ORIGINAL EMPIRICAL RESEARCH

What drives digital engagement with sponsored videos? An investigation of video influencers' authenticity management strategies

Li Chen[1] · Yajie Yan[2] · Andrew N. Smith[1]

Abstract

Sponsored videos have rapidly emerged as an important marketing tool as video sharing platforms and the popularity of video influencers have grown. However, little research explores how sponsored videos' design strategies affect viewer engagement. Using field data, this study highlights influencers' authenticity dilemma in sponsored video design and tests which features drive digital engagement. Specifically, this study conceptualizes and empirically tests a comprehensive framework, involving passion- and transparency-based strategies as well as platform- and brand-factors, to determine how influencers can best manage the authenticity dilemma. Results show that explicitly disclosing brand sponsorship, alone, and in combination with platform-generated disclosure, positively impacts digital engagement, indicating an evolution in consumer persuasion knowledge. Early brand appearance, high video customization, and influencers' subjective endorsements, such as sharing personal experiences or opinions about the sponsored product, impair sponsored videos' digital engagement. In addition to contributing theoretical insights on authenticity management strategies and sponsorship disclosure in influencer videos, this research offers practical recommendations to influencers on how to design more engaging sponsored videos.

Keywords Influencer marketing · Sponsored content · Sponsored videos · Native advertising · Vlogs · Digital engagement · Authenticity

Introduction

Video influencers have become increasingly popular in recent years. Soaring online video consumption—along with the rapid development of video sharing platforms such as YouTube, TikTok, and Bilibili—has attracted a growing number of people to create and upload short videos to share their thoughts and lives. In these short videos, people record their travels, give tutorials, or simply share their daily routines, such as cooking and applying makeup. Many popular video creators have built impressive communities with millions of followers and become known as "vloggers" or "video influencers." According to a study commissioned by Google, 70% of YouTube subscribers said that YouTube content creators change and shape culture, and 60% of them would follow advice on what to buy from their favorite creators (O'Neil-Hart & Blumenstein, 2016). These astonishing statistics indicate that video influencers have become key opinion leaders and important information sources (Lee & Watkins, 2016).

An increasing number of brands have recognized the value of video influencers and are actively collaborating with them to promote products. One popular form of collaboration results in sponsored videos, in which influencers integrate advertising content within their videos in return for compensation (De Jans et al., 2018). According to a YouTube Influencer Marketing Report (Geyser, 2021a), a record high 4449 brands activated influencer campaigns across YouTube, resulting in a combined investment of over $1.1 billion on influencer sponsored videos in 2020. In their analysis, the 31,317 sponsored videos on YouTube in 2020

✉ Li Chen
  lchen28@suffolk.edu

  Yajie Yan
  danielyan86129@gmail.com

  Andrew N. Smith
  asmith12@suffolk.edu

1 Sawyer Business School, Suffolk University, Boston, USA

2 Independent Researcher, Seattle, USA

reached 9 billion views and generated 52 billion total audience engagements. Similarly, on Bilibili, one of the largest video sharing platforms in China, sponsorships increased 860% between 2019 and 2020 (Bilibili, 2021).

As an increasingly popular digital marketing tool, sponsored videos have not only enabled brands to effectively reach a vast number of target viewers but have also become the primary source of income for many influencers (Zimmerman, 2016). According to 2021 Influencer Compensation Report (Evans, 2021), the pricing of a sponsored video on YouTube and TikTok starts at several hundred dollars and may extend into the thousands or even tens of thousands of dollars. Although the actual rate paid to influencers varies depending on many factors, such as influencers' engagement performance or number of followers, these financial incentives explain why sponsorships are highly desirable for video influencers.

Yet, brand sponsorships are not without their risks for influencers (Cocker et al., 2021). An influencer's marketing value and persuasive power over audiences derive from their status as a "regular person" whose content production is grounded in their personal life rather than commercial incentives (van Driel & Dumitrica, 2021; Senft, 2008). However, collaborations with brands threaten this authenticity. As audiences seek out authentic connections, opinions, and content from influencers, effective authenticity management is critical for an influencer's appeal to audiences. Diminished or diminishing influencer authenticity can thus put engagement and the success of influencer marketing campaigns at risk, making this a critical issue for influencers, marketing scholars, and practitioners. Prior research recognizes the tensions that influencers face between maintaining an authentic persona and monetizing their social influence, and while it identifies strategies influencers use to manage these tensions, it stops short of studying their efficacy (Audrezet et al., 2020), or the magnitude of their effects (Cocker et al., 2021; Kozinets et al., 2010). As such, prior research does not delineate the effects of specific authenticity management strategies or measure the effects of these strategies on a dependent variable (Table 1). It also overlooks variables, such as platform factors, and considers authenticity management in a narrow range of brand or category contexts. Without such information, it is unclear which specific authenticity management strategies influencers should use as they seek to maximize engagement, an important outcome for influencers (Evans, 2021; Smith & Fischer, 2021).

The primary contribution of this study is to address this gap by conceptualizing and empirically testing a comprehensive framework, involving different types of authenticity strategies (i.e., passion- and transparency-based) as well as platform (i.e., platform-disclosure) and brand-factors (i.e., brand-influencer fit), to determine how influencers can best manage the authenticity dilemma they face when creating sponsored content. In this framework, transparency strategies correspond to the set of ways a sponsorship is disclosed while passionate strategies involve showing that the influencer's content creation is an intrinsically satisfying process rather than just a commercially driven activity (Audrezet et al., 2020). The study tests this framework using unique field data from video influencers on Bilibili, one of the largest video sharing social media platforms in China. It finds that sponsorship disclosure (a transparency-based strategy), alone, and in combination with platform-generated disclosure, is associated with higher digital engagement with sponsored influencer videos. Later brand appearance timing, another transparency-based strategy, is similarly associated with higher digital engagement. Video customization and subjective endorsement, both passion-based strategies, are linked with lower digital engagement. These findings, particularly those related to sponsorship and platform disclosure, make interesting contributions to current thinking on influencer marketing which generally assumes that sponsorship disclosure will dampen consumer attitudes (e.g., Eisend et al., 2020; Kim & Kim, 2021; Wojdynski & Evans, 2016).

With these findings, this study also advances prior work on sponsored content in influencer marketing by focusing on sponsored videos using actual behavioral outcomes. Prior research on this topic has tended to focus on text and images (e.g., sponsored written or pictographic content on blog portals) (e.g., Breves et al., 2019; Hughes et al., 2019; Kim & Kim, 2021). As such, less is known about sponsored videos, specifically as it relates to sponsorship disclosure. This is meaningful because disclosure approach has consequential effects on important sponsored content outcomes (e.g., Aribarg & Schwartz, 2020; Evans et al., 2017; Hwang & Jeong, 2016; Wojdynski & Evans, 2016), and such approaches, or the effects of previously studied approaches, may vary between static and video media. Prior research on sponsored video has studied how disclosure approaches impact adults' (Evans et al., 2018; Stubb et al., 2019) and kids' (De Jans & Hudders, 2020; van Reijmersdal et al., 2020) attitudes and intentions. This research moves beyond subjective dependent variables, such as purchase intention, brand attitude, or perceived credibility, which are difficult to evaluate and quantify in the real world, to find that sponsorship disclosure, and sponsorship disclosure made in the context of platform disclosure, positively impact digital engagement. Objective behavioral outcomes, like digital engagement, are more useful for decision makers (Hulland & Houston, 2021). In this context, they are necessary for influencers to understand the popularity of their sponsored videos and their potential to achieve higher remuneration. Accordingly, the findings have important implications for influencers on how to design more engaging sponsored videos, as well as secondary implications for brands who partner with these influencers, and platforms that are interested in retaining engaged audiences.

Table 1 How current study advances prior research on influencer marketing (authenticity management and sponsored content)

Research	Identifies Influencer Authenticity Strategies?	Measures Effects of Influencer Authenticity Strategies?	Focus on Online Engagement as Dependent Variable?	Focus on Influencer Disclosure in Sponsored Videos?
This study	Yes	Yes	Yes	Yes
Audrezet et al. (2020)	Yes	No	No	No
Aribarg & Schwartz (2020)	No	No	No	No
Boerman et al. (2017)	No	No	No	No
Breves et al. (2019)	No	No	No	No
Casaló et al. (2018)	No	No	No	No
Cocker et al. (2021)	No	No	No	No
De Cicco et al. (2021)	Yes	No	No	No
De Jans & Hudders (2020)	No	No	No	Yes
De Veirman et al. (2017)	No	No	No	No
De Veirman & Hudders (2020)	No	No	No	No
Evans et al. (2019)	No	No	No	No
Evans et al. (2018)	No	No	No	Yes
Eigenraam et al. (2021)	No	No	No	No
Hughes et al. (2019)	No	No	Yes	No
Kay et al. (2020)	No	No	No	No
Kim and Kim (2021)	No	No	No	No
Kozinets et al. (2010)	Yes	No	No	No
Ladhari et al. (2020)	No	No	No	No
Lee & Watkins (2016)	No	No	No	No
Martínez-López et al. (2020)	No	No	No	No
Pittman & Abell (2021)	No	No	No	No
Schouten et al. (2020)	No	No	No	No
Stubb et al. (2019)	No	No	No	Yes
Tafesse & Wood (2021)	No	No	Yes	No
Tellis et al. (2019)	No	No	Yes	No
Torres et al. (2019)	No	No	No	No
van Reijmersdal et al. (2020)	No	No	No	Yes
Wang et al. (2019)	No	No	Yes	No

Theoretical background and conceptual framework

Video influencer marketing

Video influencers, also known as vloggers, are normal everyday individuals who reach a large number of followers by creating and uploading videos on social media platforms. In the videos, they exhibit their personal lives, create their own online images, and use those images to attract viewers' attention (Choi & Lee, 2019; Ladhari et al., 2020). Video influencers are considered to be more credible, authentic and relatable among consumers (Arnold, 2017; O'Neil-Hart & Blumenstein, 2016). Through sharing personal experiences and building intimate relationships with their viewers, video influencers connect better with people and drive more engagement than traditional celebrities (Arnold, 2017).

