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“I don’t want to be known for that:” The role of temporality in online self-presentation of young gay and bisexual males

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A B S T R A C T

Self-presentation, the social process by which people reveal information about themselves and perform the social roles that structure everyday interactions, has been significantly altered by today’s social technologies. Where Goffman’s influential self-presentation framework focused on in-person, real-time role performances, today’s technologies routinely involve viewing text and visual content aggregated over time and linked to an individual’s persistent online identity, the capacity for both ephemeral and more permanent content, and novel modes of audience engagement such as liking and commenting. These new socio-technical affordances not only allow for novel behaviors, but also alter the temporal dynamics of the self-presentation process in ways that are not well understood. In this paper we address this gap through an interview study of 32 young gay and bisexual male (GBM) Instagram users in the United States. Results extend our understanding of the relationship between social technology affordances and the temporal dynamics of self-presentation. We show how participants drew on Instagram’s affordances for identity persistence, content persistence and audience engagement to slow down or speed up their role performances to particular audiences, to increase the visibility of their performances without appearing overtly to seek attention, and to make their audience at any given point in time a part of the performance seen by future audiences.

1. Introduction

Consistent with the symbolic interactionist tradition (Blumer, 1969), self-presentation is the process by which people perform the social roles that frame and structure everyday interactions by enabling people to draw on familiar scripts and routines (Goffman, 1959). Goffman’s (1959) influential self-presentation framework is based on a dramaturgical metaphor in which individuals perform roles before audiences in different settings through explicit information disclosure and the implicit elements of their behavior. This fundamental social process has been at the core of much recent research on social technologies (e.g., Deeb-Swihart, Polack, Gilbert, & Essa, 2017; DeVito, Birnholtz, & Hancock, 2017; Humphreys, 2018), which has shown repeatedly that online self-presentation differs critically from the offline, real-time role performances that Goffman describes.

Indeed, social platforms conflate or collapse what were once discrete audiences and contexts (Marwick & Boyd, 2014), obscure cues about audience composition (Litt, 2012; Litt et al., 2014), and rely on opaque, algorithm-driven feeds that distribute and sometimes decontextualize content to often ambiguous audiences (Birnholtz, 2018). To better understand self-presentation as it plays out online, the present study is part of an ongoing effort to adapt and extend Goffman’s framework. Pearce,

Vitak, and Barta (2018) and DeVito et al. (2017), for example, focused on how today’s platform affordances play into the self-presentation process, and Zhao et al. (2013) discuss how platforms like Facebook can span self-presentation contexts. In other words, contacts on Facebook represent several facets of people’s lives, so they must be careful about what they share or configure privacy settings to limit the visibility of some content.

Another key dimension of difference concerns the temporality of online role performances. Hogan (2010) suggests that time can be complicated on social platforms because they combine in-the-moment sharing, such as livestreams (Lottridge et al., 2017; Tang, Venolia, & Inkpen, 2016) and ephemeral “story” posts (Bayer, Ellison, Schoenebeck, & Falk, 2016; Xu, Chang, Welker, Bazarova, & Cosley, 2016), with curated collections of quasi-permanent posts that may be viewed in aggregate. This complexity can result in confusion, unwanted audiences, and embarrassment (Hogan, 2010). Where prior work has focused on time as related to social platforms, however, it has mostly not considered self-presentation processes. Rather, it has considered how time is experienced by users (Kaun & Stierstedt, 2014), how users reflect on past content (Schoenebeck, Ellison, Blackwell, Bayer, & Falk, 2016), or how they change their behavior at key life transition points (Thomas, Briggs, Hart, & Kerrigan, 2017). We do not have a good understanding of

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how people contend with and strategically utilize the temporal affordances as they engage in self-presentation on today's platforms.

In this paper, we draw on DeVito et al.'s (2017) affordances framework to explore the temporality of self-presentation in terms of their affordances of: identity persistence, whereby people can maintain a consistent identity or persona over time; content persistence, whereby both ephemeral and more permanent posts can be shared; and audience engagement, whereby the audience becomes involved in performances in novel ways via features such as commenting and "liking." We explore these with a focus on young gay and bisexual males (GBM¹) seeking to connect with other GBM on Instagram, a popular social platform with a range of content-sharing affordances.

1.1. Background

At the core of Goffman's (1959) self-presentation framework is a dramaturgical or performance metaphor in which people act out social roles in their interactions with each other. For example, adolescent and young adult GBM like our participants may play the roles of "student," "gay or bisexual person," and "family member." We focus on young GBM here because they foreground several phenomena of interest around self-presentation.

Self-presentation challenges can be particularly acute for lesbian, gay, bisexual, *trans*-gender, queer (LGBTQ+) communities, who remain marginalized in many respects (Carrasco & Kerne, 2018). Even as homophobia has declined (Morris, 2017), inadvertent outing of one's LGBTQ + identity to unsupportive audiences can carry negative consequences (Baiocco et al., 2015). LGBTQ + individuals often carefully segment their online self-presentation to conceal or selectively disclose their sexual or gender identity (DeVito, Walker, & Birnholtz, 2018b; Duguay, 2016). At the same time, social platforms provide valuable opportunities for connecting with others (Blackwell et al., 2016; DeVito, Walker, & Birnholtz, 2018b) and finding support (Braithwaite, Waldron, & Finn, 1999; McConnell, Clifford, Korpak, Phillips, & Birkett, 2017), especially in rural areas where there may be fewer LGBTQ + peers or they may be less visible (Gray, 2009; Hardy & Lindtner, 2017). Thus, online platforms may be their first point of contact with the LGBTQ + community (Corriero & Tong, 2016; Fox & Ralston, 2016; Harper, Serrano, Bruce, & Bauermeister, 2016; Ybarra, DuBois, Parsons, Prescott, & Mustanski, 2014).

Moreover, among young GBM, their "gay or bisexual person" roles, are often more nascent and ambiguous (Savin-Williams, 2016). Learning these roles and developing one's own identity relative to them is an important step toward confidently and effectively connecting online with other LGBTQ + individuals for friendship, dating, sex and other social activities (Fox & Ralston, 2016).

With all of this in mind, young GBM are likely to be aware of and sensitive to how they perform these roles, in ways that allow us to deepen our understanding of self-presentation phenomena. Convincing and effective performance of social roles is important, here and more broadly, because these roles facilitate everyday interactions through enabling structures such as learned patterns and scripts. For example, the role of "student" structures young people's classroom interactions in ways that are familiar based on their childhood and adolescent time

spent in schools.

Goffman (1959) further argues that people draw in their performances on their appearance (e.g., grooming and dress), elements of the setting (e.g., furniture and artifacts), and the manner in which they carry themselves (e.g., serious vs. silly, masculine vs. effeminate, etc.). Different roles, moreover, may be appropriate for interactions in different settings and with different individuals. Goffman refers to these settings as "regions," and behavior intended for people only in a particular region is known as "region behavior." Establishing and adhering to boundaries between regions can be particularly important for individuals with marginalized or stigmatized identities such as GBM people because they may face threats, shaming or relational tension from unsupportive friends, family members or other contacts (DeVito, Walker, & Birnholtz, 2018b). The nature of sharing on social media platforms may make this separation challenging, however (Marwick & Boyd, 2014).

