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# We're Going Streaking!: Associations Between the Gamification of **Mediated Communication and Relational Closeness**

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# We're Going Streaking!: Associations Between the Gamification of Mediated Communication and Relational Closeness

Caleb T. Carr • & Sarah F. Rosaen

Communication technologies have long been used to develop and maintain relationships; but recently, channels have increasingly sought to gamify interactions among users. The present study explored if individuals' interpersonal and entertainment use motives were associated with interpersonal interactions and message composition, as well as subsequent relational outcomes (i.e., closeness). A survey of 156 collegiate Snapchat users revealed that interpersonal and entertainment motives were significantly related to Snapchat behavior (Streak count and Streak Snaps, respectively) and relational closeness. However, those using Streaks for entertainment motives sent impersonal Snaps more frequently and reported lower relational closeness with their partner.

Keywords: interpersonal relationships; relational closeness; Snapchat; social media; Streaks

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Table 1 Terminology Regarding Snapchat Streaks

Term	Meaning
Snap	An individual message sent via the Snapchat app. Predominantly audiovisual content, sometimes with a text overlay.
(Snap)	Metric of consecutive 24-hour periods in which each member of a communicative
Streak	pair has sent each other a Snap, established after three days of consecutive Snaps, denoted next to target's name with the Streak number a flame emoji (see Figure 1).
Streak Snap	A Snap (with any content) sent to maintain a (Snap) Streak.
Black Snap	Streak Snaps containing blank or black pictures (e.g., taking a picture with the camera lens covered).

Although online interaction has many similarities to offline interaction (Mason & Carr, 2022), mediation also enables several processes that differ from face-to-face communication (Resnick, 2001). One difference is that computer systems capture, store, analyze, and reproduce traces of communicators' interactions. This quantification of users' interactions has the potential to gamify mediated interactions, which is apparent on Snapchat, a popular social media platform, especially among young adults (i.e., 65% of 18–29 year old Americans use Snapchat; Auxier & Anderson, 2021). In addition to its ephemeral messaging feature (Bayer et al., 2016), Snapchat quantifies dyads' sustained daily interactions. Partners who both exchange Snaps within a 24-hour period have their "Snapstreak" (i.e., Streak) denoted with a display

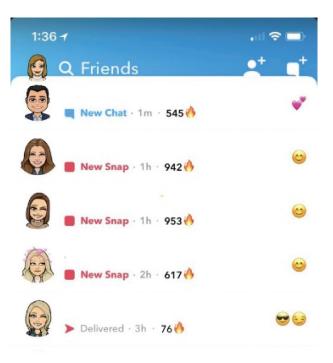


Figure 1 Image of Snap Streaks1

of the number of consecutive days the pair has messaged each other, accompanied by an emoji (see Table 1 for Snapchat nomenclature and Figure 1 for an example Snap Streak). However, this metric could also result in the gamification of Streaks, whereby users exchange Snaps to sustain their Streak rather than to exchange meaning and sustain relationships. The present study therefore sought to understand the role of the gamification of social media interactions in relationships.

#### Gamification of Mediated Communication

Gamification refers to "the use of game-design elements in non-game contexts" (Deterding et al., 2011, p. 9). Gamification mechanisms have become increasingly present across multiple domains (Deterding et al., 2011), especially social media (Hristova, Jovicic, et al., 2020). For example, location-based services like Yelp and Foursquare allow users to become a location's "Duke" or "Mayor" (respectively) once they have checked in to a given locale more often than other users, creating a sense of gameplay simply from visiting a public place. Other design features and elements—from obtaining "badges" when publishing open science journal articles (cf., Fox et al., 2021) to publishing class standing "leader boards" that activate students' competitiveness (Nah et al., 2014)—likewise introduce game design elements in non-gaming contexts to increase users' engagement and enjoyment within a given context.

#### Gamification of Social Media

Lampe (2014) noted that many social media features used to support social interaction have been designed with game-like elements that can motivate certain actions and signal social or relational status. For example, rating systems for posts incentivize users to engage in more thoughtful and audience-focused content creation. Small feedback cues (e.g., Likes) can help users signal attention. Quantifying interactions among communicators (e.g., number of shared connections, Snapchat Streaks) can then be used to signal status and foster relational maintenance (Lampe, 2014). The present work focused on the quantification of interactions, using the context of Snapchat Streaks.