From a marketing perspective, video influencers, as effective spokespeople for brands, represent a new and promising form of advertising (Harnish & Bridges, 2016; Ladhari et al., 2020; Lee & Watkins, 2016). In addition to using traditional celebrities such as actors, supermodels, and athletes to endorse their brand, companies increasingly turn to video influencers in their marketing communications. Compared to traditional celebrities who have gained public recognition because of their professional talent (e.g., vocal skills, showmanship), social media influencers have gained their popularity by creating content that is grounded in their personal lives and domain of interests such as beauty, fitness, food, and fashion (Khamis et al., 2017). Recognized for their ability to attract followers and impact purchasing

decisions, video influencers have been approached by marketers to record and publish online videos in which brands appear. This type of collaboration is commonly known as a sponsored video (De Jans et al., 2018), and it has become an important practice in influencer marketing.

Sponsored videos are regarded as a distinct and effective promotional strategy for the following three reasons. First, sponsored videos, as a form of native advertising, resemble the look and feel of the non-sponsored videos on an influencer's channel (De Jans & Hudders, 2020). By embedding the sponsored message into entertaining or informative videos, influencers can mask the persuasive and commercial nature of the content, minimizing viewers' critical evaluation of the sponsored content as advertising (Evans et al., 2018). Second, video is better suited than other forms of communication, such as text or image, for promoting the experiential characteristics of products (Ladhari et al., 2020). By sharing vivid experiences using videos' visual elements, influencers can highlight the sponsored products' features and increase audiences' evaluation of the endorsed products (Ladhari et al., 2020; Liu et al., 2019). Third, video influencers' personal popularity influences the purchase intentions of online consumers. Prior studies have shown that viewers' preferences for vloggers can be transferred to the endorsed brand, enhancing brand preference and purchase decisions (Hill et al., 2017). Therefore, brands can leverage influencers' large numbers of followers to easily reach and impact their target consumers (Campbell & Farrell, 2020). With all these unique benefits, it is no wonder that video influencer marketing is increasingly popular amongst marketers.

Influencer authenticity

Partnerships with brands do not come without risks, one of which concerns influencer authenticity. Conveying an authentic personality is an important determinant of an influencer's value (Hearn & Schoenhoff, 2016). From a self-determination perspective, authenticity involves an individual's engagement in intrinsically motivated behaviors—those a person finds interesting and passionate (Deci & Ryan, 2000; Moulard et al., 2016). In contrast, inauthentic behaviors are those driven by external pressures, such as rewards or punishments (Deci & Ryan, 2000). In the context of influencer marketing, influencers' followers are initially attracted by organic content that originates from "ordinary people" who are thought to be intrinsically motivated, rather than commercially induced. This noncommercial content is perceived to be more authentic and trustworthy than marketer-initiated communication (Audrezet et al., 2020; Mudambi & Schuff, 2010). In other words, influencers' persuasive power comes from their status as "regular people" whose content production is grounded in their personal lives instead of commercially driven sponsorships (Senft, 2008;

van Driel & Dumitrica, 2020). Audiences often consider influencers to be important people in their lives, much like they would consider friends and family. They turn to influencers' channels for connection and entertainment—not to see yet another ad (Tabor, 2020). Therefore, it is precisely this authenticity that influencers must carefully manage in their online persona.

However, collaboration with brands may call this authenticity into question (Audrezet et al., 2020). As soon as an influencer includes commercial products in their content, audiences may perceive a loss of authenticity, which can damage the influencer's relationship with followers. For example, followers may accuse the influencer of selling themselves out for money, react negatively to the influencer's sponsored content, and criticize the influencer's marketing intent (Kozinets et al., 2010). As a result, an influencer's authenticity can be threatened by brands' encroachment into their content. Therefore, it becomes imperative to understand how influencers can better manage authenticity while seizing commercial opportunities (Audrezet et al., 2020).

Transparent and passionate authenticity strategies

A better understanding of the strategies through which influencers manage an authentic persona depends on a clear conceptual meaning of authenticity in the context of social media influencers. While the notion of authenticity revolves around what is true, genuine, or real, marketing researchers recognize authenticity as a multilayered concept that encompasses different components (Becker et al., 2019; Nunes et al., 2021). Previous studies on authenticity in marketing generally fall into two research streams. The first stream, from a consumer perspective, focuses on the evaluation and consumption of authenticity, such as whether a product is real or original (e.g., Becker et al., 2019). The other stream, which is more relevant in our research context, centers on how brands (i.e., individuals or firms) manage their own authenticity (e.g., Audrezet et al., 2020).

Influencers are person brands (Smith & Fischer, 2021). The techniques they use to craft an authentic persona are part of their self-branding strategy (Audrezet et al., 2020; van Driel & Dumitrica, 2021). In the context of person brands, authenticity is related to different traits, such as honesty (e.g., van Driel & Dumitrica, 2021), transparency (e.g., Gaden & Dumitrica, 2015), passion (e.g., Moulard et al., 2014), and genuineness (e.g., Kucharska et al., 2020). These different traits correspond to two important components in authenticity— being true to others, which is labeled "accuracy," and being true to oneself, which is captured by "integrity" (Nunes et al., 2021).

Accuracy refers to being transparent and reliable in what is conveyed to consumers. Consumers described this dimension of authenticity as "delivering on all its claims," "super truthful, super direct," and getting "what you're expecting

with no surprises." (Nunes et al., 2021). In line with this interpretation, recent empirical studies have revealed two common strategies that influencers employ to deliver transparent communication. One of the two strategies focuses on sponsorship disclosure, which signals transparency by making the commercial content perceptible to viewers (e.g., Cocker et al., 2021; Evans et al., 2018; De Jans & Hudders, 2020; van Reijmersdal et al., 2020). The other investigates how perceived sponsorship noticeability gets affected by brand placement timing, the moment when a sponsored product or message appears in the post (e.g., Choi et al., 2018; De Pauw et al., 2018; van Reijmersdal et al., 2020). Most studies in this domain are from a customer perspective, examining how these strategies influence audiences' advertising recognition. Few of them have attempted to explore the effect of these strategies on actual digital engagement. Based on the conceptual meaning of accuracy, as the component that captures the transparency dimension of authenticity, we label these strategies as "transparent authenticity strategies" in our framework.

The other component of authenticity, integrity, means being intrinsically motivated and not acting out of one's own financial interest, while behaving autonomously and consistently (Nunes et al., 2021). Consumers use the phrases "not selling out" and being "passionate" about one's endeavors to describe this dimension of authenticity (Nunes et al., 2021). Since influencers are content creators, they must demonstrate that their content is created through an intrinsically satisfying process, rather than just a commercially driven activity, to be considered authentic (Audrezet et al., 2020; Moulard et al., 2014). Consistent with these arguments, recent qualitative studies have identified different types of techniques influencers use to project passion in their self-presentation. For example, many influencers express positive opinions, personal appreciation, and enthusiasm for the brand's products rather than just factual information of the product to demonstrate that they enjoy creating and sharing the sponsored content (Audrezet et al., 2020; Kozinets et al., 2010). Conveying to one's audience that they honestly love and use a product (subjective endorsement) reveals much more influencer passion, and thus integrity, than dryly providing facts or figures about that product (Audrezet et al., 2020). Influencers may also signal their passion for the brand by creating customized videos. In these customized videos, influencers creatively incorporate the brand into their video by fitting the brand's products, services, and messages naturally into their content, instead of just mentioning the brand's name at some point in the video without any dedicated video content for the brand (Audrezet et al., 2020; van Driel & Dumitrica, 2021). Creating an entire video about a product (video customization) – a resource-intensive process, especially in contrast to creating videos that only briefly mention sponsored brands – reflects passion for that product, and integrity in the influencer role

in which influencers are expected to produce content for 'the right reasons' (c.f. Cocker et al., 2021).

These practices all reflect influencers' attempt to show an intrinsically satisfying creation process (i.e., out of passion). Most studies in this domain are qualitative (Audrezet et al., 2020; van Driel & Dumitrica, 2021; Kozinets et al., 2010). Although they provide valuable insights on influencers' authentic self-presentation strategies (e.g., subjective endorsement), they have not measured the effects of these strategies on digital engagement. Based on these qualitative findings, we use subjective endorsement (i.e., the use of personal experience and positive opinions to promote the sponsored products) and customization (i.e., the degree to which video content is customized to the sponsored product) to capture influencers' passionate expression in their sponsored content production. Since the concept of integrity in authenticity closely ties to passion in the context of online influencers, we label these strategies as "passionate authenticity strategies" in our framework and analyze their effects in a real-world data setting.

Digital engagement

Our dependent variable for this study is digital engagement. Digital engagement refers to users' responses to social media content (Cheng et al., 2021; Gavilanes et al., 2018; Munaro et al., 2021; Scheinbaum, 2016). As a behavioral measure of users' actual actions, digital engagement can offer marketers a more tangible measure of success to report to senior management over cognitive or affective responses (e.g., perception, intention) (Moran et al., 2020). Industry reports have revealed that increasing engagement is a top objective of influencer marketing (Digital Marketing Statistics & Metrics, 2019), and 85% of marketers consider it the most important metric of success for influencer marketing (Influencer Intelligene, 2020).

Digital engagement reflects influencers' marketing value. High engagement indicates that instead of passively viewing, audiences actively interact with a social post or video. The active interaction with influencers' posts can be used to prove the loyalty of influencers' audience to potential advertisers (van Driel & Dumitrica, 2021). In addition, digital engagement plays an important role in who sees influencers' posts. Most social media platforms' algorithms prioritize posts with higher engagement levels (van Driel & Dumitrica, 2021). The algorithm determines whether a post is labeled "trending" and ultimately, how many viewers it is able to reach. Therefore, influencers who generate high engagement usually can negotiate higher rates with sponsoring brands (Geyser, 2021b).

