"You Don't Have To Know My Past": How WeChat Moments Users Manage Their Evolving Self-Presentation

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ABSTRACT

Most social media platforms record, display, and archive users' personal histories. This persistence of posts over time can be problematic, as users' self-presentation goals and network composition change, but old content remains. In this paper, we explore an alternative feature that provides control over content persistence. We present findings from interviews with 16 users of the popular Chinese social media platform WeChat Moments. We focused on Moments' Time Limit setting, which makes social media data ephemeral to audiences, but persistent to posters. Interviewees described changes in their self-presentation goals and social network composition over time and reported the Time Limit feature helped them effortlessly manage their desired self-presentation as they matured. Drawing on these findings, we discuss design implications for social media to facilitate greater control over content visibility and persistence, which may have significant benefits for social media users with large and diverse networks.

Author Keywords

Self-Presentation; Ephemerality; Persistence; WeChat Moments.

CCS Concepts

•**Human-centered computing** → **Collaborative and social computing;** *Empirical studies in collaborative and social computing;*

INTRODUCTION

In most online systems, the digital traces users leave behind are saved by default, whether it is a message sent through Facebook's Messenger or every edit made on a Google Doc. On most social media platforms, persistence and visibility of content are also the norm [38] – content about and by users is easy to find, and this visibility lingers over time because of archival features. These affordances aid users in self-presentation through social media: visibility allows users to highlight the parts of their identity they want their audience to see, while persistence lets them manage that self-presentation

over time [48]. However, these affordances – and persistence in particular – also create challenges for self-presentation when long-forgotten posts that conflict with or deviate from users' current self-presentation are resurfaced unexpectedly [14, 31].

Some social media platforms afford ephemerality instead of persistence. For example, on Snapchat, a "Snap" is deleted automatically shortly after it is viewed (e.g., 10 seconds). This ephemerality of content may mitigate users' concerns about the long-term exhibition of their self-presentation [5, 45]. However, these reduced concerns come at a price, including the loss of media (e.g., photographs), meaning (e.g., sentimental posts), and context (e.g., details that give meaning to long-standing interactions) when using ephemeral communication tools [7]. Ephemeral social media has also been associated with less social support [5] and may force users to exhaustively attend to the content before it disappears [5, 30].

Researchers have suggested that neither absolute ephemerality nor absolute persistence is desired on social media platforms [7, 45]. Absolute ephemerality is not ideal because there is always some fleeting content users try to save. Users may violate platform norms and take screenshots to prevent content from fading away [5, 7, 45]. Absolute persistence is undesirable because as social media data ages, users' sharing preferences for that data evolve [1, 2, 4]. However, persistent social media platforms rarely enable easy changes in sharing configurations of past content. If social media platforms can support both ephemerality and persistence at the same time, users might have better experiences sharing personal content because of fewer long-term exhibition concerns.

WeChat Moments, a popular social media platform in China, supports both ephemerality and persistence at the same time. This is facilitated through the platform's Time Limit setting, which gives users more control over when content will disappear from audiences' view while still being accessible to posters themselves. This feature is very popular among Moments users – it is the most frequently used feature among all the features of the platform, with more than 100 million users as of January 2019 [37]. The popularity of this setting suggests that users find value in the coexistence of ephemerality and persistence.

In this study, we explore the tensions between ephemerality and persistence by evaluating how Moments users' self-presentation goals and strategies evolve over time. We present findings from interviews with 16 WeChat Moments users who

are international students at a U.S. university to answer the following research questions:

- RQ1: How do WeChat Moments users' self-presentation evolve over time?

- RQ2: How does the Time Limit setting support Moments users' evolving self-presentation?

Our findings suggest that as WeChat Moments users mature and their social networks expand, they develop an increasing awareness of how their posts shape their online identity to other users. Consequently, their self-presentation shifts and their posting habits change. They use the Time Limit setting to manage inconsistencies between their old and current self-presentation, and they exert significant effort to control and curate their online identity through various Moments features. The Time Limit setting helps them display their desired version of self while removing older content from public view and keeping a record for themselves.

The inconsistency between older and current self-presentation leads us to consider its context. In the discussion, we highlight the characteristics of social media platforms where this inconsistency is especially problematic. Inspired by how the Time Limit setting helps Moments users manage their evolving self-presentation, we provide design implications for social media platforms so they can implement similar or more advanced features to support their users. Additionally, with a focus on self-presentation, we discuss the value of the coexistence of ephemerality and persistence on social media platforms and the boundary between public regions and personal regions in one's social media data.

WECHAT MOMENTS & THE TIME LIMIT SETTING

WeChat is one of the most popular mobile apps in China, with more than one billion monthly active users in September 2018 [36]. WeChat supports multiple functions, including instant messaging and mobile payment. "Moments" is the social media function on WeChat. Like many other popular social media platforms, Moments allows users to post, read other users' posts, like and comment on posts, and maintain a profile page. Moments is a semi-closed social media platform where most of interactions happen between connected contacts.[1] Importantly, Moments provides users with fine-grained control over the audience for their posts [21], with options to control at the contact level, the post level, and the temporal level. These are discussed below.

The feature *Hide My Posts* supports contact-level control. When a user adds contacts to his *Hide My Posts* list, those contacts will not have access to any of the user's posts. When these contacts go to the user's profile page, they will see a line and an empty post list.

The features *Share to/Don't Share* support post-level control, allowing users to manage the audience for each post. If users post without specifying audience of the post, then all contacts except those on the *Hide My Posts* list can view the post.