#### Snapchat Streaks

One feature of the popular social media platform, Snapchat, is Streaks, which are a "relational score that signifies how many days in a row two users have [sent] each other snaps (pictures or videos)" (Hristova, Dumit, et al., 2020, p. 126). Hristova et al. (2022) noted that Streaks reflect a gamified design within Snapchat, nudging both users to exchange messages (i.e., Snaps) at least once per day to maintain their Streak. Two processes may account for the quantification of dyadic exchanges on Snapchat. First, as the contents of interactions are ephemeral (i.e., deleted soon after receipt), Streaks document and display a quantified marker of the dyad's interaction

history (Hristova, Dumit, et al., 2020). Second, gamification of exchanges can counter the innate decay of communicative reciprocity over time (Déage, 2019), motivating users to continue to exchange messages. Though these processes explain the quantification of interactions on Snapchat, the relational outcomes associated with these gamified mediated interactions are less clear.

#### Relational Closeness and Snapchat Streaks

Mediated interactions are an increasingly integral means of relational maintenance (Tong & Walther, 2011), which entails preserving or keeping a relational tie in good standing (Dindia & Canary, 1993). Generally, the better standing in which the relational tie is kept, the relationally closer the dyad. *Relational closeness* refers to feelings of psychological proximity and warmth with a given relational partner (Bernhold & Rice, 2020), and is an important aspect of relational maintenance. Individuals use an array of digital channels, including Snapchat (Kahlow et al., 2020; Triệu & Baym, 2020), to communicate and maintain relational closeness with friends, relational partners, and family members.

A foundational element of maintaining close relationships via mediated channels is the frequency of interaction. Frequent communication between relational partners allows reciprocal disclosures, information exchange, and shared experiences, regardless of the specific messages or proportion of overall interactions occurring within an individual channel (Bernhold & Rice, 2020). Research has repeatedly demonstrated that relational closeness is positively associated with communication frequency. For example, adult children reported feeling closer to a parent when they engaged in more frequent mediated communication (Buehler et al., 2022; Sumner & Ramirez, 2019). Ledbetter and colleagues (Ledbetter & Keating, 2015; Ledbetter & Kuznekoff, 2012; Ledbetter et al., 2011) have also demonstrated strong associations between the frequency of messaging via social media channels (i.e., Facebook and Xbox LIVE) on relational closeness, even when controlling for the frequency of face-to-face interaction. Additionally, Kahlow et al. (2020) found that the frequency of Snaps was positively correlated with relational closeness. Given Streaks quantify (and potentially motivate) interaction frequency, Streak counts likely function as an explicit system-generated metric of sustained mediated exchange, and thus, should be positively related to relational closeness among Streak partners. Consistent with prior work, we therefore predicted:

#### H1: Streak count is positively associated with relational closeness.

However, every Snap in a Streak does not necessarily contain communicatively and thus, relationally, meaningful content. Many users, particularly younger users, exchange Snaps simply to maintain Streaks (Hristova, Dumit, et al., 2020). This technique, which interviewees labeled *Streak Snaps* (Hristova, Dumit, et al., 2020), involved exchanging *any* content—even content devoid of information, emotion, or

relational knowledge—simply to maintain the Streak. Hristova, Dumit, et al.'s (2020) interviewees identified several impersonal messages endemic to Streak Snaps, including simple rhythmic messages and black Snaps. The former refer to scheduled and minimalistic messages sent at regular times of day, most often early in the morning or late at night, and commonly state, "Good morning," "Good night," or an abbreviated version of either (i.e., "gm," "gn"). The latter refers to blank or black picture messages, often created by taking a picture with the camera lens covered. Interviewees noted both types of Streak Snaps, particularly black Snaps, were common strategies to "quickly produce and send a streak snap" (Hristova, Dumit, et al., 2020, p. 130) and maintain the dyad's Streak.

There is likely a relationship between the frequency of Streak Snaps and both Streaks and relational outcomes. Functionally, as communicators' Streaks extend, impersonal Streak Snaps may occur more frequently simply to maintain the Streak count. However, unlike more interpersonally-rich messages, Streak Snaps' impersonal nature likely do not provide the specific knowledge required to predict a relational partner's future responses and behaviors, which may limit the relational meaningfulness of that exchange (Dai & Shin, 2022). In other words, because Streak Snaps do not provide any depth or breadth of interpersonal knowledge, they may not maintain relational closeness as effectively. Such interactions may also stymie relational development by providing new domains for relational uncertainty, which may impede relational closeness (Walther, 2021). Several of Hristova, Dumit, et al.'s (2020) interviewees expressed this notion, lamenting over their engagement in Streaks that did not involve "authentic personal conversation[s]" or "personal communication, e.g., by asking how she is feeling" (p. 128). These findings guided two additional hypotheses regarding Streak Snaps:

- H2: Streak count is positively associated with the proportion of Streak Snaps within that Streak.
- H3: Streak Snaps are negatively associated with relational closeness.

