 4             | 5            | 3               |
| 18 - 21 | 11         | 5           | 6             | 7            | 4               |
| >21     | 0          | 0           | 0             | 0            | 0               |
| No      | 22         | 17          | 5             | 21           | 1               |

**Table 12. Answers to Question 10; Do you think there are differences between privacy on the Internet and privacy in the real world?**

|     | All N = 50 | Male N = 31 | Female N = 19 | Asian N = 38 | European N = 12 |
|-----|------------|-------------|---------------|--------------|-----------------|
| Yes | 26         | 15          | 11            | 19           | 7               |
| No  | 22         | 14          | 8             | 17           | 5               |

**Table 13. Answers to Question 11; If yes, what are the differences?/If no, why?**

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YES

- “People are more willing to share due to the anonymity on the Internet.”
- “We are more alert about our privacy in real world than on the Internet.”
- “In real world, we will give our personal information to someone mainly through applying something such as jobs or a school etc. Nowadays, Hong Kong already has a law that the company or firm cannot use people individual information without that people’s permission. In internet, we will give our personal information to someone mainly through our own sharing such a sharing in Facebook or twitter. But in internet, there is nearly no way stopping others to use or watch your individual information as there is no law to restrict people. Moreover the technology of stealing other people information is easy through internet. So in internet, we cannot really control our privacy indeed.”
- “In the real world there is no easy access to people’s information unless it is disclosed to you by the person themselves or others. On the Internet other people can easily search others up.”
- “We can use incorrect information without monitoring on the Internet.”
- “In reality, privacy is easier to protect.”
- “Cause they are in different platform.”
- “Information privacy is the same thing in both world but the right is more difficult to protect in cyber world.”
- “There is easier access to information through Internet.”
- “People have no idea what they do on the Internet.”

NO

- “People should get same privacy no matter where they are.”
- “Internet also is in the real world, it seem so different but just another different platform of social network only.”
- “The content of information is more or less the same.”
- “All are about my privacy no matter it is on the Internet or real world. I think we should not divide into two categories because they all deserve our attention to protect it.”
- “Both ways involve the chance of disclosing others info so they’re more or less the same. So if there’s any very personal and confidential info about others, we should respect others and ask for permission before disclosing it.”
- “Internet is a part of real world.”
- “Your information should always be limited to people you want to share it with, no matter where it is.”

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**Table 14. Answers to Question 12; How much do you think a person can currently affect his/her own individual privacy on the Internet? Scale = 1 - 5.**

|   | All N = 50 | Male N = 31 | Female N = 19 | Asian N = 38 | European N = 12 |
|---|------------|-------------|---------------|--------------|-----------------|
| 1 | 0          | 0           | 0             | 0            | 0               |
| 2 | 5          | 3           | 2             | 3            | 2               |
| 3 | 26         | 19          | 7             | 19           | 7               |
| 4 | 13         | 6           | 7             | 12           | 1               |
| 5 | 5          | 3           | 2             | 4            | 1               |

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there was a significant variety in opinions if there should be an age limit for sharing personal information online; almost half of the answerers felt that there is no need for an age limit, whereas many felt that the age limit should be over 18 years. One thing that was discovered is that many of the answerers felt that the Internet is a part of the real world. Thus, the privacy that you have on the Inter-

net is the privacy that you have in the real world.

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