

**Recycling Firm-Generated Content on Social Media Platforms:
Phenomenon and Research Propositions**

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Abstract

Content recycling—a novel practice where a brand reshapes its older social media posts as new ones—is rising. However, academics and practitioners lack understanding of what content recycling is, whether recycled (vs. fresh) content is less engaging, why social media users might (dis)engage with recycled content, and how content managers can improve user engagement with recycled content. The author answers these questions. Specifically, his five-phase study—including (1) a review of the practitioner literature, (2) in-situ observations with two content managers, (3) interviews of six social media practitioners, (4) a survey of 18 content managers, and (5) a survey of MTurk users helps him describe the phenomenon and propose hypotheses that future research could test.

Keywords: social media, firm-generated content, content scheduling, content recycling, reposting

1. Introduction

Brands' use of social media for content distribution is rising (Han et al. 2020, Lee et al. 2018, Yan and Pedraza-Martinez 2019). Statista reported that firms worldwide spent US\$36.9 million in 2018 on creating and distributing content on social media platforms (Dencheva 2024). This number rose to US\$72 million in 2023 and is projected to increase to US\$107.5 billion in 2026 (Dencheva 2024). Although firms are allocating more resources to content distribution, the dwindling organic reach¹ of social media content has left them skeptical about the potential return on investment in content creation and distribution (Mallin 2017, Thomson 2018).

Two trends help explain the decline in the organic reach of social media content (Boland 2014). First, the adoption of generative artificial intelligence tools (e.g., ChatGPT), the proliferation of intelligent and interconnected devices, and the resulting ease with which people and brands can share content on social media platforms have resulted in more content being created and shared than there is time for users to consume it (HubShout 2018). Second, aiming to avoid overwhelming users with too much content in their newsfeeds², social media platforms have trained their content curation algorithms to prioritize engaging posts³ over fresh posts, which may not have attained significant engagement (Kumar et al. 2016, Loten et al. 2014). For example, in 2012, a fresh post on Facebook organically reached an average of 12% of page fans. In 2018, a similar post would organically reach only 6% of fans (Lua 2018). Lower reach of fresh content, in turn, leads to lower engagement and lower return on the investment.

Firms are increasingly *recycling* their social media posts—that is, posting their older content as new (ContentGroup 2019)—to combat the declining organic reach of their content.

¹ Organic reach refers to the number of users on a social media platform that an unpaid social media post can reach.

² Newsfeed is the content that a user sees after logging into her social media account (Boland 2014).

³ User engagement is an individual's response to computer-mediated activities. It manifests itself in the form of user behaviors such as attention, likes, clicks, shares and comments.

Figure 1 presents an example of a recycled post. By posting content that has already received some prior engagement (vs. posting fresh content that is untested), firms hope the content curation algorithms to prioritize the recycled content in users' newsfeeds, enabling greater user engagement. Moreover, recycled content is extremely cost-effective because it requires no additional investment toward content creation. Unsurprisingly, 29% of leading content managers indicated they are recycling their social media content (Curata 2017). The burgeoning move toward content recycling has also led some content scheduling software (e.g., Buffer) to offer features to identify recyclable content from a firm's prior social media posts (Makara 2019).

Figure 1 Examples of Original/Fresh and Recycled Content

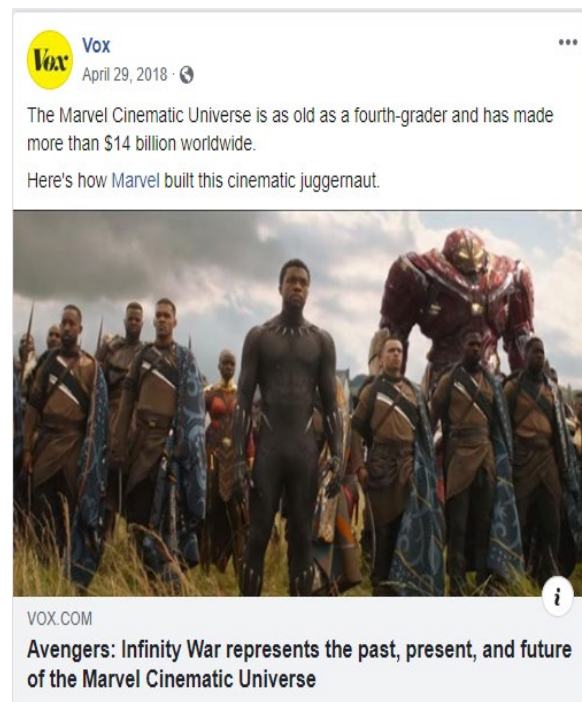
Original Post



Source:

<https://www.facebook.com/Vox/posts/879897478864522>

Recycled Post



Source:

<https://www.facebook.com/Vox/posts/882517868602483>

Despite the rising popularity of content recycling, academics have not studied the phenomenon. Further, practitioners lack consensus about content recycling and how it differs from other content resharing practices (e.g., retweet, regram). Also, the economic return to recycled content, relative to fresh content, remains unknown. Whereas some practitioners recommend that firms recycle more content (Cooper 2018), others argue against it, noting the users' intrinsic desire for fresh/novel content (Hartshorne 2020). Moreover, because firms typically limit their daily number of social media posts to avoid user fatigue, recycled content comes as an opportunity cost, at the expense of fresh content. Therefore, firms must understand whether, why, and when recycled content is engaging relative to fresh content. Such knowledge can help them make optimal scheduling decisions and boost the return on their investment in content creation and distribution.

Specifically, I answer four fundamental questions about content recycling: (1) *What is content recycling?* (2) *Is recycled content more engaging than fresh content?* (3) *Why do social media users (dis)engage more with recycled content than fresh content?* (4) *How can firms improve user engagement with recycled content?*

Given the lack of prior research on content recycling, I had to rely on practitioners (rather than academics) to understand the phenomenon. Specifically, I undertook a five-phase study involving (1) a review of practitioner literature, (2) in situ observations of social media post-related decisions by content managers from two universities in the United States and Canada, (3) semi-structured interviews with six social media professionals whom I identified from the first phase, (4) a survey of 18 content managers (again, whom I identified from the first phase), and (5) a survey of 23 MTurk users (Chan et al. 2016).⁴ The study helps me define the content

⁴ Appendix B details data collection, and Appendix C describes the interview protocol and list of interviewees.

recycling practice, determine that recycled content is less engaging than its fresh counterpart and that curiosity is an underlying psychological mechanism. While recycled content may be less engaging than fresh content, its infinitesimal cost justifies its pervasiveness. Thus, identifying mitigators of the lower engagement of recycled content becomes managerially valuable. Building on the curiosity literature (read online appendix D), I propose two managerially relevant variables that increase individuals' curiosity and thus can help content managers select a post (from among a set of candidates) that will receive the highest user engagement.

