Snapchat's disappearing messages: Balancing entertainment and privacy in digital communication

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Abstract. Modern instant messaging platforms often default to permanent data retention, raising concerns about data privacy and users' ability to manage their digital artifacts. In contrast, emerging applications like Snapchat introduce ephemeral communication, where messages automatically vanish after being viewed. This paper investigates the motivations and experiences of users utilizing Snapchat's disappearing message feature. The study employs semi-structured interviews with young adults aged 18-24, who are active Snapchat users. Findings reveal that Snapchat's primary appeal lies in entertainment, creative expression, and maintaining casual relationships. While the disappearing feature contributes to privacy perceptions, users' trust in the feature's privacy protection is not absolute. The paper highlights the challenge of conducting task-oriented or deep conversations due to the ephemerality, emphasizing Snapchat's utility for informal and lighthearted interactions. Ultimately, the study underscores the importance of aligning user experiences with application design, providing insights for practitioners seeking to enhance user-centered product development in the evolving landscape of digital communication.

Keywords: Social network, Instant messaging (IM), Human-Computer interaction, privacy.

1. Introduction

In most instant messaging applications and online systems, permanent data retention is the default option, which means that if one does not actively clean up or delete certain chat content or chat records, all records and content will be automatically saved. Chats are saved on the cloud on WhatsApp, and when stories are posted on Instagram, they stay there 'forever'.

Studies of digital possessions also found that users need to actively decide what data to preserve and dispose of to maintain a meaningful collection of digital artifacts [1]. Overall, automatic archiving requires active self-management about which data should be persistent.

On the contrary, in the past two years, the rise of an instant messaging application that automatically clears data in the background, among which Snapchat is the representative. As one of the most prestigious social networks in the world, Snapchat is famous for its various picture and video transmission systems and relatively safe privacy protection under the premise of respecting users. After its release in 2011, the number of its users has gradually increased. As of the latest data in 2023, there are currently about 635 million people using Snapchat in the world, and almost 80% to 85% of the users are under the age of 30, for the largest proportion.

Snapchat integrates photo taking with filters, instant messaging, and real-time dynamic sharing. In recent years, Snapchat has created a new instant chat mode, one of the core concepts of the mobile app is that any picture, video, or message (also called snap) one sends by default is made available to the receiver for only a short time before it becomes inaccessible. This brand-new form seems to put user privacy first, and its unique user experience is very novel, and thus has gained a large number of loyal users. But its disadvantages are also obvious. One can't communicate with other users on Snapchat about some content that needs to be recorded (because the records will be destroyed at any time).

Snapchat seems intent on providing a new alternative to social media, yet it is noteworthy that little research has looked at the uses of this emerging mode of communication.

When researching these issues, the goal is to understand the original intention and actual experience of users under Snapchat, the expected function of the application and whether there is a bias in the actual usage of users, and to explore a new form of balance between social network applications and user experience in the future development. Though finding out whether after a brand-new application or function is developed and promoted, whether its users' real thoughts on this function match the developer's original intention. This also helps practitioners like them better understand the needs of users and design better products for them.

2. The Design of Snapchat

Since its launch, Snapchat has only been available as an app for mobile; there is no desktop or web version. Its core functions are mainly composed of five parts, namely map, chat, camera, story, and spotlight. Each part of the function exists independently and is related. For example, users can find real-time online friends and chat from the map function [1]; users can use the camera to take pictures and use the filters and stickers provided by Snapchat to beautify and in the chat, function Send the generated photos to friends or groups.
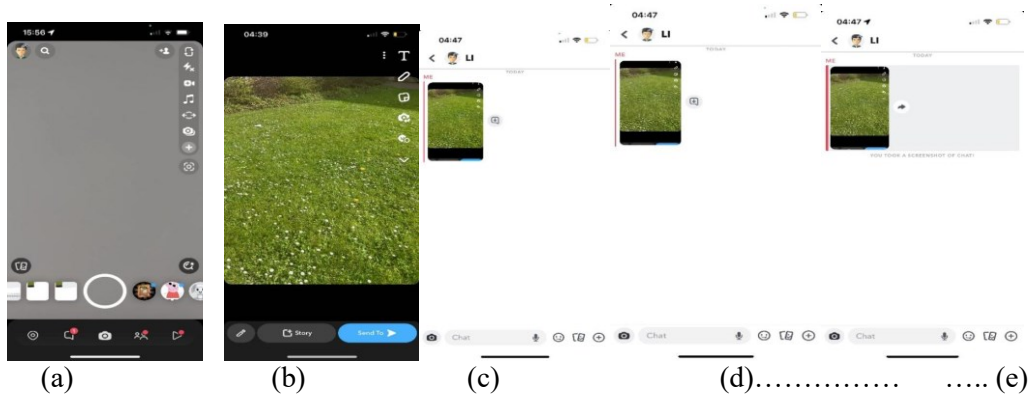

| (a) | (b) | (c) | (d)……………   ….. (e) |

Figure 1. Snapchat main interface elements. (a) Main fuction interface. (b) Users can use the camera function to add content and send it to friends. (c) Users send "snaps" to other users. (d) After the recipient clicks save, the content will be saved and can be forwarded.

