The Reputation Economy

TRUST > DIGITAL REPUTATION > RATINGS > REVIEWS
PLATFORMS > SHARING ECONOMY > DIGITAL MARKETING
NIM Marketing Intelligence Review

For managers and decision makers interested in current marketing topics and new research results.

Our goal is to provide accessible, relevant insights from academic marketing research. We focus on one topic per issue and continue to provide our readers with ideas on how modern marketing research findings can improve marketing decision making.

Its publisher, the Nuremberg Institute for Market Decisions, (Nürnberg Institut für Marktentscheidungen e.V., formerly GfK Verein), is an interdisciplinary, non-commercial research institute. Its research focus are market decisions, both by consumers and marketers. The institute is the founder and anchor shareholder of GfK SE.

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Currently China is working on a social credit system for all its citizens. Persons are rated for their behavior – paying bills in time, having children, recycling, etc. and the ratings are used to create one numerical social score. People with high scores are able to skip the security lines at airports and get approved for buying a house, for example, whereas those with low scores are not able to buy plane or train tickets during holiday peaks.

While such a system seems unthinkable (yet) in the western hemisphere, ratings have gained substantial power which will only grow. When we plan a vacation, we don’t choose a hotel without looking at its rating on Tripadvisor. We choose which Airbnb house to stay in based on the ratings of the host, and select a restaurant based on its Yelp reviews. Online reputations, as determined by star ratings, verbal reviews, likes, shares, and hashtags are ubiquitous and have become a key marketing tool for almost all organizations.

In this issue you will find cutting edge research on the reputation economy as we explore online reputation in all its complexity. We discuss the importance of rating system design in ensuring trust and investigate how platforms can reduce bias, eliminate fake reviews, and prevent discrimination. Marketers need to understand the role and mechanisms of rating systems. How do consumers process and use these ratings? Which types of reputation indicators are the most influential on consumers?

We hope you find inspiration on how to design, manage and optimize your own online reputation to be a reliable barometer of trust.

Happy reading!

Giana M. Eckhardt

London, September 2020
The Reputation Economy

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Playing the Trust Game Successfully in the Reputation Economy
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Hunting for “stars”, the icons of the reputation economy, is a prerequisite for survival in e-commerce in general and on sharing platforms in particular. The key to understanding the rise of reputation is trust, and the ability of a platform to provide this trust has become crucial in the past decade. Social media managers are now key players in marketing departments. One of their most important jobs is the careful curation of digital reputations. Marketers need to engage in diverse forms of reputation management and master several challenges in designing the right systems and utilizing reputation information in optimal ways. Engendering trust is more complex than gaining star ratings or positive reviews on owned or third-party platforms. How platforms are designed – in terms of how people can make bookings or orders and how users rate each other – is the key issue. It needs to be managed in a sophisticated way, especially in an era when topics such as racial and ethnic justice are key societal concerns.

Reaching for the Stars: The Role and Value of Digital Reputation
Alessandro Gandini

In the old economy, reputation was considered an important but somewhat underestimated intangible asset. In the digital economy, the significance of reputation is expanded in scope. It enables the building of trust among “quasi-strangers” who engage in an economic transaction. Reputation scores, usually in the form of feedback, ranking and rating systems, facilitate the building of trust in the absence of a direct relationship between sellers and buyers. Concomitantly with the rise of social network sites and the proliferation of metrics and analytics of all kinds, the era of the “reputation economy” has dawned. A good reputation usually brings further good evaluations. On the other hand, a bad reputation can be a long-term setback for a company. Having no reputation means virtual non-existence in the eyes of today’s consumers. Professional reputation management is therefore a core task that makes a decisive contribution to the success of a company.
Navigating by the Stars: Current Challenges for Ensuring Trust in the Sharing Economy

Mareike Moehlmann and Timm Teubner

Today, virtually all e-commerce and sharing-economy platforms rely on star ratings or similar systems to build trust between anonymous buyers and sellers. However, star ratings can be quite tricky as a navigation aid. Platforms and users face several challenges in making sure that reputation systems remain credible. Skewed ratings and low rating variance, however, make it difficult for users to differentiate good from bad products and services. To tackle the issue of retaliation, most platforms use so-called simultaneous review schemes, only publishing ratings once both parties have committed. Furthermore, platforms may offer individuals the opportunity to leave text reviews as a complement to numeric ratings. A growing number of platforms also use complex technical systems and algorithms to automatically identify, mark or delete fake news. To maintain legitimacy, platform operators need to design reputation systems with minimal negative side effects and make crucial decisions about the level of control they seek to enact.

Detecting and Mitigating Discrimination in Online Platforms: Lessons from Airbnb, Uber, and Others

Michael Luca and Dan Svirsky

Research has documented racial or ethnic discrimination in online marketplaces, from labor markets to credit applications to housing. Platforms should therefore investigate how platform design decisions and algorithms can influence the extent of discrimination in a marketplace. By increasing awareness of this issue, managers can proactively address the problem. In many cases, a simple but effective change, a platform can make, is to withhold potentially sensitive user information, such as race and gender, until after a transaction has been agreed to. Further, platforms can use principles from choice architecture to reduce discrimination. For example, people have a tendency to use whatever option is set as the default. If Airbnb switched, for instance, its default to instant book, requiring hosts to actively opt out of it, the company could reduce the scope for discrimination. It is important that discrimination and possible solutions are discussed transparently.
Tit for Tat? The Difficulty of Designing Two-Sided Reputation Systems
David Holtz and Andrey Fradkin

In a two-sided reputation system, it is in the interest of both buyers and sellers to be a good transaction partner. What sounds wonderful in theory is unfortunately not so easy to implement in reality. Reputation systems can have flaws due to factors such as reciprocity and retaliation, selective reviewing, and reputation inflation. These flaws cause the ratings collected on the platform to diverge from the actual experiences that marketplace participants are having. When reputation systems are not thoughtfully designed, it can be hard to distinguish between the “high quality” and “low quality” interactions. This makes it difficult to identify and remove bad actors and increases the chances of a “bad match”. Innovations in reputation system design, such as simultaneous reveal of information, review incentives, and greater reliance on private feedback, are making it easier to implement two-sided systems while avoiding the common pitfalls.