[1]Moments includes an option that allows users to make up to 10 of their most recent posts visible to strangers who are not on their contact lists.

Specifically, for each post, users can grant selected contacts access to it with *Share to* or exclude contacts from accessing it with *Don't Share*. Users can manage access to a post for individual contacts, or create labels for groups and manage access through the labels. If users have not labeled contacts they select or exclude for a post, they will be prompted to create a label for these contacts to simplify future audience management. Users can add, edit, or delete labels any time they want, but access to published posts will not change when related labels are changed. For example, if a post is published with *Share to* contacts with the label "Friend", a contact added to the "Friend" label after the publication of the post will not be able to access this post. Likewise, for posts published with the option *Don't Share* with contacts labeled as "Family", a contact added to the "Family" label after the post is published will still be able to view this post.

Another post-level control is that users can change the visibility of published posts. Users can set published posts to "Private," so the original audience of the post cannot see it anymore and only posters can see it. Users can only set posts with pictures to "Private," they cannot set text-only posts or posts forwarding links to "Private".

The feature *Viewable by Friends* (referred to as *Time Limit* in the rest of the paper) supports temporal-level control. With this feature, users can select an expiry time limit for their posts. Posts older than the selected time limit are hidden from all audiences. Currently, users can choose between three time limit options (last three days, last month, and last six months) and the default setting (all posts viewable). If a user chooses a time limit option, contacts who visit their profile page will see the notice "Only [Time Limit] of Moments are viewable" under the viewable posts. Time Limit is a novel feature compared to those on many other social media platforms because it allows social media content to be ephemeral to audiences but persistent to posters at the same time.

RELATED WORK

Below, we describe ephemerality and persistence on social media in general, then focus on how users' self-presentation interplays with the temporality of social media platforms.

Ephemerality and Persistence on Social Media

Many social media platforms afford persistence, which Treem and Leonardi define as content that "remains accessible in the same form as the original display after the actor has finished his or her presentation" (p. 18) [38]. Users find the durability of digital content highly valuable. For example, they use social media to reminisce [4, 27] and reflect [32], and they find archival value in their social media histories [22, 42, 47].

However, the persistence of social media content is not always seen as beneficial. For example, users often regret what they have posted, yet this content remains visible on platforms and reaches a broad audience [34]. In addition, persistence leads social media users to be reminded of and remember events that they may want to forget [1, 24]. Painful memories people try to forget (e.g., breakups, death of a loved one can be resurfaced by features like Facebook's "On This Day" [29, 44]).

Researchers have also argued for the value of ephemerality [3, 24], where social media content is erased after a short period of time. Researchers have suggested various design ideas to implement ephemerality, including assigning information an expiration date, after which the information is deleted [24], and a matchstick-like video recording and storage device that burns itself after being used [8]. In recent years, some social media platforms have embraced these design ideas. One of the most popular platforms, Snapchat, affords ephemerality by deleting content automatically within a short time of being viewed by the recipient. Researchers have found that Snapchat users perceive interactions on Snapchat as more enjoyable than on other social media platforms [5, 28]; the reason for this might be that Snapchat users have smaller social networks consisting of closer ties [5, 28, 45].

However, ephemerality creates new problems for users. Importantly, content that lacks persistence may cause of loss of meaning and context, making it more difficult for users to establish common ground or keep up with conversations over time [7, 30]. In addition, users may not want their content to go away completely because of the various values (e.g., archival value) in posts [4, 22, 27, 32, 47, 48]. One workaround to this loss of content is that users purposely take screenshots of content on ephemeral platforms to keep a persistent copy of the content [5, 7, 45]; however, such practices violate platform norms and might anger users who share content with the expectation of it being deleted.

Self-Presentation on Social Media
Goffman's theory of self-presentation is widely used to explain how people present their idealized images in front of other people [13]. Goffman's dramaturgical approach, developed in the 1960s, focuses on synchronous self-presentation, where the performer and his audience interact in person and in real time. Hogan [16] argues that in the context of social media, asynchronous self-presentation is the norm as audiences consume posts after they are published. An exhibition of user self-presentation across time is thus created. Following Goffman's dramaturgical approach and Hogan's exhibitional approach, Zhao and colleagues [48] found that Facebook users experience both a performance region where they create content for their current self-presentation needs, and an exhibition region where they manage content for long-term self-presentation needs. Social media content moves from the performance region to the exhibition region as it "expires" from people's attention [48].

Most social media platforms focus on the present. For example, Facebook pushes the latest content to users' newsfeeds, and Twitter prompts users to share "what's happening" in their lives. Users also tend to focus on their current self-presentation needs and put less effort into managing their self-presentation across time [15]. One of the biggest challenges social media users face is context collapse, in which multiple audiences are grouped together in their social network [23] and by default content is broadcast to this broad audience despite the fact that individuals may want to present different selves to different audiences [13]. Users develop strategies at different levels to manage context collapse [41]. At the network level, users

create different accounts across various social media platforms for different audiences and regulate the boundary between social networks [10, 19, 41, 43]. At the audience level, users apply fine-grained privacy configurations to control different audiences' access to different content [18, 19, 21, 41]. At the post level, users self-censor what they post [19, 33], such as applying the lowest common denominator approach, only posting content they think is appropriate for the broadest audience [16, 41, 43].