This research contributes to the multidisciplinary literature and practice of firm-generated content (e.g., Chung et al. 2020, Gu and Ye 2014, Jain et al. 2020, Rishika et al. 2013). It defines content recycling and distinguishes it from five similar yet distinct content-resharing practices. Further, it elicits that recycled content lowers social media users' *curiosity*, decreasing users' engagement with the content. Importantly, this mechanism is distinct from the one revealed by prior literature within online advertisements (i.e., annoyance) (e.g., Todri et al. 2020). Therefore, my research augments prior literature by revealing a novel context in which firms' efforts to reinforce messages can backfire and offering a novel mechanism for why users might engage less with repeat exposures to social media content.

2. Literature

2.1 Content Curation on Social Media

A user of a social media platform sees organic content and sponsored content in their news feed. The platform sources the organic content from the user's friends and other users that the focal user follows. These "followed" users include celebrities, politicians, business firms, and nonprofit organizations. Organic content also includes content that the platform's algorithm finds consistent with the user's prior usage patterns and thus recommends similar content to them. In contrast, sponsored content is similar to ads; that is, content that other users—e.g., businesses,

politicians, and regulators—pay the social media platform to show in the user’s news feed. The social media platform thus *curates* rather than *creates* content.

Firm-generated content on social media platforms—whether organic or sponsored—usually comprises a brief text message followed by a hyperlink to the firm’s website. In this “link economy,” the social media platform thus serves as paid or earned media where firms can target specific users and redirect them to their owned media (Columbia Journalism Review 2009; Dellarocas, Katona, and Rand 2013). This practice has become more pervasive in the “creator economy,” where laypeople create content (e.g., video logs, podcasts) and host them on their own websites. These creators post “teasers” of their content on social media platforms, hoping that the teasers will interest the audience and make them click on the link and watch the full content on the creator’s website. Such redirection allows the creator to embed advertisements in their content or nudge the audience to pay for the content, thus earning income from their content.

2.2 User Engagement with Firm-Generated Content on Social Media

User engagement is a psychological state characterized by being connected, involved, and intrinsically interested in something (Kumar and Pansari 2016; O’Brien and Toms 2008; Oh, Belur, and Sundar 2012). Table A1 summarizes the relevant literature.

Social media platforms evaluate their performance in terms of user *engagement*⁵ rather than *impression* and *exposure*, which nonsocial media platforms (e.g., news websites) use. For instance, Google has introduced “Engagement Ads,” where an advertiser pays only if a user hovers the mouse cursor over the ad for over two seconds (Oh, Belur, and Sundar 2012). Along

⁵ Although engagement usually has a positive connotation, it can also be negative (e.g., Like, Love, Haha, and Wow reactions on Facebook signal positive engagement whereas Sad and Angry reactions imply negative engagement).

similar lines, the Interactive Advertising Bureau now recognizes cost-per-engagement as the new ad pricing model instead of the cost-per-click (CPC) or cost-per-thousand impressions (CPM).

Marketing academics have measured engagement as an attitude as well as a behavior. Depending upon the social media platform, behavioral engagement is measured in terms of number of eye movements, zoom in and zoom out, finger taps, movements of the mouse cursor, likes, comments, shares, retweets, pins, re-pins, and link-clicks (Bruce, Murthi, and Rao 2017; Oh, Belur, and Sundar 2012). Research has shown that user engagement is a function of the content creator and content characteristics. Specifically, aesthetically appealing, usable, novel content laden with positive emotions concentrates users' attention and engages them (Berger and Milkman 2012; Teixeira, Wedel, and Pieters 2012).

3. Method

I adopted a five-phase process to understand practitioners' and users' perspectives on content recycling.

3.1 Phase I: Practitioner Literature

I searched academic journals in information systems, marketing, and strategic management for the following terms: content recycling, recycled content, and social-media recycling. Further, aiming to stay as current as possible, I also searched the Marketing Science Institute (*MSI*) reports and proceedings of the five leading academic marketing conferences: the Association of Consumer Research (*ACR*) Conference (1974-2023), the American Marketing Association (*AMA*) Summer Academic Conference (2004 through 2023), the *AMA* Winter Academic Conference (2005 through 2024), the European Marketing Academy (*EMAC*) Conference (2013-2019), and the Marketing Science Conference (2014 through 2023). I also included proceedings from the Academy of Management (*AoM*) Conference, the Production and

Operations Management Society (POMS) Conference, the Strategic Management Society (SMS) Conference, and the Association for Information Systems (AIS) Conference. However, I found no reference at all for recycled content.

Next, I used Google and Bing search engines for practitioner literature. Practitioner literature means consulting firms' white papers and practitioners' opinion articles. I found 12 key articles that informed my understanding of content recycling (see Appendix A). I read these articles and collected the names of (1) the authors and (2) the people who had shared the article or commented on it. The reading helped me understand practitioners' views on the content recycling practice. I messaged these bloggers and consultants, inviting them as interviewees (in the third phase) and as respondents for my survey (in the fourth phase). Appendix B lists the opinion articles and reports that helped me select the interviewees and survey respondents.

Reading the practitioner literature led me to two insights. First, content managers typically use a software program to not only schedule posts on social media platforms but also to identify relevant content. Second, the specifics were missing although practitioner writings and software brochures claimed that managers could use software programs to identify recyclable content. For example, I could not determine whether the programs provide the manager with the pros and cons of posting new content versus recycling previous content. Similarly, I found no information on whether a software program shows multiple candidates for a recycled post, the determinants of the identified candidates, and the pros and cons for each candidate, enabling the content manager to make an informed decision.

