

Facebook Privacy Settings Interface

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ABSTRACT

Facebook provided privacy settings to Facebook users .where they need to be familiar with its' usage .This study based on several research studies that focus on Facebook privacy concern and privacy behavior on Social Network Sites .While not universal ,modifications to privacy settings have increased during a year in which Facebook's approach to privacy was hotly contested .where, both the frequency and type of Facebook use as well as Internet skill are correlated with making modifications to privacy settings. In contrast observe few gender differences in how young adults approach their Facebook privacy settings, which is notable given that gender differences exist in so many other domains online.

General Terms

Facebook's privacy, privacy settings, Privacy settings concerns, Security, Facebook friend list, Policy Patterns

Keywords

Facebook, privacy settings, Social Network Site

1. INTRODUCTION

Facebook is one of the famous Online Social Network site. The number of users joined to Facebook is increasing regularly. Facebook site provides more than 70 languages [3]. users need to identify themselves genuinely [6]. on Facebook site users can share and post their daily activities, photos, groups, video etc. and share their favorite books, movies, pages all personal information's with their friends or with the public as they have set their privacy settings [2 ,9]. Where the privacy settings and tools are provided by Facebook to the users as feature not as policies. Some users do not have any idea of it is availability, some of them they do not have significant knowledge of its' usage and find its' options difficult to manage or control, and some users do not care of the privacy settings .The default privacy settings set to be visible to the public where users have to be more concern in their settings[2].As users can share whatever they are posted on their timeline ,they can update their status and share it with strangers ,as they can block strangers viewing their profiles [4].

2. FACEBOOK'S PRIVACY MODULES

Since 2006, Facebook produced privacy settings that are changed regularly. where were more than one page with high numbers of options and tools [1]. Facebook users have various privacy settings and options that is built in Facebook site, but most of them do not have a significant knowledge of the privacy settingsimportance [2]. According to the increment users' numbers who signed to Facebook site which classify the Facebook as one of the most popular online social networks in the world. Where in December 2011 the number of active users were 845 million in a month [3] and by July 2012, Facebook has 955 million users [2] which grow very

fast some users used Facebook for sharing objects like photos, videos, applications and post their activities as well as sharing their personal information's [4]. Due to some security issues and privacy issue that asked Facebook to simplify the privacy settings and its features which enable users in all levels to make their personal settings and to make their sharing process in more safety and secure environment [3].

Nowadays, Facebook reduced their privacy settings options to be more useful and flexible. Previously, Facebook privacy settings reached to 15 pages, and then it became 8 pages in 2010 and still reducing to make it usage easier [3].

The regular increases of Facebook users carry out the users concern in the privacy settings to make their information more private and because they touch they are misplacing control over their information [2,4]. Kambiz et al. [2] found 13 million users had never set the privacy settings or do not know how to use them. Also, (28%) shared what they posted by public that anyone can see their profile [2]. Joinson found the users settings in their privacy settings are differ between one user to another depends on their purpose of using Facebook site [2].in another study, Amanda, Eleen et al. [5] examined the use of privacy settings according to the gender where the number of female participants were 136 and the number of male participants were 100.Their study resulted, only (20%) of participants were made changes to the default privacy settings. Where females were doing changes to their privacy settings more than males (30 versus 19, respectively). Consequently, Facebook designed privacy settings that monitor all personal data which nowadays are completely different from previous years [3].

The new settings facilitate the privacy settings usage to the users and make it easier to them to access the security settings and control who can see their contents, what they have posted in their profile or their post wall. The privacy settings options consist of timeline and tagging, blocking, and setting visibility limits to the public and friends. At the top right of the site page there is a gear icon which display the privacy settings [3].

Lately, the features that used to recover the usage of the privacy settings interface and realize the users of the visibility of their data to their friends have been proposed. Facebook's privacy settings have friend listfeature that help the users to organize his friends to groups and control his profiles' access easily by allowing or denying permission that he gives to a specific list [13].

The current Facebook interface is easier than last few years, where the "default privacy setting description in many parts of the profiling "[16]. Figure 1 shows the privacy settings and tools page, where at the left side, you can customize the privacy settings, where users can" allow or deny "a specific group of people to see their profile, friends, friends of friends etc. [2].