Tales from the Land of Consumer Reviews: Taking a Closer Look at Lurkers and Writers
Alexander Mafael and Sabrina Gottschalk

While most consumers routinely read online reviews to inform their purchase decisions, the number of consumers who actively post reviews is astonishingly small. To find their way in the review jungle, readers process the information presented very selectively and pursue different objectives. They use different informational cues for their own decision-making, which often reflects rather stable patterns. Writers, too, are often less interested in presenting their experience as objectively as possible as contextual factors play an important role. Similar to the review readers, they act neither uniformly nor without biases. Whether they take up the pen at all depends, among other things, on whether they represent a majority or minority opinion and what image of themselves they want to convey. A profound understanding of the motives of readers and writers is important to improve one’s own rating system and requires special skills in the management of online ratings. Managers need to find ways to convert more lurkers into posters to get a more realistic picture of the experiences.
Helpful reviews are like good movies or a good novel: if you’re hooked right away, you stay and remember. No matter how short, a review tells a story in much the same way as a novel. If you want to persuade, it should start with something dramatic and sensational or the key takeaway, rather than saving the best elements for the end. Narrative elements can change the way reviews influence people, and media literacy can go a long way. Social media influencers and professional reviewers should now also know that they are better off investing in creative writing or storytelling courses than choosing to analyze experiences factually. Further, software developers should learn to distinguish useful reviews from less helpful or relevant ones. With such skills, they can structure platforms in ways that make writing transporting, helpful, persuasive reviews as easy as possible and can develop algorithms that favor real and useful reviews.

What drives people's decisions to share product and service experiences? Several studies show that a sender's emotional arousal is a relevant factor for social sharing. Experimental studies by the Nuremberg Institute of Market Decisions (NIM) confirm that increased arousal is associated with higher levels of social sharing. The results show that the emotional state of arousal, which was determined by voice analysis, should be a relevant variable for marketing managers to estimate whether or not consumers will share their experiences in social media. At least for spoken reviews, there is also an indication that higher arousal can even increase persuasiveness. To increase the chances of sharing positive reviews of a product or service, marketing managers should charge their brands and products with emotions, such as joy or surprise, as these activate more than pure satisfaction.
When people interact with others they do not know, if and how to trust the other party becomes a paramount concern.
Playing the Trust Game Successfully in the Reputation Economy

Giana M. Eckhardt

Why reputation has become the new key asset

The key to understanding the rise of reputation is trust. When people interact with others they do not know, and in particular, when they engage in economic exchange, whether it is with an organization or a peer, if and how to trust the other party becomes a paramount concern. A guest may not have ever met the Airbnb host whose home they will sleep in, but their confidence in the Airbnb platform, via reputation management practices, allows them to sleep comfortably. The ability for a platform to provide this trust has become crucial in the past decade, as more economic activity takes place digitally, and peer-to-peer exchange has come to the fore with the rise of the sharing economy.

The age of reputation

Reputation has always been important for organizations. With the rise of digital business models and sharing platforms, however, having no reputation has become almost worse than having a bad reputation. Hunting for “stars”, the icons of the reputation economy, is a prerequisite for survival in e-commerce in general and on sharing platforms in particular. As such, understanding how reputations are formed, how they are used, and why they are so important has become a paramount concern in marketing departments and C-suites around the globe. In contrast to the dystopian sci-fi world in Charlie Brooker’s Black Mirror story, “Nosedive” (see Box 1), there is still a life without ratings, but hardly anyone or any organization can avoid the need to build their reputation solidly by means of ratings and rankings.

Trust can be thought of as a confident relationship with the unknown (Figure 1). However, building a sense of confidence in the unknown is not as easy as it might seem. For organizations, managing online reputations is a full-time job, as this is the space where trust will be accrued – with partners, consumers, communities, and stakeholders. Having a digital reputation is the key to success in today’s marketplace. It has become a valuable intangible asset to organizations, similar to how significant brands are. In his article in this issue, Gandini (pp. 18) discusses the role of reputation more deeply and points out that reputation work is becoming more professionalized. That is, social media managers are now key players in marketing departments, whereas they didn’t exist ten years ago, and one of their most important jobs is the careful curation of digital reputation.
Key issues and challenges of reputation management

Marketers need to engage in diverse forms of reputation management and master several challenges in designing the right systems and utilizing reputation information in optimal ways (see Figure 2).