For our purposes, Goffman's (1959) framework can thus be distilled into these core principles:

1. Individuals perform learned social roles in everyday situations, drawing on attributes of the setting, carrying themselves in a role-appropriate manner and cognizant of their appearance.
2. Social roles are performed for particular audiences and any given role performer may be part of one or more audiences for others' performances.
3. Role performances often occur in ostensibly discrete social regions, which allow people to adapt their behavior to the audience, performing elements of their roles that are visible primarily to audiences within a particular region.
4. Social roles serve to structure interactions and behavior, which allow people to adhere to recognizable scripts and routines that can be adapted to achieve social goals.

As we noted above, applying Goffman's framework to today's social platforms can be challenging in that the metaphor of live performance is strained by the dynamics of online interaction. While any given social role performance may persist over time in that, for example, one does not cease being a student at the end of the school day, Goffman considers performances themselves to be live and in-the-moment, as if on stage before a discrete audience. This is different online and some elements of Goffman's framework translate more easily than others to the online environment. The setting of a performance, for example, can be adapted to reflect separate online platforms that are often treated as different places and serve as a cue to likely audience (Birnholtz, 2020; Litt, 2012). However, social platform features and affordances differ substantially from the physical spaces described by Goffman (DeVito et al., 2017; Ellison & Vitak, 2015; Treem & Leonardi, 2013). We would expect people to adapt their performances and behavior accordingly to reflect the opportunities and constraints of these new environments.

Today's platforms, moreover, increasingly present users with a range of features and affordances that affect the temporality of role performances and interactions. Given literature on chronemics (e.g., Kalman, Scissors, Gill, & Gergle, 2013), or the temporal dynamics of online interaction, there is good reason to believe that temporality likely plays a role in self-presentation. That work suggests that pauses or silence in communication can be perceived as carrying meaning, and that these perceptions can depend in turn on factors such as personality. While self-presentation as a form of communication is importantly different from the conversational interaction typically considered in chronemics, the important point here is that temporality affects meaning in interaction, so should affect self-presentation as well.

We draw on DeVito et al.'s (2017) affordance framework for self-presentation on social media, from which relevant affordances for online self-presentation include developing and maintaining a persistent user identity, creating and sharing content, associating content with one's own or others' persistent identities and audience engagement with

¹ We acknowledge that grouping individual identities under a collective label can be problematic. We abbreviate here with awareness that our participants' experiences were not uniform, and we aim to illustrate their diversity of experiences. We chose not to use the common 'men who have sex with men' (MSM) abbreviation for two reasons. First, it would sidestep the explicitly gay and bisexual identities that our participants shared with us. Second, MSM is often used in public health research focused on sexual behavior, whereas our focus is on participants' identities and the communication of those identities to others. We use 'GBM' to be inclusive and expressive of our participants' identities, but not to collapse or conflate them.

content. With this in mind, the “appearance” and “manner” aspects of role performances along with the core behavior that comprises the performance itself are changed substantially on social platforms. At times, these performance elements can be seen in real- or near-real time, as with livestreaming technology (Lottridge et al., 2017) or ephemeral posts that disappear after viewing or a pre-configured timespan (Xu et al., 2016), however many platforms also support persistent archival content, such as photos, text posts and videos, that accumulate over time and may be viewed in the aggregate alongside ephemeral content (Alhabash & Ma, 2017; Birnholtz, 2018).

These differences are consequential for our understanding of self-presentation processes as they play out online. If we do not adapt our frameworks for understanding and analyzing role performances to reflect novel aspects of the online environment, we risk missing important elements of self-presentation performances, their contexts, and the dynamics of roles that structure everyday interactions. We thus propose two additional principles that we would expect to be true, which are the foundation for our paper:

5. People’s role performances and self-presentation will reflect and utilize a platform’s configuration of the temporal affordances of identity persistence and content persistence.
6. Interactions between a performer and their audience (and vice versa) will vary with the temporal dynamics and audience engagement affordance configurations of a platform, and this may affect the structure of these interactions.

While these principles are arguably implicit in Goffman’s original formulation, it was less necessary to consider them directly because the temporal affordances of the physical world do not vary. We argue that their consideration is essential today, however, because of substantial variation across platforms. In the remainder of this section, we further explore relevant literature that underlies these new principles, and pose research questions that will help us test them.

1.2. Identity persistence and self-presentation

The affordance of identity persistence from DeVito et al.’s (2017) framework refers to the temporal continuity of an individual’s identity on a social platform, typically via a username (which may also be the user’s real name) and/or a profile that can be seen by others as connecting multiple behaviors or episodes with the same individual. This is distinct from systems that either do not provide affordances for persistent usernames or profiles, or where there is no expectation or requirement that a user will adopt the same identity every time they use the platform (e.g., Leavitt, 2015). Persistent identities facilitate accountability and ongoing interactions that may become social relationships between users (Ellison, Hancock, & Toma, 2012). Accountability, and sometimes the potential for retribution, are further enhanced by the use of persistent identities that correspond to real-world identifiers, such as names or photos (Friedman & Resnick, 2001; Haimson & Hoffman, 2016). Importantly, however, accountability and identifiability can come at the expense of opportunities afforded by temporary or non-identifiable online identities to experiment with one’s identity with little fear of reputational risk or negative impressions from known contacts (Heston & Birnholtz, 2016; Turkle, 1995).

Identity experimentation is a process that may involve adopting, for example, traits stereotypically associated with gay male identity, such as femininity. Indeed, there is evidence that being perceived as overly flamboyant (Savin-Williams, 2016) or trying too hard to garner social or sexual attention can be perceived negatively even by other GBM (Birnholtz, 2018). Thus, the ability to experiment with one’s identity with limited risk can be helpful. Indeed, doing so was often at the core of older social technologies used by GBM, such as private, anonymous or GBM-specific platforms (Gudelunas, 2012; Mowlabocus, 2012; Shaw,

1997; Wargo, 2017), where one could experiment with presenting a GBM identity with little fear of recognition.

Today, however, many GBM use mainstream platforms with persistent identities and a wide array of friends, relatives and contacts in their “audience” (Pew Research Center, 2013). The persistence of identity means that performances of social roles on social media today often take place over time (Ellison et al., 2012; Hogan, 2010; Zhao et al., 2013) and may involve impressions formed based on aggregations of subtle actions, cues or associations from sources such as photo collections or post histories span multiple temporally discrete episodes (Walther, Van Der Heide, Kim, Westerman, & Tong, 2008).

As we noted earlier, this complicates self-presentation for GBM and renders critical Goffman’s notion of region behavior as GBM may wish to perform GBM roles only for audiences known to be supportive (Baiocco et al., 2015; DeVito, Walker, & Birnholtz, 2018b; Duguay, 2016; Marshal et al., 2015; Mustanski, Andrews, & Puckett, 2016). Duguay (2016) discusses how participants limited disclosure of their gay identities on Facebook, reflecting concerns about who was in the audience. DeVito, Birnholtz, Hancock, French, and Liu (2018a) use the term “social media ecosystem” to show how their participants used a mix of social platforms to present different aspects of themselves to distinct audiences. Young GBM, newly grappling with performance of their sexuality and identity, moreover may not be aware of the potential consequences of their actions. A similar phenomenon was observed by Butkowski, Dixon, Weeks, & Smith, (in press) among young women, who exaggerated their gender presentation on Instagram to get more audience response.