Online self-presentation over time: temporal context collapse.
Persistent social media platforms record users' evolving self-presentation as users mature [31], take on different roles in their life [11, 17], and experience changes like gender transitions [14]. At the same time, users' social networks also evolve. Users experience context collapse both at the moment and across time. We refer to the context collapse across time as *temporal context collapse*, where multiple audiences across time are grouped together and have access to someone's social media data throughout time [6, 31, 48].

On persistent social media platforms, social media data is labeled with timestamps, which makes it clear to one's audience what content is recent – and thus reflective of one's current self – and what content is old, reflecting one's past self [48]. However, users may still experience unwanted presentation when their contacts view old and embarrassing content and when features like "On This Day" resurface the content to their current social network, which is usually a larger and more diverse network than when the content was first posted [14, 31].

While one early Facebook study found that users were less willing to act on possible temporal boundary intrusions [39], more recent research has found that users develop many strategies to reconcile temporal tensions. Schoenebeck and colleagues [31] found that young adults engage in retrospective impression management practices like curating past content; at the same time, they usually do not delete content in order to maintain historical integrity of their online self-presentation. Haimson and colleagues [14] found that after gender transitions, transgender people often edit their past self-presentation – including their photos, names, and gender markers – and curate their social networks so they can disclose or not disclose their gender transitions appropriately to the right audiences. LGBTQ+ people may shift their self-presentation strategies repeatedly as their identity-related concerns change over time [10].

Social media platforms affording ephemerality may relieve users' self-presentation concerns. For example, Snapchat users do not need to worry about the long-term exhibition of their self-presentation because their posts are short-lasting [5, 45]. They report having smaller and more homogeneous social networks with close ties on the platform [5, 28, 45], which could also explain their reduced self-presentation concerns and their more enjoyable interactions compared with other communication channels [5]. Xu and colleagues [45] note that temporality should be viewed as a matter of degree instead of a binary, with ephemerality at one end and persistence at the other. Researchers have found evidence suggesting that

the degree of ephemerality matters when looking at Snapchat Stories (where content lasts for 24 hours) and Snapchat Chat (where content lasts for at most 10 seconds). Users report they share mundane and daily experiences and ugly faces when using Snapchat Chat [5, 28, 45], while on Snapchat Stories, they post noteworthy content and avoid selfies [26].

With this prior research in mind, in this study we set out to understand how WeChat Moments users' self-presentation evolves over time and how they apply the Time Limit setting to support their evolving self-presentation.

METHOD

We conducted interviews to explore the varied reasons why WeChat users use (or don't use) the platform's temporality features. Following approval from the university's Institutional Review Board, the first author conducted two rounds of interviews with current WeChat users. For context, the Time Limit setting was initially launched in January 2017 with the six-month option and the default option to display all posts; the three-day option was added in March 2017. During the first round of interviews (late October 2018 to early November 2018), the first author recruited 10 participants (P1-P10). In May 2019, WeChat Moments added a new Time Limit option of one month, which fell between the existing options. In order to determine if this new option changed how users applied and felt about the feature, the first author conducted an additional six interviews (P11-P16) during August 2019.

We recruited participants from a large, public university in the eastern United States via on-campus posters[2] and WeChat group chat. We targeted university students because they are more likely to be active social media users. Participants were required to be current WeChat Moments users who had been using Moments for more than a year and knew about the Time Limit setting. The first author (whose native language is Chinese) conducted all semi-structured interviews in Mandarin Chinese. She used the same interview protocol for both rounds of data collection. Questions included participants' general use of Moments, their posting behaviors across time, their perceptions of this setting, and their reasons for using or not using this setting. The first author (who is a Moments user) utilized her familiarity with the platform to ask follow-up questions (e.g., when participants' responses were ambiguous). In the second round of interviews, she also asked participants about their opinions of the new Time Limit option.

Interviews lasted between 21-47 minutes (M=35). We gave each participant a US$15 Amazon Gift Card to compensate them for their time. In total, there were ten female and six male participants, ranging in age from 18-31. Full demographic information for the participants and their use of Moments and the Time Limit setting is presented in Table 1.

All interviews were audio-recorded and transcribed verbatim in Chinese. The first author read through the transcripts multiple times to become familiar with the data, then imported the data in NVivo to do qualitative coding. She performed open coding iteratively through multiple rounds to identify

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[2]Chinese students comprise the largest subset of international students among undergraduates and graduate students at this university.

Table 1. Participants' demographic information and their use of Moments and its Time Limit (TL) setting.

ID	Sex	Age	Years on Moments	Contacts	Posting Freq.	TL Option
P1	F	22	4	1081	daily	6m
P2	F	23	5	447	weekly	all
P3	F	22	7	287	monthly	6m
P4	F	27	5	543	monthly	6m
P5	F	22	5	462	weekly	6m
P6	M	24	5	391	monthly	6m
P7	M	22	5	944	monthly	all
P8	F	18	6	191	weekly	3d
P9	F	31	7	345	weekly	all
P10	M	24	4	212	monthly	3d
P11	M	24	5	386	weekly	6m
P12	M	26	7	1204	monthly	1m
P13	F	26	6	708	weekly	1m
P14	F	22	5	953	weekly	6m
P15	F	23	7	763	monthly	3d
P16	M	21	3	573	weekly	3d

emergent themes [35]. Following this round of coding, she met with the second author to further discuss the codes and excerpts. After open coding, she completed axial coding to examine the relationship between themes and refined the codes [35]. She was aware of the potential bias from her role as a Moments user. She translated and included many quotes in the final paper so participants could speak for themselves. For readability, we also include summarizations and interpretations, which were double-checked by the second author and the third author, who were not Moments users and have expertise in studying online communities, social media affordances, and self-presentation.