The interdependence of platform and user reputation

On digital platforms, one of the key issues in the reputation economy is managing the reputation of the platform versus the reputation of the user or consumer within the system. This is a complex issue. If one trusts a platform like Uber, will one trust the individual driver in whose car they are riding? While there are typically ratings of individual drivers to address this, these tend to have large positive bias, so the star ratings are not a straightforward indicator of the trustworthiness of the driver; there must be trust in the platform as well. In the digital space, how people interpret trust indicators depends on several factors (see Figure 3). The individuals who are providing the service via the platforms, like the Uber driver or Airbnb host, contribute directly to how much the platform, overall, is trusted. Yet, because they are not employees, it is much more difficult for organizations to ensure consistent and on-brand practices.

Unverified and fake reviews

All trust-building efforts are endangered if reviews are faked. In fact, one out of seven reviews on TripAdvisor and as much as 60% of Amazon reviews are estimated to be fake; almost all articles in this issue discuss possible strategies to take against fake reviews. Reputation platforms, such as TripAdvisor, have begun to review comments before they are posted publicly, since there has been a strong backlash against the plethora of fake reviews that appear on the site. Also, blockchain is a technology that many hope can revolutionize reputation management, as it can eliminate fake reviews and ratings, including those from click farms and bots. Yet, although blockchain has been in use for a few years now, we have not yet seen these issues disappear.

Positivity bias and reputation inflation

Another reason why using ratings as proxies for digital reputation is problematic is that overly positive reviews have a tendency to get even more positive over time, which is the phenomenon of reputation inflation. Averages of star ratings tend to be around 4.5, and with this positive skew, the signal sent by the rating becomes harder to interpret. Strategies to address these challenges lie not only with the

FIGURE 1  Reputation allows for trust among anonymous others

Trust  Transferred Trust  Reputation
platforms themselves, but also with regulators as well as users and consumers on the platform, as Moehlmann and Tuebner explain in their article on pp. 22, different participants in the ratings eco-system need to cooperate to increase the overall efficacy of rating systems.

Reviewer bias and reviewer skills
Even without fake and overly positive reviews, the picture delivered by reviews and ratings does not represent a complete picture of all experiences. In their article, Maffael and Gottschalk (pp. 40) remind us that digital consumer reviews are written by a small percentage of consumers. Reviewers often post strategically, and what they write can be influenced by past reviews. In addition, not all types of experiences are shared equally. Dieckmann and Unfried (pp. 56) point out that more emotionally arousing experiences – positive as well as negative – are more likely to be shared with others than more neutral ones. Further, van Laer (pp. 46) demonstrates that reviews are not equally persuasive. The most persuasive reviews are the ones that relate an engaging narrative.

Discrimination
A highly topical issue is the tendency toward discrimination on platforms. Even supposedly neutral algorithms, applied by Google and other platforms, have been shown to produce discriminating effects with regard to gender, age, ethnicity, and race. Luca and Svirsky (pp. 28). Conducted studies with Airbnb that demonstrated a bias on the part of hosts to accepting African Americans as guests. The design of rating systems has important implications for issues such as racial and ethnic bias. Based on the results of their studies, Airbnb engaged in design changes, such as allowing a person to book instantly rather than allowing the host to look at their picture or see their name before approving them, and was able to reduce discrimination. The key takeaway here is for organizations to measure discrimination within their reputation systems and the algorithms that run them, and withhold sensitive data, such as photos, until after the opportunity to act on biases has past. Testing and running analytics on design features are key to addressing systemic bias within platforms. With a global focus on how to reduce systemic racial bias, this is an important insight that can become part of a
Platform design Crucial not only for ensuring non-discriminatory behavior or for limiting fake reviews. A smart design can also encourage more consumers to write reviews, contributing to a broader representation of experience. It can also facilitate narrative expression, facilitating more persuasive reviews. Platform design is a critical factor for two-sided reputation systems in which each party reviews the other (e.g., Uber drivers are rated by passengers and vice versa). Holtz and Fradkin (pp. 34) investigate how simultaneous reviews and incentives for reviews can help deliver less biased ratings. Simultaneous reviews are when one person’s review cannot be read until the counterpart has posted their own review. The authors also recommend greater reliance on private feedback, which cannot be seen by the public, but can only be seen between the two parties themselves.

The future of the reputation economy How will the reputation economy evolve? This is one of the questions I discussed with Jacob Wedderburn-Day from the luggage storage start-up Stasher in our interview (pp. 52). There are three areas where trade-offs will be particularly tricky to balance.
Personalization without opening doors for discrimination

On one hand, it seems clear that tools like profile pictures and self-descriptions of users on platforms that allow for personalization lead to increased trust. Yet these personalization tools can result in conscious or unconscious bias – see the Twitter hashtag #airbnbwhileblack for visceral descriptions of racial bias against hosts and guests. Airbnb has recently partnered with the racial justice group Color of Change to analyze their data and see which elements of personalization result in bookings being cancelled and lower star ratings: a first name that “sounds” black, a picture that suggests someone is black. This trade-off needs to be investigated across a variety of platforms, and all providers will be challenged to develop platform designs that leverage positive outcomes like higher trust while preventing discrimination.

Control versus freedom

Next, reputation platforms, such as TripAdvisor, have recognized the need for more control of their reviews. It is becoming clear that control rather than freedom of expression is needed for a reputation system to function effectively in the age of bots and click factories that can instantly provide millions of fake ratings. More control, on the other hand, limits freedom of expression and can open the doors to censorship and manipulation. Balancing positive effects with preventing attempts to manipulate will be a major challenge. Besides the technical approaches, the human factor plays a role as well. Most social media managers are quite young, as younger people tend to be savvier with different platforms, such as TikTok. Yet, with the importance of digital reputation curation and the responsibility involved, professionalization might require the leadership of someone at a more senior management level.