3.2 Phase II: In-Situ Observations

I conjectured that these managers may rely on the software program to help them choose appropriate content on a particular day to align with the users' mood and recent news. Equally importantly, managers may depend upon the programs to prevent them from posting content that

users may perceive as insensitive, untimely, or offensive, depending on the recent events. For example, posting content that the audience may perceive as sociopolitically divisive may hurt the brand. Therefore, I needed to observe content managers' use of software programs, why they choose one post over another, and—relevant to my research—when and why they recycle an old post.

I contacted managers of local restaurants and small businesses (e.g., insurance agents), but they politely declined. Next, I contacted the social media manager of my employer's business school and the school I graduated from. Each was kind enough to allow me to sit with them for an hour and observe their work. Although I intended to merely observe them, they were kind enough to let me ask clarification questions.

Therefore, I observed *in situ* two content managers' decisions to post fresh versus recycled content. The content managers managed the social media pages for a university located in the Midwest United States and a university located in Ontario, Canada. This phase helped me confirm my understanding of content managers' reasons for posting recycled content and how they decide when to post recycled (vs. fresh) content.

I draw two insights from this phase. First, the software programs allow the managers to *schedule* a post, just like Microsoft Outlook allows users to schedule an email to be sent at the specified date and time. Second, the programs did not include the feature of recycling per se. Instead—and unsurprisingly—the programs showed the users/managers the previous posts, and the users could repost them. The user could search for previous posts by topic, date, or engagement metrics. After limiting the consideration set to a few candidates, the user would subjectively evaluate the candidates on an unobserved set of variables and select a post that they believe will yield the highest engagement and other metrics (such as clickthrough). Often, I

realized that the selection was based on an upcoming event, such as homecoming, the onset of spring, or the start of a new academic term.

3.3 Phase III: Interview

Phases I and II equipped me with background knowledge of content recycling. Importantly, this knowledge was based on my reading of publicly available material and observations of two content managers. However, I realized that I had questions that I wished a practitioner could help answer. Thus, the third phase of the study was opportune. I read the LinkedIn pages of the authors of the practitioner reports and identified that they had credible experience in content marketing. Using X and LinkedIn messages, emails, “contact us” forms on practitioners’ website pages, and telephone calls, I contacted 20 practitioners who had written articles on content recycling. Six authors responded to my request and participated in interviews (Table C1). All these practitioners were in the United States.

I aimed to elicit interviewees’ opinions about posting the same content (text, web links, images, videos) at two different points in time. Each interview averaged 30 minutes in length. I followed the general interview approach of prior qualitative studies to design and conduct the interviews, which provided valid, reliable information. Before each interview, I read white papers and research reports published by the interviewee and/or the interviewee’s organization.

At the beginning of each interview, I explained the objective of the research, emphasizing that the information would be used for academic rather than commercial research. Following explicit consent from the interviewee, I sought information about their roles and responsibilities in their organizations. I asked whether they allowed us to disclose their names, job titles, and organization names. I showed the actual Facebook pages as an example of the practice of

interest. Subsequently, I conducted a more directed conversation in which I guided the interviewees with the following questions:

I occasionally probed the interviewees to triangulate information from documents I had read and interviews I had conducted with other interviewees. I used the interviews to obtain verifiable facts about the interviewees' organizations, opinions, and negotiated texts resulting from reconciling other interviewees' perspectives and my readings.

The interviews helped me understand that although content recycling is not new, it has picked up pace in the last few years. I attribute the increase to two factors. First, the velocity at which brands generate content has increased in the last few years and is poised to keep increasing now that generative artificial intelligence has lowered the cost of generating engaging content. Second, a new term called creator economy has entered the vocabulary. Laypeople with access to the internet now create content to engage audiences and earn income through their engagement. Examples include podcasts, and video logs (vlogs). Therefore, brands experience pressure—or maybe even threat—to post content regularly lest their audience drift toward other brands or creators.

3.4 Phase IV: Survey of Content Managers

Based on the information I gleaned from the three phases, I next asked 18 U.S.-based content managers—identified from the practitioner literature—the following six questions.

1. What words do practitioners use to refer to this practice of posting the same content (link in our example) more than once?
2. In your opinion, how common (e.g., rare, moderately common, very common) is this practice?
3. In your opinion, why do social media users engage with content that is posted again?
4. In your opinion, what are some benefits of this practice to the publisher?
5. In your opinion, what could be some downside of this practice to the publisher?
6. In your opinion, what (e.g., characteristics of the content, the publisher, the followers, and the platform) drives this practice?

I provide six summary answers to these questions. First, the content managers used the following labels: resharing, posting again, reposting, and recycling. Second, the practice is more common than I had presumed. Third, the platform does not reveal to a user whether the post is new or recycled. Sometimes, the user may recall seeing the post and may still choose to view it because seeing it again may pique their interest. Fourth, managers recycle posts because the cost is almost negligible, and they may not have more opportune and engaging content. Thus, recycling—when conducted strategically and moderately—can boost return on investment/expenditure. Fifth, the downside could be if the recycled content does not fit the occasion (e.g., Super Bowl) or if the brand recycled its content too frequently. Sixth, unavailability of new content, the pressure to post content regularly, and recurring events (e.g., return to school) nudge the manager to recycle a post instead of creating new content.

3.5 Phase V: Survey of MTurk Participants

Lastly, to understand why users engage or disengage with recycled content, I surveyed 23 U.S. MTurk workers who had Facebook accounts. Each participant read the following text, “Imagine you log into your Facebook account. In your newsfeed, you see a brand that you follow (e.g., Apple, Samsung) has shared the same story AGAIN. That is, you see a story that you remember seeing a while ago from the same brand.” I next asked them, “What are the chances you would CLICK on the story?” The participant had to choose a value on a slider scale, varying from 1 to 100. Last, I asked them, “List up to five reasons that would motivate you to CLICK on the RESHARED story.” I read the participants’ reasons to understand why they would (not) click on the post.

The mean value of the respondents’ rating is significantly greater than 0 ($min_{clickthrough} = 0$; $max_{clickthrough} = 83$; $mean_{clickthrough} = 23.26$, $t = 3.90$), suggesting an overall aversion to engaging with the recycled post.

4. Findings from the Five Phases of the Study

The following four findings are based on the five phases of the study. I provide verbatim quotes from the interviews (phase III) for each finding. Further, Table C2 provides verbatim quotes from the survey (phase IV) for each of the four findings.