#### The Role of Gaming and Relational Motives

Finally, a user's motivations for engaging in Streaks may be associated with relational outcomes. Lampe et al. (2010) proffered that individuals may be motivated to use social media for myriad reasons. Of the six motives identified, entertainment and interpersonal connectivity are germane to Snap Streaks, as they parallel the potential gamification and interpersonal roles served by Streaks. Individuals could be motivated to engage in Streaks to satisfy entertainment needs simply by maximizing Streak counts, perceiving Streaks as impersonal gamified metrics of their social media use. Alternately, individuals could be motivated to engage in Streaks to satisfy interpersonal connectivity needs, using Streaks as a reminder and motivation to communicate frequently with a network tie. Though both motivations have been identified in Snapchat user interviews (Hristova

et al., 2022), the degree to which each of these motivations, which may be concurrently held by users, are associated with the relational outcomes of Streaks remains unclear. Therefore, we asked a research question to explore the association between users' motivations and relational closeness:

RQ1: Are users' motivations for engaging in Streaks (i.e., as a game rather than fulfilling a relational role) associated with relational closeness?

#### Method

#### Procedure and Respondents

Snapchat-using college students from two Midwestern universities in the United States were surveyed during November 2022. College students were recruited from communication courses to participate in an online survey about their Snapchat use, and are an appropriate sample given their high adoption and heavy use of Snapchat for relational maintenance (Vaterlaus et al., 2016). Though 159 individuals finished the survey, two incomplete responses and one extreme response (i.e., reported an ongoing Streak of over 15,500 Snaps) were removed, resulting in a final sample of 156 respondents. Respondents were between 18 to 62 years old (M = 21.51, SD = 5.70); and self-identified their gender ( $n_{\text{female}} = 102$ ;  $n_{\text{male}} = 48$ ;  $n_{\text{transgender}} = 1$ ;  $n_{\text{specified}} = 2$ ;  $n_{\text{no response}} = 3$ ).

After consenting to participate, respondents were asked to access their Snapchat account and identify the person with whom they had the highest ongoing Streak. The survey engine piped that person's name into subsequent items to enhance the specificity and clarity of the survey. Respondents reported that they had known their specific Snapchat partner between 0 and 39 years (M = 8.08, SD = 7.08). Streak partners reflected several types of relationships, including close friend (n = 74), friend (n = 26), romantic partner (n = 25), close family member (n = 21), fellow student (n = 8), and extended family member (n = 2).

#### Measures

Previously-validated scales were used to operationalize study constructs and respondents' perceptions of their Streak partner, using 7-point Likert-type scales (1 =  $strongly\ disagree$ , 7 =  $strongly\ agree$ ) unless noted otherwise. Relational closeness was assessed using Dibble et al.'s (2012) Unidimensional Relationship Closeness Scale. This 12-item measure operationalizes relational closeness broadly, accounting for closeness in a variety of interpersonal relationships (e.g., romantic, family member, friend). Respondents responded to items including, "My relationship with [Streak partner] is close," such that higher values indicated closer interpersonal relationships ( $\alpha$  = .98).

Respondents' motivations for engaging in Snapchat Streaks were assessed using two subdimensions of Dholakia et al.'s (2004) uses and gratifications

scale. Respondents responded to the four-item entertainment (e.g., "I use Snapchat Streaks to be entertained;"  $\alpha = .83$ ) and the two-item maintaining interpersonal connectivity (Spearman-Brown  $\rho = .60$ ) subscales. The interpersonal connectivity subscale's poor reliability was potentially driven by the item, "I use Streaks to have something to do with others," which could be interpreted as an entertainment motive. Exploratory factor analysis indeed identified that item clustered with the entertainment motive items. Consequently, only the second item, "I use Snapchat Streaks to stay in touch with others," was used to operationalize motivations for interpersonal connectivity.

Additionally, respondents were asked to identify the current Streak count with their partner and the frequency with which they Snapped their partner using a 7-point ordinal scale (1 = a few times a year, 7 = several hours a day).Respondents were also asked to use a slider bar to indicate the percentage (ranging from 0 to 100) of Snaps in the exchange that "were basically empty (e.g., blank/black/empty Snaps, 'Good night' or 'gn' messages), sent just to maintain the Streak."