**FIGURE 3** Indicators of trust in platforms

- **Social Legitimacy**: the more well-known and ubiquitous a platform is, the more it is trusted.
- **Government Regulations**: the more regulated, the less the consumer will feel the platform is exploiting them or could be unsafe.
- **Category Experience**: more experience with the overall category fosters trust in all providers. e.g., a good experience with Uber can lead to trusting the Lyft platform.
- **Non-Digital Experience**: actual usage experiences foster trust. e.g., actually sleeping in an Airbnb home.
A holistic picture versus privacy

Transferability of reputation across platforms is another tricky point. For example, should Airbnb hosts be able to link to their ratings as sellers on eBay to confirm their trustworthiness? This all-encompassing and connected use of reputation systems seems promising on the surface, but when it is realized in practice, such as the social credit system adopted in China (see Box 2), it violates what many consider to be sacrosanct rights to privacy, to not be surveilled without permission, and bias. There is a widespread belief that, while social credit systems may not look the same in other countries, some version of a universal reputation score, based on, say, one’s ratings as an eBay seller, an Uber user, a general credit score, and an Airbnb host, will eventually emerge – and not only for individuals, but for organizations as well. An organizational reputation score could include how much of one’s profit goes toward charity, levels of CO2 emissions, the variance between CEO and average worker salaries, as well as more conventional indicators, such as stock price and sales numbers. The question is not if this will happen, but when, what will it look like, and what consequences will it have?

In sum, the importance of the reputation economy will only grow. The cutting-edge insights in this issue draw a roadmap of where we might be heading and what to look out for on the way. Trust and design are the two key pillars to focus on. Engendering trust is more complex than star ratings or reviews on owned or third-party platforms. How platforms are designed – in terms of how people can make bookings or orders and how users rate each other – is the key issue. It needs to be managed in a sophisticated way, especially in an era where issues such as racial and ethnic justice are key soci-

BOX 2

China’s social credit system

Will organizations as well as individuals ultimately have one barometer of reputation, one “score” that demonstrates their worth to governments, creditors, consumers, and partners? In China, this is already happening. China’s social credit system applies one score (a numerical rating) to a person based on digital as well as non-digital behavior. Activities such as paying bills on time and getting high ratings when riding in a Didi car bring your score up. So does recycling properly and having children. In contrast, behavior including playing video games for too long, buying alcohol too often, being connected on social media to others with low scores, and jaywalking (as recorded by facial recognition) will lower your score.

As of now, the system is opt-in, but it will be mandatory nationwide as soon as late 2020. To date, there have been a variety of local system tests, by both public and private organizations. In these test versions, those with high scores are able to skip the security line in the Beijing airport and get approved for buying a house, for example. Meanwhile, those with low scores are not able to buy plane or train tickets at all during peak times, such as Chinese New Year. The Chinese government says implementing this program is all about trust, and to a large extent, the Chinese people agree that the system helps to build public trust. This is due to a fear of fraud – people are willing to give up privacy for security and certainty – as well as seeing the social credit system as a mechanism that fits into an overall karmic belief system – that one is always earning points via good deeds and squandering them via bad ones.
etal concerns. Yet, researchers and marketers also need to ask themselves, how far are we willing to go to signal trustworthiness in the marketplace, on the part of the organization or the consumer? As the dystopian story of Lacie in Box 1 and the explication of China’s social credit score in Box 2 highlight, systems in which people or organizations have one aggregate score can have unintended consequences. While combining information across a wide variety of data sources can perhaps give a holistic picture of an organization’s or person’s profile, whether or not this is desirable from an ethical and societal point of view is questionable. In many ways, digital reputations, as evidenced by star ratings and reviews, are a paradox. They provide a measure of trust, but a sometimes flawed and not-well-understood one. Keeping in mind societal issues that are inevitably intertwined with measures of digital reputation, there is still tremendous need and potential for innovation in this arena.

There is a widespread belief that, some version of a universal reputation score, will eventually emerge.

FURTHER READING


The rise of digital reputation as a key asset for business

In the old economy, reputation was considered an important but somewhat underestimated intangible asset. Commonly, it was a matter of public relations and the mantra was that “any publicity is good publicity”. In the digital economy, the significance of reputation is expanded in scope. The diffusion of feedback, ranking, and rating systems, powered by digital media, caught the attention of marketing and business executives, bearing the promise of an objective, user-driven, tangible form of assessment of the social value of products, brands, and services. Concomitantly with the rise of social network sites and the proliferation of metrics and analytics of all kinds, the era of the “reputation economy” has dawned. The story of the Shed at Dulwich (Box 1) shows the permeability of feedback, rankings, and rating systems, and the possibility of living in a reputational “bubble”. Yet, it also highlights how powerful reputation and the platforms that provide this information can be, and shows that word-of-mouth is now inextricably entangled with digital forms of social interaction. The fact that the story was a prank also shows that the reputation economy is less of a promised land than what businesses and consumers had hoped for. Let’s take a closer look at the role reputation plays in the digital economy and how businesses can become adequately equipped to survive the digital reputation jungle.