2.1. Sending Snaps and Stories

Basically, when a user opens Snapchat and uses it, the newly opened interface becomes the main interface, and five buttons from left to right are displayed at the bottom, which are map, chat, camera, friend list, story and spotlight (Figure 1a); these five buttons exist independently and undertake some functions and can complete certain interactions with each other. For example, users can add Snapchat filters and stickers to the photos taken in the camera and send them to friends in the friend list or directly in the "stories" (Figure 1b).

It's worth noting that Snapchat's camera feature is somewhat unique. There are few instant chat software like Snapchat, because the core function of Snapchat is to take pictures and its derivative filters and stickers. All chats and content sharing (stories) are based on cameras.

2.2. Receivers and burning after reading

When recipients receive text or image messages from users, they will be notified. To view the snap, the user must long press the content of the message and open it, and this opening will be one-time, if the recipient does not click the arrow button next to the received content to save, all the content will disappear after the recipient views it and cannot be undone (Figure 1c). This is actually a bit like the idea of burn your memory [2]. The recipient can click the arrow on the right side of the content to save the content, once the content is saved, it can be saved locally for viewing and forwarded to any user in the friend list or shared in their own "stories" (Figure 1d). However, it is worth noting that, the valid time limit for sending to new users or sharing to "stories" is also by default, which means that if new users who receive your reposted content do not save it, the received content will also be burned after reading.

It is worth noting that the ephemerality of viewing content and the function of burning after reading are not absolute. Of course, users can use their mobile phones to take screenshots, but Snapchat will detect all screenshots of users and notify the sender (Figure 1e). This is completely different and innovative from the current mainstream instant messaging applications. Applications such as WhatsApp and iMessage do not emphasize this ephemerality. On the contrary, other mainstream applications provide more persistence of messages. sex. In fact, Snapchat has attracted a large number of users because of its disappearing function, and in the official introduction of Snapchat, privacy is an important position in the application design, so the goal is to understand whether the disappearing function is really important for privacy Protection has an important contribution, and it does no harm to the user, or it is a useless function that is superfluous and affects the user experience.

3. Method

Snapchat's disappearance and timeliness after reading make it very difficult to monitor and analyze the content of messages sent by users in real time, and all the content cannot be collected; in addition, analyzing the content sent by users can only understand the user's motives and subjective experience cannot truly reflect the actual views and opinions of a specific function in real use. The author decided to conduct a series of semi-structured interviews about users' motivations for using Snapchat and their thoughts on the disappearing feature.

Semi-structured interviews can flow more like conversations than other interview techniques like question-and-answer sessions Compared with other interview techniques such as question-and-answer sessions, semi-structured interviews are more like dialogues, which allow participants to participate in the whole process more relaxedly, and are more conducive to participants to put forward independent personal opinions. However, the disadvantages of semi-structured interviews are also obvious. Its fine to diverge the thinking appropriately but generally can't deviate from this topic.

3.1. Participants

It's fun fix a premise for survey objects or experimental participants. All participants must be actual users of Snapchat and have a certain number of years of use (at least one year or more). The age range of the respondents is fixed at 18-24 years old, which is also in line with Snapchat's official statement that 80%-85% of users are under the age of 30, which will make the survey a certain degree of representativeness.

Due to the limitation of the research time of this survey, my sample comes from three students who are studying in a certain university in the UK. Because they are the most frequent users of Snapchat. As I said, the participants were all between the ages of 18-24 and had to be on Snapchat for at least a year to be eligible, the average age of the participants was 23 (range: 18-24), and two of them were male a woman. I have summarized the participants' information in Table 1, and made appropriate privacy protection according to the participants' requirements.

Table 1. Participants' information

Participant	Age	Gender	Duration of use
P1	24	Male	2
P2	22	Female	5
P3	23	Male	4

3.2. Data Analysis

With the participants' consent, the interviewer employed the computer recording function on Zoom to capture the interviews. The subsequent step involved utilizing the online transcription service (Otter.ai) to transcribe the audio content. Each participant was assigned an identification code (P1, P2, P3) for reference, and their basic information was introduced.

To ensure efficiency in terms of time and question design, the interviewer set a time limit of approximately 15-20 minutes for each participant. The questions posed were of a general nature, encompassing their usage patterns on Snapchat, their underlying motivations for its use, as well as a comparative analysis of Snapchat in relation to other instant messaging applications. Additionally, participants were prompted to share their perspectives on Snapchat's distinctive feature, namely, the content disappearing after being read.