RESULTS

Participants generally started using WeChat Moments in adolescence or early adulthood. Thus, they had been using Moments for a long time (range: 3-7 years). Their Moments posts captured their growth as individuals and their changing and expanding social networks as they grew older. Many participants reported large networks on Moments (range: 191-1204 contacts).

Below, we first describe participants' changing self-presentation on the platform over time, which was closely tied to their own maturation and their changing audience. Then we describe participants' rationales for using or not using the Time Limit setting and how this decision was associated with their self-presentation goals on the platform.

RQ1: PARTICIPANTS' EVOLVING SELF-PRESENTATION OVER TIME

Like many other social media platforms, Moments prioritizes users' latest content. Users can retrieve their contacts' latest posts at the top of their newsfeeds. Their own posts are also listed in a reverse chronological order on their profile pages. Not surprisingly, our participants posted with a focus on their current self-presentation goals. They were also cognizant that their self-presentation evolved over time, and they engaged

in retrospective impression management on their old posts to reconcile inconsistencies in their self-presentation.

Evolution of Posting Behaviors

Participants described changes in how they used Moments. Participants said they were more cautious about what to post, how to post, and with whom to share posts.

From posting everything to focusing on positive posts

Many participants reported that when they first used Moments, they posted everything happening in their life, but now that they were older they consciously self-censored what to post. This change was related in part to participants' maturity. As they matured, they were more aware of people around them and less self-centered, which led them to consider the impact of their posts on others and how other would view them based on their posts. This change was also related to participants' expanding social networks. When participants first used Moments, their social networks were small and consisted of strong ties. As they expanded and diversified their social networks, they faced the challenge of context collapse [23, 40]. The increasing difficulty in managing their self-presentation across various contexts led them to self-censor what to post and restrict what they did share.

Participants described their prior oversharing habits as "immature," "silly," or "childish." Instead of posting everything, including mundane life details like they did before, our participants described that they now focused on the positive parts of their life and avoided emotional, negative, or potentially controversial content. Other studies have also found that social media users' avoid this type of content (e.g., Facebook users view posting negative content as a norm violation [25]). Our results extend these other studies by highlighting the fact that the habit of avoiding this content is not the default, but is acquired as social media users mature and gain experience on the platform.

Participants posted personal achievements (e.g., exams passed, graduation) consistently across time. But *how* they wrote about these events changed. They described toning down these posts because they did not want other people to think that they were showing off. This is consistent with prior research about Facebook users' disclosure concerns that were related to interpersonal risks [42]. For example, P16 said, *"Previously when I visited a university to work on research projects, I posted explicitly that 'I did research at [university]. CS here is good.' But now I won't do that. I will post more implicitly, like 'summer in [city where a university is located]'... I was bragging before. Now I want to be low-key."*

Avoidance of overly emotional, negative, or controversial content became a normalized practice for our participants because of their increasing awareness of how they could be negatively viewed from these posts. For example, emotional posts might conflict with their desired self-presentation. P3 reported that, *"I posted posts with too many overjoyed 'hahaha' and posts about me dissing something. I don't post them anymore... They might have some [negative] influence because I have my colleagues and future colleagues as my contacts. I should look more professional."* Participants also thought negative posts

might spread negativity to other people, which was perceived as unwelcome in social scenarios. P4 said, *"I don't like contacting with whiners or pessimists because I don't want to be more negative. One should not impose on others what he himself does not desire."* Potentially controversial posts were also avoided because of the potential negative influence on interpersonal relationships. For example, P10 avoided posting statements that defended a controversial public figure because of the possibility of irritating others who hated the person.

From long-winded to polished and concise

Another change in self-presentation over time can be found in *how* participants crafted their posts. They tried to deliver edited and concise information instead of stream-of-consciousness posts.

Many participants said they did not want to *"talk too much"* when they posted now, while in their old posts they used more words and/or more pictures to describe their experiences and feelings in detail. Participants felt that too much information was not appreciated in social scenarios, perhaps bothering their audiences in the era of information overload. It could also be perceived as *"showing off"*, considering the posts were likely to be positive life snippets. For example, P2 posted more words and more pictures in her old posts but now she said, *"I like to post 3 or 4 pictures per post. I think 9 pictures [the maximum of pictures a post can include] are too many. It's like I am showing off or something. I don't like that."*

Participants describing putting more efforts into carefully curating content to deliver an aesthetic sense to audiences. P5 said, *"I didn't know Photoshop then... I'll add filters to the pictures. I'll also design the layout of pictures, which to put in the first line, in the center... I think pictures I post should be well-designed and beautiful – people like to read posts like this."* This increased attention to detail suggests that participants were highly concerned about how other users consumed and reacted to their posts.

From posting publicly to selective posting

When participants first used Moments, their social networks were largely homogeneous, consisting of their peers and classmates. They did not yet feel the tension of context collapse, so they usually posted to all their contacts. As their social networks diversified, they became more cautious about audience management.