Digital reputation enables trust among strangers

In the digital economy, reputation represents cultural value. It enables the building of trust among “quasi-strangers” who engage in an economic transaction. Reputation scores, usually in the form of feedback, ranking, and rating systems, facilitate the building of trust in the absence of a direct relationship between sellers and buyers. In particular, my work on the so-called “sharing economy” illustrates this process well. Digital reputation is the result of a loop of digital traces (see Figure 1). When booking an accommodation on the platform Airbnb, for instance, the most relevant piece of information for a consumer is the presence of a set of reviews that recount the experiences of other guests who stayed at that room or flat. Consumers use this information to establish a bond of trust with the unknown host, who offers a service on the other side of their screen that they cannot otherwise see or evaluate. What’s more, in this context, reviews represent socially produced value. Having no reputation is as critical as having a bad reputation

Moreover, a key aspect that consumers look at is the absence of a digital reputation. It is highly unlikely that anyone will book an Airbnb accommodation – or reserve a restaurant, or a hotel, or purchase any product or service, for that matter – in the absence of any digital reputational trace. Put differently, the presence of a digital reputation is instrumental to creating the conditions for the building of a bond of trust between consumers and businesses. This, in turn, configures a competitive and unequal environment: following the example of Airbnb, those who have a reputation – obviously, a good reputation! – are in a position of competitive advantage against those who don’t. Good reputation brings good reputation. Bad reputation can be a longstanding setback for a business. No reputation means “you don’t exist” in the eyes of consumers.
Digital reputation management is a core task that makes a decisive contribution to the success of a company.
BOX 1

The amazing story of the Shed at Dulwich

In 2017, the London gourmet scene witnessed a rising star on TripAdvisor: The Shed at Dulwich, an appointment-only cuisine restaurant located in South London. It wasn’t listed in the Guide Michelin, but reviews on TripAdvisor praised the experience and declared, “We will be back”. People from far and near called to try to get a rare place, and the restaurant reached the #1 spot in the London list in the short span of a few months.

In reality, The Shed did not even exist. Vice Magazine journalist Oobah Butler had set up an elaborate prank to “game” the TripAdvisor ranking. Using public relations tactics and leveraging on the typically hipster processes of word-of-mouth referrals based on exclusivity and coolness, Butler had faked its existence – in his South London home garden. At a one-time opening, he served dressed up ready-made meals and tried to create the experience that had been described in the reviews and ended the story.

Digital traces affect careers

The same principle applies to individuals as workers. In my research, I also show that one’s digital reputation influences one’s chances to be hired, particularly in the knowledge sector. Recruiters pay remarkable attention to digital reputational traces when evaluating a candidate for a job opening. This allows them to get a sense of prospective colleagues in terms of their personality and values, both personal and in relation to work. Recruiters also look at relevant social relations as they appear on LinkedIn connections and other information that candidates put on their CV and determine whether the available information online matches what they showcase in their application or highlight as their strengths. In turn, companies also must be increasingly attentive to their digital reputation: platforms such as Glassdoor host a plethora of opinions, ratings, and reviews by employees who rate the companies they work for or have worked for, the working conditions, their bosses and colleagues, the adequacy of economic compensation, and internal policies.

Rethinking public relations work

The all-round relevance of digital reputation as an intangible asset and culturally produced value means that its management is key to the success of a business – and cannot be left to chance. Any company that wants to thrive in the digital economy must attain the all-encompassing relevance of digital reputational logics. My fieldwork interviews with freelance communications professionals demonstrate that digital reputation work is constantly becoming more professionalized. Any publicity is no longer deemed to be good publicity, and initiatives of corporate social responsibility and customer relationship management are no longer sufficient for a business to maintain a good reputation. Today, specialized jobs, such as social media managers and community managers, have emerged to fill this need. An entire discipline, public relations, has been turned upside down by the scale and pace of the reputation economy. The following tasks are central to reputation work and need to be managed carefully:

- **Use your digital reputation to build trust**

  Economic transactions are built on reciprocal trust. Having a good digital reputation is essential to the building of trust between a business and its counterparts (consumers, stakeholders). They will base their decisions, to some degree, on digital reputational traces. To build long-last-
ing trustworthy relations with others, maintaining a good digital reputation is essential.

- **Monitor customer opinions**
  No matter the means by which it takes place – electronic or face-to-face – word-of-mouth remains an essential aspect of growing a business. Digital media offer the possibility to monitor customer opinions almost in real time. It is imperative that businesses constantly track what their customers think of them and work proactively to ensure the conversation remains positive toward them.

- **Constantly curate your reputation/image**
  Today, communications professionals who curate a company, product, service, or brand’s reputation hold unprecedented power of life and death over it, as a considerable portion of a company’s value lies in the image it is able to project. Curating the digital reputation of a business therefore is not an ancillary activity that can be left in the hands of anyone who can set up a Twitter account. It is essential work that decisively contributes to the success of a business.