In industry, total digital engagement is calculated using a likes+comments+shares formula by major social media platforms (e.g., Facebook, Instagram, Twitter, YouTube) to analyze the performance of social posts or campaigns (e.g.,

Fig. 1 Conceptual framework
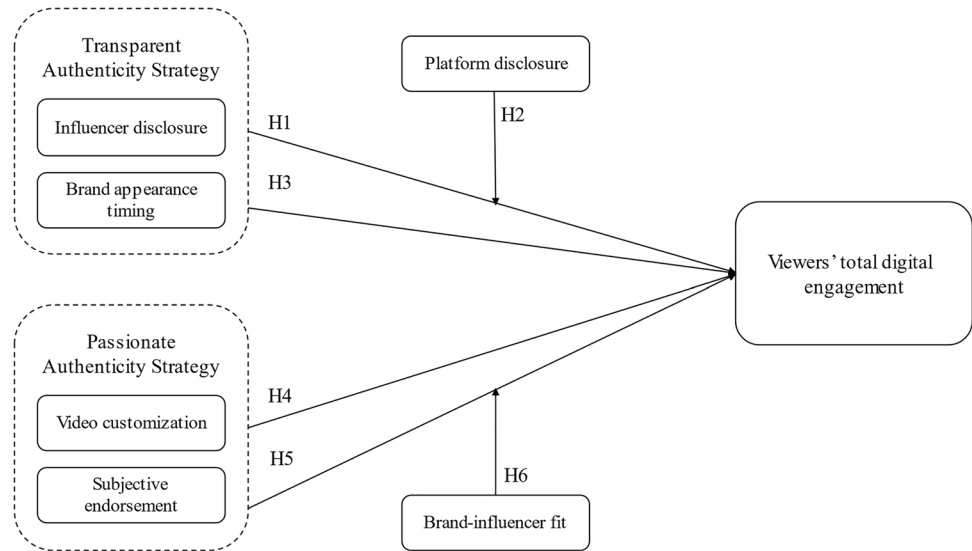
Corless, 2020; Rafael, 2019). In the three direct measurements of digital engagement, "likes" reflects viewers' positive attitudes towards the posted content, "comments" refers to viewers' discussions regarding the posted content, and "shares" indicates viewers' recommendations of the content in their social networks (Cheng et al., 2021). Given the interactive nature of social media, total digital engagement, as a combination of behavioral metrics, can better track viewers' total interaction with posted content and provide a more comprehensive evaluation of influencer marketing campaigns than can single metrics. In this study, we focus on total digital engagement as an important performance indicator of sponsored videos and analyze how influencers' authenticity strategies impact total digital engagement. The study's conceptual framework is presented in Fig. 1.

Hypotheses

Overview

Influencers' authenticity strategies may trigger people's awareness of the persuasive intent in sponsored videos. For example, although clear sponsorship disclosure promotes transparent authenticity by signaling an influencer's genuine image (Schau & Gilly, 2003), it also reveals the video's commercial nature. Similarly, personal subjective endorsement, which many influencers use in their passionate expression about sponsoring brands, is perceived more skeptically because of its potential commercial entanglement (Darley & Smith, 1993; Feick & Gierl, 1996). Sponsored videos are a form of native advertising that deliver marketing messages via personal content. People who encounter such videos judge the intention behind the content. Specifically, if viewers sense that a sponsored video is primarily persuasive and

commercially driven, they are likely to resist the content, resulting in defensive and negative responses (Boerman et al., 2015; Evans et al., 2017; Kim & Kim, 2021). Building on this notion, this study postulates that viewer behavioral responses (i.e., total digital engagement) will be negatively affected when a sponsored video is recognized to be high in persuasive intent owing to an influencer's suboptimal use of authenticity management strategies.

Influencer disclosure

Influencer disclosure, a transparent authenticity strategy, refers to the degree to which an influencer makes a sponsored message clearly perceptible to viewers of a video (Wojdynski et al., 2018). As a form of native advertising, sponsored videos blur the boundaries between commercial and noncommercial content, making it more difficult for viewers to identify persuasive marketing intent (Evans et al., 2018; van Reijmersdal et al., 2020). It raises concerns of deception that viewers are unwittingly manipulated into making decisions (van Reijmersdal et al., 2020).

To address these concerns, recent international regulations stipulate that influencers should disclose to viewers the sponsored nature of their content. For example, the European Advertising Standards Alliance (EASA) (2018) launched its Best Practice Recommendation on Influencer Marketing, and the U.S. Federal Trade Commission (FTC) provided Endorsement Guides on what endorsements are and how they should be disclosed (FTC, 2017; De Jans & Hudders, 2020). However, these regulations do not clearly address how disclosures for influencer marketing should be designed and implemented, leaving much room for interpretation (De Jans & Hudders, 2020). Therefore, in practice, video influencers disclose their sponsored content in varying ways. While some influencers are upfront and explicit about

sponsorship, others may be implicit or not mention sponsorship at all (e.g., Kozinets et al., 2010).

Although recent regulations have recommended clear disclosure in influencer marketing, many companies are pushing back, requesting that influencers avoid disclosing sponsorships (Audrezet & Charry, 2019). It is not hard to understand why: sponsorship disclosure increases people's awareness of a message's persuasive nature. This awareness triggers attitudinal and behavioral reactance (Boerman et al., 2017; Kim & Kim, 2021; van Reijmersdal et al., 2020; Wojdynski & Evans, 2016). That is, people do not want to be manipulated. They want to maintain freedom to make decisions. As a result, when they recognize a persuasion attempt, they tend to criticize and resist the sponsored content (Williams et al., 2004). Prior research has demonstrated that the negative evaluation of sponsored content due to critical processing can be transferred or misattributed to influencer videos (van Reijmersdal et al., 2020). Therefore, the more clearly an influencer reveals sponsorship, as a part of their transparent authenticity strategy, the more easily viewers can recognize the persuasive intent in the sponsored video, leading to less favorable behavioral responses.

H1 Influencer disclosure negatively impacts total digital engagement.

Platform disclosure

Although we predict that influencer disclosure is negatively related to digital engagement, we also anticipate that platform disclosure moderates this effect. In video influencer marketing, sponsorship can be disclosed in two ways. In addition to the influencer-generated disclosure discussed above, video sharing platforms can also disclose the sponsored nature of an influencer's video (De Jans & Hudders, 2020). Usually, platforms provide influencers with an option to add a textual feature to a sponsored video, where platform-generated words such as "sponsored by …" or "includes paid promotion" appear (De Jans & Hudders, 2020). For example, on YouTube, a textual message "includes paid promotion" would appear before the video starts and stay visible during the entire video.

Since platform-generated disclosure appears at the beginning of the video, it activates viewers' sponsorship recognition before the video starts. On the one hand, platform disclosure can serve as a selection variable that filters viewers who are most annoyed by sponsored content. By classifying influencers' content into organic and sponsored, platform disclosure gives viewers the opportunity to watch only the type of content they enjoy. Consequently, influencers can lower the risk of offending their viewers by implementing a

platform disclosure. On the other hand, platform disclosure precedes influencer disclosure and primes viewers for the content's sponsored nature. In other words, with platform disclosure, viewers can recognize the persuasive advertising intent before they form an overall impression of the video. This temporal order may change viewers' critical evaluation of the sponsored video in the following ways.

First, since platform disclosure already reveals to viewers that the video is an advertisement, influencers' own disclosure in the video becomes a signal of sponsorship transparency instead of the information source that activates sponsorship recognition. In other words, when viewers already recognize a video as a native advertisement with persuasive intent, clear influencer disclosure can increase sponsorship transparency and convey an honest and upfront message.

Second, platform disclosure draws viewers' attention toward the sponsorship of the video. This "awareness of influence" triggers validity-driven attitude corrections (Strack & Hannover, 1996). For example, drawing observers' attention toward the source of a stereotypical inference about a person (e.g., ethnicity) lessens their reliance on the stereotype as a basis of evaluation (Glaser et al., 2015; Hahn & Gawronski, 2019). Schwarz and Clore (1983) showed that the weather influenced respondents' reported life satisfaction unless their attention was drawn toward the weather—the source of their evaluation. Mookerjee et al. (2021) found that "ugly labeling" (e.g., labeling cucumbers with cosmetic defects as "Ugly Cucumbers" on store displays or advertising) can correct consumer's negative assumptions about unattractive produce. Based on this stream of research, this study argues that platform disclosure, which draws viewers' attention toward a video's sponsorship, lessens viewers' reliance on sponsorship when they subsequently evaluate the influencer's own disclosure. As a result, since platform disclosure already informed viewers that the video is sponsored, they may pay less attention to the influencer's own subsequent disclosure and more to their transparency and honesty.

In the context of influencer marketing, consumers' attitudes and behavioral intentions are shaped not only by the activation of their critical evaluation of persuasive intent but also by their perception of how much the sponsored content meets transparency norms (Evans et al., 2019). Prior research has suggested that ads perceived as more transparent in disclosing their true nature are more likely to be perceived positively by viewers (De Cicco et al., 2021). Therefore, we hypothesize

H2 The effect of influencer disclosure on total digital engagement is positive when platform disclosure presents.

Brand appearance timing

Brand appearance, a transparent authenticity strategy, refers to the timing of when the sponsoring brand is first placed in a sponsored video. The moment the brand appears determines a viewer's recognition and critical processing of the video's commercial motives. Specifically, late brand appearance delays viewers' identification of the video's commercial intent, giving them more time to like, share and comment the video. Early appearance of the brand increases its prominence in the video, which activates viewers' awareness of the video's persuasive intent (Tellis et al., 2019). Viewer awareness that content is commercially motivated can create resistance to persuasion, leading to negative responses (Boerman et al., 2017; Friestad & Wright, 1994; Kim & Kim, 2021; van Reijmersdal et al., 2020; Wojdynski & Evans, 2016). For example, Tellis et al. (2019) found that early brand placement reduces the likelihood that an online ad will be shared on social media. In addition, early brand appearance focuses viewers' attention on the brand, which facilitates critical processing of the video's commercial nature. For example, De Pauw et al. (2018) found that early exposure to brand placement in a movie increases ad recognition and elicits more persuasion knowledge. Consequently, a higher level of critical attitude regarding its persuasive intent leads to a larger negative effect on behavioral responses (van Reijmersdal et al., 2020).

