Copyright 2023 by Kelley School of Business, Indiana University. For reprints, call HBS Publishing (800) 545-7685.

Business Horizons (2023) 66, 753—764

Available online at www.sciencedirect.com

ScienceDirect

KELLEY SCHOOL OF BUSINESS
INDIANA UNIVERSITY

www.journals.elsevier.com/business-horizons

The more they know: Using transparent online communication to combat fake online reviews

Yiru Wang [a], César Zamudio [b,*], Robert D. Jewell [c]

[a] School of Business, The State University of New York at Oswego, Rich Hall 136, 7060 NY-104, Oswego, NY 13126, USA
[b] School of Business, Virginia Commonwealth University, 301 W. Main Street, Richmond, VA 23284, USA
[c] Ambassador Crawford College of Business & Entrepreneurship, Kent State University, 475 Terrace Drive, Kent, OH 44240, USA

KEYWORDS
Online platforms;
Online reviews;
Fake reviews;
Review helpfulness;
Company reputation;
Platform content

Abstract Technological advances and shifts in consumer preference continue to further the critical roles that digital platforms and online word-of-mouth play in organizational success. Within this context, a key concern is the growing proliferation of fake online reviews, which mislead consumers and damage businesses' reputations, resulting in additional platform maintenance expenditures to curb this problem. This article demonstrates that a successful avenue to turn these expenses into effective investments is to embrace a culture of transparency by effectively communicating the platforms' actions online. To this end, we first provide evidence of the danger posed by fake reviews. Using data from Amazon.com and ReviewMeta, we show that reviews suspected as fake and deleted by Amazon's algorithms are, counterintuitively, more likely to be perceived as helpful by consumers. In addition, two experiments reveal that including subtle messages into the review section of an online retailing website, messages that communicate a company's efforts to remove fake reviews, can successfully improve both perceptions of consumer helpfulness and purchase intention. Finally, a four-stage framework, VIEW—verify, inform, explore, and watch—provides a roadmap for managers of online review platforms to combat the problem of fake reviews.
© 2023 Kelley School of Business, Indiana University. Published by Elsevier Inc. All rights reserved.

* Corresponding author
E-mail addresses: yiru.wang@oswego.edu (Y. Wang), zamudiomc@vcu.edu (C. Zamudio), rjewell1@kent.edu (R.D. Jewell)

https://doi.org/10.1016/j.bushor.2023.03.004
0007-6813/© 2023 Kelley School of Business, Indiana University. Published by Elsevier Inc. All rights reserved.

Do Not Copy or Post

This document is authorized for educator review use only by Ramon Fabre, Universitat Autonoma de Barcelona (UAB) until Oct 2024. Copying or posting is an infringement of copyright. Permissions@hbsp.harvard.edu or 617.783.7860

1. The growing threat of fake reviews

Fueled by the COVID-19 pandemic, e-commerce in the U.S. exhibited an explosive growth of 44% in the second quarter of 2020, which is expected to continue unabated (Proserpio et al., 2020). But in the digital marketing era, more and more quickly becomes too much: According to digital marketing company Smartassistant (2020), 54% of consumers stop online shopping because choosing becomes too difficult. To make sense of this dizzying commercial landscape, consumers rely on online reviews as a crucial source of information: 90% of consumers read online reviews to aid decision-making, while 84% trust online reviews as personal recommendations (Bloem, 2017).

Consumers are likely to trust and follow positive reviews when purchasing online. This trust is exploited by recommendation systems in leading platforms such as Amazon, Yelp, and Google, which prioritize positively reviewed products when determining search results (Green, 2018). Positive reviews are thus the coin of the digital marketing realm, and websites motivate consumers to write them with tactics such as reminders or sweepstakes.

Yet the power of positive reviews, unsurprisingly, has motivated the emergence of a menagerie of opportunistic firms who engage in tactics that are promotional at best and deceptive at worst, such as gifting products in exchange for positive reviews or writing fake positive reviews by impersonating real consumers. Indeed, a cursory online search on "how to purchase Amazon reviews" reveals bad-faith actors engaged in puffery via blogs and social media, networks of review "exchanges" among firms, and paid fake reviews. If this is the case with Amazon, the preeminent online retailer, one wonders about the landscape for smaller websites.

This article studies the growing threat of fake reviews, why they matter, and how platforms can combat them (see Table 1). Fake reviews "promote or demote target products" (Mukherjee et al., 2012, p. 93), creating severe problems for multiple parties. Sellers providing fake reviews might lose their credibility and risk being banned from platforms they participate in—for instance, Steam, a leading gaming platform, has ceased its relationship with game developers who post fake reviews (Chavers, 2017). On the flip side, sellers can also be victims of *review bombing*, when angry consumers post aggressive, coordinated fake negative reviews. For retailers, because their platforms' values are associated with the helpful online reviews embedded in them, the accumulation of fake reviews hinders such value (Mudambi & Schuff, 2010).

Consumers dislike fake reviews: Once consumers identify a fake review, 54% would not purchase, 34% would not do so even in the future, and 72% would request retailers to manage fraudulent reviews more effectively (Sterling, 2019). Yet, unfortunately, fake reviews are notoriously difficult for consumers to discern, as even machine-learning algorithms can identify them with only 60%—65% accuracy (Jindal & Liu, 2006). Left undetected and unmanaged, fake reviews are termites gnawing the structure of trustworthiness in digital platforms by distorting genuine product ratings, misleading consumers, tanking sales, and eroding website value.

In this article, the first study of its kind, we first quantify the extent to which fake reviews deceive consumers by analyzing data from Amazon and ReviewMeta. We discover that reviews deleted by Amazon's algorithms as suspected fake reviews are actually more likely to be perceived as helpful by consumers. In view of this finding, we then provide managerial guidance on combating fake reviews. We demonstrate that transparent online communication using subtle text messages in online review platforms to identify fake reviews bolsters the perceived helpfulness of all reviews in the platform and boosts consumer confidence. Based on these findings, we advance a four-stage framework, VIEW—Verify, Inform, Explore, and Watch—to provide platform managers with a roadmap and concrete actions to combat fake reviews successfully.