All of this suggests that GBM must perform their identity for different audiences that may or may not be accepting of their sexuality, consider perceptions of their content even by other GBM, and do so with content that may be shared over an extended period of time but visible all at once in their profile. We aim to better understand how identity persistence and temporality play into these identity performances. We asked:

RQ1: How do participants perform their GBM identities and anticipate their audience and its response as these phenomena play out over time?

1.3. Content persistence

A second relevant affordance in DeVito et al.’s (2017) framework is content persistence. Content persistence refers to the continued availability over time of content that is linked with one’s persistent identity, as contrasted with ephemeral content which disappears right after viewing or after a relatively short interval (Xu et al., 2016). In the past, content persistence was relatively fixed for all content on any given platform, so researchers studied platforms separately. For example, once only Snapchat afforded ephemeral content while Facebook and Instagram were more archival (Bayer et al., 2016). Now, Instagram and Facebook offer both ephemeral stories and archival posts (Birnholtz, 2020), as well as livestreams, which were once available only on standalone streaming apps (e.g., Lottridge et al., 2017; Tang et al., 2016). Those separate platforms often meant users had distinct audiences when using them. For example, users of a standalone streaming app would not likely have streamed to all of their Facebook friends. Studying these in isolation thus conflated audience, content and temporality. How different configurations of content persistence might be used together for self-presentation on a single platform is not well understood.

Moreover, the same content can be experienced differently by different users at different points in time and from different features of the platform. Hogan (2010) distinguishes between performances and exhibitions, noting that performances occur in real time while exhibitions aggregate user-curated content over time. Instagram and other platforms complicate Hogan’s dichotomy. A user’s profile is a curated collection or exhibition of persistent, user-selected photos, however, these same photos have an ephemeral quality, as whether and when viewers see these photos in their own feeds depends largely on platform

algorithms that curate content based on the viewers' followers and myriad other factors (Eslami et al., 2015). As noted above, some platform also support live performances via streaming and direct messaging, however these are also often persistent and can be curated or viewed later. Thus, Hogan's distinction is helpful but inadequate in addressing the temporal dynamics of content persistence on today's platforms.

Our question then becomes one of if and how young GBM combine these aspects of content persistence with the challenges GBM face in self-presentation to ensure that the right audiences see the right content at the right time. In doing so, they must further behave in normatively acceptable ways to avoid negative perceptions. As young GBM are more likely to meet friends online, first impressions can be especially important for them (Macapagal et al., 2018). Moreover, many social media users seek followers and attention, so must manage impressions in ways that draw attention without alienating their existing audience (Birnholtz, 2018; Jang, Han, Lee, Jia, & Shih, 2016). We asked:

RQ2: How do young GBM draw on Instagram's array of content persistence configurations in performing their GBM roles in ways that accrue positive attention from both new and familiar followers?

1.4. Audience and temporality

The third affordance we focus on from DeVito et al. (2017) is feedback directness, which describes the degree to which and the methods by which audience members can engage with content shared by other persistent users. We know from prior work on online self-presentation (e.g., Ellison & Vitak, 2015; Litt et al., 2014) that people's contacts and friends participate in online self-presentation by posting or tagging images that then become part of one's profile. On social platforms where audience feedback of any sort is afforded and both identity and content are persistent, the temporality of self-presentation is affected by involving those audience members who engage with posted content in the performance that future audiences see. For example, there is evidence that some social platform users consider the number of "likes" their content gets to be an important aspect of their self-presentation, with more likes often being perceived as leading to better impressions (Scissors) (Scissors, Burke, & Wengrovitz, 2016). In this way, a later viewer of a photo that accumulates likes over time may have a different impression of the poster than an earlier viewer who saw it when it had fewer likes. Thus, the audience members who liked the photo become part of the performance seen by the later viewer.

As some users seek a growing audience (Duffy, 2017; Marwick, 2013), moreover, followers and content engagement can signal authenticity and influence (Duffy, 2017), and warrant quality content (Walther & Parks, 2002). In these ways, the audience can be both a target of and a part of the self-presentation process at different points in time.

Prior work also shows additional ways audience can be involved in one's self-presentation. Litt (2012) defines the "active audience" as those who leave traces of engagement (e.g., likes, comments). The visibility of the active audience may bias perceptions of who sees content, which is often difficult to estimate on social platforms (Bernstein, Bakshy, Burke, & Karrer, 2013; Litt & Hargittai, 2016). The active audience also plays important social roles. Ellison, Vitak, Gray, and Cliff (2014) suggest that content engagement is a form of relationship maintenance, while Scissors et al. (2016) note the affirmative value of Facebook likes as signals of engagement that motivate future posts. Hayes, Carr, and Wohn (2016) conceptualize these lightweight engagements as paralinguistic digital affordances. The public nature of these interactions renders the audience part of an ongoing identity performance that is seen by the audience over time. That is, content is presented to an audience that can visibly act on it, and that visible activity becomes part of the performance seen by subsequent audiences.

For young GBM, managing the audience often consists of maximizing desired audience engagement and minimizing problems by anticipating who will see content, when they will see it, and how they

might respond. DeVito, Birnholtz, et al. (2018b) describe mental models used in these predictions as "folk theories", and show how these affect decisions around online self-presentation. For young GBM this often involves a tension between, on the one hand, seeing sometimes-provocative content that receives substantial engagement (Birnholtz, 2018), and on the other the pressures of adolescence, such as avoiding embarrassment (boyd, 2014; Litt et al., 2014) and negative GBM stereotypes (Savin-Williams, 2016). Moreover, both content and audience are likely to change over time, along with needs and interests (Duguay, 2016). There is thus the further challenge of presenting to and engaging newer audiences, while not alienating extant audience members (DeVito, Walker, & Birnholtz, 2018b). We asked:

RQ3: How do identity performances vary with the temporal dynamics and audience response affordances of the online environment?

As noted above, we focus in this study on adolescent and emerging adult GBM. We further focused our study on Instagram, a social media platform popular with young people (Pew Research Center, 2018) that offers several temporally distinct configurations of our affordances of interest. Identity persistence is supported via user profiles that consist of a photo, a short bio statement and all of that user's posts and posts in which they have been "tagged" by others. Users can follow each other, which is a one-way tie (i.e., A can follow B without B following A).

Content persistence, as suggested above, varies with different posting options: photos, which are visible in others' feeds and remain part of a user's profile until deleted; ephemeral 'stories,' which are photos or short videos visible for 24 h that appear to others as tappable icons at the top of one's content feed; and/or video livestreams, which are one-way broadcast video and audio, with text chat responses from viewers superimposed on the video. Hashtags, or short, descriptive text phrases preceded by a '#' can be included in posts. These hashtags can then be searched and followed to locate posts by people the viewer does not already follow, so can help hashtag users gain attention and followers.