The resulting data from these interviews will be centered around the alignment between actual user responses and the anticipated responses envisioned by the software's developers. This analysis will be further informed by established theoretical frameworks, aiding in the organization and elucidation of the gathered insights. Ultimately, a comprehensive summary of the participants' viewpoints will be provided to elucidate the overarching theme and consolidate the findings.

3.3. The "different" privacy protection in Snapchat

In the sample of interviews collected, three main themes emerged, both related to privacy protection and repeatedly mentioned in the interviews: the original intention of use above entertainment; relatively monotonous usage scenarios; and privacy protection, which is easily overlooked and misinterpreted. I will discuss each in turn.

3.3.1. Entertaining and open minded

Perhaps because there are a large number of extremely interesting and creative photo filters or dynamic stickers on Snapchat, the original intention of users seems to be very playful [3]:" *I often use the camera function on Snapchat. It is not limited to taking pictures. I can use it to take selfies, long press the camera button to generate videos and even make vlogs. The selection of filters on it is so diverse that sometimes I don't even send the content generated by the camera to other users, but save it on the phone (p2)."* This kind of playfulness is also reflected in checking other users' stories:" *I use Snapchat habitually, even when no one sends me a message, I still open it from time to time to see if there are any stories shared by friends or family members, they sometimes share funny selfies or their pets, most of the time very funny (p1)."* Users don't seem to care much about sending their ugly photos or more private content to their friends on Snapchat, because anyway, all private content will disappear after the recipient views it [4]:

Yes, sometimes you will meet some new friends on Snapchat, maybe you sent some content that you shouldn't send because of a momentary thought, but don't worry and regret it, because all the content you sent will disappear. (p3)

Snapchat seems to know the needs of young users aged 18-24. Almost all of its functions are entertaining. For example, when users turn on the map function, each user will have his own cartoon character (Snapchat officially called Bitmoji):" *Bitmoji is fun, I can change the character's appearance, clothing and even expressions according to my mood every day, and these changes will be reflected on the "map", which means that all your friends can see any changes in your clothing, which is cool (p2)"* [5] Supporting this fact, past research has revealed that Snapchat users are pleased

to express their actual feelings and experiences by sharing photos with a funny face and actual emotional expressions, as well as reveal places they were presently located[6].

Overall, the purpose of using Snapchat seems to be very clear to the participants. All three interviewees mentioned the entertainment of Snapchat without exception; Any instant messaging app is different, such as WhatsApp, iMessage.

3.3.2. Relatively monotonous usage scenarios

Compared with other mainstream instant messaging applications on the market, participants believe that Snapchat is very useful in daily conversations. Everyday conversation is usually informal and can be understood as "an ordinary, day-to-day interaction between two partners." This kind of conversation is generally in many forms, but it can be basically divided into superficial conversation, informal conversation, task conversation and deep conversation. The distinction between these types of talk is mainly related to the content of the talk. For example, superficial conversations are generally for the purpose of passing time, and the discussion content is mostly depth-first discourse, which may be related topics such as weather and current events [7]:

"As I said, I always open Snapchat to see the stories other users send, sometimes I like or send a comment or two, but most of the time I just look, it's all to pass the time (p1)."

Informal conversations mostly refer to conversation topics among friends, and the topics are usually daily activities or greetings among friends, rather than formal content: *"I don't talk about work or study on Snapchat, I know my There are some colleagues or classmates in my friend list, I would rather send text messages than chat with them on Snapchat.(p3)"* Participants deliberately avoided using Snapchat for formal meetings or talking about some formal content, which is related to the special functions of Snapchat: *"You definitely don't want some content that you talk about that needs to be saved automatically to be automatically cleaned up after 24 hours, that's ridiculous.(p2)"*

Participants emphasized the difficulty of conducting task conversations and in-depth conversations on Snapchat, because the nature of Snapchat itself, which is destroyed after reading, means that the preservation of messages becomes a problem, and it seems difficult to carry out task conversations to make a certain planning decision [8]. The essence of in-depth conversation is to share issues and make resolutions on important issues, which is even more difficult: *"Snapchat saves me a lot of memory space, and I don't need to worry about taking up memory for some irrelevant chat records. All records will be automatically deleted by the platform regardless of whether the content is important or not (p1)."* Snapchat has solved the user's memory management problem to a certain extent, and clearing chat records and local storage content on a regular basis will undoubtedly free up a lot of space. In order to avoid deleting the user's important records by mistake, the user can only find a solution from himself [9].