Participants wanted to avoid posts that might be viewed as inappropriate, so they restricted who could see content. For example, P3, a video game live streamer, excluded her "family and the elder" label from posts about live streaming her games. She said, *"My comfort zone is where they [family members and the elder] do not know about me being a video game live streamer. They will think that I am wasting my time [if they know]."* Likewise, participants wanted to purposefully deliver certain information about themselves to certain audiences. For example, they might stress educational or professional experiences to current or future employers. P5 said, *"I have many contacts who I met at work. I will post something like 'I have been learning business analytics recently' every now and then. They have to know that I am learning this."*

Retrospective Impression Management

Participants managed their impressions retrospectively because they were aware that others might form an impression of them based on all their posts and not just from the latest post pushed to newsfeed. Participants reported checking others' profile pages, especially when they first became contacts; thus participants reported inferring that other people, especially new contacts, would also check their profile pages. They thought glancing at each other's profile page was a good way to increase mutual understanding and form first impressions when first meeting people. P14 said, *"When I add new contacts, we always check each other's profile page... I think the profile page is a good channel for me to know other people, so I hope they can know me from my profile page."*

Participants managed old posts that were not consistent with their current self-presentation goals, echoing similar findings from research with Facebook users [1]. For example, many participants reported deleting or setting to private old posts they now viewed as too silly, childish, or emotional in order to build a positive self-presentation.

Participants also engaged in management of their old posts that shared too much information to avoid an overall *"too wordy,"* *"not brief,"* or *"talkative"* presentation on their profile pages, which was consistent with the posting strategy of being more concise. Many controlled the number of posts displayed to audiences. P1 said, *"I limit myself to display only one post per day on my timeline. I would compare posts posted within the same day, keep only one, and set others to private"* because *"others would feel more comfortable [viewing my profile page] if I am not verbose."* P7 assumed that other people would spend a fixed and limited amount of time viewing his profile page so he did not want to *"use up the space."* He deleted a lot of content not produced by him (e.g., shared links) so he could *"display the most about me [within limited space]."*

These impression management behaviors happened repeatedly throughout participants' time on Moments. Participants' standards for what to manage evolved to accommodate their changing self-presentation goals as mentioned above (e.g., more positive and more concise). Their standards also evolved because they wanted to make sure their displayed images were appropriate to their broadening audiences. For example, P7 mentioned that he checked his existing posts before the new student orientation, during which he expected to add many new contacts, to hide any old posts that he did not want to share with new contacts.

RQ2: HOW MOMENTS USERS APPLY THE TIME LIMIT SETTING TO SUPPORT THEIR EVOLVING SELF-PRESENTATION?

We asked participants to report which Time Limit option they used and why they selected that option. We categorized their reasons for selecting a specific time limit setting into three categories, which we describe below. We found that the main reason participants gave was because it allowed them to control their self-presentation without taking very much effort. At the end of this section we summarize these reasons and also include users' reasons for using the default Time Limit option to display all posts.

Time Limit Can Be Overly Restrictive

On users' Moments profile page, their choice in the Time Limit setting is displayed together with viewable posts within the selected time limit. Participants believed that one's choice in the Time Limit setting conveys important information about the user, just like their posts. So when our participants decided which Time Limit setting to use, they considered how their choices might be interpreted by their contacts.

Participants understood and respected other people's choices to hide posts through the Time Limit setting, but they did not like it when others hid too much content, especially using the three-day option. They expressed that they felt rejected when seeing no or few posts displayed on others' profile pages. For example, P12 said, *"When I want to know more about you, to care for you, I get nothing back. If I use the three-day option, other people will see nothing, and they will also be disappointed. They will be like, 'oh I want to care for you but you shut me out."'* P4 had similar feelings about contacts who used the three-day option and those who added her to their *Hide My Posts* lists: *"when I see a line [when no posts are viewable within the time limit a user can only see a line with the notice about the poster's Time Limit option], I feel like I am blocked [when a user is added to the poster's Hide My Posts list he will see a line with an empty post list]."* Although participants clearly knew the difference between the two setting – adding someone to *Hide My Posts* was a configuration intentionally toward this person, while applying the three-day option was a configuration toward all contacts – they had similar reactions to both experiences.

In general, our participants disliked when their contacts over-restricted access to information. They were especially harsh in judging newly added contacts they barely knew who used a restricted time limit. Participants used words like *defensive* (P3), *shy* (P3), *isolated* (P2), *not friendly* (P4), *aloof and icy* (P7), and *not willing to share* (P7, P11, P16) to describe their first impressions of a new contact when they found most or all of the new contact's content was hidden. Participants said they were less judgemental when established friends chose the three-day option because they knew these contacts not only from Moments posts, but also from direct messages and offline interactions.

Participants said they typically avoided choosing the three-day Time Limit option because they did not want to be viewed negatively, and they especially did not want to make a bad first impression on new people they would meet. They chose the three-day option if they were very conservative about sharing. For example, P1 used the three-day option for a short time period as a way of creating self-imposed isolation after a contact lied to her.

Time Limit Lets Others Know the Current Me

Participants usually assumed that glancing at newly added contacts' profile pages was normal and a good way to increase mutual understanding. However, they did not want other people to know their full history, especially things they shared

when they were younger, because they saw it as unnecessary – and potentially harmful – for relational development. Even if they did not think letting a newly added contact see their full history of posts did any harm, they were still unwilling to grant them access. They felt it was okay to let people know their current self, as reflected in their recent posts.

As participants had different definitions of what constituted "current," they chose different time limit options. Some felt life was cyclic, following certain patterns, so they preferred a time limit that matched their life cycles, e.g., a year (P1, P4) or a season (P5). Some participants thought their current status was defined by major life updates (P11, P15). For example, P15 said, *"Before I was here [the current university], I was at another university. Most of my newly met friends are from here so I don't want them to know what I did at my previous university. I don't want them to know my previous experiences."* Other participants did not have a clear definition of "current". P12 thought posts within two or three months could reflect his current status. P13 felt that posts within six months were more than her contacts needed to know, so she settled for the one-month option.