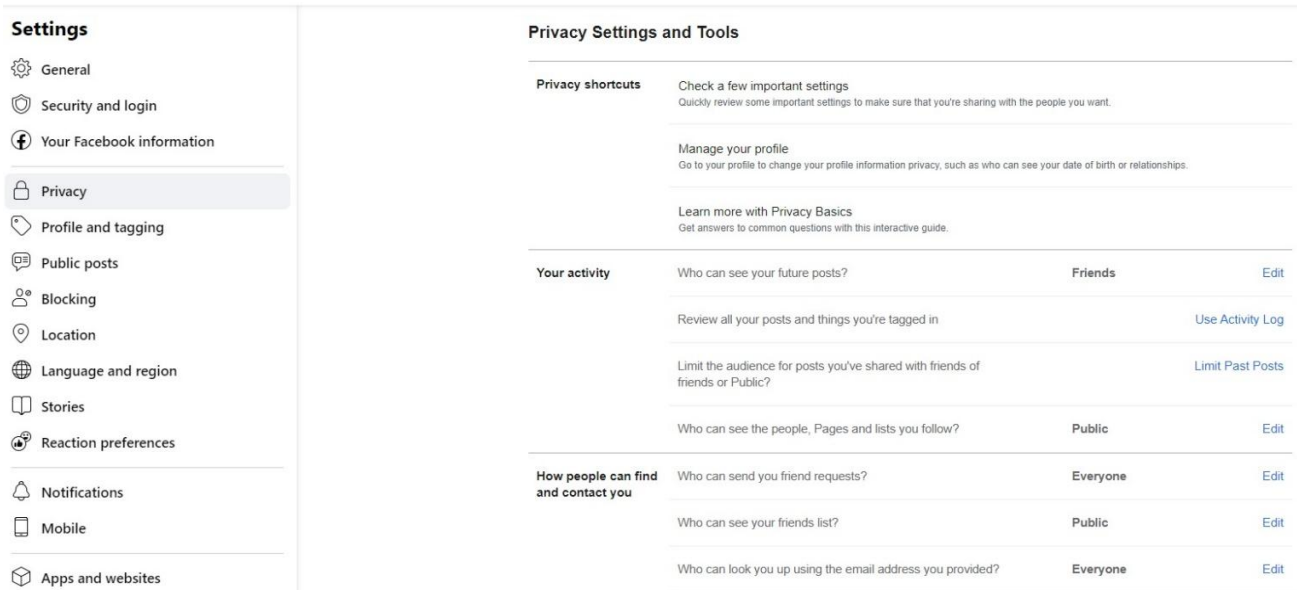


Fig.1: Privacy Settings and Tools Page

Some users share every minute in their life with their friends or public whatever they set the privacy settings where kambiz, et al. [2] found 4.8 million people shared their daily plan and activities in details where they specify their exactly location. Almost the users do not change or update their basic information (e.g. gender, religious, and activities); while they can change their privacy settings for their data type (e.g. events, status, photos) directly while they are posted the data by using inline privacy control like shown in figure 2 [2].

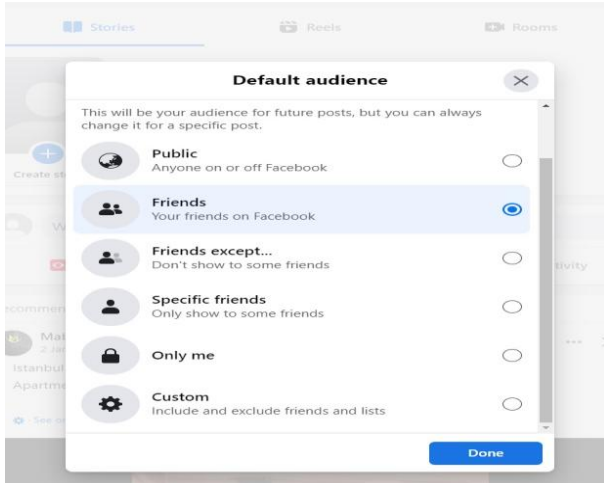


Fig. 2: Inline Privacy Control

3. RESEARCHES & RESULTS

A survey study by Stutzman et al. [3] their study was focus on Facebook users where they did an online survey to them to examine what are the most privacy schemes the users have used? Where, they are looking to help users to know the effective privacy settings and tools that will help them to control their privacy settings. They focused on the privacy strategies (security, tagging, sharing, searching, and filtering) and sense of control (they have selected privacy items that study user's concerns about the data security, and items included thoughtful misuse of personal information) they proposed to the users to manage their profile visibility to ensure the personal

Users' data reveals to the public on Facebook wall. Also, users have to control privacy hole by other people over user's expectations. They concluded were Facebook users should concern of privacy settings and tools and their study may help them to deal with privacy settings interface [3].