#### **Results**

#### Hypothesis Testing

Zero-order correlations for study variables are presented in Table 2 and were used to initially test hypotheses. H1 predicted that Streak count is positively associated with relational closeness, and was not supported, r(156) = .05, p = .51(two-tailed). H2 predicted that Streak count is positively associated with the proportion of Streak Snaps within the Streak, and was supported, r(156) = .16, p = .05 (two-tailed). H3 predicted that proportion of Streak Snaps in a Streak is negatively associated with relational closeness, and was supported, r(156) =-.30, p < .001 (two-tailed). Finally, the RQ asked whether users' motivations for engaging in Snap Streaks (i.e., entertainment, interpersonal connectivity) were related to relational closeness. The results from the bivariate correlations indicated a significant association between relational closeness

1		0 /						
	M	SD	1	2	3	4	5	
1. Current Streak count with target	508.3	540.85	-					
2. Percentage of Streak Snaps	40.06	34.39	.16*	-				
3. Interpersonal motive	5.12	1.59	.18*	.17	_			
4. Entertainment motive	3.37	1.47	.14	.25**	.40***	_		
5. Relational closeness	5.29	1.65	.05	30***	.16*	.09	_	

Table 2 Descriptives and Bivariate Correlations Among Study Variables

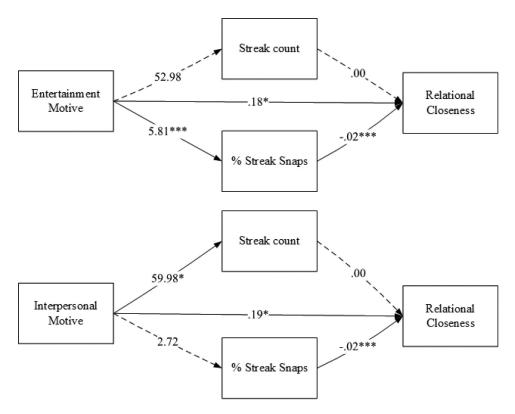
 $p \le .05. p \le .01. p \le .001$ 

interpersonal connectivity motives, r(156) = .16, p = .05 (two-tailed), but not between relational closeness and entertainment motives, r(156) = .09, p = .29 (two-tailed).

#### Mediation Analysis

Given these findings, post hoc analyses were conducted to further explore the RQ and relationships among the study variables. Specifically, we explored the relationship between the motivations for engaging in Streaks, actual Streak behavior, and subsequent relational closeness using Hayes' (2013) PROCESS macro (v 3.3) with 5000 bootstrapped samples to conduct two parallel mediation models (Model 4), one for each motivation. Unstandardized coefficients for both models are presented in Figure 2. Given the cross-sectional nature of the data, "effects" should be interpreted as nondirectional relationships in the analyses that follow.

In the first model, the direct effect of entertainment motives (X) on relational closeness (Y; c') path) was specified, controlling for the indirect mediation of both Streak count  $(M_1; b_1)$  path) and percentage of Streak Snaps  $(M_2; b_2)$  path). The results



**Figure 2** Post Hoc Parallel Mediation Tests Unstandardized regression coefficients are presented.

indicated a significant direct effect of entertainment motives on relational closeness (B = .18, SE = .09, t = 2.04, p = .04, 95% CI: .01, .35). There was a significant association between entertainment motives and percent of Streak Snaps (B = 5.81, SE = 1.83, t =3.18, p = .002, 95% CI: 2.21, 9.42), but not with overall Streak count (B = 52.99, SE =29.34, t = 1.81, p = .07, 95% CI: -4.97, 110.95). There was also a significant association between relational closeness and percentage of Streak Snaps (B = -.02, SE = .004, t =-4.50, p < .001, 95% CI: -.24, -.10), but not with overall Streak count (B < .01, SE < .01, t = 1.10, p = .27, 95% CI: .00, .001). Finally, there was a significant indirect effect of entertainment motive on relational closeness through percentage of Streak Snaps (bootstrap estimate = -.10, bootstrap SE = .04, 95% CI: -.18, -.03), but not through Streak count (bootstrap estimate = .01, bootstrap SE = .02, 95% CI: -.01, .05).