Instagram supports content feedback via likes and comments on posts, and it is possible to send private messages between two or more users. And there is limited control over what DeVito et al. (2017) call audience transparency and visibility control. All content shared by a user is governed by a single account-wide privacy setting, which can be 'public' or restricted to followers, who must request approval from the account holder before the content is visible.

2. Methods

2.1. Participants

As we were interested in participants who would be particularly aware of their self-presentation, we recruited GBM Instagram users who had received a 'shoutout' from a popular Instagram account with ~40,000 followers (account name omitted for privacy) that aims to connect young GBM with others. These shoutouts consisted of 3–4 images of the shoutout recipient that contain their face, a 1–2 sentence biography they composed, and a tagged reference to the recipient's username (Fig. 1) Individuals may request shoutouts only for themselves, and do so by sending their photos and biography to the shoutout account owner via Instagram private message. These materials are then shared as a post by the account owners, which is visible to the account's followers in their feeds. As the privacy setting for the shoutout account is 'public,' the shoutout post can be also be seen by all Instagram users if they find it (e.g., by searching or following a hashtag). Shoutout viewers can tap on the tagged username in the post to view the shoutout recipient's profile, see their content (if it is public) and perhaps follow them. As with all following on Instagram, doing so means the followed account will appear on one's profile as part of a visible list of followed accounts.

Our informal observations suggest that shoutout account followers and shoutout recipients live all over the world, however we focus here on those who indicate in their profiles or shoutout biography that they live in the United States. Observations further suggest that most



Fig. 1. Mockup of a fictional shoutout post.

shoutout recipients in this community are 15–25 years old and the vast majority appear to be white. Most recipients seemed to use their primary Instagram accounts, which often include their real names and references to their location (e.g., city, high school or university). It also appears common for shoutout recipients to have followers who are not GBM. Many post what seems to be content for a general audience.

Participants were recruited by the first author, who followed the shoutout account from a lab Instagram account, and followed all shoutout recipients during the recruitment period who met study eligibility criteria (15–25 years old, profile or shoutout indicating United States residence, publicly visible Instagram profile). The first author private-messaged them, introduced himself and the study, and invited them to participate to receive \$25 via gift card or Paypal. Approximately 200 individuals that met the eligibility criteria received shoutouts during the recruitment period and were contacted. Of these, 32 agreed to participate. Participants self-identified as gay ($n = 26$) or bisexual ($n = 6$) cisgender males. Mean age was 17.42 years ($SD = 1.86$), and they had been out about their gay or bisexual identity for 0–4 years ($M = 2.2$; $SD = 1.05$). Follower counts ranged from 400 to 57,000 (median = 1600, $SD = 2100$). Participants lived all over the United States, in a mix of

urban, suburban and rural areas to ensure a range of experiences. Participants were predominantly white, with one Black and one Asian participant. When presenting participants' quotations, we indicate age, follower count and sexuality for context.

2.2. Procedure

Interviews. Semi-structured interviews were conducted between July and November 2017 by the first author via videoconference, phone, or text message, per participant preference. As potential GBM youth participants may be unwilling to seek parental permission for research participation (Macapagal, Coventry, Arbeit, Fisher, & Mustanski, 2017) and given minimal risk, a waiver of parental permission was obtained from our institutional review board (IRB). Consent (for those ≥ 18) and assent (for those < 18) forms were sent to participants online. They were asked to read the form and ask questions, then consented or assented verbally. To facilitate this process, we asked participants for their age during recruitment and their sexual orientation during the interview itself.

Phone and video interviews ($n = 30$) lasted 40–80 min, and text message interviews ($n = 2$) included a similar amount of interaction but occurred over seven days. The same protocol was used for all interviews. Questions covered participants' use of social media, their coming out experience, the nature of their Instagram experience and audience, and their experiences with social media. During the interview, the researcher examined the participant's Instagram profile with them and discussed specific posts.

Conscious of differences between audio and text conversations, we offered a text message interview option because texting is a more comfortable form of communication for many of our participants (Anderson, 2015), text conversations could be less conspicuous for some participants not out to their families, and because the interview could then take place over an extended period of time, which we capped at 7 days in consultation with our university's institutional review board (IRB). Transcripts of text interviews were similar in length and content to summaries of our phone and video interviews, and we were attuned in analysis to potential differences based on the interview medium.

Phone and video interviews were recorded and detailed notes were taken for analysis. Text interview transcripts were used verbatim. Quotations in this paper were verified by checking the recordings. Continuers and ums/uhs were removed for clarity.

Observations Unstructured observations to contextualize the study and develop the interview protocol were conducted throughout the study period. The first author looked daily for new photo and story posts from shoutout recipients, paying attention to content and engagement. Profiles observed included some shoutout recipients who were interview participants and others who were not. These observations allowed us to understand what is commonly shared, typical numbers of followers and levels of engagement, and the age and demographics of shoutout recipients. Observations also helped us interpret participant descriptions of their own or others' behavior.

2.3. Analysis

A research assistant and the first author used qualitative coding consisting of regular comparison, identifying key concepts, and iterating through interview notes (Huberman & Miles, 1994). Emergent themes were identified via iterative open coding. An initial codebook was developed, discussed by the authors and refined. This led to a set of high-level themes and sub-categories that were used for initial coding. After discussing the emergent themes and codebook, coding was iteratively completed on all transcripts. Coding consisted of classifying notes according to the themes and sub-categories, discussing these classifications, and aggregating data for each category. Key emergent themes are highlighted in the results.

2.4. Limitations

As with any exploratory study, there are several limitations. First, the paper focuses on a specific population on one platform and should not be taken as a general description of youth or young GBM. Moreover, we have focused on Instagram as a venue for studying particular behaviors of interest and because it is commonly used by youth in the United States (Pew Research Center, 2018), but this paper is not intended to be a characterization of Instagram as a platform. Most Instagram users are not GBM and live outside the United States. It is also possible that participants were not accurately or fully describing their experiences. The consistency among interviews and consistency with our Observations on Instagram, however, suggest this was not likely the case. Finally, we focused here on those who identify as cisgender GBM. The unique experiences of cisgender sexual minority women, transgender and nonbinary people, and others were not addressed but merit attention (Haimson, Brubaker, Dombrowski, & Hayes, 2015).

3. Results

3.1. Identity persistence and subtle performance

Our first research question concerned temporality in participants' GBM persistent identity performances over time. Whether they were out or not, most participants wanted to be subtle in revealing their sexuality. Out participants were often less concerned with stigma for being gay or bi, but still worried about being perceived as too gay or bi in a way that might cause negative impressions or focus conversations and attention exclusively on that attribute instead of others. At the same time, participants were clearly conscious of their GBM identity often being subtle or invisible, and the ensuing need to disclose somehow. That is, in Goffman's terms, they were concerned about the manner of their GBM role performance affecting their interactions in unwanted ways. P22² (gay/bi, 17 years old, 400 followers) said:

I guess for something to feel normal, it shouldn't be focused on so much because you look at someone who's straight and they don't focus on their sexuality as much as people who are like gay are. They're like 'oh I'm gay.' No one goes around and basically says like, 'oh hi, my name's (says name) and I'm straight.'