4.1 *What is content recycling?*

Practitioners use the following terms to refer to recycled content: repurposed, republished, reposted, recirculated, or re-shared (Cooper 2018, Cyca 2018). Although each term has a distinct meaning in social media, the practitioners use them interchangeably. The following excerpt from a practitioner succinctly captures this shortcoming and the need for uniformity in the terminology:

“[Absence of] a standard phraseology hurts the field. It will be good to have one, well-defined term.”

—Interviewee 1, Content Strategy Director

Therefore, drawing on my interactions with practitioners, I define content recycling as *a practice in which firms share their older posts as new posts on their dedicated social media pages, such that the old and new posts differ only in the accompanying message, while the links to content on firms’ websites and accompanying images or videos accompanying the post remain the same.*

This definition helps distinguish content recycling from five other content-sharing practices: retweeting, resharing, regramming, refreshing, and renewing. Whereas retweeting, regramming, and resharing (terms used for reposting on X, Instagram, and Facebook, respectively) involve firms reposting their *own or others’* social media posts, content recycling involves firms reposting their *own* prior social media content as *new* posts. Moreover, X and Facebook explicitly identify the original posters and the date of retweets and shares, respectively,

allowing platform users to discern that the posts contain older content. Similarly, regrams require image-reposting entities to acknowledge original posts explicitly, by tagging the entities (Decker 2018). In contrast, recycled content does *not* include any identifying information that reveals the content featured in recycled posts has been shared previously (see Figure 1 for an example). Only users who have viewed prior versions of recycled posts can identify that the content is dated. Therefore, recycled content allows firms to conceal the novelty of their posts while reusing their content. Further, in contrast to refreshing or renewing old posts (Carney 2017), which merely offer updates to older posts, the goal of content recycling is to give older posts another chance to boost engagement without offering an update.

4.2 What type of content is recycled?

As summarized in the two quotes below and detailed in Table C2, practitioner informed me that firms recycle three types of content: (1) content that is time-sensitive and serves as a call-to-action, such as event reminders and signups; (2) “evergreen” content, defined as content that has a long shelf-life, such as product/service introductions, event summaries, and celebrity endorsements; and (3) content that has received a lot of attention from users when it was posted the first time.

“Evergreen content is perfect for repurposing. Simply put, evergreen content is the content that never goes out of fashion. People will always consume this content whether it was composed a decade or a year ago.”

—Practitioner 1, Local Search Specialist at E2M, content marketing agency

“Make old content optimization part of your monthly (or at least quarterly) blogging routine. You can boost your conversions without you having to write a brand-new article. Here are a couple of ideas: use your high-ranking content to drive more clicks to your landing page, [and] add an in-content call to action.”

—Practitioner 2, Brand and Community Manager at InternetMarketingNinjas.com

4.3 Which user segments do firms target through content recycling?

Firms recycle content to target two mutually exclusive segments of social media users. The first segment consists of those who have seen prior versions of recycled content but need reminders to engage with it (Boland 2014)—I call these “repeat users.” Managers hope that

repeated exposure to content makes it salient in users' memories, thereby increasing their engagement with the content.

The second segment comprises those who have not seen prior versions of recycled content—I term these “new users.” For such users, competing content could have prevented curation algorithms from distributing the prior version to them (Boland 2014). The second segment allows content managers to increase the total number of users who see and engage with their content. To reach this segment, social media managers strategically schedule recycled content at different days and times than they chose for prior versions, hoping that curation algorithms will distribute the content to different sets of users. As one key informant notes:

“They [users] may have missed it the first time around. People follow a lot of pages and have a lot of friends. Or they may have seen it the first time, but didn't care enough to click. Maybe they'll be more enticed... Benefits could be catching people who missed it the first time, or people who didn't click the first time.”

— Interviewee 2, Senior Digital Communications Specialist

4.4 Why do users (dis)engage with recycled content?

My survey of MTurk users suggests variation regarding whether and why users engage or disengage with recycled content. On the one hand, most users consider recycled content as stale and said they would ignore it because they are *less curious* about it. The curiosity mechanism is novel because recent research has suggested that users are more likely to disengage with retargeted advertisements because they feel *more annoyed* with stale content (Todri et al. 2020). Further, the curiosity mechanism highlights that recycled content differs from retargeted ads, which follow a prospect as they move from one platform to the other. Moreover, these users mentioned that they feel recycled content wastes the limited time they allocate to social media, and they prefer to consume new, interesting content that adds to their knowledge.

Interestingly, a few of our surveyed participants noted they became *curious* about why the firm reposted the content and, therefore, tended to engage with it. These participants

perceived that the content may be relevant to their interests, and they placed greater trust in curation algorithms' ability to show them engaging content. The following excerpts corroborate the behavior of the two types of users and offer anecdotal evidence of the underlying rationale for engaging with recycled content:

“I can't think of anything that would make me want to click [on recycled post] again.”
—U.S. MTurk worker

“I meant to click [the recycled post] the first time and didn't. It wasn't interesting to me before, but it is now. I'm curious why it's so important to share twice.”
—U.S. MTurk worker

5. Research Propositions

5.1 *How does recycled content impact user engagement?*

Research on social media suggests two reasons—a characteristic of the social media users and the platforms—why recycled content is less engaging than fresh content. First, research finds that most social media users have a high need for novelty and thus prefer new (over recycled) content to stimulate themselves (Correa, Hinsley, and Zúñiga 2010; Mahon 2015; Pew Research Center 2016; Zúñiga, Diehl, Huber, and Liu 2017). Second, social media platforms aggregate the *latest* content and show it to their users. Users thus visit these platforms (content aggregators) rather than news websites (content creators), expecting to see all the relevant and latest news in one place. This expectation strengthens when users “like” or “follow” a firm on social media. Such a subscription suggests a stronger expectation that the user will see only fresh content from the firm. When the user instead sees recycled content from the firm, the evidence disconfirms their expectation (Oliver and Winer 1987). As a result, they engage less with recycled content relative to fresh content.

Engagement hypothesis: H_{1a}: Recycled (vs. fresh) content is less engaging for social-media users.