In the second model, the direct effect of interpersonal connectivity motives (X) on relational closeness (Y; c' path) was specified, controlling for the indirect mediation of both count (M<sub>1</sub>; b<sub>1</sub> path) and percentage of (M<sub>2</sub>; b<sub>2</sub> path). Results indicated a significant direct effect of interpersonal connectivity motives on relational closeness (B = .19, SE = .08, t = 2.43, p = .02, 95% CI: .04, .35). There was a significant association between interpersonal connectivity motives and overall Streak count (B = 59.98, SE = 26.91, t = 2.23, p = .03, 95% CI: 6.82, 113.13), but not with percentage of Streak Snaps (B = 2.72, SE = 1.72, t = 1.58, p = .23, 95% CI: -.69, 6.12). Similar to the entertainment motives model, there was a significant association between relational closeness and percentage of Streak Snaps (B = -.02, SE = .004, t = -4.38, p < .001, 95% CI: -.23, -.10), but not with overall Streak count (B = .00, SE = .00, t = .94, p = .35, 95% CI: .00, .001). There was not a significant indirect effect of interpersonal connectivity motives on relational closeness through Streak count (bootstrap estimate = .01, bootstrap SE = .02, 95% CI: -.02, .05) or percent of Streak Snaps (bootstrap estimate = -.04, bootstrap SE = .03, 95% CI: -.11, .01).

#### Discussion

The findings offer insights into how gamified elements of social media relate to relational closeness. As relationships are increasingly kept in good standing via mediated communication (Tong & Walther, 2011) and individuals use social media to remain relationally close even when geographically distant (Vitak, 2014), it remains important to understand the associations of emergent elements of social media with human communication and relationships (Mason & Carr, 2022). Our findings suggest that different motivations for engaging in Streaks relate to different uses of the Snapchat Streak feature, with implications for relational closeness via social media more broadly.

#### Relational Closeness via Quantified Exchanges

Most notably, the present study found no relationship between Streak count and relational closeness, either as a bivariate correlation or as a mediating factor. Respondents did not perceive themselves to be relationally closer as their Streak

count expanded, a departure from the positive association identified in prior work (e.g., Kahlow et al., 2020; Ledbetter & Keating, 2015) for both online and offline interactions. Two potential explanations may account for this finding.

First, prior studies have often unintentionally oversampled recent relationships (e.g., college acquaintances) that may still be engaging in relational development. In the present study, respondents reported their relationship with the target was more established ( $M_{\text{years known}} = 8.08$ , SD = 7.08). As dyads' norms and patterns of mediated interaction were likely well-established, their relationship may have simply stabilized (Walther, 2008).

A second and more pragmatic explanation may be that the present study operationalized consistency of interaction at a temporal level (i.e., number of consecutive days that messages were exchanged) rather than at the message level (i.e., number or frequency of messages exchanged) because of the nature of how Snapchat Streaks are quantified. For those approaching Streaks as a game, a single daily Snap may meet their need, whereas those using Streaks more for interpersonal connectivity may engage in multiple daily Snap exchanges with their partner, a metric not assessed in the present data. As partners typically become closer as they exchange more messages (Tidwell & Walther, 2002), simply assessing the number of consecutive days a pair interacts may not capture interaction frequency the same way as the number of interactive episodes.

These findings contribute to the understudied (relative to the study of mediated relational development; Mason & Carr, 2022) area of relational maintenance via mediated interaction, reflecting the stabilization of relational closeness. Having established a stable level of relational closeness, the extra interpersonal information provided by additional messages may not be sufficient to alter the relationship, and thus, relational closeness. In other words, additional Snapchat Streaks may simply maintain extant relationships (i.e., relational closeness), rather than develop them further.

#### Motives Matter

A critical finding of this study involved the role of motives in partners' communicative and relational practices. Respondents engaged in Streaks for both entertainment and interpersonal connectivity motives, and different motives appear to be related with different Snap behaviors. Respondents' interpersonal connectivity motives were positively related to Streak count, suggesting that individuals who were more motivated to Snap to fulfill relational needs engaged in longer Streaks. Conversely, respondents' entertainment motives were positively related to the percentage of Streak Snaps (i.e., black Snaps and other exchanges without interpersonal content), likely reflecting the gamification of Streak counts. These disparate relations suggest that motivations can guide different uses of channels within a given social medium (see Tong & Westerman, 2016). Individuals motivated to Streak for interpersonal connectivity reasons may be more interested in sustaining relationships, whereas individuals motivated to Streak for entertainment reasons engaged in more

"gaming" of the Streak via empty messages. However, both motives were directly, positively associated with relational closeness. As respondents' motivations to engage in Streaks (for either entertainment or interpersonal motives) increased, the relational closeness they reported with their partner increased. Regardless of direction (i.e., whether the desire to interact begets closeness or closeness drives interaction), the motivation to interact with a partner is positively associated with relational closeness.