Participants preferred others to only see their current posts rather than everything they had shared on the platform because they knew that there might be inconsistencies between their "old self" and their "new self." P13 was very clear that *"old posts do not represent who I am now."* This inconsistency might be especially obvious if a person has posted a lot of content over time. For example, P10 said, *"You'll see how a person changes if he does not set Time Limit."* P3 and P11 once posted very frequently and accumulated a lot of posts. They both decided to hide posts older than six months because they did not want others to judge their younger selves and think they talked too much. Likewise, P10, P15, and P16 used the Time Limit setting to hide some "childish" or "stupid" old posts.

Participants described compromising between their desired time range for displaying posts, their recent posting frequency, and the limited options of the Time Limit setting. Participants usually excluded the three-day option when making the decision because of their posting frequency; since most were not posting daily, very little content would be displayed if they chose the three-day option. When the only options were three days or six months, participants were much more likely to choose the latter option unless they were very conservative about sharing. After the one-month option was available, P12 shifted instantly from the six-month option to it because it was closer to his desired time range (two-three months). Participants sometimes were not very sure about which option was best for them. They tried different options and then settled on a final option. This was the most frequently mentioned reason for changing the setting. For example, P14 tried the one-month option and then changed to the six-month option. Because she did not realize she did not post that frequently at that time until a friend complained about seeing nothing on her profile page.

One downside of using the Time Limit setting is that it may prevent users from displaying expired posts that are important or meaningful. For example, P1 said, *"I had a big moment last year so I hope everyone can see. But now I can only choose between 'six months' or 'all.' I have to make a compromise and I choose six months."* P4 suggested that Moments could be improved if it allowed users to select posts that could override the time limit so that these posts could always be visible regardless of the time limit. To overcome having to compromise between visibility and control, P16 made temporary changes in his time limit options. He used the three-day option for most of the time, but if he added contacts whom he especially wanted to impress he would switch to a longer time limit so that those contacts could know more about him. He said, *"I will change my option and display more if I add certain people, for example, nice looking girls or people who I collaborate with in research projects. I want to impress them. I want them to know who I am. But just for a short period of time."* He assumed that a newly added contact was very likely to check his profile page after they added each other as contacts. So he made those temporary changes, then switched back to his regular option when he estimated those contacts had finished checking his profile page.

Time Limit as a Low-Effort Impression Management Strategy

Another reason participants used the Time Limit setting was to achieve their self-presentation goals while minimizing cognitive effort. Managing each post individually and retroactively takes a lot of time and effort – especially for users who regularly shared content on the site – because they had to evaluate each post, consider its intended audiences and their current self-presentation goals, and apply that assessment to dozens, if not hundreds of posts.

Outside of the Time Limit feature, Moments does not currently allow users to manage posts as a batch (compared to a platform like Facebook, which has a "Limit Past Posts" setting). Users have to manage posts individually and each management behavior, such as setting the post to private, takes multiple clicks. P16 said, *"I am changing all the time. Sometimes I think my old posts are not mature... I also have some 'dark histories' that I do not want to keep on my profile page. So I manually set each of these posts private. It's very troublesome. You have to click the ellipsis icon at the upper right corner of the post, then click 'set to private.' If I can use one click to set a post to private, I might not want to use the three-day option."*

Another problem with retrospectively managing posts in Moments is that certain types of posts (e.g., text-only posts) cannot be set to private. Sometimes participants did not want to delete these posts because they had archival value and were meaningful. P5 said, *"I did not want to delete [those text-only posts]. After all, they are something that I have posted, something about my past opinions. They also record my life with accurate timestamps. I think they are meaningful to me. Since I didn't want to delete nor did I want others to see, I went with hiding them."* P5 and P16 used the Time Limit setting to hide old text-only posts to prevent undesired self-presentation to their contacts while retaining access for themselves.

Moments users can use labels to manage the audience of each post. For example, granting contacts labeled as "friend" the access to a post. However, Moments does not support updating access to posts when related labels change, which makes unexpected self-presentation inevitable when users keep adding new contacts. For example, P3 excluded contacts under the "family and the elder" label when posting about her live streaming game play. She connected with a friend of her mom's – and added this label to the new contact – after making posts about live streaming. Because of the design flaw, that new connection saw old posts about her live streaming that were hidden from others under this label. P3 said *"it was so embarrassing"* because she did not want anyone with the label to know about her live streaming.

Participants used the Time Limit setting to minimize potential undesired or negative self-presentation. Even if they forgot to fine tune the privacy configuration of the viewable posts, the potential for undesired self-presentation would be minimal because the viewable posts were limited. P14 said, *"When I add a new contact, I'm sure there is a high probability that within my recent posts [posts within six months] he will not see anything I do not want him to see."*

Summary of Findings
Participants used the Time Limit setting to manage their long-term exhibition of their self-presentation with low effort. Participants carefully decided the options of the Time Limit setting because their options were also a part of their self-presentation. In general, they did not want to grant contacts full access to their histories on their Moments profile because they felt it was unnecessary and undesired; nor did they prefer the overly restrictive option of three days because of the potential of being viewed negatively based on this option. They preferred to limit access to their recent posts so contacts could know their current self-presentation. They explored their own posting habits (e.g., recent posting frequency) and their definition of what time range represented their "current" self, considered how their Time Limit option would be viewed by their contacts, and finalized with one option from the limited choices. They also made temporary changes to their Time Limit option to satisfy their nuanced self-presentation goals.