H3 Early brand appearance in sponsored videos negatively impacts total digital engagement.

Video customization

Video customization, a passionate authenticity strategy, refers to the degree to which a sponsored video's content is customized for the sponsoring brand. One major difference between sponsored videos and conventional advertising videos is that sponsored videos can, and almost always do, contain content that is unrelated to the sponsoring brand (Rajaram & Manchanda, 2020). This amount of content varies greatly. At one extreme are integrated or dedicated sponsored videos that feature the brand centrally throughout the video (e.g., making a special dish using sponsored cooking pans or creating a makeup look inspired by or with sponsored eyeshadow palettes). In other words, the video is specifically designed for the sponsoring brand, and demonstrates an influencer's tremendous passion for it. At the other extreme are shout-out videos, in which influencers simply mention the brand's name and/or product at some point in the video rather than putting the sole focus on the sponsoring brand (Mediakix, 2020; see 'brand centrality' in Smith et al., 2012).

Unlike traditional advertising practices, influencers appear more real and authentic because their content production is grounded in their personal lives (van Driel & Dumitrica, 2021). It is this original, organic content that attracts the interest of followers. However, a customized video that features the sponsoring brand focally would resemble an advertisement more than original organic content, in spite of an influencer's expressed passion. The high level of brand focus can trigger viewers' thoughts about commercial motives (Tellis et al., 2019). As a video becomes more customized to a sponsoring brand, followers may easily sense the difference between the sponsored video and the influencer's other video posts, which may raise suspicion about the intention behind the video. Such a process can make viewers resistant to the content, leading to less favorable behavioral responses.

H4 A high level of video customization negatively impacts total digital engagement.

Subjective endorsement

Subjective endorsement, a passionate authenticity strategy, involves expressing and sharing personal experiences with and opinions about the sponsoring brand in a sponsored video. Sponsored video is a type of advertising in which messages can be objective or subjective. As message senders, video influencers can objectively communicate product information or include subjective opinions and usage experiences to promote a product. For example, an influencer endorsing a cereal may describe how tasty and crunchy it is and passionately recommend viewers try it. An influencer sponsored by a cosmetics brand may describe how smooth and comfortable its foundation feels on the skin. In contrast, an influencer eschewing subjective endorsement may merely objectively state the product features (e.g., "The cereal is made with organic natural ingredients." "The foundation is developed with an oil-free formula.").

Although influencers can signal their passion for the sponsoring brand by sharing usage experiences and opinions, a subjective endorsement is based on individual impressions (Darley & Smith, 1993). This type of claim is perceived to be harder to verify than an objective claim because it is open to interpretation and susceptible to individual experiences (Nelson, 1974). For example, viewers cannot sufficiently verify that a cereal brand tastes good when an influencer subjectively claims it to be so. Similarly, the feeling of a foundation on one's skin is subject to individual interpretation and unverifiable to viewers.

Subjective claims, which contain information with low verifiability, are perceived as less useful and elicit more

cognitive resistance (Darley & Smith, 1993; Kim et al., 2017). Research has found that compared to objective claims, people are more skeptical of subjective claims' credibility and motives (Darley & Smith, 1993; Feick & Gierl, 1996). Such skeptical thinking increases people's critical processing of an influencer's video content, leading to more resistant behavioral responses.

H5 An influencer's subjective endorsement negatively impacts total digital engagement.

Brand-influencer fit

Although we predict that an influencer's subjective endorsement is negatively related to digital engagement, we anticipate that brand-influencer fit moderates this effect. Brand-influencer fit refers to the congruence between an influencer's domain of interest or expertise and the sponsoring brand. Since influencers usually brand themselves as representing particular domains of interest, such as a beauty vlogger or food vlogger, they are easily linked to their niche specializations (Schouten et al., 2020). In addition, an inherent part of an influencer's success is that they establish a career by devoting themselves to a particular domain of interest and create their own expert profession (Balog et al., 2008; Erz & Christensen, 2018). Therefore, an influencer is commonly perceived to be a credible information source for products in their domain of interest and more likely to be frowned upon when their endorsements do not fit their interest and expertise (Schouten et al., 2020).

Brand-influencer fit has a significant impact on people's motive inference processing (Kim & Kim, 2021). Inference refers to the meaning formed based on the available information (Dick et al., 1990). People engage in inference processing to understand the underlying motives of observed behavior. Specifically, affective and calculative motive inferences have been proposed to explain people's responses to sponsorship marketing (Woisetschläger et al., 2017). In marketing communication, affective motive inference attributes a sponsorship to an affectionate intention (e.g., genuine passion), while calculative motive inference assumes an ulterior motive (e.g., commercial intent). Under high-fit conditions, people use affective motive inference to judge motives and develop attitudes. Conversely, people may suspect an ulterior motive and form negative attitudes (Woisetschläger et al., 2017).

Extending the motive inference model to influencer marketing, researchers have shown that brand-influencer fit triggers high affective motive inference and inhibits advertising recognition (i.e., calculative motive inference) (De Cicco et al., 2021; Kim & Kim, 2021). When the product is relevant and expected from the influencer, people assume that posting a video about it reflects the influencer's genuine emotion for the product and tend to not consider the content

as advertising (Kim & Kim, 2021). In other words, when using affective motive inference processing, people are more likely to perceive the influencer's subjective endorsement as genuine word-of-mouth and a passionate recommendation instead of a commercially motivated sales pitch. As a result, the viewers' inference of influencers' genuine motives would mitigate the cognitive resistance toward subjective endorsement.

H6 The negative effect of an influencer's subjective endorsement on total digital engagement is mitigated when there is brand-influencer fit.

Method

Research context

The study's context is sponsored influencer videos freely uploaded on Bilibili, one of the largest video sharing platforms in China. Launched in 2009, Bilibili provides a YouTube-style service with wide appeal and currently has around 220 million active users per month (Bilibili Q1 report, 2021). Bilibili is a highly relevant context for this research for the following reasons. First, Bilibili is one of the most popular platforms for video influencers worldwide. With an emphasis on user-generated content, Bilibili has over 1.7 million monthly active content creators who uploaded more than 5.7 million user-generated videos in 2020. Bilibili's popularity has attracted numerous brands seeking to collaborate with the platform's influencers. These brands include established, famous, global brands such as Coca-Cola, BMW, and Pepsi, as well as emerging Chinese brands such as Xiaomi and Genki Forest. Second, videos on Bilibili offer the potential to reach a large audience. In 2020, Bilibili generated 1.3 billion daily video views. Users' average time spent per day on the platform reached 82 minutes (Bilibili Q1 report, 2021). With this large active user base, Bilibili is becoming increasingly attractive to both brands and influencers who need to manage their authenticity as they produce content with these brands.

Video sample

The following criteria were used to identify the influencer population in this study. First, the influencers had to be 18 years or older. Second, the influencers had to have more than 10,000 followers. This threshold of 10,000 followers is recommended by the platform to help brands identify video influencers. Video creators on Bilibili also need to meet this criterion to be eligible to sign up for Sparkle,

a matchmaking platform launched by Bilibili that connects video creators with brands and agencies. Third, the influencers had to post videos regularly (i.e., at least one video per month). This criterion was used to ensure that the influencers were active video creators and engaging their audiences during the study. Finally, influencers had to have created sponsored content to fit the research context of sponsorship.

We obtained a list of 8712 influencers who met our selection criteria from Bilibili's database. Given the challenges in coding video content, we used a simple random sampling procedure and selected 200 influencers. We conducted two rounds of data collection. In the first round, we tracked the video posts of these 200 influencers between January 2020 and January 2021 and recorded 248 sponsored videos. Several indicators were used to determine whether a video was sponsored or not, including (1) influencers' self-disclosure of the sponsorship/partnership; (2) platform's disclosure of the sponsorship/partnership; (3) brands' disclosure of the sponsorship/partnership (the sponsoring brand's official account may post a comment such as "we are pleased to work with the influencer on this video…" in the comments section of the sponsored video. We looked for such comments from sponsoring brands if we couldn't identify any platform and influencer disclosure).

In this video sample, 65% of the influencers had only one sponsored video. To ensure we have at least two videos for each influencer in our sample to control for influencer related unobserved effects, we tracked the same 200 influencers' video posts between February 2021 and October 2021, a nine-month period after the first round of data collection. In this round, we collected 206 sponsored videos. We then combined our original (n = 248) and new video sample (n = 206) and extracted video and influencer information using the application programming interface (API) in December 2021. 14 of the original videos had been deleted by the time we extracted this information, leaving us with a total of 440 valid videos in our final combined sample.

Data

Dependent variable This study's dependent variable was total digital engagement. Total digital engagement measures viewers' total interaction with a video. It was calculated using a likes+comments+shares formula. There are two types of "like" buttons on Bilibili. One is a traditional "like" button, represented as a hand giving the thumbs-up sign. Users can tap the thumbs-up symbol to like the video they watched. The other is "favorite" button, represented by a pentagram. Users can tap the pentagram symbol to save the video in their personal playlist. The "share" button is an

arrow pointing up and then right. Users can tap it to forward the video they watched onto other social media platforms. There are two forms of user comments on Bilibili. One is the traditional type of comments that appear below a video. The second is Danmaku comments that are overlaid on the screen of a video. We relied on the API provided by Bilibili to extract the total engagement each sponsored video received.

Independent variables

Influencer disclosure Influencer disclosure is defined as the degree to which an influencer makes a sponsored message clearly perceptible to viewers (Wojdynski et al., 2018). For example, some influencers explicitly tell viewers that the video is sponsored, while others implicitly hint at sponsorship or do not mention it at all. This study's coders used a six-point scale to rate how clearly the influencer indicated that the video was sponsored (0 = "not clear at all" and 5 = "very clear").