The materialization of a digital economy where, as the saying goes, “everything that can become a platform will become a platform”, means that reputation and digital forms of interaction represent key dimensions in organizational value-creation processes. The building of trust with customers and stakeholders, the monitoring of customers’ opinions, and the curation of the image of a business are apparently separate activities that actually reconcile in the relevance of a business’s reputational capital. More than just social capital for companies, reputation in the digital economy has been affirmed as an intermediary between economic capital and trust and become an asset on its own.
To maintain legitimacy, platform operators need to make crucial decisions about the level of control they seek to enact.
Navigating by the Stars: Current Challenges for Ensuring Trust in the Sharing Economy

Mareike Möhlmann and Timm Teubner

New rules for the trust game Our parents used to urge us not to get into strangers’ cars or houses, and not to meet people from the Internet. Nevertheless, today, many share their cars with strangers (BlaBlaCar), grant access to their homes (Airbnb, HelpIngl), and use platforms to connect to others in on- and offline environments (TaskRabbit, Facebook). Online and mobile technology has fueled the rise of what is often referred to as the sharing or platform economy, a landscape of digital businesses that enable resource exchange among multiple actors. To operate successfully, platforms build on network effects, a critical mass of participants, balanced value exchange, and – last but not least – trust among the key players. In terms of trust, the triumph of sharing economy platforms has challenged conventional wisdom. Why is that? One reason is that platforms have come up with new tools, mechanisms, and design patterns to build and curate trust. Prominent among these are star ratings and text reviews – which forge a bridge between the exchange principles of our early ancestors and today’s Internet users (see Box 1).
A brief history of trust

Trust in personal relations
For most of human history, trust was small-scale and confined to private contexts of families, tribes, and communities. It was characterized by physical proximity, common friends, face-to-face contact, long-lasting relations, and repeated interaction. One of the main underlying principles was reciprocity: If A shares something with B, they eventually expect the favor to be returned. Since this future compensation – as any future event – is inherently uncertain, trust means that somebody is willing to take a risk. In small groups whose members have close social ties, this trust-based social exchange worked very well.

Trust in institutions
Over time, however, mobility increased, communities grew larger, and communication and trade extended beyond personal relations. As a response, over the last centuries, interpersonal trust within close communities was extended by larger-scale collective mechanisms and narratives: institutions. In the market, personal relations, expectations, and promises were replaced by brand value – vouching for current and future credibility. Moreover, governmental and political institutions were formed, relying on regulation, property rights, and contracts.

Trust in strangers
The recent rise of sharing-economy platforms, in a way, has meant a return to the roots: direct transactions (and hence trust) between individuals, without a dominant role for institutions. Only now, physical proximity, personal relations, and repeated interactions have been substituted by technology. Novel ways extend the formation of trust into digital environments, successfully mitigating perceptions of “stranger danger”. Many platforms deliberately design for trust between peers: They allow their users to upload profile pictures or self-descriptions, list third-party certificates, provide insurance, or assure the safety of financial transactions. Widely spread and probably the most iconic tool are reputation systems based on mutual star ratings and text reviews. They provide a collective perspective on how users have acted in the past and serve as an indicator of trustworthiness.
Navigation by the stars is tricky  Reputations systems were pioneered by online platforms, such as eBay, that implemented star ratings schemes to establish trust between anonymous buyers and sellers. Today, virtually all e-commerce and sharing-economy platforms are using similar systems. However, despite their promises, reputation systems by no means represent a silver bullet, and “navigating by the stars” can be fairly tricky. Platforms and users face several challenges in making sure that reputation systems remain credible, and different approaches to meet those challenges have emerged (Figure 2).

Skewed ratings with little variance  One common observation is that average ratings tend to be very positive. In fact, being awarded the best possible rating score – typically 5 out of 5 stars – is the norm rather than the exception. Skewed ratings and low rating variance, however, make it difficult for users to differentiate good products and services from bad. Skewness results from several effects, including social desirability, fear of retaliating feedback and publicity, and survivorship bias – meaning that businesses with low ratings are more likely to disappear from the market. To tackle the issue of retaliation, most platforms use so-called simultaneous review schemes, only publishing ratings once both parties have committed. Furthermore, platforms may offer individuals the opportunity to leave text reviews as a complement to numeric ratings. While numeric reviews represent a “summary” of others’ experiences, text reviews allow users to discuss specifics of a product, service, or provider in more detail. For example, Airbnb listings tend to show high variance concerning aspects such as the location of an accommodation, the level of cleanliness, or the quality of amenities. Users may use text reviews to share information very specific to a listing, such as loud neighbors or street noise.

Fake reviews, detection, and prevention  In most open review ecosystems, such as Amazon, Google, TripAdvisor, or Jameda, anyone can leave a review for products, places, hotels, medical doctors, or apps, even if the product or service has not actually been purchased or used. Given the economic power of reviews in making and breaking
For the time being, the sharing economy will be safer with cautious drivers using several orientation points rather than “navigating by stars” on autopilot.

For the time being, the sharing economy will be safer with cautious drivers using several orientation points rather than “navigating by stars” on autopilot.

businesses, this represents a razor-sharp, double-edged, and largely unrestricted sword. Buying reviews for one’s company can have tremendous benefits, hence it is not surprising that a vibrant secondary industry around commissioned and fake reviews has emerged. Especially in early phases when users or sellers represent dark horses, boosting their own reputation by buying favorable ratings and reviews appears tempting. Note also that negative reviews for one’s competition can be ordered. While this may, at best, be pesky for some businesses, it may financially ruin others. Although many platforms review comments before releasing them publicly, lack of control is widely recognized as a major drawback in the sharing economy. Naturally, the issue of fake reviews is much less of a concern for platforms like Airbnb or Uber in which the possibility to review is bound to actual transactions. Today, a growing number of platforms implement algorithms to automatically identify, flag, and delete suspicious reviews. Also, third-party services, such as ReviewMeta.com, attempt to de-bias inflated and polluted product reviews.