An additional contribution of this work is the finding that the percentage of Streak Snaps mediated the relationship between entertainment motives and relational closeness, providing quantitative support for associations identified in Hristova, Dumit, et al.'s (2020) interview data. Individuals who were more motivated to Streak with a partner as a form of entertainment engaged in more Streak Snaps (i.e., blank or impersonal messages), which in turn, negatively related to relational closeness. Although the cross-sectional nature of the data prevents causal claims, these findings may indicate that individuals who view Snap Streaks as entertainment obtain the benefits of sustained communication with a partner that would facilitate relational closeness. As suggested in Figure 2, the increased frequency of impersonal, empty Snaps may attenuate relational closeness to a small degree, but not enough to overcome the relational closeness provided by sustained interaction via Streaks. Such a process merits further testing, and would support (at the dyadic level) Levordashka and Utz's (2016) finding that, among social media networks, lightweight interactions (e.g., Streak Snaps) can be used to maintain relational ties at latent levels, keeping them in just good enough standing to be activated later as-needed (see also Brody et al., 2009). However, gamifying these lightweight interactions may actually undo some of this benefit, as impersonal interactions do not provide the knowledge necessary to sustain relationships (Dai & Shin, 2022), and may thus reduce relational closeness. In other words, gaming dyadic exchanges may ameliorate the relational benefits of simple interpersonal messages or phatic exchanges.

Additionally, individuals engaging in Streaks for interpersonal connectivity motives typically had higher Streak counts, which did not relate to relational closeness. This finding may suggest that the relationships under study had reached a degree of stability, as additional messages were not associated with greater relational closeness. Partners' continued exchanges via Streaks may not further enhance their relationship, having already developed to a sustainable level.

#### Limitations and Future Directions

The present study used cross-sectional data to test directional hypotheses. Though behaviors are not typically expected to drive motivations for use (Ajzen, 1991), additional work involving experimental and/or longitudinal designs should be conducted to clarify the causal pathways between Streak Snaps and relational closeness. As part of a broader study, these data focused on a single target within a single channel (i.e., the Snapchat partner with whom the respondent had the highest Streak). Future work should explore Snapchat dyads more broadly, and perhaps provide disparate but complementary insight by exploring the factors and processes through which dyads end Streaks. Additionally, future work should explore multimodal relational maintenance, as the Snap Streaks respondents reported may be one facet of their communicative interactions, both mediated and face-to-face. Finally, interpersonal connectivity motives were broadly operationalized in the present work. Given the myriad conceptualizations across the communication field (see Rubin & Martin, 1998), future work may consider more nuanced interpersonal connectivity motives, including inclusion, social support, relational development, and escape.

#### Conclusion

Through the lens of Snapchat Streaks, the present study explored relational closeness via mediated interactions in platforms that gamify user interaction. Even as individuals increasingly use social media for relational maintenance (Mason & Carr, 2022), various motivations for engaging in sustained interaction appear to relate to different processes. Critically, users who were entertainment-motivated reported engaging in a greater percentage of Streak Snaps (which in turn, was negatively associated with relational closeness), suggesting that they may have been "gaming" interpersonal exchanges via impersonal and more relationally-empty messages. Users viewing Streaks as a game may treat interpersonal exchanges as such, and thus do not always glean the interpersonal benefits stemming from personal messages and engagement. As social media platforms seek to find new ways to sustain and engage users, platforms and users alike should be aware that attenuating the relational component of interpersonal exchanges may not enable the relational closeness processes for which social media have been previously lauded.

#### Disclosure statement

No potential conflict of interest was reported by the author(s).

#### Note

 Image sourced from https://medium.com/@kksoftballgirl5/dont-put-out-the-fire-a-snapchat-streak-addiction-9bf7497f2e09