5.2 Why is recycled (vs. fresh) content less engaging for users?

Research suggests that a desire to consume content signals a gap between what users know and what they want to know (Harvey, Novicevic, Leonard, and Paynie 2007; Hill, Fombelle, and Sirianni 2016). Users perceive this information gap to be larger when the content is posted on a social media page that they have subscribed to (Thomas and Vinales 2017). In contrast, recycled content, by definition, signals a smaller information gap. Therefore, relative to fresh content, recycled content makes users less *curious* (Loewenstein 1994; Park, Mahony, Kim, and Kim 2015).

Curiosity is a “cognitively induced deprivation that results from the perception of a gap in one’s knowledge” (Loewenstein 1994, p. 76) (see Table D1 for a summary of the literature on curiosity). Psychologists have conceptualized curiosity as a motive (Berlyne 1954; Loewenstein 1994; Wiggin, Reimann, and Jain 2018), feeling (Kupor and Tormala 2019), arousal (Noseworthy, Muro, and Murray 2014), and cognitive state (Loewenstein 1994) that can be influenced by curiosity-evoking stimuli such as perceived information gap and a desire to resolve uncertainty (Hsee and Ruan 2016; Noseworthy, Muro, and Murray 2014; Ruan, Hsee, and Lu 2018).

Research in psychology finds that curiosity improves users’ attitudes toward the content (Thomas and Vinales 2017) and increases the likelihood of indulgence (Loewenstein 1996). Empirical evidence in marketing also attests to this line of reasoning. For example, Bruce, Murthi, and Rao (2017) find that the novelty of blank display ads increases users’ curiosity, making them click on such ads. Teixeira, Wedel, and Pieters (2012) show that when users are surprised, they become curious, and thus engage more with video ads. Wang and Huan (2017) and Wiggin, Reimann, and Jain (2018) document that when people are curious, they seek information as a reward.

Curiosity mechanism hypothesis: H₂: Recycled (vs. fresh) content evokes less curiosity among social media users, which curbs their engagement.

Next, I use curiosity literature to explore two managerially controllable variables that increase an individual's curiosity and can thus help content managers mitigate the negative effect of recycled (vs. fresh) content on user engagement.

5.3 Prior reach of recycled content as a mitigator

I purport that a recycled post that received a higher organic reach when it was previously posted will likely receive more engagement than the recycled post that received a relatively smaller organic reach when it was previously posted. I explain this effect using the Mandler hypothesis (Mandler 1982), which suggests that individuals like information that conforms to their expectations. When information does not align with expectations, individuals experience schema incongruity (Peracchio and Tybout 1996). Schema incongruity manifests as curiosity, which leads individuals to engage in actions that resolve incongruity (Noseworthy et al. 2014), such as acts of discovery (Mandler 1982). In the case of a recycled post, users would wonder why the firm has reposted the same content again. As one of the respondents of my survey wrote, “*It wasn't interesting to me before, but it is now. I'm curious why it's so important to share twice.*” Such speculation and quandary (Noseworthy et al. 2014) increase curiosity and the users' likelihood to engage with the recycled post.

Prior-reach-as-mitigator hypothesis: H₃: The prior reach of recycled content mitigates (i.e., positively moderates) the relatively lower user engagement of recycled content.

5.4 Emotionally contrasting information as a mitigator

Negative information draws significantly more attention than positive information (e.g., Baumeister et al. 2001; Berger and Milkman 2012; Kanuri et al. 2018). From the perspective of information sequencing on social media, this negativity bias is more salient in cases of

contrasting information (Simpson and Ostrom 1976). That is, when users compare focal negative information with a less negative or positive reference, they find the comparison extreme (Skowronski and Carlston 1989). In line with this logic, when a recycled post has a higher degree of negative sentiment than its immediately preceding post from the same firm, users likely perceive the recycled content as more differentiated (Rozin and Royzman 2001). The differentiated information then signals knowledge gaps (Pratto and John 1991; Smith et al. 2006), which boosts curiosity and motivates users to engage with recycled content (Loewenstein 1996). However, when the negative sentiment evoked by the recycled post is comparable to the one evoked by the preceding reference post from the same firm, the contrast effect wanes, lowering users' curiosity about the recycled content. Because users no longer perceive the information to be more differentiated than the reference content, they are less likely to engage.

***Emotional contrast-as-hypothesis:** H_4 : The greater negative sentiment of recycled content relative to the firm's preceding content mitigates (i.e., positively moderates) the relatively lower engagement of recycled content.*

6. Conclusion

When deciding what content to post on their brand's or firm's social media page, managers face a dilemma. They can create and post new content. Alternatively, they can—at least occasionally—post old content. Indeed, firms and brands often recycle content. Managers anticipate that users will engage less with recycled content than its fresh counterpart. However, by definition, recycled content does not need to be created. Thus, the cost of recycled content is marginal, relative to fresh content. The lower engagement but marginal cost may mean that managers find recycled content to yield a greater return on investment than fresh content.

Perhaps surprisingly, extant literature offers no insight into the practice or the impact of recycled content on user engagement. Specifically, academics and practitioners know little about content recycling, why firms partake in it, how it differs from other content resharing practices,

and how it affects user engagement. Without this elaboration, practitioners would continue with the dilemma, not knowing what to expect from content recycling.

Relying on the theories-in-use approach, my five-phase study defines content recycling and delineates it from five other content resharing practices: retweeting, resharing, regramming, refreshing, and renewing. The study also elicits curiosity as an underlying psychological mechanism that explains why users tend to engage less with recycled content.

Even though recycled content receives lower user engagement than fresh content, firms recycle content for economic and tactical reasons. For example, recycling prior content involves marginal cost, relative to generating fresh content. I propose two factors that managers can use to identify and schedule recycled posts and mitigate the lower engagement of user' with such posts. Specifically, when deciding among a set of candidate posts for recycling, managers should select a post that received higher engagement when it was posted earlier. Further, they must choose a post that is emotionally divergent from the previous post. The divergent emotionality will likely boost audience engagement with the recycled post. These two suggestions would help managers strategically select content for recycling.

Collectively, my research improves academics' and managers' understanding of the phenomenon and paves a path for future research.

Conflict of Interest

The author declares that they have no conflict of interest.