Navigation by the stars – don’t go on autopilot (yet) ×

It is staggering to see how much power star ratings and text reviews have gained in many domains of (electronic) commerce and on sharing economy platforms. Despite their promises to facilitate trusted transactions between strangers, many challenges remain. The responsibility of addressing these challenges resides with four main groups of actors: platform operators, service providers, consumers, and regulators (see Figure 3). To maintain legitimacy, platform operators need to design reputation systems with minimal negative side effects and make crucial decisions about the level of control they seek to enact. For example, by implementing a less conservative approach to algorithmically supported fraud detection, platforms may not sufficiently mitigate risks of fake reviews. Yet, by implementing all-too-rigorous policies, they may end up blocking non-fraudulent information – thereby, disabling the articulation of relevant experience. Service providers and consumers can contribute
to the striving of online reputation by remaining honest and active. Truthful reviews, even if negative, will help other platform participants to make informed decisions when engaging in sharing economy transactions. Regulators have the responsibility to set a legal frame that allows for dynamic and trusted marked environments. The EU paves the way by urging research to explore potential benefits and underlying mechanisms, for instance, with regard to reputation portability. The General Data Protection Regulation, particularly its article on data portability, can be seen as a first step in this direction by forcing platform operators to allow for free-floating data. The actions and interplay of these four groups will ultimately determine how platforms as a broader economic modus operandi will succeed in addressing the current challenges for ensuring trust in the sharing economy. For the time being, the sharing economy will be safer with cautious drivers using several orientation points rather than “navigating by stars” on autopilot.
Detecting and Mitigating Discrimination in Online Platforms: Lessons from Airbnb, Uber, and Others

Michael Luca and Dan Svirsky

The rise of online marketplaces raises the potential for markets that are both more efficient and less biased. Early research pointed to the arms-length nature and relative anonymity of online transactions as factors that might lead to less discrimination in online transactions. However, the extent to which this promise is realized depends on the design choices platforms make. As a growing share of markets and transactions have moved online, marketplaces have evolved and platform designers have sought ever newer ways to encourage trust between strangers. Platforms have made different design choices over time, across industries – and even within industries. These choices shape both the efficiency and inclusivity of markets.

When trust-building mechanisms facilitate discrimination X Breaking with design choices made by many earlier online marketplaces, platforms such as Airbnb made names and pictures of market participants salient before deciding whether or not to transact. While this was presumably intended to encourage trust and ease commercial exchange among strangers, it also opened doors for discrimination in online marketplaces. Research has now documented racial or ethnic discrimination in a variety of areas online, from labor markets to credit applications to housing. It is enabled by two notable features. First, markers of race or ethnicity – most obviously photographs, but also subtler indicators, such as names – can trigger conscious or unconscious discrimination. The second feature is increased discretion on the part of sellers over which buyers they transact with. Both are choices made by platform designers.

KEYWORDS
Market Design, Platform Design, Discrimination, Field Experiments

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Platform managers should develop more awareness of discrimination and proactively address the problem.
In 2015, together with a colleague, we investigated racial discrimination on Airbnb. In a study focused on the US cities of Baltimore, Dallas, Los Angeles, St. Louis, and Washington, we constructed 20 user profiles and sent rental requests to roughly 6,400 hosts. The profiles and requests were identical except for one detail—the user’s name. Half the profiles had names that, according to birth records, are common among whites, while half had names common among African Americans.

In contrast with Airbnb’s claims, our work found evidence of extensive discrimination on the platform. Requests with African American-sounding names were approximately 16% less likely than those with white-sounding names to be accepted. Most of the hosts who declined requests from black-sounding profiles had never hosted a black guest—suggesting that some hosts are especially inclined to discriminate on the basis of race.

While Airbnb did not cooperate on the study, they started to address the problem in response to its results and growing criticism from users and regulators. We also provided them with suggestions about changes they could make to reduce discrimination. Airbnb commissioned a task force to evaluate our suggestions and other ways to reduce discrimination. Airbnb eventually incorporated a set of design changes. One example of a potentially promising change is the recently expanded “instant book” feature, which enables qualified guests to book instantly and before hosts can have a look at their profile information. Besides preventing discrimination, this feature also makes booking simpler and more convenient. In response to our work, Airbnb committed to expanding the use of instant booking—and now has millions of listings around the globe that use this feature. However, to date, Airbnb has not revealed the extent to which discrimination persists on the platform—or the impact that their changes have had.
A managerial toolkit for reducing discrimination on platforms

Even within an industry, platforms often differ in their design features, which can lead to different levels of discrimination. For example, the main search-results page of the vacation rental marketplace HomeAway displays photos only of the property for rent and withholds host photos until a later page or not at all, whereas Airbnb historically included host photos on its main search-results page. In response to our research, Airbnb has now changed that policy and shows host and guest photos only later in the process. This exemplifies the types of steps platforms can take to reduce discrimination. Drawing on our prior research as well as our experience with companies, we explore steps to mitigate discrimination (see Figure 2).

Build awareness for potential discrimination on platforms
Platforms should develop an understanding of the ways in which their design choices and algorithms can affect the amount of discrimination in a marketplace. By increasing awareness of this, managers can be proactive about investigating and tackling the problem. For example, Uber’s central policy team created a Fairness Working Group to explore discrimination issues. Part of the group’s value comes from its cross-functional nature – it brings together economists, data scientists, lawyers, and product managers from around the company to think through ways to address fairness challenges. Especially for large organizations, it can be useful to have a group dedicated to monitoring new projects solely for discrimination risks.