Some participants chose the default Time Limit option, of keeping all posts visible. These participants also described inconsistencies in their self-presentation between older and newer posts. They chose not to hide content because they had already ensured all displayed posts were appropriate and consistent with their current self-presentation by applying strategies like self-censoring what to post and how to post (P2, P7, P9), carefully managing audience for each post (P2, P7), and deleting or setting to private older posts that did not reflect who they were now (P2, P7, P9).

DISCUSSION
Social media users expand their social networks as they move through different life stages; this creates temporal context collapse, in which multiple audiences from different time periods are grouped together in users' social networks [6, 31, 48]. We argue the Time Limit setting mitigates some of the tensions

of self-presentation caused by temporal context collapse by allowing posts to have characteristics of both ephemerality and persistence. Further, the Time Limit setting allows users to clearly define a public region of their posts (i.e., those within a specified timeframe) and a private region only visible to themselves (i.e., older posts that past the time limit).

Below, we describe the characteristics of social media platforms where temporal context collapse is especially problematic to users' self-presentation. Then we connect our work with Goffman's [13] and Hogan's [16] work on self-presentation with a focus on ephemerality vs. persistence of social media data. We also discuss design strategies for social media platforms to support ephemerality and persistence simultaneously and to clearly define the boundary between the public and the private in social media data.

Challenges of Temporal Context Collapse
Echoing previous studies [6, 10, 14, 31], we found evidence of temporal context collapse in our study. Participants reported that as they moved from one life stage to another, their audience expanded. Their self-presentation evolved along with their changing social networks and their own maturity.

Temporal context collapse is especially problematic for users' self-presentation on social media platforms like Facebook and Moments where users accumulate a lot of data across time, including their posts and social networks, *and* link their offline identities to their online identities. Other social media platforms designed to support ephemerality, such as Snapchat, prevent temporal context collapse because posts are only shared with their audiences in the moment of the post. As a result, these users do not feel pressure to resolve inconsistencies between current and old self-presentation and from misdelivering old self-presentation to current audiences.

The lack of anonymity or pseudo-anonymity (e.g., throwaway accounts) and the expectation of personal self-disclosure on some social media platforms, such as Facebook and Moments, intensifies temporal context collapse [9, 12, 20, 46]. Anonymous or pseudonymous platforms, such as Tumblr and Reddit, allow users to try on different online identities without worrying about risks to their offline identities [9, 20]. In addition, the cost of creating and switching between temporary accounts on these platforms is low. These users do not have to manage temporal context collapse because they can simply create different accounts to interact with people they meet in different life stages. On platforms such as LinkedIn, even though users typically maintain only one account tied to their offline identity, they experience less temporal context collapse because they usually only make disclosures on professional achievements and skills and are not expected to make disclosures that are very personal [9].

Ephemerality for Them, Persistence for Me
Social media platforms where temporal context collapse is especially problematic should consider designs like the Time Limit setting. The fact that content is ephemeral to audiences but persistent to posters prevents unwanted obsolete self-presentation in front of audiences while retains the value of social media data for posters.

Our work is a valuable case on social media users' self-presentation when social media data is both persistent and ephemeral. Goffman's theory of self-presentation is widely used to explain how people present their idealized images in front of other people in synchronous situations like face to face interactions [13]. Hogan [16] applies Goffman's theory to explain how social media users present themselves by creating an exhibition of artifacts (e.g., posts) afforded by the persistence of social media data. In line with Goffman's theory and Hogan's work, we showed that our participants were sensitive in how they presented themselves on Moments. We also showed that some of them applied the lowest denominator approach [16] to combat the pressure of self-presentation due to context collapse. In addition to self-presentation strategies outlined by Hogan and other researchers, we also found that our participants applied the Time Limit setting to manage their long-term exhibition of self-presentation. This exhibition, by default, is the full collection of one's social media data unless he deliberately deletes some of the data. With the Time Limit setting, Moments users set their social media data to be ephemeral to their audiences, customizing an appropriate area of exhibition of self-presentation. Interestingly, how they customize their self-presentation (i.e. their choices in how ephemeral their data should be) also becomes part of their self-presentation.

Our participants reported valuing the ability to make content ephemeral and persistent simultaneously with the Time Limit setting. This finding differs from Moments users in another study [21], where many participants expressed confusion about limiting information with the Time Limit setting and chose not to use it. In our study, only one participant (P9) expressed a similar opinion: *"You post because you want others to see. Since you want others to see it, it makes no sense if you hide."* Other participants recognized the setting and only complained if they received extremely limited information (e.g., no posts displayed). One possible explanation is that it takes some time before social media users to try out different options in a new feature, explore their own needs, understand how their social networks perceive different options, and then finalize their choices in the feature. Interviews in [21] were conducted within one year of the launch of the Time Limit setting, so their participants could have still been exploring this setting at the time of data collection.

We asked our participants whether they would like to use a fully ephemeral setting, so that content was deleted instead of hidden from their audiences after the time limit. All participants said they would not use this feature. They wanted to retain access to the old posts because of its value: participants in this study – and in others – said they sometimes go through old posts to relive memories or to indulge in nostalgia [4, 29]. The desire to keep old content among Moments users is similar to Facebook users' motivation to retain older Facebook posts as a "digital diary" [42].

The persistence of content is also important for users because users feel they "own" the data. Participants said they wanted their data to be there even if they did not go back to view it frequently. They said if anything should be deleted, users should have control over when to delete – not the platform.