Naturally, as mentioned earlier, users possess the capability to capture screenshots and record significant chat content via mobile phone functions. This approach, however, carries numerous drawbacks. The default configuration of Snapchat triggers a notification whenever a user takes a screenshot, thereby imprinting a trace on the captured image. This feature may prove quite irksome for certain users seeking a "clean" image. Moreover, an excessive number of screenshot operations stands in opposition to Snapchat's original intent of conserving mobile phone memory space. Instead of preserving additional memory, an excess of screenshots actually leads to heightened memory consumption.

3.3.3. Totally different kind of privacy protection

Privacy protection and social media abuse of users' personal information seem to have become important topics that people care about now: *"I feel that sometimes social media is stealing my privacy, sometimes I receive a lot of harassing messages from unfamiliar apps in my mailbox for no reason, sometimes Make me download them, sometimes malicious ads (p1)."* In contrast, the respondents seem to have some confidence in Snapchat's privacy protection, and of course this is what Snapchat

officially declared: *"Of course, that's why I choose Snapchat to chat with my friends, when I choose a chat app, the most important thing is privacy (p2)."*

Although Snapchat has always claimed that the platform will not save the user's chat history from the background, and Snapchat may not immediately delete the user's chat history from the server for some commercial or legal reasons, but the storage time will not exceed 30 days. But it seems that this is not 100% credible. Past research and related investigations have shown that the server side of Snapchat will not delete the user's record after the user's record is deleted, which means that the user may still be kept in the dark.

Users sometimes show quite contradictory psychological states: *"Privacy? Come on, seriously. People don't even read the user agreement after downloading the software, who cares about disappearing after reading protect the privacy or not(p3)."* Moreover, Snapchat is not meaningful for ordinary users, and it does not make any sense to simply talk about privacy regardless of the user's actual experience. For ordinary users, the user's feeling during use is the fundamental reason for users to choose or discard products.

Snapchat uses the function of burning after reading for privacy protection, which is not understood by ordinary users to a certain extent: "Maybe the disappearance after reading is to protect the privacy of users? I'm not sure, but if it can really protect the privacy of users, then I think it's a good function." Ordinary users don't know how to delete and where the deleted records go, but one thing is for sure, as long as these operations are mentioned to protect user privacy, users are willing to accept [10].

Moreover, it does not make any sense to simply talk about privacy regardless of the user's actual experience. For ordinary users, the user's feeling during use is the fundamental reason for users to choose or discard products

"You know what? I have at least three dates partner now and I can't let them see that I have any conversations with anyone but her(p2)."

People's feelings about product usability and functionality are often subjective, but it is undeniable that no user will reject an app that is quite useful to use

"I'm not sure whether the disappearance after reading is really protecting my privacy. I just think that after the message I send is accepted and read by the other party, I can't check it again and again. This is actually unacceptable in my opinion, because I sometimes the habit of checking the chat records, sometimes I suddenly remember something to tell someone, I will go back and check the chat records of the day to make sure (p1)."

3.3.4. Summary and Limitations

The findings from the conversations with the three interviewees, along with their perspectives on the unique feature of disappearing after reading, are summarized. The system's default deletion exerts a certain influence on the user's motivation, presenting a notably distinctive aspect. All respondents unanimously highlighted Snapchat's role and impact in the realm of entertainment, thereby establishing a fundamental differentiation from highly formal communication platforms like Zoom or iMessage, among others. The distinctive attributes of Snapchat render task-oriented and formal conversations relatively challenging to carry out. As a result, interviewees appear to display individual preferences for content and topics, leaning away from engaging in formal discussions. Instead, they utilize Snapchat for sharing everyday moments, employing mundane conversations as a means to sustain their relationships.

4. Conclusion

The disappearing function on Snapchat has various influences on users and even impacts their choice of the platform to a certain extent. It appears that entertainment has evolved into a characteristic highly valued by Snapchat's users. The automatic deletion of content facilitates the exchange of comments and casual conversations that serve to maintain friendships, even if they are often not deemed worthy of preservation. When considering the demographic distribution of Snapchat's user base, this

perspective finds support. The younger cohort of users can comfortably let down their guard and share imaginative, engaging, and occasionally self-deprecating content with their peers on Snapchat.

Regarding Snapchat's official stance, it asserts strong protection of user privacy, a factor that aids users in their product selection. Nevertheless, this safeguard is not absolute. Ultimately, the individual user's original intent and primary agency in choosing the product have always been paramount. The true appeal of the product to the user is the foremost consideration in the decision-making process.

The present research is founded on the phenomenon of disappearing content and its impact on user experience. This will serve as a resource for professionals in the application industry, enriching their design concepts and fostering deeper contemplation among designers. This approach aligns the original intent of supporting product development more closely with the actual experiences of users, elucidating the rationale behind the user's ultimate choice of the product.

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