Most participants tried to convey their identity subtly in ways they felt others would recognize, which adds nuance to both the real-time and longer-term performance of the identity on Instagram. P17 (gay, 17 years old, 4700 followers), for example, said he did not want to use the word "gay" in his profile. Instead, he used two rainbow emojis placed on either side of the words "It's me." He explained:

I kind of wanted, wanted it to make a, just letting people know so I didn't keep getting asked, 'Are you gay?', because I was tired of saying yes, so I just, like, put it in there as like a 'there you go just see it.' ... I didn't want it long or something crazy. I just did it like that and the whole theme like with like the two rainbows is because I wanted, I always do emojis on the sides, that's kinda like my thing.

Another common strategy was to use subtle signals or cues that, when aggregated over time, they felt would lead the audience to realize that the participant was GBM. For example, P18 (gay, 17 years old, 1353 followers) discussed how he selected which picture to post of himself at a Pride parade:

I was gonna post a different like, a different picture at the Pride parade ... I had like a rainbow flag wrapped around me... and the only reason I didn't post that one is because I felt as if it was too flashy. And I'm not someone, like I said earlier, who wants to be pushing, you know, like 'I'm gay, I'm gay, I'm gay' ... I don't want to be known for that."

In another example, P19 (gay, 17 years old, 1000 followers), also said his profile text did not say that he was gay, which he felt would be too overt. Rather, he felt people would realize he was gay after considering all of his content together, and noticing that his photos differ in manner from what he felt might be expected of heterosexual men: their typical picture is like a group of friends, or their girlfriend, or like doing some quote-unquote 'manly activity.' Like, there's a bunch of hunting and fishing around here and I would never post pictures like that. It would just be like selfies or me with my friends which are girls.

Presenting subtly over time allowed them to avoid negative reactions to being perceived as too gay, while still recognizably performing their identity.

In a few cases, participants leveraged elements of these subtle performances as part of their coming out – deliberately or not – to offline contacts they knew were in their Instagram audience. P18, who above described selecting a Pride picture, was out to his close friends and parents, but not to cousins he knew followed him on Instagram. When he posted that picture of himself at a Pride parade, he intended to spark a conversation in which he would come out to his cousins:

...I had used that to maybe, you know, drop hints to my extended family, and after that they texted me saying, um, 'does this have a double meaning?' and I told them 'yes, I'm gay,' and everything went well and they all just gave me support.

Here, P18 leverages Instagram's conflation of his friend and family regions of self-presentation, which he might otherwise like to keep separate, to his benefit. Rather than share separate content for these discrete audiences, he intentionally shared a photo that revealed substantial clues to his sexual orientation without having to start a conversation and come out to them face to face. In this way the same image can both subtly convey his GBM identity to some in the audience, but also provide enough information to quickly start a coming out conversation with others.

In another case of conflating self-presentation regions, then-visible traces of P12's (bi, 19 years old, 4300 followers) behavior on Instagram, such as following "gay" accounts and liking their content, were seen by a friend of his brother's who asked P12 if he was gay. P12 told the brother's friend that he was bi, though P12 was not out to his family or many friends at the time. He said being asked by his brother's friend was a relief, but also scary:

I was relieved. Well, I was both. I was scared because I don't know how he will feel and whatnot. Then at the same time, at least someone knows. At least one of my brother's friends knows, well, someone I'm close to knows, instead of me telling them ... I wanted them to find out first without me having to tell themSo I'm kind of glad he found out.

When considered together, these visible traces of P12's Instagram behavior were a cue to his identity. Making these behaviors visible, a design decision on Instagram's part that was since rescinded (Holmes, 2019), meant that these traces could constitute a role performance over time, whether this performance was deliberate or not. The reverse is also true. Indeed, several participants described deliberately not following or visibly engaging with content others might see as "gay," so nobody would see they were looking at it and discover their GBM identity.

3.2. Anticipating audience response

Performing their GBM roles subtly over time also meant participants had to anticipate the nature and frequency of audience response to their behavior as regards the audience's overall impression. For our

² Here and elsewhere we refer to participants by number. For context, we indicate their self-described sexual orientation, age and number of followers. These latter two figures are intended to characterize participants' variations in experience in years and, to some degree, their goals on Instagram. Those with large numbers of followers, for example, were generally more interested in actively seeking a following than those with fewer followers.

participants, who had all received shoutouts from a popular account likely seen by thousands of others, many had followers they did not know at all, along with followers they knew well and others in between. Such breadth meant that audience desires and impressions could vary widely. This is nicely illustrated by participants' attitudes toward provocative content, which could be delicate and have unwanted or unanticipated consequences.

Virtually all participants said that provocative content could elicit attention from their followers and thus speed up or have immediate impact on impressions. Participant attitudes toward deploying provocative images varied substantially, however. On the one hand, most were aware that some of their followers would respond positively to provocative content. P32 (gay, 17 years old, 7800 followers), unlike most participants, used a secondary account, which he called his "gay account" because his family and in-person friends, to whom he is not out, do not follow it. This absence of pressure to be careful about what he posted allowed him more freedom than most participants felt to engage in a longer-term performance that consisted mostly of revealing images of P32's body that push at the boundaries of Instagram's allowable content policies. P32 said he posted these mostly for attention in the form of followers and likes, which he finds validating. He was uninterested in responding to frequent sex-focused messages he said he received from followers aroused by his photos, whom he called "boring, horny people." When asked if he was comfortable with the fact that his photos aroused other men, he said: "It depends. Some people it's great for my self-esteem; others it's just weird when they're like old if that makes sense." That is, he liked the idea of his photos arousing attractive people his own age, but was uncomfortable with them having the same effect on older men. In this way, P32 is using these collections of provocative content to experiment with his role performance over time, and grapple with its effects on different people in his audience.

On the other hand, most participants did not themselves want to appear eager for this sort of sexualized attention, even if they found elements of it intriguing as P32 did above. P3 (gay, 17 years old, 1747 followers) described a tension that was common. He said he is modest with his posts because he knows his friends and people he cares about may see them. When asked what his followers want to see, however, he replied instantly, "I think they want to see me naked," and went on to say that he believed many followers continued to follow him because of the mere possibility of future provocative photos.

3.3. Content persistence and temporal dynamics

Our second question concerned Instagram's integration of multiple configurations of the content persistence affordance. One salient illustration of this was participants' strategic use of hashtags and ephemeral stories (both features described above). Many participants wanted to attract more followers without making this desire too obvious. As P7 (gay, 16 years old, 1459 followers) said, "everybody wants more followers, but you have to make it seem like you're not thirsty for followers." Participants described several strategies for leveraging hashtags and stories in their identity performance.

Because hashtags are included in Instagram posts, they are necessarily visible to existing followers. This meant they were often seen by participants as a signal of overt or "thirsty" follower-seeking. P22 (gay/bi, 17 years old, 400 followers) said that if he used hashtags too often, "[my] friends would think that I'm desperate for followers or something, like my friends are gonna look at it and be like 'what is he doing?', 'why is he doing that?'" P22 said that he used to use hashtags on all of his images, but after negative feedback from friends described above, decided to use them only on his favorites because of his desire for visible attention in the form of likes:

I was posting on every single picture and then I stopped posting it on some pictures and then some pictures I posted it on. The good pictures, the ones that I actually like and I post, I always put them because I'm like, I want more likes on them.