The ephemerality of content to audiences relieves users' concerns for having to create a consistent long-term self-presentation. In addition, since the platform's built-in features support users in hiding their old posts, users do not have to deal with the stress of retrospective impression management [31].

Ephemerality is not binary but a matter of degree, as suggested in [45]. The degree of ephemerality influences both the poster and the audience in terms of self-presentation. Under a high degree of ephemerality (e.g., 10 seconds in Snapchat Chat), the audience usually only engages with content for a short period of time, so his memory of this content can disappear quickly, leaving minimal influence on how he views the poster. The poster experiences less pressure in posting and does not need to engage in retrospective impression management. This is consistent with prior work on how Snapchat Chat users perceive the platform as a channel for mundane and unpolished posts [45]. Under medium ephemerality (e.g., three days in Moments), the audience is likely to revisit the content during its lifespan, for example, when he scrolls down his newsfeed too much and revisits posts he has already read yesterday. So the poster is more cautious posting and presenting himself, which is consistent with our interviews with Moments users, who applied multiple self-presentation strategies when posting. Inconsistencies in one's social media self-presentation are rarely obvious within three days but may be obvious in a longer period like six months. Thus, while a poster employing medium ephemerality or low ephemerality (e.g., six months in Moments) might have similar levels of self-presentation pressure when posting, the latter may be driven to retrospectively manage their self-presentation more frequently than the former. Our participants also noted this difference when comparing the three-day option and the six-month option on Moments.

Social media platforms can implement temporal features similar to the Time Limit setting so that old content that expires from audiences' view remains accessible to posters. Then, the first question is: what is the proper expiry rate? Based on our results, Moments users dislike a high expiry rate (i.e., three days) as it conveys negative information about the user who applies this configuration; nor are they fully satisfied by a low expiry rate (i.e., six months) because of the potential of oversharing.

The second question is: How do platforms disclose or not disclose users' configurations of these temporal features to audiences? Our participants suggest that one's choice in the Time Limit setting also becomes part of his self-presentation. Future research is needed to explore user perceptions of social media data lifespan and users' interpretation of their networks' social media data lifespan across different social media platforms. We encourage social media platforms to run user studies to 1) find limited and representative temporal options for users since users can be overwhelmed facing too many options, and 2) explore the influence of the visibility of users' configurations of temporal features. A guide for using the temporal features should also be provided so users can select the best option for

them. For example, platforms can guide users through an exploration of their past posting behaviors and their preferences of time, and provide information about how their contacts select between options.

Design Recommendations for Creating Boundaries Between Public & Personal Regions

Social media platforms should provide features that enable users to create a boundary between public and personal regions, like Time Limit setting does. The Time Limit setting creates a hard boundary between a public region – recent posts within the time limit – and a personal region – older posts outside the time limit. It guarantees that only users' current self-presentation is displayed.

Researchers have argued that there is a natural temporal boundary between the public region (latest content) and the personal region (outdated content) on social media [48]. This boundary is typically soft and permeable on social media platforms and there is not a barrier between these two regions. For example, a "click to load older posts" button implicitly suggests a division between older and newer posts. However, users can ignore this division, press the button, and proceed to the older posts which typically represent a more personal region of self-presentation. Another example is Facebook's Timeline, which allows users to navigate other users' histories as far back as they want to simply by clicking on a time period and being taken to all posts from that time period. Features like this obscure the boundary between the public and the personal.

Time is only one method by which social media users may want to divide their social media data into the public and the personal. Social media platforms that implement a time limit setting may want to give more control to users than Moments allows, for example by allowing users to exempt some posts from the time limit setting. Because some posts are more valuable in representing one's self and may remain valuable over time (e.g., graduation posts). Such a feature would be similar to Twitter's "pin a tweet to top", which allows users more flexibility to customize their public regions. More research is needed to investigate if there are classes of posts that should be more public and others that should be less public. For example, platforms can automatically identify content about major life events (e.g., posts about graduations, weddings, birth of children) and prompt users to set this content more public, while making other content less public. Of course, in addition to time and importance of content, other dimensions to divide between public and personal should also be explored.

Limitations

Because this study provides a qualitative examination of social media settings, we are limited in our generalizability. The 16 Moments users do not represent the general population of WeChat Moments users, and future research could use quantitative methods to identify the extent to which our findings hold across all Moments users. In addition, our participants originally hail from China and now are international students in the US. Their experiences with Moments are likely different from those who live in China because of the differences in how their social networks change and expand. More research is needed to examine how culture plays a role in social media users' evolving self-presentation and their adoption of social media platform configurations. Our work is an interesting case on international students' social media use.

CONCLUSION

Drawing on interview data with 16 WeChat Moments users, this study explores Moments users' rationales behind the Time Limit setting with a focus of their evolving self-presentation. We find evidence of temporal context collapse as Moments users describe various changes in their posting strategies to keep up with their own maturity and their expanding social networks. To mitigate the inconsistency between their self-presentation in their old posts and their new posts, Moments users repeatedly and retrospectively curate their past content to exhibit content that aligns with their current self-presentation goals. The Time Limit setting saves them this effort by assigning posts an expiry date, after which the posts are not viewable by their contacts but still accessible to themselves. We discuss the characteristics of social media platforms where temporal context collapse is especially problematic and provide design implications for these platforms to combat the problem. More research is needed to study social media users' perception of lifespan of their data, the duality of ephemerality and persistence, and the boundary between public region and personal region in one's social media data.

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