Platform disclosure Platform disclosure refers to whether a platform-generated sponsorship label appears. In practice, video sharing platforms offer content creators the opportunity to add a textual feature, such as "sponsored by …" or "includes paid promotion," on a sponsored video (De Jans & Hudders, 2020). On Bilibili, if an influencer applies this feature, viewers can see the sponsorship label below the video. A video was coded as 1 if it had a platform-generated sponsorship label, and was coded as 0 otherwise.

Brand appearance timing Brand appearance timing captures the time point that the sponsoring brand first appeared in the video. A video was divided into six quantiles (1 = sponsoring brand first appeared in the first sextile of the video and 6 = sponsoring brand first appeared in the last sextile of the video).

Video customization Video customization measures the degree to which video content is specifically designed for the sponsoring brand. On the one extreme are integrated or dedicated videos in which influencers incorporate the brand into their videos by fitting the brand's products, services, and/or messaging into their content. On the other extreme are shout-out videos in which influencers only mention the sponsoring brand's name and/or product at some point (Mediakix, 2020). In the latter case, the brand sponsors the video, but the video content is not related to the sponsoring brand. Coders used a six-point scale to rate how customized a video's content was to the sponsoring brand (0 = "not customized at all" and 5 = "very customized").

Subjective endorsement Subjective endorsement measures whether an influencer shares personal usage experiences or

subjective opinions to promote the brand. If an influencer mentioned personal experiences or opinions, it was coded as 1, and was coded as 0 otherwise.

Brand-influencer fit This variable measures the match between an influencer's domain of interest or expertise and the sponsoring brand's category. Bilibili content creators have description tags on their profile pages to indicate their domains of interest. For example, an influencer who posts videos primarily on the topics of skin care and makeup has a "beauty" tag; an influencer with a domain of interest in cooking has a "food" tag on their profile. Influencers' description tags and their sponsoring brand categories were compared to code the variable. If a sponsoring brand matched an influencer's domain of interest (e.g., a cosmetic brand sponsored a beauty influencer or a snack brand sponsored a food influencer), it was coded as 1, and was coded as 0 otherwise.

Control variables Video-related control variables included video length, publication days, informative video content, foodie video content, and beauty video content. Video length was the total duration of the sponsored video in seconds. Publication days reported the number of days since the sponsored video was published on the platform. We also controlled for the types of sponsored video content using dummy variables: informative, foodie, and beauty.

Influencer-related control variables included the influencer's gender, number of followers, number of channels, total likes received, total number of videos published, influencer level and percentage of sponsored videos. Number of channels measures how many content categories an influencer has published. If an influencer only publishes foodie videos, his/her number of channels would be 1. If an influencer publishes videos in both sports and gaming channels, his/her number of channels would be 2.

Influencer level measures an influencer's status on the platform based on the badges they obtained on Bilibili. Depending on the level of difficulty in obtaining the badges, influencers were categorized into seven levels, with higher levels representing higher status. We recorded the total videos (both organic and sponsored) and sponsored videos an influencer published during our data collection period (2020/1–2021/10) and calculated the percentage of sponsored videos for each influencer as a control.

Brand-related control variables included product price and brand age. Product price was a dummy variable where 0 indicated "high price" (e.g., consumer electronic goods) and 1 indicated "low price" (e.g., consumer packaged goods). Brand age measured how long ago a brand was established in years.

Summaries of all the variables are in Table 2. Tables 3 and 4 present descriptive statistics and correlations for all the variables.

Content coding

Three paid coders who were blind to the purpose of this research coded the video content independently for the original video sample. We explained the rating scales and trained the coders using test sponsored videos. For example, we asked the coders to evaluate "How clearly did the influencer indicate that this video is sponsored?" using a six-point scale (0 = "not clear at all" and 5 = "very clear") (Table 2). After they rated the test sponsored videos, we reviewed discrepancies and clarified any confusion to minimize future discrepancies. We then gave coders copies of the sponsored videos in the study and instructed them to rate the videos independently.

Intercoder reliability for categorical variables was calculated using average kappa across all rater pairs (Hallgren, 2012). The average kappa was 0.74, which is regarded as adequate. Intercoder reliability for interval variables was calculated using the intra-class correlation, one of the most commonly used statistics for assessing intercoder reliability for interval variables with two or more coders (Hallgren, 2012). The average intra-class correlation was 0.83, indicating an excellent agreement among the coders. To determine the final scale for each variable in the analysis, we set a variable's scale to reflect the agreed-upon value when at least two coders gave the same rating. Otherwise, the mean of the three ratings was used.

We used two coders for the video sample collected in the second round (due to resource constraints). The average kappa was 0.67 and average intra-class correlation was 0.72. Both indicated adequate agreement between the coders. The average of the two ratings was used for interval variables (e.g., influencer disclosure). Any disagreements between the coders were decided using the evaluation of a third coder for categorical variables (e.g., subjective endorsement).

Two-stage control function approach

Influencers strategize on their sponsored video design. Specifically, they decide their disclosure clarity, video customization level, brand appearance timing, and whether to use personal experience to endorse sponsored products. Influencers might make these design decisions strategically, in anticipation of video engagement or other unobserved factors, making these decisions endogenous. Therefore, we used a control function approach, a common method to address endogeneity in empirical settings, to address potential endogeneity issues. The control function approach is also straightforward to accommodate interaction terms where one

Table 2 Constructs and measures

Construct	Definition	Operationalization
Total engagement	Viewers' total interaction with the sponsored video	Count; likes+shares+comments
Influencer disclosure	The degree to which an influencer made a sponsored message clearly perceptible to viewers of a video	Six-point scale (0="not clear at all" and 5="very clear")"How clearly did the influencer indicate that this video is sponsored?"
Platform disclosure	The platform-generated disclosure of whether an influencer's video is sponsored	Categorical (0 indicates absence; 1 indicates the presence of a platform-generated label indicating sponsorship)
Brand appearance timing	The point at which the influencer first places the brand in a video.	Six-quantiles (1=sponsoring brand first appeared in the first sextile of the video and 6=sponsoring brand first appeared in the last sextile of the video)
Video customization	The degree to which the influencer customizes the video content for the sponsoring brand	Six-point scale (0="not customized at all" and 5="very customized")"How customized is the video content to the sponsoring brand?"
Subjective endorsement	An influencer's use of personal experiences with, or subjective opinions of, the sponsoring brand to promote it in a video	Categorical (0 indicates absence; 1 indicates the presence of mentions of subjective experiences or opinions)"Did the influencer mention their personal experiences with or opinions (e.g., purchase/use/review) of the sponsoring brand in the video?"
Brand-influencer fit	A match between the sponsoring brand and the influencer's domain of interest	Categorical (0 indicates absence; 1 indicates the presence of brand-influencer fit)
Video publication days	The number of days since the sponsored video's publication	Count; control variable
Influencer gender	The influencer's gender	Categorical; control variable (0 indicates female; 1 indicates male)
Video length	Total duration of the video in seconds	Count; control variable
Influencer followers	The number of followers an influencer has	Count; control variable
Product price	The price of the sponsored product	Categorical; control variable (0 indicates "high price" e.g., consumer electronic goods;1 indicates "low price" e.g., consumer packaged goods)
Brand age	Brand age in years	Count; control variable
Informative	The type of the sponsored video content	Categorical; control variable (1 indicates the video's content is primarily informative e.g., tutorials; 0 indicates not e.g., remix)
Foodie	The type of the sponsored video content	Categorical; control variable (1 indicates the video's content is food related; 0 indicates not)
Beauty	The type of the sponsored video content	Categorical; control variable (1 indicates the video's content is beauty related e.g., skincare routine; 0 indicates not)
Influencer level	Status of an influencer	Categorial; control variable (8 levels, higher value representing higher status on the platform)
Total like	Total number of likes an influencer received	Count; control variable
Video number	Total number of videos an influencer posted	Count; control variable
Channel number	Total number of channels an influencer had	Count; control variable
Sponsored video %	An influencer's number of sponsored videos over total number of videos published during data collection period	Percentage; control variable

Table 3 Descriptive statistics

Variables	Minimum	Maximum	Mean	SD
1. Total digital engagement	103	671,972.00	48,573.85	99,571.60
2. Subjective endorsement	0	1	70%[a]	0.46
3. Brand appearance timing	1	6	2.63	1.84
4. Customization	0	5	3.15	1.58
5. Influencer disclosure	0	5	3.90	1.07
6. Platform disclosure	0	1	62%[a]	0.49
7. Brand-influencer fit	0	1	50%[a]	0.50
8. Publication days	43	659	322.59	132.84
9. Video length[b]	31	1894	425.27	257.50
10. Informative	0	1	8%[a]	0.27
11. Foodie	0	1	22%[a]	0.41
12. Beauty	0	1	20%[a]	0.40
13. Brand age[c]	0	448	34.79	47.18
14. Gender	0	1	47%[a]	0.50
15. Follower	24,801	16,734,053	1,448,869.37	2,310,354.63
16. Influencer level	0	7	3.98	2.22
17. Total likes	27,658	118,023,835	9,747,194.09	18,350,697.50
18. Total video	19	1672	219.58	214.96
19. Channel number	1	10	2.4	2.62
20. Sponsored video %	0.13%	12%	4%	2.5%
21. Product price	0	1	65%[a]	.48

[a]Percentage of occurrences

[b]In seconds

[c]In years

or both of the interacted variables are endogenous (Papies et al., 2017; Rutz & Watson, 2019; Wooldridge, 2015).

Obtaining the control function corrected estimates requires two steps. First, we perform an auxiliary estimation with the endogenous variable as the dependent variable and find variables (i.e., instrumental variables) that could satisfy the exclusion restriction, such that they correlate with influencers' video design decisions (e.g., sponsorship disclosure) but do not directly correlate with unobserved determinants of video performance (i.e., total engagement). The predicted residuals from the auxiliary estimation provide a control function correction in the main estimation model.