Others, such as P12 (bi, 19 years old, 4300 followers), reported posting images with hashtags and then deleting the hashtags after a day or so. He said, "sometimes I'll put hash tags like to get gay people to like it, but then delete the hashtags after a certain amount of time." Similarly, P9 (16, gay, 1600 followers) said he would post with hashtags and then delete them because they "take up space" and he did not want them there. This hashtag hiding strategy reveals a subtle and important awareness about visibility on Instagram. Essentially, these participants perceive that hashtags' value for affording visibility declines over time. This stands in contrast to visibility of the hashtag itself, which – if not deleted – increases over time as more people see the post (and the hashtag) as part of the participant's curated profile and, by extension, their longer-term role performance. Thus, the duration of a hashtag's visibility may exceed the duration of its value. By deleting hashtags, participants address this mismatch to reduce negative impressions while still getting benefits.

Note that not all participants were concerned about hashtags. Some were more interested in finding gay friends or acquaintances than in accruing followers, so used hashtags infrequently. Others were simply willing to be more brazen in seeking a large audience or said they were unconcerned about what other people thought.

While hashtags afford attention from new audiences, participants also wanted attention from their existing friends and followers. Many participants described seeking this attention via a combination of ephemeral stories and permanent posts, often using variants on two strategies. The first strategy was using stories to draw attention to permanent posts, by posting stories saying, for example, "new post" or "like my recent" [post]. Some participants felt this helped them reach existing followers, who might be more likely to notice the story than the post, due to the visibility of stories as a cluster of clickable options at the top of Instagram's interface relative to posts, which are seen one at a time in a user's feed. As with hashtags, some participants worried about these stories making them look desperate for attention. P19 (gay, 17 years old, 1000 followers), for example, said: "it's a little, annoying. Like if I'm your friend, then I'm going to like your pics and talk to you anyways." Still, many felt it was effective. P6 (gay, 18 years old, 911 followers) said, "people watch stories a lot. So I'll get good feedback from it, so yeah it seems to work."

Functionally, this replicates the hashtag hiding strategy. Participants leveraged the visibility of the story relative to more permanent posts, knowing that the story will disappear after 24 h. This limits visibility of possibly undesirable behavior while boosting attention to the more permanent post. In the end, the additional likes and/or comments on the post will remain visible as part of the profile, but the story will not.

One additional way we saw participants attract attention via stories (or sometimes livestreams) was to find people interested in chatting via DM right then. Some were observed to say things like "bored, hit me up (hmu)" in their story posts to invite DMs from followers. Others said they would livestream when they were bored, hoping for attention through DM interaction. As P1 explained: "we usually livestream when we're bored and we just want to have some real one-on-one connection with some of our fans."

All of this suggests that, when content persistence configurations with different temporal attributes are combined in a single platform, these may be used strategically in combination to augment subtle identity performance, to strategically reach particular audience members without alienating or causing negative impressions from others, and to elicit or avoid particular behaviors from the audience. All of what we have seen from identity and content persistence so far, moreover, combines to create a sort of residual exhibition of past behavior that constitutes part of an individual's role performance.

3.4. Audience in self-presentation

Our third question concerned the aggregative role of audience in self-presentation, in which visible audience behavior becomes part of the

performance seen by subsequent audiences. We argue that followers on a platform like Instagram serve a role similar in some ways to “extras” on a film set. By “extras,” we mean people who are actively part of, but not a focus of, the performance, and whose presence affords legitimacy, such as guests in the background of a party scene. Followers as extras (or ‘follower extras’) play a minor but visible role in participants’ performance and residual exhibition of their identities. Like film set extras, follower extras affect audience perceptions of the performance and its legitimacy. The visibility of their behavior is governed by platform affordances for engagement and tagging so may vary (e.g., turning off commenting), but the value of follower extras lies in the visibility of their behavior to future audiences.

Participants recognized this value, but most did not directly articulate the link between the need for more followers and the supporting role those followers played in their identity performance. Virtually all participants spoke about followers as a source of attention, however. Many closely tracked the visible behavior of their followers, such as by looking at comment and like counts on posts, and engagement data provided by Instagram. They also believed that substantial raw numbers of followers or engagement behaviors on their own were insufficient for positive impressions. Rather they focused on their follower to followee ratio, which matters because they believed anybody could follow tens of thousands of people with the expectation that some would follow them back, and the ratio of likes/comments to followers, which frames content engagement as a rate rather than a count. P10 (gay, 17 years old, 1100 followers), for example said:

Um, I think I have a pretty good, like, ratio ...I think I have an average of, like, mid-200s, which I think is pretty good for my [number of] followers. Yeah, I get, my average is 238 likes per photo. I try to get above that with every picture. Um, I don’t usually delete them if I don’t, but I don’t know ... I usually get above that.

As this and the examples below suggest, followers play an important role in participants’ self-presentation performance and sometimes their own belief in the role they are performing. Several participants described how posting content for attention and validation could become a vicious cycle characterized by a need for attention from followers. Some described this as the trap of “fixation on feedback,” which many said they had experienced or knew others for whom it had been a problem. P2 (gay, 16 years old, 8500 followers) for example, said:

It ended up starting being a problem where I was like, ‘I’m not getting enough likes. Is it because of what I look like now?’ Or I started like, you know I started being like: ‘Why? Why am I not as popular as I used to be?’ which was a bad thing to start to get into because ...I know a lot of people have seen that happen and developed mental disorders like anxiety or, eating disorders, which I mean I feel like that could be a huge negative effect of social media and I really try to make sure I don’t get to that point.

These participants’ confidence is rooted in visible feedback from follower extras. P13 (bi, 19 years old, 3400 followers) said he had been bullied in the past and: “it used to be like a type of reassurance whenever people would like pictures, ... the fact that people liked me meant a lot and I just wanted to keep that going I guess.” He said that he later stopped paying attention to likes because he had found friends who provided support and no longer needed reassurance from followers.

Even in cases where they were not as dependent on engagement, participants recognized and often tried to control followers’ behavior, by manipulating parameters within their control. One strategy was to simply remove posts where follower extras did not behave as expected. For example, P1 (gay, 18 years old, 4900 followers) said he monitors posts to ensure they get likes:

...if they don’t get a couple of likes within a minute, then I’ll delete it because ...I just don’t want people scrolling through and seeing like ‘oh he posted this five minutes ago and he doesn’t have any, you know, likes on it.’ ...[I]f I don’t get any likes within a minute or two

minutes, then maybe I’ll just delete it and post it again at a more popular time.

Two aspects of this are noteworthy. First is the temporal dimension of performance as it quickly transitions to a longer-term exhibition. That is, P1 wants not just engagement, but quick engagement. Second, he adapts not by changing what he posts (i.e., believing the audience does not like it), but by posting what he believes to be good content when he thinks more extras will do what he wants and “like” it.