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Appendix A: Literature on User Engagement

Table A1: Representative Research on User Engagement⁶ with Marketer-Generated Content⁷ on Social Media

Citation	Discipline	Method and sample	Key finding
Baltes (2015)	Economics	Conceptual	The researcher cites definitions of content marketing, and its history, objectives, and performance metrics.
Banerjee and Chua (2018)	Marketing	Observational. 10k posts from 50 Facebook fan pages	Users engage more with posts that are richer in media (images, animations, videos), and that compare the focal brand with its competitor.
Chauhan and Pillai (2013)	Management	Netnography of 1,440 posts on the Facebook pages of ten business schools in India over one year.	Content type (text and link, text and image, only image, or only link), posting time of the day, day of the week, and topic (the school, the students, others) drive user engagement.
Clark (2016)	Communication	Review	Managing content includes acquiring, producing, delivering, cycling, and repeating content. The authors conceptualize a “link economy,” comprising content <i>aggregators</i> (e.g., Google News, Huffington Post) and content <i>creators</i> (news sites). The former is often the site where consumers start their journey, and the latter is where the content resides.
Dellarocas, Katona, and Rand (2013)	Information Systems	Analytical model	The aggregator hosts “free” hyperlinks to a creator’s content, redirecting valuable traffic to the latter. The creator benefits by receiving more traffic and better-qualified traffic and earning higher ad revenue (by impressions or clicks). However, they must decide whether to provide original content, another layer of aggregation, or both. The aggregator, on its part, must ensure that it provides high-quality aggregation to the consumers.

⁶ I focus on user engagement on social media platforms (or content aggregators), and thus exclude articles that measure user engagement on content creators’ websites (e.g., Berger and Milkman 2012).

⁷ I also limit my review to user engagement with marketer-generated content and thus exclude engagement with user-generated content (e.g., Rossman, Ranjan, and Sugathan 2016).

Geissinger and Laurell (2016)	Management	UGC about ten fashion brands in Sweden	User engagement varies over time and by platform. UGC is higher for big firms, and users use microblogs more frequently than other platforms.
Hanson, Jiang, and Dahl (2019)	Marketing	UGC on the T-Mobile Support Community website before and after T-Mobile changed users' points to badges (Newbie, Citizen, Super Citizen)	Users engage more when their labels signal a positive social role relative to no role (e.g., newbie rather than points or bronze/silver/gold). The engagement is lower when the labels signal a negative social role (follower, servant, director) vs. no role (points).
Heiss, Schmuck, and Matthes (2019)	Communication	Content analysis of 1,915 posts on 87 Facebook profiles of Austrian politicians	Users engage more with politicians' personal (as opposed to official) pages. Posts that are backed by reasoning are more engaging. Politicians who have a higher followership respond less to user posts.
Hussein, Hassan, and Ashley (2018)	Marketing	Survey of 388 social media users in the U.S.	Perceived enjoyment and connectedness, but not social media image (the three variables of the technology acceptance model), drive users' engagement.
Karrafová and Kusá (2019)	Not disclosed	Review	Content marketing is the new form of marketing communication, one of the 4Ps of the marketing mix. Candidates' familiarity with a firm increases the chance that they will use social and nonsocial media (job websites, career fairs, and company websites) for job search. The effect is higher for social media than for nonsocial media.
Kumar and Möller (2018)	Marketing	Survey of prospective employee candidates of a firm that is entering a new market	Persuasiveness of the firm's messages on social (nonsocial) media <i>decrease</i> (increase) the likelihood that a candidate will use the media for job search. The researcher suggests four types of social media profiles of CEOs: professional, personal, social, and mixed. She finds that a mixed profile of a CEO causes people to perceive that the CEO has higher competence, authenticity, and empathy.
Lee (2017)	Marketing	Experiment	

Mitchell (2018)	Marketing	Experiment using content on Facebook and Instagram	User engagement varies by whether the content enhances or diminishes their social capital.
Nelson (2019)	Marketing	Tweets by a nonprofit organization (NPO) around a community-building event	The authors classify the NPOs' and users' tweets into informational, community-building, and calls to action. They find that user engagement is the highest for calls-to-action tweets and the lowest for community-building tweets.
Noguti (2015)	Marketing	12,000 Reddit posts	A post's parts-of-speech (number of adjectives, nouns, adverbs, pronouns, advisory words, punctuation marks, complexity, etc.) in the post's title drive its popularity (number of favorable votes minus number of unfavorable votes) and number of comments.
			User engagement with technology is defined "as a quality of user experience characterized by attributes of challenge, positive affect, endurability, aesthetic and sensory appeal, attention, feedback, variety/novelty, interactivity, and perceived user control" (p. 938). It is determined by the characteristics of the user, the (technology) <i>system or interface or application</i> , and the user-system interaction. Engagement is also a process comprising four stages, each associated with sensual, emotional, and spatiotemporal experiences.
O'Brien and Toms (2008)	Information Systems	Review and user interviews	The first stage—point of engagement—is characterized by the aesthetic appeal or novel presentation of the interface or <i>medium</i> , which motivates the user to interact with the <i>content</i> . The engagement is <i>sustained</i> when (and if) the user maintains attention and interest. In this stage, the user experiences physiological arousal and positive affect (enjoyment, fun). She may also lose her perception of time and others unless interaction with others enhances the engagement. The third stage is that of disengagement. It occurs when the user is unable to interact with the system or when she experiences too high or too little of a

challenge. Such disengagement is associated with negative emotions (uncertainty, information overload, frustration, boredom, guilt). Alternatively, the user may disengage after achieving the objective and may thus experience positive emotions of success and accomplishment.