2. Why do fake reviews matter?

When shopping online, consumers seek quality products and services from reputable sources. As noted, the explosive growth of e-commerce requires mechanisms for consumers to resolve uncertainty as they shop, with online consumer reviews being one such (Flavián et al., 2016). Consumers tend to assume that these reviews are written by fellow consumers and that they summarize authentic shopping experiences (Marchand et al., 2017), so they tend to perceive reviews as powerful social proof (Zhang et al., 2014) and as a signal of true product quality (Kim, 2021).

Contrary to this perception, consumers write fake reviews for various purposes, such as monetary rewards and free products. And beyond the consumer grass roots, professional fake review writers (Proserpio et al., 2020) write fake reviews

Do not copy or post

This document is authorized for educator review use only by Ramon Fabre, Universitat Autonoma de Barcelona (UAB) until Oct 2024. Copying or posting is an infringement of copyright.
Permissions@hbsp.harvard.edu or 617.783.7860

Table 1. Key concepts and their importance

Concepts	What are they?	Why do they matter?
Online review platforms	• Digital spaces where interactions between consumers and firms occur. A key component of their business model is hosting helpful content for consumers. • Online review platforms primarily host online reviews.	• Over 70% of the value created in the global economy will derive from digital platforms, per the World Economic Forum.
Online reviews	• Public summaries written by consumers about their product and service experiences and posted on review platforms to help fellow consumers make purchase decisions. • Platforms, companies, and brands may incentivize consumers to post online reviews.	• *For platforms:* The perceived value of a platform is driven by the quality of the content it provides. • *For companies*: Positive online reviews can drive product growth between 30 to 200%. • *For consumers*: 90% of consumers read online reviews, and 84% trust them.
Fake online reviews	• Fraudulent online reviews aimed at misdirecting consumers. Such activity is against platforms' terms of service. •Consumers post fake reviews to vent their anger or to support a company; companies do so to promote or demote a target company; fake review writers do so for a fee.	• *For platforms:* The negative impact of fake reviews is $152 billion. • *For companies:* Fake reviews influence $791 billion of consumers' online expenditures. • *For consumers:* Between 45% to 70% of customers report being suspicious of reviews across multiple platforms, with 67% indicating that fake reviews nega-tively influence trust, according to digital marketing company BleftLocal.

on behalf of firms for monetary compensation. These firms may also collude with others in review "exchanges" to avoid detection (Palmer, 2022). In addition, influencers and social media personalities can also attempt to organize fake review postings.

Positive fake reviews are written to promote a business. For instance, Amazon sellers may join private Facebook groups and court customers, offering a purchase refund plus a $10 commission for purchasing a product and leaving a "real" review (Crockett, 2019). In contrast, negative fake reviews are written to attack other firms for social and competitive reasons. For example, the five-star Boca Raton Resort Hotel saw its online reputation ruined on Yelp after influencer Vitaly Zdorovetskiy encouraged fans to post fake reviews of the hotel, sinking its rating to one and a half stars (Leff, 2018).

In the end, this web of dishonesty significantly misleads consumers by reshaping their attitudes toward products and purchase decisions. Unfortunately, while consumers are aware of fake reviews (Sterling, 2019), they cannot accurately distinguish fake reviews from truthful ones (Jindal & Liu, 2006). To combat fake reviews, platforms and retailers suspend, ban, and take legal action against fake reviewers (Simonetti, 2022), and they silently delete low-quality reviews that appear inauthentic or that include profanity. These actions are not cheap: In 2019, for instance, Amazon spent over $500 million and engaged 8,000 professionals to combat fake reviews, resulting in the detection and silent deletion of only around 40% of fake reviews within the 100-day window after their having been initially posted (Proserpio et al., 2020). This battle raged on in 2020, with Amazon deleting over 200 million potentially fake reviews (Hautala, 2021) and Google blocking or disabling over 55 million of them, along with 600,000 suspicious user accounts and 3 million fake business profiles (Gaydos, 2021). Yelp has taken an alternative route to silent deletion: Its proprietary algorithm identifies low-quality reviews (Luca & Zervas, 2016), approximately 16% of them, which are then lumped into an "other reviews that are not currently recommended" section at the bottom of each of the business profiles it hosts.

Do Not Copy or Post

This document is authorized for educator review use only by Ramon Fabre, Universitat Autonoma de Barcelona (UAB) until Oct 2024. Copying or posting is an infringement of copyright.
Permissions@hbsp.harvard.edu or 617.783.7860

3. Research questions

Surprisingly, despite the significant problem that fake reviews represent, research providing concrete evidence on how consumers judge fake reviews, and specific recommendations to combat them, is scant outside of the realm of machine learning. Our purpose is to fill this gap, focusing on online communication tactics that platforms can use to quell the fake review problem. Specifically, we focus on three research questions (RQs), which are addressed via three studies:

- RQ 1: How severely do fake reviews mislead consumers? (Study 1)
- RQ 2: Can online messages that communicate platforms' actions to combat fake reviews be used to mitigate how consumers judge fake reviews? (Study 2)
- RQ 3: Does the framing of these online messages matter? (Study 3)

In this article, we demonstrate that transparent online communication of a platform's efforts to combat fake reviews can substantially boost review helpfulness not just for some but for all reviews in a platform, restore trust in online platforms, and even improve purchase intentions. The implication is that the silent deletion of fake reviews is suboptimal. Instead, we present the alternative of actively informing consumers with explicit yet subtle digital messages.