We performed five auxiliary estimations for the endogenous variables (influencer disclosure, video customization, brand appearance timing, subjective endorsement, platform disclosure). Specifically, we used average sponsorship disclosure by similar peer influencers as an instrument for an influencer's disclosure. Peer strategy is commonly used as an instrumental variable (Sridhar et al., 2016). We expect a high correlation between an influencer's disclosure and the respective average disclosure by peer influencers because they are guided by similar norms. The assumption is that influencers will look to their peers to guide their actions, as they know that their peers' decisions might reflect important social, economic, or regulation information. At the same

time, it is highly unreasonable that peer influencers' average disclosure will directly impact an influencer's own video engagement.

In addition, we aimed to use instruments with granularity. A common criticism against the use of peer-based instruments is granularity: that there is a lack of variation in the group composition (Angrist, 2014). To ensure that the instruments vary substantially across peers, we construct a unique group of similar peers for each influencer based on their own characteristics. Following recent findings that firms tend to mimic the actions of similar peers (Shi et al., 2021), we argue that influencers would also mimic the actions of similar influencers in their sponsored video design. A peer group is a group of people who have similar interests, background, or social status. In the context of influencers, we use influencers' domain of interests (e.g., beauty, food, gaming), gender, and number of followers to construct similar peer groups. Specifically, we identify ten influencers who share the same gender and the same domain of interests with, and have the most similar number of followers to, the focal influencer, as a similar peer group. We then use the average sponsorship disclosure of this peer group as instrument for the focal influencer. Since each influencer has a unique combination of interests, gender, and follower number, the use of this measure is likely to increase

Table 4 Variable correlations

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Total digital engagement	1																				
2. Subjective endorsement	-.10*	1																			
3. Brand appearance	.10*	-.25*	1																		
4. Customization	-.16*	.01	-.29*	1																	
5. Influencer disclosure	.11*	.06	-.04	.13*	1																
6. Platform disclosure	-.02	-.04	-.17*	.13*	.13*	1															
7. Brand-influencer fit	-.06	.24*	-.08	.01	-.16*	-.34*	1														
8. Publication days	-.05	.21*	-.05	.10*	.14*	.36*	-.14*	1													
9. Video length	.11*	.21*	-.13*	-.23*	.01	-.08	.12*	-.05	1												
10. Informative	-.02	-.19*	.14*	.02	.00	-.03	-.04	.06	.03	1											
11. Foodie	.24*	.10*	.21*	-.23*	-.01	-.30*	.27*	.05	.07	-.15*	1										
12. Beauty	-.21*	.19*	-.25*	.10*	-.05	.05	.35*	.02	-.09	-.15*	-.27*	1									
13. Brand age	-.18*	.04	-.08	.05	.12*	.04	-.03	.11*	.15*	-.03	.12*	-.12*	1								
14. Influencer gender	.24*	-.09	.12*	.01	.13*	-.12*	-.13*	.05	.06	.18*	.07	-.39*	.12*	1							
15. Follower	.75*	-.14*	.11*	-.11*	.12*	-.04	-.07	-.04	.11*	.08	.23*	-.24*	.21*	.32*	1						
16. Influencer level	.19*	-.04	.17*	-.07	.11*	-.07	-.03	.12*	-.06	.17*	.18*	-.23*	.01	.21*	.34*	1					
17. Total like	.70*	-.09	.09	-.08	.15*	-.01	-.13*	-.04	.11*	.06	.15*	-.23*	.19*	.33*	.95*	.32*	1				
18. Total video	.28*	.04	.01	.06	.15*	.03	-.08	.01	.05	-.05	.05	-.15*	.08	.29*	.54*	.22*	.63*	1			
19. Channel number	-.09	-.04	-.02	.03	.06	.01	-.03	.10*	.07	.04	-.10*	.02	.04	.03	-.06	.10*	-.07	.06	1		
20. Sponsored video %	.05	-.03	.10*	-.07	.02	-.10*	.15*	-.02	-.06	.11*	.19*	-.01	.11*	-.03	.02	.07	-.02	-.20*	-.05	1	
21. Product price	.00	.13*	.01	-.04	.07	.27*	-.11*	.34*	-.05	-.17*	.09	.02	-.07	-.02	.02	.05	.05	.11*	-.04	-.06	1

*$p < 0.05$

Table 5 Auxiliary regression

	Influencer disclosure	Brand appearance timing	Subjective endorsement[a]	Video customization	Platform disclosure[a]
Respective instrumental variable	AID 0.724**	ABAT 0.54**	ASE 3.364**	AVC 0.363**	APD 2.666**
Gender	0.140	0.174	−0.127	0.063	−0.253
Follower	0.000	0.000	0.000*	0.000	0.000*
Influencer level	0.017	0.110**	0.049	−0.027	−0.064
Total likes	0.000	0.000	0.000	0.000	0.000*
Total video	0.000	0.000	0.001	0.001	0.000
Channel number	0.009	−0.016	−0.047	0.007	0.005
Sponsored video %	3.279	3.29	−1.912	−0.592	−3.271
Constant	0.749**	0.625	−1.382**	2.053**	−0.590

AID = average influencer disclosure; ABAT = average brand appearance timing; ASE = average subjective endorsement; AVC = average video customization; APD = average platform disclosure

* $p < .05$; ** $p < .01$;

a. binary logistic regression (Subjective endorsement and platform disclosure are categorical dummy variables)

the variation in peer group composition and reduce concerns associated with granularity compared to the use of general peer average as instruments.

Following the same method, we identified instruments for video customization (i.e., average video customization by similar peer influencers), brand appearance timing (i.e., average brand appearance timing by similar peer influencers), subjective endorsement and platform disclosure (i.e., since subjective endorsement and platform disclosure are dummy categorical variables, we calculated the percentage of similar peer influencers who used subjective endorsement/platform disclosure as an instrument).

We ran five auxiliary regressions with the endogenous variables as dependent variables. Independent variables include the five respective instruments identified above and a set of influencer-related variables to control for other observed effects (e.g., Sridhar et al., 2016). The five instruments are significant drivers of influencers' video design strategies, respectively, which is important for ensuring the legitimacy of the control function approach (Sridhar et al., 2016). Auxiliary regression results are presented in Table 5.

Model of video total digital engagement

The dependent variable of interest—total digital engagement—is a count variable with overdispersion. Thus, the negative binomial model was used to test the hypotheses. Our final model is:

$$
\begin{aligned}
\text{Total digital engagement} =\ & \beta_0 + \beta_1(\text{Brand appearance timing}) \\
& + \beta_2(\text{Influencer disclosure}) + \beta_3(\text{Subjective endorsement}) \\
& + \beta_4(\text{Customization}) + \beta_5(\text{Platform disclosure}) + \beta_6(\text{BrandInfluencer fit}) \\
& + \beta_7(\text{Influencer disclosure} * \text{Platform disclosure}) + \beta_8(\text{Subjective endorsement} * \text{BrandInfluencer fit}) \\
& + \beta_9(\text{Video length}) + \beta_{10}(\text{Publication days}) \\
& + \beta_{11}(\text{Informative}) + \beta_{12}(\text{Foodie}) + \beta_{13}(\text{Beauty}) + \beta_{14}(\text{Brand Price}) + \beta_{15}(\text{Brand age}) + \beta_{16}(\text{Video customization residuals}) \\
& + \beta_{17}(\text{Influnecer disclosure residuals}) + \beta_{18}(\text{Brand appearance residuals}) + \beta_{19}(\text{Subjective endorsement residuals}) \\
& + \beta_{20}(\text{Platform disclosure residuals}) + \epsilon
\end{aligned}
$$

The residuals are obtained from the auxiliary regressions in the first stage estimation to account for the standard error correlation (Karaca-Mandic & Train, 2003). Following the recommendation of Petrin and Train (2010), we implement the bootstrap method to obtain standard errors due to the use of an estimate from the first stage auxiliary regressions. Using 500 bootstrap samples, we obtain 500 sets of predicted residuals from the estimation of the auxiliary regressions, and then use each set of predicted residuals in the estimation of the final model.

Table 6 Model results

	Total Digital Engagement			
	Main effects model		Full model	
	Beta Coefficient (Std.Error)[a]	P value	Beta Coefficient (Std.Error)[a]	P value
(Intercept)	8.398(1.209)	.002**	9.105(1.300)	.002**
Brand appearance timing	.415(.197)	.024*	.393(.203)	.040*
Influencer disclosure	.901(.135)	.002**	.725(.160)	.002**
Subjective endorsement	−1.395(.473)	.002**	−1.585(.576)	.006**
Video customization	−.878(.194)	.002**	−.867(.203)	.002**
Platform disclosure	1.608(.562)	.008**	.493(.903)	.547
Brand-influencer fit	−.342(.174)	.042*	−.431(.301)	.136
Influencer disclosure * platform disclosure			.309(.145)	.040*
Subjective endorsement * brand-influencer fit			.112(.350)	.721
Controls				
Video length	.001(.000)	.012*	.001(.000)	.018*
Publication days	−.001(.001)	.339	−.001(.001)	.333
Informative	−.430(.293)	.134	−.359(.284)	.188
Foodie	1.031(.249)	.002**	1.049(.260)	.002**
Beauty	−1.011(.212)	.002**	−1.061(.210)	.002**
Product price	−.075(.164)	.615	.018(.164)	.898
Brand age	.000(.002)	.747	−.001(.001)	.661
Video customization residuals[b]	.931(.191)	.002**	.909(205)	.002**
Influencer disclosure residuals[b]	−.887(.149)	.002**	−.915(.157)	.002**
Brand appearance residuals[b]	−.416(.192)	.020*	−.391(.203)	.036*
Subjective endorsement residuals[b]	1.089(.471)	.012*	1.168(.504)	.020*
Platform disclosure residuals[b]	−1.534(.570)	.008**	−1.616(.523)	.004**
Model fit				
Likelihood ratio chi-square	545.019	.000**	554.676	.000**
AIC	9868.930		9863.273	
BIC	9946.578		9949.095	