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#### References

- Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-T
- Auxier, B., & Anderson, M. (2021, April 7). Social media use in 2021. Pew Research Center. https://www.pewresearch.org/internet/fact-sheet/social-media/?menuItem=b14b718d-7ab6-46f4-b447-0abd510f4180
- Bayer, J. B., Ellison, N. B., Schoenebeck, S. Y., & Falk, E. B. (2016). Sharing the small moments: Ephemeral social interaction on snapchat. Information, Communication & Society, 19(7), 956-977. https://doi.org/10.1080/1369118X.2015.1084349
- Bernhold, Q. S., & Rice, R. (2020). Toward an integrated model of online communication attitudes, communication frequency, and relational closeness. Communication Studies, 71(1), 1-21. https://doi.org/10.1080/10510974.2019.1683594
- Brody, N., Mooney, C. M., Westerman, S. A., & McDonald, P. G. (2009). Lts gt 2gthr 18r: Text messaging as a relational maintenance tool. Kentucky Journal of Communication, 28(2), 109-127.
- Buehler, E. M., Crowley, J. L., Peterson, A. M., & Jackl, J. A. (2022). Family communication patterns, mediated communication, and well-being: A communication interdependence perspective on parent-adult child relationships. Journal of Social and Personal Relationships. Advance online publication. https://doi.org/10.1177/02654075221145628
- Dai, Y., & Shin, S. Y. (2022). How reading information on SNSs influences interpersonal and personal certainties about a target: The effects of information valence, information source, and positivism bias. Communication Studies, 73(5-6), 561-576. https://doi.org/10.1080/ 10510974.2022.2118341
- Déage, M. (2019, June 13-14). Don't you trust me? Teenagers challenging friendship on snapchat [Paper presentation]. 6th European Conference on Social Media (ECSM, 2019), Brighton, United Kingdom.
- Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011, September 28-30). From game design elements to gamefulness: Defining "gamification [Paper presentation]. Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments, Tampere, Finland. https://doi.org/10.1145/2181037.2181040
- Dholakia, U. M., Bagozzi, R. P., & Pearo, L. K. (2004). A social influence model of consumer participation in network-and small-group-based virtual communities. International Journal of Research in Marketing, 21(3), 241-263. https://doi.org/10.1016/j.ijresmar.2003.12.004
- Dibble, J. L., Levine, T. R., & Park, H. S. (2012). Unidimensional relationship closeness scale. Psychological Assessment, 24(3), 565-572. https://doi.org/10.1037/a0026265
- Dindia, K., & Canary, D. J. (1993). Definitions and theoretical perspectives on maintaining relationships. Journal of Social and Personal Relationships, 10(2), 163-173. https://doi.org/ 10.1177/026540759301000201
- Fox, J., Pearce, K. E., Massanari, A. L., Riles, J. M., Szulc, Ł., Ranjit, Y. S., Trevisan, F., Soriano, C. R. R., Vitak, J., Arora, P., Ahn, S. J., Alper, M., Gambino, A., Gonzalez, C., Lynch, T., Williamson, L. D., & L Gonzales, A. (2021). Open science, closed doors? Countering marginalization through an agenda for ethical, inclusive research in communication. Journal of Communication, 71(5), 764–784. https://doi.org/10.1093/joc/jqab029
- Hayes, A. F. (2013). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. Guilford Press.
- Hristova, D., Dumit, J., Lieberoth, A., & Slunecko, T. (2020, April 1-3). Snapchat streaks: How adolescents metagame gamification in social media [Paper presentation]. Proceedings of the 4th Annual GamiFIN Conference, Levi, Finland. https://doi.org/10.31234/osf.io/nszex
- Hristova, D., Jovicic, S., Göbl, B., de Freitas, S., & Slunecko, T. (2022). "Why did we lose our snapchat streak?". Social media gamification and metacommunication. Computers in Human Behavior Reports, 5, Article 100172. https://doi.org/10.1016/j.chbr.2022.100172