O'Brien and Cairns (2015)	Information Systems	Experiment. Participants read the news on either a familiar or an unfamiliar website and then filled in the user engagement scale.	The researchers tested the user engagement scale for reliability and validity in three experiments/surveys. They used reading online news as their domain. The researchers found that the scale can differentiate between systems (online news sources) and the type of media. They argue that the scale comprises four factors, not six. They label these factors as perceived usability, aesthetics, focused attention, and hedonic engagement.
Oh, Belur, and Sundar (2012)	Communication	Experiment. Student participants interact with a website.	User engagement comprises four user actions: physical interaction with the <i>interface</i> /medium (mouse-cursor movement, eye tracking, number of taps, and zooming in/out), its assessment (nature, intuitive, and easy to use), absorption/involvement with the <i>content</i> , and digital outreach (sharing, bookmarking).
Rogers, Chapman and Giotsas (2012)	Marketing	Review	Both the type of content and its structure (e.g., position of links) determine its virality or propagation.
Samuel-Azran, Ilovici, Zari, and Geduild (2019)	Marketing	Data of an Instagram page by four students to promote Israel's liberal image to straight women and gay men (citizen diplomacy)	90% of the page's followers were from outside Israel. 67% of user comments were positive.
Tafesse and Wien (2017)	Management	Qualitative content analysis Sample for classification:	The authors classify the posts into 12 types (see Table 4 for names and definitions of each type).

		371 Facebook posts by 18 brands from various industries	
		Sample for validation: 249 posts by 15 brands	
Uşaklı, Koç, and Sönmez (2019)	Marketing	Observational. Content analysis of content posted by government tourism departments in seven European countries at four social media platforms	Among Facebook, Instagram, Twitter, and YouTube, tourism departments use Twitter the most and YouTube the least. However, user engagement is the highest on Facebook posts. Most content is promotional rather than customer service-oriented.
Vries, Gensler, and Leeflang (2012)	Marketing	355 Facebook posts from 11 brands across six product categories	A post's position on the brand's page, its vivid and interactive content, and share of positive comments drive its popularity.
Weiger, Wetzel, and Hammerschmidt, and (2016)	Marketing	Observational data of a brand's Facebook page and survey data	Brands' normative and utilitarian appeals to their Facebook followers increase followers' engagement, and the brands' consumer equity. Engagement intensity mediates the effects. The effects of the two appeals are moderated by the Facebook follower group's entertainment value (community characteristic), follower's preference for UGC over marketer-generated content (user characteristic), and user's duration of affiliation (user-community characteristic).
Yarchi, Samuel-Azran, and Bar-David (2017)	Marketing	Observational. Posts on the Facebook page owned by Israeli citizen's initiative	The authors measure user engagement with four types of message content. They find that content that makes users think about "what would YOU do" (perspective taking) engages users more than messages that refer directly to the conflict.

Zou, Chen, and Dey (2015)	Information Systems	during Israel-Palestine conflicts Quantitative analysis of Pinterest boards of 10 public libraries in the U.S. and follower engagement in terms of liking, commenting, pinning, and re-pinning.	Libraries can use four strategies to increase followers' engagement with their Pinterest "boards." They may share information and resources available to the community (literature exhibits), "pin" visual content (engaging topics), discuss the topics (community building), and mention new programs that the library is launching (library showcasing).
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Appendix B: Data Collection Procedure

Practitioner Literature on Content Recycling

1. The Value of Reposting to Social Media (<http://blog.wordsyouwant.com/2014/08/21/value-reposting-social-media-2/>)
2. How to Properly Re-Post User-Generated Content on Social Networks (<https://www.socialmediatoday.com/social-business/how-properly-re-post-user-generated-content-social-networks>)
3. Why You Should Share Your Blog Post More Than Once on Social Media: The Case for Reposting Content (<https://blog.bufferapp.com/the-case-for-reposting-content>)
4. Should You Repost Your Content on Social Media? (<http://hubshout.com/?Should-You-Repost-Your-Content-on-Social-Media?&AID=1083>)
5. How to Extend the Life of Your Social Media Content (<https://www.socialmediaexaminer.com/how-to-extend-the-life-of-your-social-media-content/>)
6. Can Reposting Facebook Content Hurt Your Page Reach? (<https://boostlikes.com/blog/2017/03/reposting-facebook-content-reach>)
7. Is it Dangerous to Repost Evergreen Content on Facebook? (<https://www.agorapulse.com/blog/evergreen-content-facebook>)
8. Should You Repost Old Content to Facebook? (<https://www.jonloomer.com/2013/05/30/repost-old-facebook-content-vlog/>)
9. How to Recycle Old Posts For Traffic & Exposure (<https://www.shoutmeloud.com/how-to-recycle-old-posts-traffic-exposure.html>)
10. Bring Old Blog Posts Back to Life: 5 Strategies that Work (<https://neilpatel.com/blog/bring-old-blog-posts-back-to-life-5-strategies-that-work/>)
11. Do Less Work and Get More Fans: The Magic of Recycling Old Content (<https://blog.patreon.com/recycling-content>)
12. Strategically Reposting Old Content To Maximize Traffic and Opportunities (<https://woorkup.com/strategically-reposting-old-content-maximize-traffic-opportunities/>)

Appendix C: Practitioner Interviews

Interview Protocol

Name and nature of the practice

1. What *words* do practitioners use to refer to this *practice* of the publisher posting the same content at two different points in time?
2. In your opinion, *how common* (e.g., rare, moderately common, very common) is this practice?

Mechanisms

3. In your opinion, *why* do social media users engage with content that is posted again?

Intended benefits

4. In your opinion, what are some *benefits* of this practice to the publisher?

Potential downsides

5. In your opinion, what could be some *downsides* of this practice to the publisher?

Strategies

6. In your opinion, *what* (e.g., characteristics of the content, the publisher, the followers, and the platform) *drives* this practice and what can managers do to boost engagement with recycled content?

Table C1: Information About Interviewees

Interviewee ID	Organization	Role	Representative Publication	Contact Medium
1	Perficient	Content Strategist	https://marketingland.com/tweet-repeat-power-sharing-sharing-83050	X and Email
2	XXX University	Content Manager	None	Personal Connection
3	Supremacy Marketing	Social Media Blogger and Speaker	https://www.socialmediatoday.com/social-business/how-properly-re-	X and LinkedIn

			post-user-generated-content-social-networks	
4	BoostLikes.com	Social Media Blogger	https://boostlikes.com/blog/2017/03/reposting-facebook-content-reach	Contact Us
5	XXX University	Communications Manager	<u>None</u>	Personal Connection
6	MeetRivka.com	Social Media Marketing Consultant	https://www.agorapulse.com/blog/evergreen-content-facebook	X