4. Study 1: Are fake reviews a real threat?

We first sought to determine the extent to which fake reviews might mislead consumers, motivating Study 1. Specifically, our goal was to understand whether reviews known to be fake by a platform would be judged as helpful by consumers, which would indicate that fake reviews successfully mislead consumers.

To identify fake reviews, we relied on data from Amazon and ReviewMeta. The latter website analyzes Amazon reviews and records which were deleted by Amazon, indicating that Amazon believed the review was fake.[1] But Amazon also reveals the number of consumers who voted these reviews as "helpful," allowing us to determine the extent to which consumers might find fake reviews to be helpful.

Our data consisted of 42,285 reviews for 500 products listed on Amazon. Amazon deemed 5.64% of these reviews fake and so deleted them. Of this smaller set of fake, deleted reviews, 16.92% of fake reviews were considered helpful, versus just 13.30% of truthful reviews—a statistically significant difference. This suggests that consumers may find fake reviews not only helpful but more helpful, on average, than other reviews.

Digging deeper, we focused on unobserved factors gathered privately by ReviewMeta: namely, whether a review repeats the brand's name often, whether it contains suspicious language, and whether the reviewer has a history of having reviews deleted by Amazon in the past. These deceitful review elements are all strong indicators of fake reviews that are easy for Amazon to check but difficult for consumers to assess.

Using these deceitful review elements, we estimated the likelihood that consumers might judge a review helpful. Crucially, all elements influence review helpfulness positively; brand repetition, for instance, which crops up often in faker reviews, increases the likelihood of consumers' helpful judgment by about 73.74% relative to reviews without such repetition. More problematically, reviews from users with a patchy review history are more likely to be perceived as helpful by consumers (+61.27%) than reviews from other users. Finally, consumers are nearly one and a half times (+140.32%) more likely to judge a review as helpful if it uses suspicious language relative to other reviews. These results show a surreptitious and misleading effect of fake reviews on consumer judgment of online reviews. Fake reviews are indeed very good at fooling others.

Study 1 allows us to confirm, per RQ 1, that fake reviews substantially mislead consumers, despite the copious investments leading platforms such as Amazon devote to combating this problem. As such, we offer a different solution. The key idea is to focus not only on the sources of fake reviews but also on their targets. Particularly, we show that providing subtle messages indicating to consumers that fake reviews were deleted, and why, represents an effective solution.

4.1. Transparency is the best policy

The key idea behind deploying such subtle messages is transparency, which is an organization's willingness to make information (whether typical product and service information or otherwise)

[1] Amazon deletes reviews for being either fake or profane. In the forthcoming analysis, all profane reviews were deleted, leaving the possibility of the review being fake as the most likely explanation for the deletion.

Do not copy or post

This document is authorized for educator review use only by Ramon Fabre, Universitat Autonoma de Barcelona (UAB) until Oct 2024. Copying or posting is an infringement of copyright. Permissions@hbsp.harvard.edu or 617.783.7860

accessible and objective (Merlo et al., 2018). Transparent companies enjoy positive business outcomes; for instance, price transparency can facilitate perceived price stability, which in turn, helps consumers to make quicker purchase decisions that they are less likely to regret (Hanna et al., 2019). Transparency also empowers consumers, making them feel both in control and as though they are being taken seriously by companies (Cambier & Poncin, 2020). As such, maintaining a higher level of transparency facilitates trust and leads to reciprocal benefits (Buell et al., 2017).

In the context of online reviews, we recommend that platforms transparently communicate information about the platform's actions to combat fake reviews and to explain the rationale behind those actions. In addition to empowerment and trust benefits, this will help consumers make more accurate choices with less effort and fewer negative emotions (Liu et al., 2011). Such information can be deployed using design elements (i.e., verbal and visual objects) to influence consumer behavior (Bleier et al., 2019). We suggest especially that companies transparently communicate their efforts through a text element or written message. For example, Amazon changed its helpful review rating description from "*x* out of *N* people found this review helpful" to simply "*x* people found this review helpful" in order to

Figure 1. Transparent online communication design elements in Studies 2 and 3



Do Not Copy or Post

This document is authorized for educator review use only by Ramon Fabre, Universitat Autonoma de Barcelona (UAB) until Oct 2024. Copying or posting is an infringement of copyright. Permissions@hbsp.harvard.edu or 617.783.7860

persuade consumers to purchase a product under review (Danescu-Niculescu-Mizil et al., 2009).

5. Study 2: Transparency tactics boost review helpfulness

We conducted two online experiments that demonstrate how different transparency tactics can affect review helpfulness and purchase intention. Study 2 aimed to understand whether being transparent would be most beneficial for a platform. Study 3 sought to determine, when communicating with customers, whether framing the platform's motives in different ways (i.e., with different approaches to transparency) might lead to different outcomes.

Study 2, an online experiment, examined how messages alongside one or all reviews can influence consumers' assessments of the helpfulness of the set of reviews. We recruited 190 respondents for this experiment. We first showed them a phone mount available at BestBuy.com without any review information, and their purchase intention was recorded. Afterward, respondents read three fictitious reviews. All reviews were five-star and of similar length and sentiment; the reviewers were also fictitious and featured default pictures. Finally, respondents were assigned to three random conditions, depending on the message communicated (see Figure 1):

- *No message*: This condition showed the set of three reviews with no message.
- *Broad message*: This condition presented a single broad statement for the set of three reviews, at the top of the set, indicating that "Best Buy has identified and removed several possible fake reviews."
- *Narrow message*: This condition presented a message next to only one of the three reviews (chosen randomly), identifying it as fake. For each respondent exposed to this message, the purportedly fake review was selected at random, and the message was placed next to it. The message stated, "Best Buy has identified this review as possibly fake." In other words, at least one fake review was purportedly identified by the company but was not deleted.