- Hristova, D., Jovicic, S., Göbl, B., & Slunecko, T. (2020). The social media game?: How gamification shapes our social media engagement. In R. Dillon (Ed.), *The digital gaming handbook* (pp. 63–94). CRC Press.
- Kahlow, J., Coker, M. C., & Richards, R. (2020). The multimodal nature of Snapchat in close relationships: Toward a social presence-based theoretical framework. *Computers in Human Behavior*, 111, Article 106409. https://doi.org/10.1016/j.chb.2020.106409
- Lampe, C. (2014). Gamification and social media. In S. P. Walz & S. Deterding (Eds.), *The gameful world: Approaches, issues, applications* (pp. 461–480). The MIT Press.
- Lampe, C., Walsh, R., Velasquez, A., & Ozkaya, E. (2010, April 10–15). Motivations to participate in online communities [Paper presentation]. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI'10), Atlanta, GA, United States. https://doi. org/10.1145/1753326.1753616
- Ledbetter, A. M., & Keating, A. T. (2015). Maintaining Facebook friendships: Everyday talk as a mediator of threats to closeness. *Western Journal of Communication*, 79(2), 197–217. https://doi.org/10.1080/10570314.2014.943426
- Ledbetter, A. M., & Kuznekoff, J. H. (2012). More than a game: Friendship relational maintenance and attitudes toward Xbox LIVE communication. *Communication Research*, 39(2), 269–290. https://doi.org/10.1177/0093650210397042
- Ledbetter, A. M., Mazer, J. P., DeGroot, J. M., Meyer, K. R., Mao, Y., & Swafford, B. (2011). Attitudes toward online social connection and self-disclosure as predictors of Facebook communication and relational closeness. *Communication Research*, 38(1), 27–53. https://doi.org/10.1177/0093650210365537
- Levordashka, A., & Utz, S. (2016). Ambient awareness: From random noise to digital closeness in online social networks. *Computers in Human Behavior*, 60, 147–154. https://doi.org/10.1016/j.chb.2016.02.037
- Mason, A. J., & Carr, C. T. (2022). Toward a theoretical framework of relational maintenance in computer-mediated communication. *Communication Theory*, 32(2), 243–264. https://doi.org/10.1093/ct/qtaa035
- Nah, F. F.-H., Zeng, Q., Telaprolu, V. R., Ayyappa, A. P., & Eschenbrenner, B. (2014, June 25–27). Gamification of education: A review of literature [Paper presentation]. International Conference on HCI in Business (HCIB 2014), Heraklion, Crete, Greece. https://doi.org/10.1007/978-3-319-07293-7\_39
- Resnick, P. (2001). Beyond bowling together: SocioTechnical capital. In J. M. Carrol (Ed.), *Human-computer interaction in the new millenium* (pp. 647–672). Addison-Wesley Professional.
- Rubin, R. B., & Martin, M. M. (1998). Interpersonal communication motives. In J. C. McCroskey (Ed.), Communication and personality: Trait perspectives (pp. 287–307). Hampton Press.
- Sumner, E. M., & Ramirez, A., Jr. (2019). The effects of multimodal communication frequency, geographic distance, and coresidence on parent-child relationship quality during emerging adulthood. Communication Research Reports, 36(2), 114–125. https://doi.org/10.1080/08824096.2019.1583552
- Tidwell, L. C., & Walther, J. B. (2002). Computer-mediated communication effects on disclosure, impressions, and interpersonal evaluations: Getting to know one another a bit at a time. Human Communication Research, 28(3), 317–348. https://doi.org/10.1111/j.1468-2958.2002. tb00811.x
- Tong, S. T., & Walther, J. B. (2011). Relational maintenance and CMC. In K. B. Wright & L. M. Webb (Eds.), Computer-mediated communication in personal relationships (pp. 98–118). Peter Lang.
- Tong, S. T., & Westerman, D. K. (2016, January 5–8). Relational and masspersonal maintenance: Romantic partners' use of social network websites [Paper presentation]. Proceedings of the 49th Annual Hawaii International Conference on System Sciences (HICSS'16), Koloa, HI, United States. https://doi.org/10.1109/HICSS.2016.284

- Triệu, P., & Baym, N. K. (2020, April 25-30). Private responses for public sharing: Understanding self-presentation and relational maintenance via stories in social media [Paper presentation]. Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI'20), Honolulu, HI, United States. https://doi.org/10.1145/3313831.3376549
- Vaterlaus, J. M., Barnett, K., Roche, C., & Young, J. A. (2016). "Snapchat is more personal": An exploratory study on snapchat behaviors and young adult interpersonal relationships. Computers in Human Behavior, 62, 594-601. https://doi.org/10.1016/j.chb.2016.04.029
- Vitak, J. (2014, February 15-19). Facebook makes the heart grow fonder: Relationship maintenance strategies among geographically dispersed and communication-restricted connections [Paper presentation]. Proceedings of the 17th ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW'14), Baltimore, MD, United States. https://doi.org/ 10.1145/2531602.2531726
- Walther, J. B. (2008). Social information processing theory: Impressions and relational development online. In D. O. Braithwaite & P. Schrodt (Eds.), Engaging theories in interpersonal communication: Multiple perspectives (2nd ed., pp. 417-428). Sage.
- Walther, J. B. (2021). The theory of interpersonal knowledge: Interaction requirements to develop dyad-specific familiarity. In D. O. Braithwaite & P. Schrodt (Eds.), Engaging theories in interpersonal communication: Multiple perspectives (3rd ed., pp. 391-402). Routledge. https://doi.org/10.4324/9781003195511.