Thomas, Daniel ,and Thorsten [16]"designed a new privacy interface," that facilitate to users how they can use and control their privacy settings with "little effort" and less experience .on their interface they had mention the user visibility control by adding "colors coding " as traffic light pulsed with blue color that indicate to the users friends and red, yellow ,and greens were indicate to" nobody" ,"all friends" , "everyone "respectively .as outcome , their participants were satisfied about their design ,where they found that new interface is more dynamically and more flexible than Facebook ' s interface in that period .Facebook in earlier 2011 changed their interface.

Jerzy Surma [6] with his assistant Kevin Lewis the purpose of their study to determine privacy control impact on social network sites users and to determine the impact of the privacy control usage on the users' activities on their timeline. Where they made their survey for college student's friendships and study the privacy path on Facebook They got their result by using Graph API protocol description, which is supported by Facebook, that is provided to them the exactly number of students and help them to publish their survey through Facebook site. As a result, they found 75% of participants were created their own private friends list, which means they control the privacy settings while they post their activities by using inline privacy setting to choose who they want to share with. Jerzy Surma and Kevin Lewis confirmed their basic formula of their survey: "the increase in the number of friends will increase the likelihood of posting status updates where the users are using privacy settings" [6].

Another study by Michelle , Johnson and S.Bellovin [1] they had use Facebook site to deliver their survey which was study if the privacy setting match the users purpose ?"They identify violations by comparing sharing intentions against users' actual privacy settings in a real online social network" [1].Their participant were from "the Columbia University community included flyers, broadcasts to Facebook groups, a

paid advertisement on a campus blog" [1]. Their outcomes were users are care of their privacy controls but some of them at least one setting of their privacy they made it incorrectly .they found also (22%) deleted their friends in case to post their information and (91%) claimed to edit the privacy settings to be more private, where they explore most of the female participants were control their privacy and sharing their data only with friends not with any stranger .OSN users are sharing and hiding information in a wrong way[1] .Thomas Hughes-Roberts [8] examined the privacy insights and its behavior in social network sites to understand the users' privacy issues. He divided his survey to two parts: Measuring Concern and Intention and Measuring Actual Behavior. He examined" if concern can be considered as useful pointer of protective privacy behavior within a social network". He proposed as a result that users concern cannot be the indicator of privacy performance in the social network system. However, the participants want the privacy protection while they contact with their close groups and friends.

4. FACEBOOK FRIEND LIST

Facebook privacy settings provide friend list feature to enable users to split their friend's network to specific groups and facilitate their privacy control to allow or deny a person or groups from accessing his/her profile or timeline page [4].Facebook provide Friend list feature in 2007 which improved to be classified to three partitions:" Close Friends, Acquaintances, and Smart Lists" that is making the users privacy control easier to customize. Unfortunately, as discussed before about the users' poor knowledge of the privacy setting also for friend list options they do not know how they can use it or where they can find this feature [12]. Ratan et al [11] explored privacy tendency for many personal points like relationships, high school name, gender, and hometown. They searched whether users are private with their friend list. They found the users are become more private, where in March 2010 only (17.2%) of the users hide their friends list, otherwise, after 15 months later in 2011 they found (52.6%) of the users hide their friend list. In addition, according to table 1 which they have used in their study, they come out that" women tend to be more private than men, and that young and middle-aged users tend to be more private than older users ". As they concluded the user's decision to be private not impact by their friends' opinions [11].

Table 1. Facebook's default privacy settings during march 2010 and June 2011

Attribute Name	Visible Audience (March 2010)	Visible Audience (June 2011)
Name	All Facebook users	All Facebook users
Profile Picture	All Facebook users	All Facebook users
Gender	All Facebook users	All Facebook users
Networks	All Facebook users	All Facebook users
Contact Info	Friends	Friends
Friend list	All Facebook users	All Facebook users

Relationship	All Facebook users	All Facebook users
Interest In	All Facebook users	All Facebook users
High School Information	All Facebook users	All Facebook users
Birthday	Friends of friends	Friends of friends
Likes	Friends of friends	All Facebook users
Wall Posts	Friends of friends	All Facebook users
Hometown	Friends of friends	All Facebook users
Current City	Friends of friends	All Facebook users

Another study by YousraJaved, and Mohamed Shehab [12] they study the effective of friend list feature with Facebook users, byexamining the real (222) Facebook users' profile and photo privacy policies by using their survey application. Their study took two phases:

- Friend management: they examined the friend list that created by default setting in the Facebook and compare their finding with the friend list that customized by users [12], for example, if the user creates friend lists for family members, high school group, his/her work group, Facebook will create for him/her a list that related to his/her friends' description [4].
- Policy Patterns: represents a mixture of access authentications that users give to their friend list[12].the users can allow for specific group and cannot allow for other group depend on the user friend list control , where the user can be private in specific list and block another friend list from seeing whatever the user add in his/her personal information they can only receive his/her new feeds[13].However, They divide the policy pattern to two parts ,first part was custom policy ,where the user is responsible to set the privacy setting like the visibility to the friend list (e.g. allow only to high school friend list and deny accessing to "specific name ").second part was default policy which is given by Facebook setting (e.g. allowing only friends, friends of friends, or only me) [12]. overall, their findings were users who customize their friend list is less habitually created and less intersections as compared to Facebook created friend lists. also, they found the users do not make friend list for all their friends or who has added. The result of setting exception also confirmed that allowing all friends, friends of friends and every one to a specific object is less frequently used in the policy [12].

5. DISCUSSION

5.1 Privacy settings concerns

Facebook users posts various type of contents that are sometimes related to their personality or their life secrets. Unfortunately, after they have posted that data they will be remorse. The studies found that action is happened because of users careless about their data and they do not know about their causes of posting that information. Where, they

underestimate of the nation and rules within their public loop, and they are not realized what they are posting maybe because of their status and their feeling condition which control their thoughts where, they do not predict while they posted how it could be understanding by their friends or public. EsmaAïmeur, and Manuel Lafond [14] think the privacy settings or policies protection s are not designed in proper way with useful tools and features that will facilitate to the users to control what he is posting and for whom, " rather than a problem that resides deep in the complex human nature".

Amanda, Eleen et al. [5], knowing the shared information with others and understand the privacy need for controlling that information are recognized as the basic most "concerns of personal data security, safety, psychological well-being". Their study found that the data setting that is used to build social network site profile like Facebook users' profile and the user's gender is affected on the decisions to reveal information, but do not affect the privacy settings usage. Awareness of privacy impacts on the users' decision will help researchers and educator to develop an effective program that can help users to be more private about their information and clarify to them the privacy usage concerns [5].

5.2 Privacy & Security

Most of the social network sites trust Facebook site because of the privacy settings tools that lead them to know for whom they send and who can see their profile even from their friends or from the public. The reasons of users' trust in Facebook are they believe the Facebook site is secured and it is provided security tools which faith them to access the site via internet. They have resulted that understanding of the privacy and understanding of the security are the fundamental points of understanding the trust. where there is a relation between the security and the privacy. they found if the users trust the site; it will lead them to share their data, where, the privacy has no direct impact on that information [15].

The problem is when many users access to OSN (Online Social Network) they do not imitate how their contact affect their privacy, they do not realize that connection may include threat to their privacy [7].

F. Erlandsson, M. Boldt [7] and H Johnson defined threat as "public information harvesting", where the users can communicate with other open groups that are widely obtainable from Internet. These threats can be collected easily from any one user privacy by using specific mechanism like API which is supported by Facebook. They show also, the limited resources can profile users within an OSN through open group (public groups) and instruct a social graph for their relations. They proposed various protection mechanisms to in contradiction of the threats acknowledged.

6. FUTURE WORK

Kambiz et al. [2] they published Facebook application that they have develop to help and educate users about the privacy settings while they are sharing their photos with them. Their future plan they have "group of privacy –aware volunteers" who will set their profiles as training set in their application. Where they will study the sensitivity of data disclosed. Furthermore, they will do " a deeper analysis on the profiling phase of their study".

S.Ibrahim ,et al.[3] their next step will be examine how the interface design and implementation of the privacy settings on Facebook will impact the users' considerate of the privacy. That will tend them to measure the privacy feature complexity on Facebook.

7. CONCLUSIONS

This paper lays the groundwork for recognizing that experience and skill matter when it comes to how people approach their Facebook privacy settings. Assumptions that all users have a uniform approach to the site and how their accounts are set up are incorrect and may leave certain user populations especially vulnerable. If experience and skill matter –and it appears that they do-it is imperative that companies and policy makers consider how default privacy settings and changes in these settings affect populations differently. The recommended from all the researchers in this paper to implement a clear application to users that assist them to control their privacy settings.

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