Having been exposed to their corresponding conditions and having read the reviews, each respondent answered a series of questions about how helpful the three observed reviews were and reported their purchase intentions for the phone mount. Both questions were assessed on a 7-point scale.

Figure 2, Panel 1 shows our results. For each condition, we investigated two performance indicators: (1) their general assessment of the review helpfulness of all three reviews after exposure to the corresponding condition, and (2) purchase intention change—that is, the difference in purchase intention after reading the reviews relative to before reading them. Substantially, our experiment reveals that, compared with scenarios in which no visual aids are provided, these aids can present notable improvements.

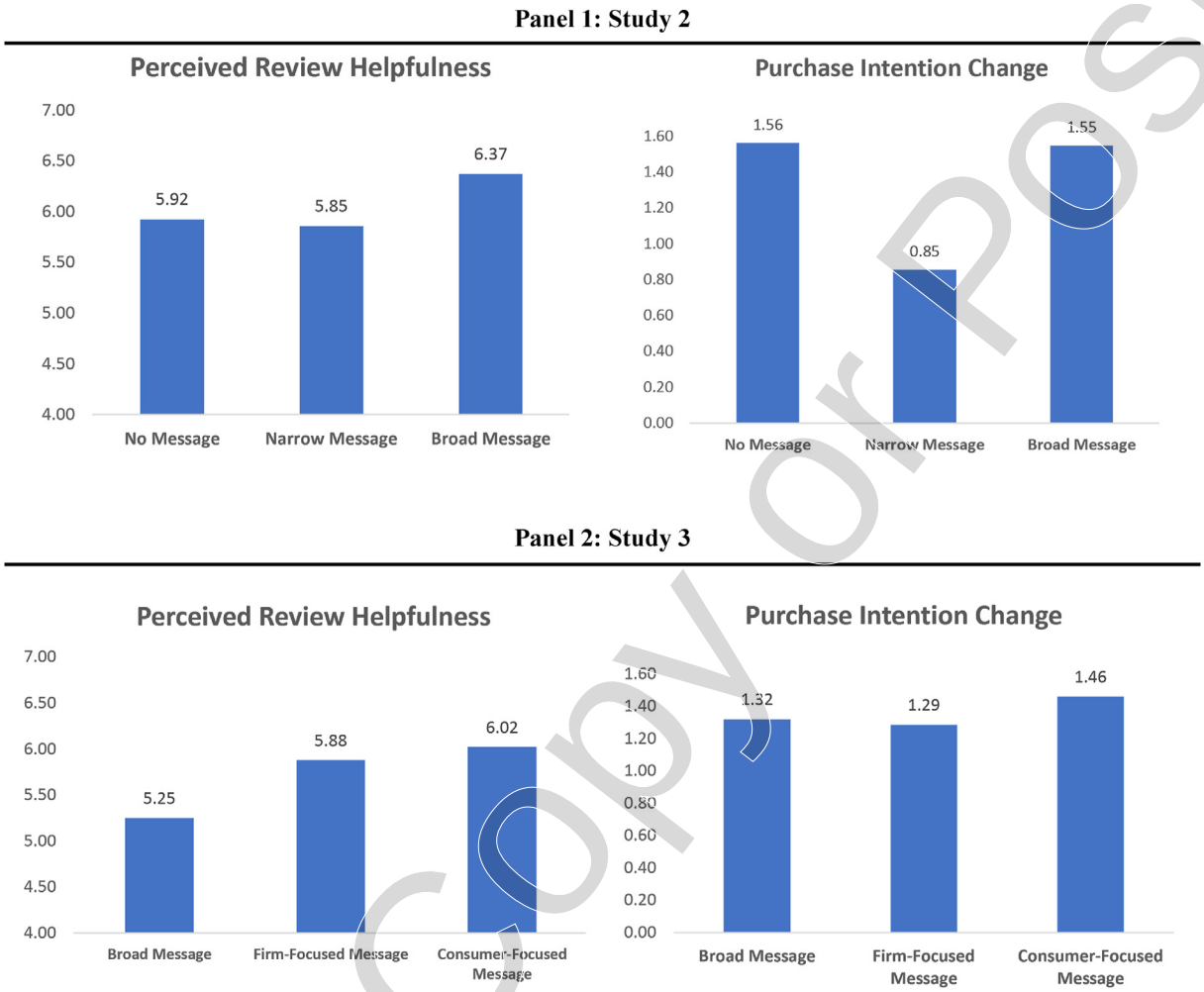
First, showing a narrow message does not result in any significant difference in perceived helpfulness compared with showing no message. In addition, narrow messages are the least effective in improving purchase intention, with the lowest observed improvement (average before message: 4.05; average after message: 4.90; improvement: 0.85). The purchase intention scale consists of 7 points, which implies a 12.14% improvement in purchase intention relative to the entire scale (all further improvement calculations are reported relative to this 7-point scale). The relative ineffectiveness of the narrow message on review helpfulness is surprising since it appears to caution reviewers about specific reviews. We believe, however, that narrow messages are the least effective because they signal that the platform is spending effort in identifying fake reviews without truly addressing the problem by deleting them. In other words, consumers might ask themselves: Why should a company bother to identify fake reviews, warn consumers, and then still retain them?