$* p < 0.05.$ $** p < 0.01$

AIC = Akaike information criterion; BIC = Bayesian information criterion

a. Std.Error = bootstrap standard errors derived from performing 500 bootstrap replications

b. The residuals are obtained from the auxiliary regressions

$n = 440$

Results

Our findings reveal novel insights into the effects of influencer authenticity management strategies, as well as platform and brand factors, on total digital engagement. Table 6 reports the negative binomial model results. The Akaike information criterion for the full model was 9863.273 and the Bayesian information criterion was 9949.095. The likelihood ratio test was significant ($\chi^2(20) = 554.676$, $p < 0.01$). We find that influencer disclosure had a significant positive effect on digital engagement (b = 0.725, p = 0.002), which is an interesting inconsistency with H1. We hypothesized a negative effect of influencer disclosure based on existing literature (e.g., Carr & Hayes, 2014; Colliander & Erlandsson, 2015; Hwang &

Jeong, 2016; Kim & Kim, 2021; van Reijmersdal et al., 2020; Wojdynski & Evans, 2016). The core argument in this hypothesis is that sponsorship disclosure triggers viewers' persuasion knowledge, leading to less favorable attitudinal and behavioral responses to influencers' posted content (e.g., van Reijmersdal et al., 2020). However, our analysis shows that the more clearly an influencer reveals sponsorship in a video, as a part of their transparent authenticity strategy, the more likely viewers are to engage with that video.

To better understand why increased levels of sponsorship disclosure are associated with higher engagement, we conducted a post-hoc qualitative analysis of consumer comments from videos in the sample. We randomly sampled 10% of videos in the sample that were coded as either high disclosure (coded 4 or 5) or low disclosure (coded 0 or 1), enabling us

to look for thematic differences in comments associated with each category of video (22 high disclosure videos; 22 low disclosure videos). Informed by our desire to understand how sponsorship disclosure affects engagement, we open coded (Strauss & Corbin, 1990) the videos with a focus on understanding consumer attitudes towards and collective discussions about brand sponsorships in influencer videos.

This qualitative analysis reveals several clarifying insights about consumer reactions to sponsorships in influencer videos. Consistent with understandings of persuasion knowledge (Friestad & Wright, 1994), consumers do not leave any comments about sponsorships in low disclosure videos in the qualitative subsample. Low levels of disclosure in these videos mean persuasion attempts are less salient to consumers and are therefore less likely to be the subject of commenting. In contrast, sponsorship-focused comments are present in the high disclosure videos. These comments sometimes represent negative reactance and an expectation of clear disclosure: *"It's an ad. You should make it clear"* (viewer R1, video R).

However, a majority of sponsorship-focused comments emphasize acceptance and, sometimes, celebration of sponsorship in influencer videos, indicating changing audience norms around the practice. These updated judgments of appropriateness are reflected in consumer persuasion knowledge and any associated responses (Friestad & Wright, 1994). In illustration of this point, one commenter states: *"Most influencers have sponsorships now. If not, how can they make money. If you don't like it, just don't watch"* (viewer C1, video C). This commenter, like others, acknowledges the ubiquity of video sponsorship and her defense of the practice offers evidence of its emerging legitimacy in this domain.

Consumers are not entirely credulous of the practice, but they acknowledge the benefits it affords them as viewers. For one, sponsored videos, like the other videos that influencers produce, can be high quality and worthwhile to watch. A commenter explains: *"It's a good video. I know it's an ad, but it doesn't matter. It's a good sponsored video"* (viewer W1, video W). Provided sponsored videos remain of sufficient quality and are clearly disclosed, consumers can appreciate them and the trade-off they embody: *"I really like this kind of collaboration. Clearly disclosing that it is sponsored, sincerely talking about product features, and letting viewers decide their needs and whether to buy"* (viewer X1, video X).

Consumers also recognize the longer-term benefits of sponsorship for them as viewers. One commenter entreaties and then explains, *"please get more sponsorship if you can. Video quality doesn't conflict with brand sponsorship. The more you get sponsorship, the more budget you have for future video production. Then you are able to make more good videos that require resources"* (viewer C2, video C). Sponsored videos enable influencers to acquire the resources they need to produce more high-quality videos, potentially at a faster cadence, which is a yearning that fans come to celebrate. Owing to the para-social relationships fans develop with influencers (Boerman & Van Reijmersdal, 2020), some consumers even celebrate sponsorships because they are a marker of professional success and they want to support their influencer companions. Another commenter expresses this feeling: *"I actually hope the influencers I like get more sponsorship. They need to make a living on sponsorship before they get established"* (viewer R2, video R).

With the increasing ubiquity of sponsored posts, many consumers are becoming more accepting of the practice. They do not necessarily view this category of content to be inferior, and it is a positive signal about the quality and volume of future content, not to mention the success of the influencer, who they often want to prosper. For all these reasons, clear disclosure of sponsorship can explain higher engagement rates, in spite of the fact that sponsored videos include commercial content that they may harbor some suspicion towards. We provide important implications of this finding in the discussion section.

Returning to the model results, the interaction effect of influencer disclosure and platform disclosure was positive and significant (b = 0.309, p = 0.040), supporting H2. Platform disclosure functions to pre-announce sponsorship, framing subsequent disclosure from influencers as being both honest and well aligned with prevailing norms. We further elaborate on the implications of this point in the discussion.

The timing of brand appearance, a transparent authenticity strategy, had significant effect on digital engagement (b = 0.393, p = 0.040), as predicted in H3. That is, the earlier (later) a brand appeared in a sponsored video, the lower (higher) the levels of digital engagement. In combination with the previous finding, this seems to indicate that while consumers value sponsorship disclosure, they prefer such disclosure or commercial content not interfere with the beginning of influencer videos when rapport and narratives are being established. The finding from H3 is also consistent with that from Tellis et al. (2019), who studied traditional video advertisements online, and extends the insight into the domain of sponsored influencer videos.

The main effect of video customization, a passionate authenticity strategy, was negative and significant (b = −0.867, p = 0.002), supporting H4. While highly customized sponsored videos are more expensive and time-consuming to produce, they generated less viewer engagement than simple shout-out videos. This is an intriguing finding

for marketers, and future research on this relationship would be fruitful.

Subjective endorsement, another passionate authenticity strategy, had significant negative effects on digital engagement (b = −1.585, p = 0.006), corroborating H5. This result suggests that total digital engagement will be lower if influencers use subjective opinions or personal experiences to promote the sponsored products in their videos. This is an interesting and impactful finding, especially given the prevalence of personal endorsement in sponsored influencer content. The interaction effect of subjective endorsement and brand-influencer fit was insignificant (b = 0.112, ns), failing to support H6. While we hypothesized that brand-influencer fit would mitigate the negative effect of subjective endorsement on digital engagement, we find no evidence of this moderating relationship. It is possible that many influencers publish videos in multiple content categories, which may attenuate viewers' recognition of influencers' domain of interest. Accordingly, the effect of fit would become less pronounced.

Discussion

As videos have gradually come to dominate people's online entertainment and information acquisition, many video influencers have emerged and become key opinion leaders in their respective domains of interest. Video influencers' persuasive powers over viewers are tied to their authenticity, which enables influencers to capitalize on their influence while brands effectively reach target customers through their sponsored videos. Despite their growing popularity, research on sponsored videos is still emerging, especially as it relates to influencer authenticity management strategies and sponsorship disclosure. Using real-world field data, this study sheds light on authenticity management strategies in sponsored videos and their relationship with viewer digital engagement. The findings provide influencers with valuable guidance on how to produce highly engaging sponsored videos.

Theoretical implications

This research takes an influencer perspective and highlights the importance of authenticity, offering a framework for investigating transparent and passionate authenticity strategies, along with platform and brand factors, in sponsored video design. In influencer marketing, research has often centered around consumers, investigating their recognition, processing, and reactions concerning sponsored content (e.g., De Jans & Hudders, 2020). Less attention has been given to the challenges facing influencers in their content production (e.g., Cocker et al., 2021). One important challenge is that the inclusion of commercial products into videos threatens influencers' authenticity, which is what initially attracts viewers and makes influencers appealing to advertisers. Therefore, as influencers orient themselves toward monetizing their following, they are forced to consciously balance the strategic approach to their sponsored content with their position as authentic personalities for their followers (van Driel & Dumitrica, 2021).

Striking such a balance demands ongoing efforts from influencers. Pioneering studies that broach this issue identify some authenticity strategies that influencers use, such as disclosure or endorsement (e.g., Audrezet et al., 2020; Cocker et al., 2021; Kozinets et al., 2010). However, these studies stop short of measuring the effectiveness of these strategies. For instance, Cocker et al. (2021) identify that lack of disclosure and high levels of customization are associated with negative community response, and Kozinets et al. (2010) reveal that disclosure and subjective endorsement can result in mixed community responses. These qualitative studies do not establish the independent effects of specific authenticity management strategies nor measure the effects of these strategies on viewer engagement. The resulting knowledge gap leaves influencers and researchers alike unclear about how influencers can best manage the authenticity dilemma associated with sponsored content.

The primary contribution of this study is that it provides clear direction on how influencers should proceed in managing this dilemma by showing which authenticity strategies are clearly associated with higher audience engagement, an important outcome variable for influencers (Evans, 2021; Smith & Fischer, 2021). Findings demonstrate that some sponsorship transparency (e.g., clear sponsorship disclosure and use of platform disclosure) can help increase total digital engagement, but that influencers also benefit when a brand appears later (vs. earlier) in their videos. These are particularly novel insights because platform disclosure and brand appearance have not been studied in extant influencer authenticity research. Influencers can also avoid producing highly customized sponsored videos or employing subjective endorsement, both of which are passion-based authenticity strategies, to boost engagement. With these findings, this study highlights how both transparency- and passion-based authenticity strategies can be associated with higher audience engagement. Importantly, it offers evidence of this in the context of sponsored videos (vs. static content) across a range of brands and campaigns, further extending prior research on the topic (Audrezet & Charry, 2019; Cocker et al., 2021; Kozinets et al., 2010).

