

A Way to Securely use Instagram App

Akshay Kekunnaya¹

Guided By: Sneha Ambhore²

Student at Ajeenkya DY Patil University

Abstract- This research paper involves in the fault of Direct message module in Instagram, as Direct message is important accepts in chatting point of view. This research involves that how much this Direct message is important for people and what will happen if there is any drawback in this direct message module. Also, the research finds that due to some drawback in Direct message people are using this loophole as a point of gaining information from that loophole which will impact the particular people who account in targeted. Basically, this paper will tell the solution for the few loopholes in Direct message page.

Keywords- Direct Message, drawback, loophole

I. INTRODUCTION

1.1-Instagram:

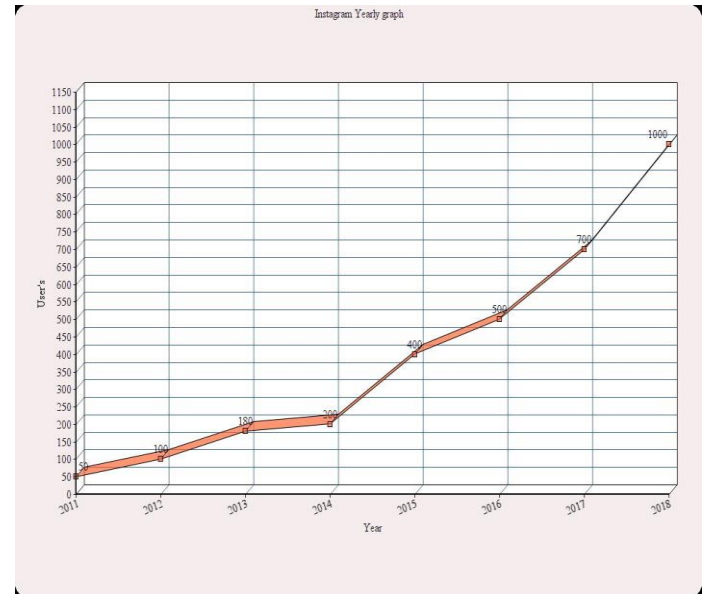
Instagram is a social media app which allows people to share and talk with photos and allow people to video chat with their friends. It was created by Kevin Systrom and Mike Krieger, and launched in October 2010 exclusively on iOS. The version for Android was released in April 2012 and also for in window series. This app allows the person to upload pictures and videos to their personal wall and from that their friends can see, comment and like their pictures. Instagram also gives certain type of filters which will help the individual. Also, the type of account can be public or private according to personal's view. User's can also like or share their pictures to stories or feeds. From September 2011, many feature-like live filters, instant tilt-shift, high-resolution photographs, optional borders, one-click rotation, and an updated icon.

1.2-Instagram Direct: -

In December 2013, Instagram direct was released which allows the users to interact through private messaging. Users who are following their friends can chat or share pictures between them. This direct messaging gives many features like a camera inside Direct lets users take a photo and send it to the recipient without leaving the conversation. In November 2016, features like their private messages "disappear" after being viewed by the recipient, with the sender receiving a notification if the recipient takes a screenshot.

1.3-Users on Instagram: -

Instagram had 1 million users in December 2010, followed by 5 million users in 2011 of June which increased to 10 million users in the same year of month September. In the year 2017 there are 250 million active users. Also, Instagram was listed among time's "50 Best Android Applications for 2013" list.



Graph Related on Number of Users

Vulnerability Found

1) The direct message in Instagram is very crucial for the people to get connected with their friends sitting anywhere in the globe for chatting or sharing Memes or video calling them. For some reason people may unfollow/unfriend the particular person and does not want the particular person to be in contact in anyways through direct message or through calling or video calling the person. But when people unfollow the person the chatting column in the direct message list won't disappear and it will be left as it is in both the user account's Direct message column. When that does not disappear from the list, the user/hacker is able to call, send message, video call the particular person. as stated by Instagram, when the person who is not friend of particular person, the message should come to his waiting list but in this case, it is not possible happening as it is not showing in waiting list but it is directly messaging or calling the particular person.

2) When some reason come's that the person has to block his friend/friends for few days and after that he unblocks him/her, all the previous chat and details related to that person will be displayed. in Direct messaging column the old chat will be displayed though some person may not like to read all the previous chat due to this some person's personal life or business life will be hampered and leads to many problems.

Possible Threat

As the vulnerability mentioned above, the person who was his friend can gain his personal information though they are unfriended them self and can interrupt his personal life or business life by gaining access to his personal information by means of hacking and can cause personal theft by stealing personal data's. The hacker can also use this vulnerability as a plus point for Social Engineering.

Social Engineering: -

Social Engineering is a way of manipulating a human mind for gaining personal/Business information through different means of communication.

There are two types of social engineering. they are: -

- a) Human-based social engineering
- b) Computer-based

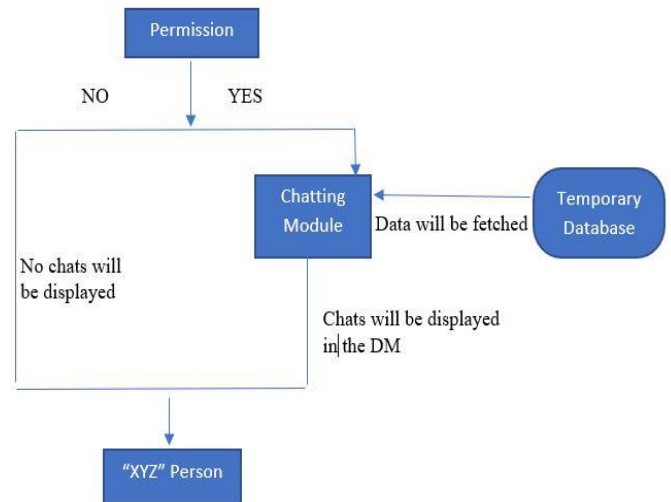
So, as mentioned above vulnerability the first way to gain information in computer based as this vulnerability requires any device as a platform and second come the human based where people will use there speaking skills to access information from different people.

Possible solutions

As of the vulnerability mentioned above, there can be few major solutions.

In the direct messaging list, as and when we unfriend/unfollow the person then automatically the chat of that particular person should be vanished from the direct message list and all the details of that unfollowed person should be removed temporarily from the database and should be stored in some secondary database. As and when the person friends again (By Chance), the direct message list should ask permission that weather the person requires the old chat (if it's there) or not, and the person should either choose the option

- a) Load previous chats
- or
- b) Without loading the previous chats



1.If the person chooses the option 'a' then the chat (if contains) of that particular person should be fetched from the secondary/temporary database and should be loaded to both the user's direct message list.

2. If the person chooses the option 'b' then the name of the person should be displayed directly as a fresh chatting module.

Also, for the person who is blocked from one end, even after unblocking the chatting column should not be displayed as the person is not following after unblocking.

II. CONCLUSION

As we have discussed the solution for the vulnerabilities found in the direct message of Instagram app, we can now use the direct message app safely and secularly and there will be no threat of using this.

III. ACKNOWLEDGMENT

I wish to express my sincere gratitude to Ms. Sneha Ambhore for providing me the guidelines on how to write a research paper

IV. REFERENCE

- [1]. <https://en.wikipedia.org/wiki/Instagram#History>
- [2]. https://en.wikipedia.org/wiki/Instagram#Instagram_Direct
- [3]. https://en.wikipedia.org/wiki/Instagram#User_characteristics_and_behavior