Crucially, visual aids communicating broad messages that more generally inform the consumer that the platform has addressed the fake review problem can instill consumer confidence. Consumer shown broad messages judged the three reviews provided to be more helpful (perceived helpfulness after reading broad message: 6.37). Importantly, this is an increase relative to showing no message (no message average: 5.92; broad message average: 6.37; improvement: 0.45); considering the helpfulness scale is also 7-point, this implies a 6.42% increase in review helpfulness. While the broad message also exhibited a substantial purchase intention increase (average before message: 4.03; average after message: 5.58; improvement: 1.55, a 22.14% increase in purchase intention), this improvement was similar to displaying no message. These results indicate that consumers value firms' efforts to curb the fake review problem (especially when directly told

Do Not Copy or Post

This document is authorized for educator review use only by Ramon Fabre, Universitat Autonoma de Barcelona (UAB) until Oct 2024. Copying or posting is an infringement of copyright. Permissions@hbsp.harvard.edu or 617.783.7860

Figure 2. Results of digital message experiments (Studies 2 and 3)



so), which improves perceived helpfulness. It is possible that broad messages also bolster platforms' perceptions of honesty and authenticity by being upfront about potential fake reviews and by taking a stance against them. Indeed, these firms' vast expenditures in machine learning and artificial intelligence might even go unnoticed, and broad messages help improve consumers' awareness and recognition of these endeavors. Furthermore, the purchase intention results should reassure managers that the broad message would not unintentionally "backfire" in any of the studied circumstances.

In sum, this study answers our second RQ in the affirmative, demonstrating that online messages are a viable solution to mitigate how consumers perceive fake reviews. This evidence indicates technologically driven solutions to combat fake reviews must be accompanied by a sound strategy to communicate these efforts to consumers. This communication, in turn, must be carefully crafted, as a narrow message would be suboptimal. Instead, a broad statement to reassure consumers that steps were taken toward combatting fake reviews is ideal. When broad messages are offered, while purchase intention remains about the same as when no message is given, perceived helpfulness for not just some but all reviews offered by the platform increases.

6. Study 3: For you or for me: Does message framing matter?

Consumers' choices and behavior depend not only on observing messages but also on how the messages are framed (Thaler & Sunstein, 2021). This observation motivated our third research question, which is answered via Study 3. To determine whether different frames influence the power of

Do Not Copy or Post

This document is authorized for educator review use only by Ramon Fabre, Universitat Autonoma de Barcelona (UAB) until Oct 2024. Copying or posting is an infringement of copyright.
Permissions@hbsp.harvard.edu or 617.783.7860

broad messages, we conducted an additional online experiment. We recruited a new sample of 149 participants. The stimuli that consumers were exposed to, however, were variations of the original broad message:

- *Broad message*: This condition was as in the previous experiment.
- *Firm-focused message*: In this condition, the broad message read: "For review quality, Best Buy has identified and removed several possible fake reviews."
- *Consumer-focused message*: In this condition, the broad message stated: "For your protection, Best Buy has identified and removed several possible fake reviews."

The results of this experiment, shown in Figure 2, Panel 2, indicated that, compared with the original broad message, both assessed framing strategies increased perceptions of review helpfulness even further. Notably, both resulted in statistically significant improvements; the consumer-focused message exhibited the largest improvement in helpfulness, of 10.85% (average no message: 5.25; average consumer-focused message: 6.02; improvement: 0.76). These results are crucial, as the additional boost to helpfulness reveals that consumers appreciate specificity. In other words, a company should state the reasons why they have enacted a given policy. Furthermore, all broad message types also resulted in statistically significant purchase intention improvements, with the largest, equivalent to 20.85% of the 7-point scale, being associated with the consumer-focused message (average before message: 4.14; average after message: 5.6; improvement: 1.46). In sum, Study 3 also answers RQ 3 affirmatively, as overtly communicating the firm's efforts is optimal, whether framed as defending the firm (i.e., "its quality") or consumers (i.e., "our community"). In the context of fake reviews, consumers appear to consider firms' efforts to protect consumers from fake reviews sincere.

7. A broader view to combat fake reviews

Our three studies indicate that consumers can be easy prey for fake reviews and that transparent communication of efforts to curtail such activity is indispensable in recovering trust, even bolstering purchase intention. We do not expect this restorative effort to be a reactive, one-off activity. Instead, we believe that a broader VIEW—a systematic approach (verify, inform, explore, and watch) to manage a platform's reviews and the associated environment, and to protect it from fake reviews—is indispensable to competing in an age of falsity in online reviews (Plangger & Campbell, 2022), such as in the context of affiliate marketing programs, where scholars have also developed systematic recommendations to combat fraudulent market actors (Mangiò & Di Domenico, 2022). Implementing the VIEW framework has implications for a platform's technology adoption, organizational culture, and staffing. Figure 3 presents an outline of the framework, and we discuss its implementation below.

7.1. Verify

In the first stage of the VIEW framework, platforms must recognize that reviews are valuable assets that consumer rely upon heavily in deciding whom to trust, what to buy, and from whom. Therefore, platforms must proactively verify the quality of online reviews by carefully sifting through them, a form of curation that goes beyond simply identifying potentially fake reviews through machine learning. For instance, a curation team might identify reviews with irrelevant or factually wrong content and label them as "not recommended," resulting in increased review helpfulness, purchase intention, and platform trust.