Table C2: Quotes from Survey of Content Managers

Question	Verbatim Answers
Phenomenon label	<ul style="list-style-type: none"> • Scheduled reposting • Evergreen reposting • Posting the same content again • Reposting • re-publishing or re-posting content • reposting • Evergreen content
How common?	<ul style="list-style-type: none"> • Moderately common • Rare • Very common • Very common, especially when you have evergreen content, or need to drive traffic your website • Common • Moderately common
Why repost?	<ul style="list-style-type: none"> • Most people are not all day active on social media platforms; different segments. • People need to see more than once to click on it. • People may have missed it the first time around. People follow a lot of pages and have a lot of friends. Or they may have seen it the first time, but didn't care enough to click. Maybe they'll be more enticed with different copy/photos. • Not everyone sees posts due to timing and social media algorithms. If someone isn't on Facebook for a few days, new content will push their post so far down that it will most likely never be seen, which is why it's important to post the same thing multiple times, especially as a smaller page with lower reach. • May have not seen it the first time it was posted. Aside from that, sometimes users need to see a message several times before they remember it or engage with it • Facebook's algorithm means that people don't always see the content publishers put out • Not all users will see a post the first time • Increase reach
Benefits	<ul style="list-style-type: none"> • Catching people who missed it the first time, or people who didn't click the first time

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- More eyes on your post.
 - Evergreen content such as your website, contact form or opt-in is that you are consistently driving traffic to these links. You are also showing newer followers all you have to offer
 - Helps to engage with more of our audience across the different times
 - Having important content seen by more people

Downsides

- Annoy users
- Could be perceived as annoying to people who did see it the first time
- Annoying users who may have already seen this post
- Audience fatigue if the links are published too close together time wise. The images and messaging should also be changed out to avoid this
- Take a hit with Facebook's algorithm
- If it is done too frequently, or without respect to the individual platform they are using, it could make their content seem stale
- Modern algorithms limit organic reach
- Evergreen content
- Content marketing
- If it's time sensitive or very important we might consider doing two links
- The continuous decline in organic reach and engagement due to ever-increasing competition, both paid and organic

Drivers

- Content that is of high importance can be re-published multiple times. This goes the same for the general website link, as well as any opt in landing pages.
 - works better on platforms like Twitter where content is more fleeting
 - Because of the way algorithms work on social media, it means that people have to share key content more than once if they want their whole audience to see it. Additionally, for some content creators it may be because they are struggling to come up with enough original content.
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Appendix D: Literature on Curiosity

Table D1: Representative Research on Curiosity in Psychology

Citation	Tested Relations	Context	Key Finding(s)
Caldwell and Burger (2009) <i>Cognition and Emotion</i>	Negative choice outcome attributed to circumstances → curiosity about unchosen alternatives → regret aversion	N/A	People are averse to regret. As a result, when their decision has had a negative outcome, they are less likely to seek information about unchosen alternatives. However, when they attribute the negative outcome to circumstances, they become curious and seek information about unchosen alternatives. Curiosity thus helps overcome regret aversion.
Fang, Tang, Li, and Wu (2018) <i>International Journal of Advertising</i>	Curiosity → adoption of eWOM and forward	Survey of professors and students	Curiosity makes people explore for information and pass it among friends.
Harvey, Novicevic, Leonard, and Payne (2007) <i>Journal of Leadership and Organization Studies</i>	Newness in job → curiosity → learning	New employees	Curiosity facilitates learning among newly appointed global managers.
Hill, Fombelle, and Sirianni (2016) <i>Journal of Business Research</i>	Withholding of information → curiosity → purchase likelihood	Shopping	When retailers partially withhold information from shoppers, they increase consumers' curiosity, positively affecting their purchase likelihood.
Kupor and Tormala (2019) <i>Journal of Consumer Research</i>	Interruption in message → curiosity → persuasiveness of the message upon resumption	N/A	A temporary interruption in a message makes consumers curious, increasing the persuasive appeal of the message upon resumption.
Mills, Sands, Rowles, and Campbell (2019) <i>CogSc</i>	Weak explanations → curiosity → more questions	Education	Children, when given weak explanations, feel deprived or tense and

Mussel (2013) <i>J of Org Beh</i>	Curiosity → job performance	Job	resolve it by asking more questions. Curiosity predicts job performance.
Noseworthy, Muro, and Murray (2014) <i>Journal of Consumer Research</i>	Moderate incongruity → curiosity emotion → resolution of incongruity	Product newness	When consumers perceive moderate incongruity between new products and their schema of the product, they experience the positive emotion of curiosity and can resolve the incongruity. (However, extreme incongruity leads to the negative emotion of anxiety.)
Okazaki, Navarro, Mukherji, and Plangger (2019) <i>Journal of Business Research</i>	Curiosity trait → visual attraction	Ads	Highly curious people are more attracted to visually complex ads (those that include QR codes).
Park, Mahony, Kim, and Kim (2015) <i>Sport Management Review</i>	Moderate information gap → curiosity	Ads	Ads with a moderate information gap generate higher curiosity among viewers (relative to ads with low and high information gaps).
Ruan, Hsee, and Lu (2018) <i>Journal of Marketing Research</i>	Uncertainty → curiosity → attitude toward product	Ads	Product ads that first create and then resolve uncertainty make the viewers curious, improving their attitude toward advertised products and increasing their willingness to try them.
Strong, Martin, Jin, Greer, and O'Connor (2019) <i>Journal of Business Research</i>	Uncertainty → curiosity → attitude toward genealogical products	Self	People who are uncertain/curious about themselves respond more favorably to genealogical products that offer insight into people's ancestry.
Thomas and Vinuales (2017) <i>Psychology & Marketing</i>	Status of the messenger → curiosity among the	Social media post	People are more curious about a social-media post when it is from a person

	recipient → attitude toward the message		who belongs to a “membership” group (as opposed to a dissociative group). The curiosity improves their attitude toward the experience described in the post, which in turn increases their intention to undertake that experience.
Wang and Huang (2018) <i>Journal of Consumer Research</i>	Curiosity → information seeking (as reward) → indulgent consumption	N/A	When people are curious, they seek information as a reward. However, when they are unable to satisfy their curiosity in the current domain, they seek reward (consume products) in a domain that is unrelated to the source of curiosity (e.g., indulgent food, immediate monetary reward).
Wiggin, Reimann, and Jain (2019) <i>Journal of Consumer Research</i>			