These findings reflect interesting developments in influencer marketing in which the dual nature of sponsored videos may trigger viewers' use of different inference processing to understand influencers' underlying motives (Kim & Kim, 2021). For instance, the study reveals the positive effect of influencer disclosure on digital engagement, which

reflects developments in the influencer marketing industry and relates to emerging literature on the topic. As commercial relationships between influencers and brands become increasingly common, sponsorship disclosure may actually increase rather than compromise influencers' perceived expertise and authenticity (Audrezet & Charry, 2019). The global influencer marketing market has more than doubled in size since 2019 (Statista, 2021). On Bilibili specifically, sponsorship for mid-tier influencers grew more than a hundred percent from 2020 to 2021. In 2021, more than three thousand sponsored videos were featured as top trending videos, translating into an average of ten videos every day. This is a 150% increase compared to 2020.[1] As viewers are exposed to sponsored content more frequently, this form of collaboration between brands and influencers becomes more normalized and legitimate. Specifically, while many viewers initially expected influencers to refrain from receiving incentives (financial or otherwise) from brands (e.g., Kozinets et al., 2010), since they were perceived to bias their recommendations, they have come to accept influencers' need to monetize their content via sponsorships (Cocker et al., 2021). As our post-hoc qualitative findings indicate, consumers sometimes even celebrate sponsorships because they support people they like and the content they hope to consume in the future. At the same time, a new moral responsibility has emerged: influencers are expected to provide clear sponsorship disclosure to viewers (Cocker et al., 2021). Our finding regarding the positive effect of sponsorship disclosure on digital engagement presents a second contribution of this work: clear evidence of change in viewer perception toward sponsored content and a newly emerged moral responsibility for influencers to disclose their sponsorships.

A third contribution of this study is that it demonstrates how platform-generated disclosure can intervene in people's critical evaluation of influencers' persuasive intent. With platform disclosure, an influencer's audience can be divided into two groups, one that chooses to ignore a sponsored video and the other that chooses to watch the sponsored video. On the one hand, platform disclosure ensures that the viewers who choose to watch the sponsored video recognize the persuasive intent before they form an overall impression of the video. Since platform disclosure already reveals to viewers that the video is an advertisement, influencers' own disclosure in the video becomes an additional signal of sponsorship transparency and honesty instead of the information source that activates sponsorship recognition. In other words, an initial disclosure generated by the platform directs people's attention to an influencer's honesty

when they subsequently offer a personal disclosure about the video's sponsorship, thus enhancing the positive impact of influencer disclosure on digital engagement.

On the other hand, platform disclosure enables viewers who are offended by commercial content to avoid such sponsored videos. Influencers' viewers are initially attracted by influencers' organic content (e.g., Audrezet et al., 2020; Mudambi & Schuff, 2010). Viewers may get upset when they see commercial products in influencers' content (Kozinets et al., 2010). Platform disclosure can clearly classify influencers' content into organic and sponsored buckets, which gives viewers the opportunity to watch only the video they want to consume. For influencers, including a platform disclosure label lowers their risk of offending their viewers who are uninterested in sponsored content. This allows influencers to segment their audience and serve their collective needs and wants better. These findings provide a more nuanced explanation of how viewers process messages in sponsored videos and how influencers can design their sponsored videos to achieve effective results.

Finally, this study makes a fourth contribution by extending academic knowledge on sponsored content, specifically as it relates to disclosure in sponsored video content. Prior research on sponsorship disclosure has mostly focused on written or pictorial, versus video, content (e.g., Breves et al., 2019; Hughes et al., 2019; Kim & Kim, 2021). However, sponsored video offers new possibilities for disclosure (e.g., related to display or timing) and evidence suggests that disclosure approach has consequential effects on important sponsored content outcomes (e.g., Aribarg & Schwartz, 2020; Evans et al., 2017; Hwang & Jeong, 2016; Wojdynski & Evans, 2016). Further, videos offer different possibilities for sponsored content. For example, static content is—in a binary sense—either sponsored or not, whereas video could also be partially sponsored, if a segment of a video contains sponsored information while another segment of the same video does not. This scenario is captured in the current research with the 'video customization' variable, which is not previously recognized in the literature on sponsored content or influencer marketing.

Research on sponsored video disclosure is limited and principally focused on how disclosure approaches impact adults' (Evans et al., 2018; Stubb et al., 2019) and kids' (De Jans & Hudders, 2020; van Reijmersdal et al., 2020) attitudes and intentions. In research on adults, Evans et al. (2018) find that text disclosure does not moderate the relationship between pre-roll advertising and sponsorship transparency or conceptual persuasion knowledge, while Stubb et al., (2019) find that sponsorship justifications more positively affect attitudes toward influencers than straight sponsorship disclosures. Complementing these studies, this research finds that sponsorship disclosure, and sponsorship disclosure made in the context of platform disclosure, positively impacts online engagement.

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[1] https://finance.sina.com.cn/tech/2021-08-02/doc-ikqciyzk9055790.shtml

With this finding, the study provides evidence of the capacity of disclosure to impact online viewer behavior. As such, this finding bypasses concerns related to the "intention-behavior gap" (Hulland & Houston, 2021) and provides data on objective behavioral outcomes. This data helps influencers more clearly understand how to best disclose their sponsorships and design more engaging sponsored videos, benefiting them and the brands with which they partner.

Practical implications

This study offers practical implications to both influencers, sponsoring brands, and video hosting platforms. First, influencers can combine platform-generated and self-generated disclosure for higher video engagement. Given that sponsored videos blur the boundaries between commercial and noncommercial content, regulatory agencies have been pressing influencers to clearly disclose sponsorships to prevent consumer deception. In addition, viewers increasingly expect influencers to be transparent about commercial relationships with brands. Emerging advertising regulations and moral responsibility highlight new challenges and opportunities for influencers. On the one hand, clearly disclosing commercial relationships with brands becomes not just a legal requirement, but also an ethical expectation from followers. Influencers need to make sure to comply with these legal and moral responsibilities when they produce sponsored content.

On the other hand, the strategic use of disclosure can be a positive signal: savvy consumers value perceived transparency and influencer authenticity (Audrezet & Charry, 2019). Our findings regarding the positive interaction effect between platform-generated and self-generated disclosure suggest a potential strategy for influencers to comply with legal and moral responsibilities while generating positive viewer engagement. They also offer evidence regarding the value of disclosure affordances for social media platforms. These platforms are interested in retaining engaged audiences, and platform-provided affordances appear to be one way they can help foster such engagement in the context of sponsored videos.

Second, influencers should explain and emphasize their reasons for producing sponsored content. Consumers infer benefits from the resources that influencers accrue through sponsorship; well-funded influencers can produce more content and high-quality videos, and therefore better address the wants and desires of their audiences. Consumers are also empathetic to influencers' desires to earn a living from their work, provided content quality does not degrade. Accordingly, influencers who disclose the benefits of their commercial arrangements for fans should stand to benefit from this additional type of transparency.

Third, influencers should place the sponsoring brand toward the end of the video instead of the beginning. Based on our finding that early brand appearance negatively impacts digital engagement, we recommend that influencers avoid exposing sponsoring brands early in their videos. Mentioning the brand at a later point may help produce more engaging sponsored videos.

Fourth, influencers should limit their use of subjective endorsement. Influencers commonly share personal usage experiences and positive opinions to promote sponsored products in their videos. This study shows that these subjective personal messages are negatively related to digital engagement. Based on this finding, which draws on videos from a wide variety of product categories, we recommend that influencers produce videos communicating objective product features rather than subjective experiences and opinions.

Finally, highly customized sponsored videos may not be effective in generating video engagement. In practice, customized sponsored videos, in which influencers integrate brand information to fit their organic content, are more expensive and time-consuming to produce than shout-out sponsored videos, in which influencers simply mention the brand's name at some point. Brands usually need to pay higher prices for integrated videos because they require influencers to put more effort into video production (e.g., studying the brand, including more brand information, and creatively integrating the brand in the video). However, this study shows a significant negative effect of video customization on digital engagement. Influencers and brands need to be cautious of this effect when deciding what types of sponsored videos to produce in their campaigns.

Limitations and future research directions

This study is subject to certain limitations, which may present new directions for further research. First, findings were generated from the analysis of influencers from a single video sharing platform, Bilibili. Although the findings are arguably transferable to other platform contexts, we encourage future research to investigate sponsored videos from multiple platforms for more informed results since prior research suggests that user-generated content varies across social media platforms (Smith et al., 2012). Second, this study examined only total digital engagement and did not directly test the impact on return on investment or brand related performance. As robustness checks, we have run models with the number of likes, comments, and shares as separate DVs (web appendix A). The three models with individual engagement measures indicate fairly consistent results. Further research could increase the set of outcome measures, such as sales, to test the direct impact of sponsored videos in influencer marketing campaigns. Third, our additional analysis found that video types (e.g., beauty, foodie) and product involvement may also moderate influencers' video design strategies. Future research can look into the effects of video category and product type in sponsored video design. Fourth, we used the six-quintile brand appearance

scale. We have run an alternative model with a fully continuous brand appearance timing variable (web appendix B.) The continuous brand appearance timing is calculated using the time point that the sponsored brand first appeared over the video length. As shown in web appendix B, although the effect of the continuous brand appearance timing on video engagement is insignificant, the beta coefficient is positive. This result is not unexpected, however, because most sponsored videos in our sample are short videos. The effect of brand appearance timing is likely prominent only when viewers can consciously sense the time difference (e.g., general viewers may not sense an obvious time difference when brand first appeared in the 2 second vs the 10 second). Future research focusing on brand placement timing may offer additional insights. Finally, we controlled influencer and brand related variables, but do not have data related to influencers' followers. Future research may include influencers' follower profile as additional controls.

Declarations

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