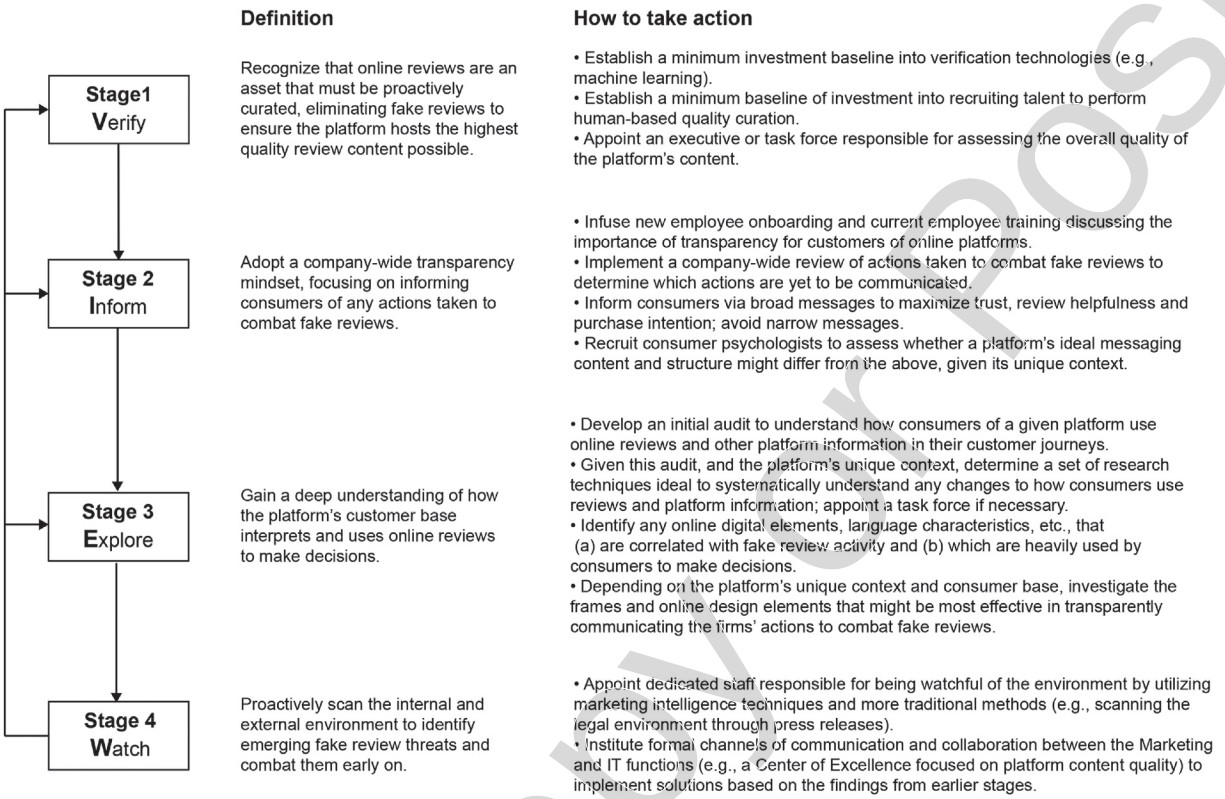
Verification implies establishing minimum investments to combat fake reviews. One such investment involves technology that can allow a platform to verify the quality of its review content; another would be hiring personnel qualified to implement such a verification process. But platforms must focus not only on analytics-enabled personnel but also on investing in human verification to the extent possible, and they must appoint an executive responsible for systematically assessing the quality of a platform's online review content.

Twitter's debacle is a good illustration (in the adjacent context of social media) of how failing to guarantee minimum viable content quality and civility can diminish platform content and hurt key performance indicators. After axing its content moderators and replacing human verification with paid badges, low-quality tweets flooded the platform, which caused Twitter to lose half of its top advertisers and more than a million users, with revenues predicted to remain stagnant as a result.

Do not copy or post

This document is authorized for educator review use only by Ramon Fabre, Universitat Autonoma de Barcelona (UAB) until Oct 2024. Copying or posting is an infringement of copyright. Permissions@hbsp.harvard.edu or 617.783.7860

Figure 3. The VIEW framework to combat online fake reviews



7.2. Inform

Beyond verification, our experimental studies demonstrate that consumers must be informed of a platform's efforts to verify their online review content. The goals of informing are threefold: to foster consumer trust in a platform, to reinforce consumers' usefulness perception of all reviews on the platform, and to boost purchase intention. Transparency empowers consumers, and they desire that empowerment: A recent survey indicates that 72% of consumers find transparency important, and consumers report being more likely to buy from transparent brands (Wassel, 2022).

While the Inform stage requires minimal additional technology investments, firms must infuse their organizational culture with an imperative of transparency to enjoy its benefits, which must be reflected in the onboarding of new employees and the continuous training of current employees. Implementing transparency efforts also requires investments in hiring employees trained in consumer psychology, since how to be transparent is also a key concern. Considering the results of our experimental studies, we recommend platforms implement broad messages and avoid narrow messages when informing consumers, as this will improve trust, helpfulness, and purchase intention. But this is only a first glimpse into the beneficial effect of transparency in online review platforms. Each platform's unique context might imply different optimal messages, framing, and design decisions, which a consumer psychology team can further refine.

7.3. Explore

The Verify and Inform stages of the VIEW framework provide a foundation for a platform to develop high-quality review content, the curation of which is transparently communicated to consumers by various means within and outside the platform. Note, however, that these stages are internal in focus. The Explore stage represents a conscious decision to look outside the company and to delve deep into the consumer's mind.

Platforms must achieve a deep understanding of how consumers read, process, and interpret online reviews and which factors (e.g., flowery language, brand mentions) are most associated with deeming a review helpful, fake, trustworthy, and so forth. We recommend an initial company audit to this

Do not copy or post

This document is authorized for educator review use only by Ramon Fabre, Universitat Autonoma de Barcelona (UAB) until Oct 2024. Copying or posting is an infringement of copyright.
Permissions@hbsp.harvard.edu or 617.783.7860

end. Consumer perception might be counterintuitive, as our second study showed in its finding that consumers may perceive even reviews known to be rife with fake review cues as more helpful. As such, the Explore stage arms platforms with information on consumer online review perception, which can then be used for further verification and information efforts.

Note that our second study relied solely on statistical analysis, whereas other methods to probe consumers' minds, such as interviews, observation, or even ethnographic immersion into communities of review writers and readers, might further hone a platform's understanding of how consumers perceive fake reviews. As such, one cost associated with the Explore stage might involve marketing research budgets that can be used to this end. Again, however, we believe that the major commitment of the Explore stage is cultural. Platforms must put consumers centerstage and foster collaboration between the marketing and information technology (IT) departments to paint a precise picture of how reviews, fake and otherwise, are perceived and used along the customer journey.