3.5. Negative follower behavior

Another case where follower extras did not perform as expected was negative or unhelpful attention. Earlier we described how some participants would attract followers and engagement by posting provocative content. Sometimes this could have unintended results, such as attention from older men who participants did not want in their audience. Most participants described these overtures largely as an annoyance, and described a sort of innocent until proven creepy approach. In other words, they valued followers who boosted follower and engagement numbers when they behaved in expected ways, such as liking provocative photos, even when the followers themselves were undesirable. As long as they did not make inappropriate comments, which might cause others to have negative impressions of the participant, or send unwanted private messages, these followers were deemed essentially harmless. Once they showed evidence of being “creepy,” however, participants would block them, meaning the follower would no longer see the participant’s content or be able to get in touch. As P13 (bi, 19 years old, 3400 followers) describes:

Maybe if it’s like a really old person who like posts uncomfortable things or they just look kind of like sketchy. I don’t know. But I never like block anybody unless they ... actually try to like talk to me repeatedly, even when I show no interest, or send me nasty things.

In our framework, blocking is one of the only direct mechanisms by which participants could directly control the behavior of their follower extras. As blocking precludes any future interaction, however, it is a blunt instrument of control. Nonetheless, some participants more preemptively wielded blocking to avoid attention from older men. P21 (gay, 18 years old, 475 followers), for example, when asked about people he hoped would not see his pictures, said: “50 year old creepy looking dad guys that I normally block when I see they follow me.”

These results shed light on a tension between the need for attention and for follower extras to behave in particular ways, the judicious deployment of content to achieve these outcomes, and how getting followers to be a part of one’s performance to future audiences in desirable ways is a complex and sometimes fraught process.

4. Discussion

We began by proposing two temporally-centered extensions to the core tenets of Goffman’s self-presentation framework suggesting that people will adapt their social role performances to reflect and utilize the temporal affordances of online platforms. We focused on the identity persistence, content persistence and audience engagement affordances from DeVito et al.’s (2017) framework. Here we discuss the relationship between those affordances and the temporality of the role performances our participants described.

4.1. Subtle GBM identity performance and anticipating audience

The affordance of identity persistence on a platform allows people to engage in role performances that takes place over a longer period than the real-time performances described by Goffman (1959), as has been noted in work cited above. Our question was about if and how their performances were adapted to and reflected the configuration of the identity persistence affordance. We saw several instances of this.

Participants used the temporality of their performance strategically to perform their GBM role. Sometimes this was a slow performance over time through multiple subtle cues in images, their profiles and the people they followed and were followed by, akin to what Hogan (2010) refers to as a curated collection. This is in some ways similar to what Duguay (2016) observed among adolescents on Facebook, however they were typically trying to hide their gay identities. In contrast to Duguay's work, however, our participants were drawing out the duration of the performance so that their GBM identity would be recognized when viewed either in the aggregate or when each post was seen as part of a longer series that carried cues about the participant's superordinate identity, which they saw as extending beyond the bounds of a single post.

At other times, our participants described speeding up their performances, in a way, drawing on identity persistence and their knowledge that Instagram conflated audiences from what they typically treated as discrete regions for self-presentation. Here, unlike DeVito et al.'s (2018b) participants who carefully targeted behavior to discrete regions on different platforms, we saw cases where participants strategically leveraged collisions between these regions to their benefit. This is illustrated by the participant who came out to his cousins via a picture of himself at a Pride celebration. He believed that the context of the photo would suggest his GBM identity, that the cousins would see the photo on Instagram, and that the photo would trigger questions from them and do so quickly. This tactic accelerated and drew attention to his GBM role performance for these cousins in a way that he felt would be more difficult in a more conventional verbal interaction.

These examples of accelerating or decelerating self-presentation performances are distinct from using subtle, symbolic forms of communication such as "steganographic" communication observed by boyd (2014) or insider signals intended to signify shared identity to in-the-know observers (e.g., Nistor & Fischer, 2012). In those cases the goal is unintelligibility to a less savvy audience (e.g., parents, teachers) to avoid questions or revealing group details, whereas the goal here is explicitly to spark conversation from others who recognize the symbol (e.g., Pride flags) but are unaware of the participant's GBM identity.

Another artifact of temporality and identity persistence was that audience response was not immediate as in real-time performances. Participants had to anticipate future interest and engagement from their followers, and this was particularly consequential when posting provocative content that might cause mixed impressions. This is important regarding temporality in self-presentation in that, combined with our discussion of the role of audience as extras in self-presentation, it shows how participants thought strategically about how and when to attract and engage followers in their performance. This also extends Zhao et al.'s (2013) discussion of Goffman by showing that in some performances, participants are not only reflecting on the past but also thinking towards future audience and future engagement. The point of this consideration is not to think about who will see the content, as Litt (2012) discusses, but also who is likely to engage with the content and become part of the ongoing identity performance.

When it comes to the structuring functions that social roles provide, performance temporality matters here because it affects how directly an individual needs to perform a role at any given moment, and, in turn, how audience members might attend to a broader set of cues over a longer period of time, rather than an in-the-moment impression. As roles are often interdependent, this affects how audience members perform their own roles and how they interact.

4.2. Temporality and content persistence

Another contribution stems from our participants' strategic use and manipulation of content persistence as they aimed to attract attention without being too overt about it, such as using deleted hashtags and ephemeral stories to direct attention to more permanent posts that showed no persistent evidence of these tactics. Variations in content

persistence complicate self-presentation in ways not accounted for in existing frameworks, which treat these as constant at the platform and/or performance level (DeVito et al., 2017). Discussions of persistence in social media and self-presentation typically focus on whether content is persistent or ephemeral (Bayer et al., 2016). Where behavior that accompanies content, such as hashtags or engagement, is discussed, the persistence or ephemerality of the accompanying behaviors is assumed to be identical to the content. We saw here that these assumptions do not always hold on Instagram. Participants recognized and exploited the possibility for variations, such as making hashtags ephemeral by deleting them.

We conceptualize this as a separation between behavior and the mechanisms by which that behavior is rendered visible that adds a new dimension to self-presentation performances. This extends another affordance from DeVito et al.'s (2017) framework, visibility mechanisms, which are the processes by which online content is rendered perceivable by audiences. Visibility mechanisms are important to consider on online platforms because they can be variously configured and potentially manipulated in ways that can be hard to understand. In real-time, in-person role performances, visibility of behavior is governed by the physical contours of the space, the physics of light and human visual perception. Online, these parameters are augmented by uncertainty about whether content was seen at all and who could see it (DeVito, Birnholtz, et al., 2018b; Eslami et al., 2015), its relative permanence/ephemerality (Bayer et al., 2016), and the capacity for deletion (DeVito 2017).

Some visibility mechanisms, such as feed algorithms, cannot be directly controlled by users. Others, such as hashtags, can in that a user can use a hashtag to increase the probability that a post will be seen by a particular audience. In this way, behavior itself (i.e., posting content) is separated from additional behavior (e.g., adding hashtags) that affects the visibility of the initial behavior. A similar example is tagging (or untagging) individuals in photos, where the act of tagging a posted photo can render content posted by person A part of Person B's profile. Tagging, a visible action, can sometimes draw unwanted attention to photos or relationships between users (Litt et al., 2014). Untagging those photos was seen as a socially acceptable way to avoid that attention without confronting the person who tagged the photo, as Facebook and Instagram do not notify users when a tag is removed (Birnholtz, Burke, & Steele, 2017).