7.4. Watch

For the preceding stages to succeed, platforms must be watchful, appointing dedicated staff to proactively monitor their environment so as to discover new opportunities and threats. This watchful effort requires formal communication channels between the IT and marketing functions, building on the previous stage of the framework. One avenue is to rely on marketing intelligence via data scraping (Krotov & Johnson, 2022) by systematically collecting new review data from other platforms, allowing platform managers to understand recent changes in other platforms' designs and features, as well as consumer sentiment, automatically and at a low cost. In addition, platforms can also continuously monitor fake review groups and websites and combat them by pinning down emerging trends and threats early. Another possibility would be to monitor the legal environment surrounding fake reviews. For instance, while platforms' first instincts were to combat fake reviews algorithmically, a recent trend is to go on the offensive, with platforms such as Meta, Amazon, and Trustpilot taking direct legal action against fake review providers. Closer oversight from governmental agencies, such as the Federal Trade Commission (US) and the Competitions and Market Authority (UK), would also help.

Internally, in addition to curating their review content, platforms should implement a feedback mechanism (illustrated by the arrows in Figure 3) by which data from marketing intelligence, as well as from internal consumer data, results in updated fake review detection algorithms, content moderation policies, and platform strategies related to mitigating the fake review problem across all stages of the VIEW framework. For instance, suppose that a platform has instituted a content center of excellence, implementing the VIEW framework with close collaboration between the marketing and IT departments. Marketing intelligence might then reveal that an online review platform deploys badges allowing consumers to indicate their loyalty to a purchased brand. This discovery would then lead to a focal platform conducting marketing research to determine consumers' assessment of the usefulness of this new feature. Analysis of fake reviews, once they are detected, will reveal whether fake review writers use these loyalty badges and whether consumers find them useful. In addition, by implementing the approach in our first study, any discrepancy between the platform's current assessment of potentially fake review elements and consumers' assessments can be determined, and actions to align them can be implemented.

8. Key takeaways

Taken together, the findings from our three studies uncover two crucial takeaways for companies interested in successfully combating potential fake reviews.

8.1. Transparency is key

As empirically documented in this article, fake reviews mislead consumers into believing they are authentic and helpful. Therefore, a company's first instinct might be to devote additional technology resources, such as deploying detection algorithms and hiring professionals, to curb the proliferation of fake reviews. Our experiments indicate that, when paired with platforms' sound communication techniques, such as online messaging, these substantial technology expenses can turn into productive and cost-effective investments.

Therefore, we recommend that, first, firms in the digital sphere adopt a culture of effective communication. Such communication, in the form of online messages, can be subtle but powerful, as demonstrated in our studies, which indicated that

Do Not Copy or Post

This document is authorized for educator review use only by Ramon Fabre, Universitat Autonoma de Barcelona (UAB) until Oct 2024. Copying or posting is an infringement of copyright.
Permissions@hbsp.harvard.edu or 617.783.7860

failure to disclose efforts to protect the consumer is suboptimal. Second, we advise firms considering where to invest in technology to consider consumer perceptions as a key performance indicator; such firms should involve key stakeholders from both the IT and the marketing departments in decision-making. The former should focus on what technologies to deploy, and the latter on how to communicate the reasons for such deployment, with the aim being to maximize the helpfulness of online word-of-mouth across their digital platforms.

8.2. Messaging can change the status quo

Beyond adopting a culture of effective communication, platforms must understand the transformative impact of communication tactics when combating fake reviews. While online digital messages are a powerful tool to this effect, our experiments reveal that a narrow message that explicitly flags reviews identified as potentially fake is suboptimal, resulting in no improvements in perceptions of consumer helpfulness. On the other hand, broad messages can result in double-digit gains in review helpfulness, with no negative impact to purchase intention. Therefore, to successfully curb fake reviews and to bolster the helpfulness of their online word-of-mouth, we recommend that companies adopt broad digital messages that focus on consumer protection, whether firm- or consumer-focused.

9. A final word

The findings above represent a roadmap for review platform managers to combat the impact of fake reviews by (1) investing resources toward that end, (2) developing efficacious, broader digital messages through marketing research testing, and (3) deploying them on various platforms. Beyond online reviews, our findings might invite further research in broader contexts, such as those involving social media and other online platforms. For instance, in Facebook's latest advertising campaign, the company proudly announced that "over 40,000 people are working on safety and security: that's more than the size of the FBI… $16 billion were spent in the last six years: enough to build seven pro stadiums" (Meta, 2021). This article's findings suggest that all platforms, even those as big as Facebook, should seek to complement this advertising campaign by developing and deploying effective digital messages revealing their efforts to combat fake reviews.

References

Bleier, A., Harmeling, C. M., & Palmatier, R. W. (2019). Creating effective online customer experiences. *Journal of Marketing, 83*(2), 98–119.

Bloem, C. (2017). 84 percent of people trust online reviews as much as friends. Here's how to manage what they see. *Inc.* Available at https://www.inc.com/craig-bloem/84-percent-of-people-trust-online-reviews-as-much-.html

Buell, R. W., Kim, T., & Tsay, C. J. (2017). Creating reciprocal value through operational transparency. *Management Science, 63*(6), 1673–1695.

Cambier, F., & Poncin, I. (2020). Inferring brand integrity from marketing communications: The effects of brand transparency signals in a consumer empowerment context. *Journal of Business Research, 109*, 260–270.

Chavers, M. (2017). Steam sledgehammers fake reviews but is there a better way? *News Ledge*. Available at https://www.newsledge.com/steam-fake-reviews/

Crockett, Z. (2019). 5-star phonies: Inside the fake Amazon review complex. *The Hustle*. Available at https://thehustle.co/amazon-fake-submitted for publications/

Danescu-Niculescu-Mizil, C., Kossinets, G., Kleinberg, J., & Lee, L. (2009). How opinions are received by online communities: A case study on Amazon.com helpfulness votes. In *Proceedings of the 18th International Conference on World Wide Web* (pp. 41–150). New York, NY: Association for Computing Machinery.

Flavián, C., Gurrea, R., & Orús, C. (2016). Choice confidence in the webrooming purchase process: The impact of online positive reviews and the motivation to touch. *Journal of Consumer Behaviour, 15*(5), 459–476.

Gaydos, L. (2021). Needham business owner targeted with fake reviews. *NBC Boston*. Available at https://www.nbcboston.com/news/local/needham-business-owner-targeted-with-fake-reviews/2499927/

Green, D. (2018). Here's what it means when an item is marked 'Amazon's Choice'. *Business Insider*. Available at https://www.businessinsider.com/what-is-amazons-choice-2018-5

Hanna, R. C., Lemon, K. N., & Smith, G. E. (2019). Is transparency a good thing? How online price transparency and variability can benefit firms and influence consumer decision making. *Business Horizons, 62*(2), 227–236.

Hautala, L. (2021). Amazon's never-ending fake reviews problem explained. *CNET*. Available at https://www.cnet.com/tech/services-and-software/features/amazons-never-ending-fake-reviews-problem-explained/

Jindal, N., & Liu, B. (2006). Identifying comparative sentences in text documents. In *Proceedings of the 29th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (pp. 244–251). New York, NY: Association for Computing Machinery.

Kim, R. Y. (2021). When does online review matter to consumers? The effect of product quality information cues. *Electronic Commerce Research, 21*(4), 1011–1030.

Krotov, V., & Johnson, L. (2022). Big web data: Challenges related to data, technology, legality, and ethics. *Business Horizons, 66*(4), 481–491.

Leff, G. (2018). How to destroy a hotel's online reputation in under 24 hours. *View From The Wing*. Available at https://viewfromthewing.com/destroy-hotels-online-reputation-24-hours/

Liu, Q. B., Karahanna, E., & Watson, R. T. (2011). Unveiling user-generated content: Designing websites to best present customer reviews. *Business Horizons, 54*(3), 231–240.

Do Not Copy or Post

This document is authorized for educator review use only by Ramon Fabre, Universitat Autonoma de Barcelona (UAB) until Oct 2024. Copying or posting is an infringement of copyright. Permissions@hbsp.harvard.edu or 617.783.7860

Luca, M., & Zervas, G. (2016). Fake it till you make it: Reputation, competition, and Yelp review fraud. *Management Science*, *62*(12), 3412–3427.

Mangiò, F., & Di Domenico, G. (2022). All that glitters is not real affiliation: How to handle affiliate marketing programs in the era of falsity. *Business Horizons*, *65*(6), 765–776.

Marchand, A., Hennig-Thurau, T., & Wiertz, C. (2017). Not all digital word of mouth is created equal: Understanding the respective impact of consumer reviews and microblogs on new product success. *International Journal of Research in Marketing*, *34*(2), 336–354.

Merlo, O., Eisingerich, A., Auh, S., & Levstek, J. (2018). The benefits and implementation of performance transparency: The why and how of letting your customers 'see through' your business. *Business Horizons*, *61*(1), 73–84.

Meta. (2021). *Our progress addressing challenges and innovating responsibly*. Available at https://about.fb.com/news/2021/09/our-progress-addressing-challenges-and-innovating-responsibly/

Mudambi, S. M., & Schuff, D. (2010). Research note: What makes a helpful online review? A study of customer reviews on Amazon.com. *MIS Quarterly*, *34*(1), 185–200.

Mukherjee, A., Liu, B., & Glance, N. (2012). Spotting fake reviewer groups in consumer reviews. In *Proceedings of the 21st International Conference on World Wide Web* (pp. 93–94). New York, NY: Association for Computing Machinery.

Palmer, A. (2022). Amazon sues two companies that allegedly help fill the site with fake reviews. *CNBC*. Available at https://www.cnbc.com/2022/02/22/amazon-sues-alleged-fake-reviews-brokers-appsally-rebatest.html

Plangger, K., & Campbell, C. (2022). Managing in an era of falsity: Falsity from the metaverse to fake news to fake endorsement to synthetic influence to false agendas. *Business Horizons*, *65*(6), 713–717.

Proserpio, D., Hollenbeck, B., & He, S. (2020). How fake customer reviews do—and don't—work. *Harvard Business Review*. Available at https://hbr.org/2020/11/how-fake-customer-reviews-do-and-dont-work

Simonetti, I. (2022). Amazon sues leaders of more than 10,000 Facebook groups it says churn out fake reviews. *New York Times*. Available at https://www.nytimes.com/2022/07/19/business/amazon-fake-reviews-lawsuit.html

Smartassistant. (2020). *Humanizing digital 2020…and beyond*. Boston, MA: ZooVu.

Sterling, G. (2019). Consumers more invested in reviews, but also more skeptical of authenticity — survey. *Search Engine Land*. Available at https://searchengineland.com/consumers-more-invested-in-reviews-but-also-more-skeptical-of-authenticity-survey-326299

Thaler, R. H., & Sunstein, C. R. (2021). *Nudge* (The final edition). London, UK: Penguin.

Wassel, B. (2022). Report shows modern consumers demand transparency from brands. *Food Institute*. Available at https://foodinstitute.com/focus/report-shows-modern-consumers-demand-transparency-from-brands/

Zhang, K. Z., Zhao, S. J., Cheung, C. M., & Lee, M. K. (2014). Examining the influence of online reviews on consumers' decision-making: A heuristic–systematic model. *Decision Support Systems*, *67*, 78–89.

Do Not Copy or Post

This document is authorized for educator review use only by Ramon Fabre, Universitat Autonoma de Barcelona (UAB) until Oct 2024. Copying or posting is an infringement of copyright.
Permissions@hbsp.harvard.edu or 617.783.7860