Our results show how this additional visible behavior, such as using hashtags, can carry self-presentation consequences of its own, so some participants tried to cover their tracks by deleting hashtags. In contrast to these deliberate visibility-amplifying behaviors, participants reported no need to cover their tracks when using mechanisms that were unlikely to be attributed to them, either because they were outside participants' control (e.g., feed algorithms) or were not visible (e.g., posting at popular times).

This separation between behavior and how it is rendered visible is consequential for our understanding of self-presentation in that it adds a new dimension to the performance that must be accounted for conceptually and practically. That is, people must not only be aware of who can see their performance, but also who can see the mechanisms by which their performance is rendered visible and which of those mechanisms might be perceived negatively by a given audience. Arguably this impacts the manner of performances in that, for example, leaving too many persistently visible and overt signs of attention-seeking was seen by some of our participants as "thirsty" or desperate in manner. Extrapolating out, this focus on behavior and its visibility becomes recursive as even the visibility-seeking or visibility-hiding behaviors have their own visibility mechanisms, and so on.

Moreover, this suggests additional consequences to how users of platforms understand how those platforms, and their incumbent visibility mechanisms, work. Knowing what visibility mechanisms are under user control and which are not, for example, could affect one's ability to play a role effectively and affect others' impressions of a user.

In structuring our social interactions, this complexity could make roles harder to play and discern, so lead to confusion or misinformed impressions that slow or complicate everyday interactions.

4.3. Audience involvement in performance

Audience was involved in participants' self-presentation in two conceptually novel ways that we believe present useful extensions to Goffman (1959) and other recent work (e.g., DeVito et al., 2017; Duguay, 2016; Hogan, 2010) considering self-presentation on social media. In particular, we saw audience involved as additional performers, akin to film set extras, in self-presentation. This builds on several related concepts from Goffman. One is team performances, in which multiple actors are performing mutually reinforcing roles to the same audience (e.g., the roles of host and server in a restaurant). Unlike team performances which are collaborative and in which the roles are of similar importance to the performance, however, extras are needed more for their presence and numbers to bolster the primary performer. In some ways this builds on work by Walther and colleagues on how the presence and visibility of one's contacts in social media content can serve to warrant claims or improve others' impressions (Walther et al., 2008; Walther & Parks, 2002). We believe it is helpful to integrate these behaviors, which were considered in prior work as independent of actions by the primary user, as part of the role performance. For our participants, it was clear that they knew they needed followers, they wanted them to behave in particular ways, and many took explicit steps to (often subtly) evoke or elicit desired behaviors.

Extras are an admittedly an imperfect metaphor, but this is in part because the aggregative nature of performance on social platforms like Instagram, which partially collapses Hogan's (2010) distinction between performances and exhibitions and the functions of Facebook described by Zhao et al. (2013), is simply different from the performances in Goffman's metaphor. We believe the notion of extras is helpful in accounting for these differences and further adapting Goffman's framework to today's social platforms.

4.4. Design implications

Identity Persistence

From a design and user experience standpoint, this suggests considering not just the privacy implications of, for example, traces of behavior or identity that remain visible (DeVito et al., 2017), but also the ways that this visibility might be appropriated in impression management and formation. That is, inadvertent visibility of potentially stigmatizing information has historically been considered a liability, but here we see how it can be an asset as well. To be clear, this is not universally true and privacy remains important to our participants and other LGBTQ+ individuals (Carrasco & Kerne, 2018; DeVito, Walker, & Birnholtz, 2018b). However, these Observations do suggest that we challenge our conceptions of privacy and when visibility may be desirable.

One design implication here could be post-level controls that govern not the possibility but the probability that a post would be seen in particular others' algorithm-driven feeds. For example, P18 could have increased the probability that his cousins would see his Pride post. Other participants could have reduced the probability that their close friends would see "thirst trap" images. By manipulating probabilities in opaque algorithms rather than binary privacy settings, plausible deniability and potentially useful ambiguities are maintained by platforms in ways discussed by Bohner and Hancock (2006). This would also give the user a new sort of agency in the socio-technical process of producing and controlling the distribution of content, discussed by DeVito, Birnholtz, et al. (2018b).

4.5. Content persistence

As we consider the intersection of self-presentation, norms and designed platforms, this work highlights the responsibility held by designers who determine what behaviors are visible and for how long. Rendering counter-normative behaviors visible, as with hashtags, may affect how these affordances are used. One could imagine alternative designs in which the use and selection of hashtags are differently visible, or in which their function better incentivizes using them over longer periods of time. An example would be making hashtags on images visible only to those who see the image because of the tag (i.e., I would only see a hashtag if I search for or follow it). A tradeoff here is that this reduces discovery of new hashtags through others' content, because they are no longer visible with the content, though this is unlikely a fatal flaw.

4.6. Audience engagement

These results also have implications for considering a more dynamic framing of audience and performer. Our examples highlight how social platforms enable fluid motion between these roles in ways that were previously impossible or difficult, and that this movement is a crucial part of our participants' efforts to connect with and impress others. It also points to the centrality of visible numbers (e.g., followers, likes, comments) in Instagram's design, and the implications of this design decision. These consequences were also highlighted in Grosser's (2019) browser extension that removes visible numbers from Facebook's interface and in Instagram's recent tests hiding "like" counts (Fitzgerald, 2019).

Designs that obscure numbers highlight the role that followers play in online performances and may change the dynamics of these performances, but they do not eliminate followers' role. Moreover, these changes alter the validation, warranting and grooming functions of the behaviors we discussed above. Clearly the need for and role of followers would be different on a platform where these numbers are hidden, but the important question is one of understanding these roles in a social media context where performances extend over days, weeks, or years. Additional design possibilities suggested by our work might include mechanisms for changing the visibility of followers' behavior oneself, or changing the temporal dynamics of how these behaviors are made visible. For example, one could show total likes received at the end of a day or week. This might mitigate fixation on these numbers in the first phase of what is ultimately a longer performance.

5. Conclusion

Self-presentation is a fundamental social process that continues to be deeply affected by social technologies. We focused here on temporal elements of self-presentation performances as related to affordances for identity persistence, content persistence and audience engagement. We proposed extensions to Goffman's (1959) framework suggesting that people will adapt the temporal dynamics behavior to reflect the affordances available to them. Our results show empirical evidence of such adaptation through three contributions. First, we saw how identity persistence in combination with different ways of viewing content allowed participants to alter the pace of their role performances for some audiences, by either slowing it down via aggregations of subtle cues in many posts or speeding it up by drawing attention to a particular element in a single post. Second, we saw how participants combined content persistence affordances in their performances that have often been considered in isolation, and used them in intersecting ways that affected the overall performance, such as using an ephemeral story to draw attention to a permanent post. This highlights an important separation between behavior itself and the mechanisms that render behavior visible, which is not a distinction that exists in real-life performances. Third, we saw how audience engagement affordances meant

that audiences themselves played a role in the performance that was viewed by future audiences. We suggest the role of “extras” in the performance as a supporting role, as a further extension to Goffman’s framework. We believe these extensions can help us ask better questions and guide future work about the role of time in online self-presentation in today’s rapidly changing, sociotechnical environment.

Author credit

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