Measure discrimination on the platform
Currently, many platforms do not know the racial, ethnic, or gender composition of their transaction participants, and it’s hard to address an issue if you aren’t measuring it. A regular report or audit on the discrimination-endangered users, along with measures of each group’s success on the platform, is a critical step toward revealing and confronting any problems. Following our research, Airbnb began to measure discrimination on the platform. The company now has economists and data scientists working on this topic. Similarly, Uber’s working group helps to quantify discrimination on an ongoing basis.

Withhold sensitive data
In many cases, a simple but effective change a platform can make is to withhold potentially sensitive user information, such as race and gender, until after a transaction has been agreed to. Some platforms, including Amazon and eBay, already do this. To see the impact of showing markers of race before a transaction occurs, consider eBay – which does not make race salient. In a recent study users hold baseball cards in their hand and post that as a photo in the listing – they found that even that subtle prompt led to racial discrimination in baseball card sales on eBay.

Consider automating transactions, but be aware of algorithmic bias
Automation and algorithms can be a useful tool in reducing bias. For example, return to the example of Airbnb’s instant booking described in Box 1. This feature eliminates the step in which hosts look at the guest’s name and picture and decide whether to approve or reject the guest. Airbnb has now greatly increased the number of users who use instant booking.
A growing body of literature has begun to explore ways to debias algorithms as well. Changing humans’ preferences or attitudes is often difficult, but changing the inputs of an algorithm, or its objectives, can at times be more straightforward. For example, LinkedIn redesigned its Recruiter tool—a search platform to find job candidates—to ensure that the gender breakdown of search results matches the gender breakdown for that occupation as a whole. If 30% of data scientists are women, then a recruiter searching for data scientists would see search results where 30% of the users are female candidates. This example highlights the ways in which algorithms can impact the equity of a market. It also highlights the nuance and managerial judgment involved in designing an algorithm, as the target set for the tool is only one of multiple ways to think about fairness.

Think like a choice architect  
Further, platforms can use principles from choice architecture to reduce discrimination. For example, in a variety of contexts, research has documented the tendency for people to use whatever option is set up as the default. To see why this matters, return to the example of the instant book feature at Airbnb, which is an opt-in feature: landlords must sign up for it. If Airbnb switched its default to instant book, requiring hosts to actively opt out of it, the company could reduce the scope for discrimination. Airbnb has experimented with approaches such as this over time.
Marketplaces could present antidiscrimination policies at a more relevant moment – during the actual transaction process.

As a second example, consider discrimination policies. Most platforms have policies prohibiting discrimination, but they’re buried in fine print and mostly just ticked off once without proper reading. Marketplaces could present antidiscrimination policies at a more relevant moment – during the actual transaction process. Some people would still violate the policies, of course, but others might be glad for the hint because they might not be aware of the problem otherwise.

Experimentally test the impact of platform design changes on discrimination levels ▶ Once platforms have a way to measure discrimination, they can incorporate this into their experimental testing. By incorporating such metrics, platforms can better understand the disparate impact of different designs and features. Airbnb has, for example, conducted an experiment in withholding host photos from its main search results page to explore the effects on booking outcomes. Following our research, they now have a team that explores issues such as this. LinkedIn tested the effects of the changes to its recruiting search, finding that the changes did not impact the success rate of recruiters’ outreach messages.

Be transparent ▶ Platforms should aim for transparency and work with a broad set of stakeholders to identify and solve issues of discrimination. This will help to facilitate discussions among platform managers and designers before it becomes a crisis. It will also allow the progress of measures to be evaluated over time. This is particularly important given the uncertain impact of changes platforms are making.

The rise of online marketplaces has dramatically changed the nature of many economic transactions. Our research has shown the profound impact that design choices can have on outcomes. By leveraging insights from platform design research, companies have the opportunity to create markets that are both efficient and inclusive.

FURTHER READING


The importance of two-sided reputation systems: Perfect in theory

Imagine you’ve just arrived in Barcelona for your family vacation, and rather than stay in a traditional hotel, you’ve decided to book an Airbnb. You might think to yourself, “how can I be sure that this Airbnb property is as described on the site, and that the host will be responsive and professional?” Along the same lines, suppose you’re an Uber driver preparing to start your daily driving shift. You might wonder, “how can I be sure that the passengers I pick up today will be clean and respectful?” In a world without two-sided reputation systems, there would be no way to guarantee that “sharing-economy” transactions like those described above go smoothly. However, once a bilateral reputation system has been introduced, it is in both buyers’ and sellers’ best interest to be good transaction partners, since they do not want to receive a bad review that will negatively impact their ability to use the platform in the future. This data is used not just by the market participants but by the platforms as well. Platforms can use reputation data to identify struggling platform participants and help them improve, remove bad actors, and/or enable buyers and sellers to make informed decisions about who they’d like to transact with based on historical ratings. It’s no coincidence that many of the most successful two-sided platforms, like Airbnb, Uber, and Upwork, feature two-sided reputation systems.

The Difficulty of Designing Two-Sided Reputation Systems

David Holtz and Andrey Fradkin

KEYWORDS
Reputation Systems, Bilateral Reviewing, Reciprocity, Reputation Inflation

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Innovations in platform design increase the value of reputation systems while avoiding the common pitfalls.
Experimenting with different review system designs

The effects and usefulness of different reputation system designs can be tested with randomized field experiments. In collaboration with Airbnb, we conducted such experiments to understand strategic reviewing behavior and the role of incentives to motivate more users to write reviews. Fairly simple system design modifications had substantial, and sometimes unexpected, effects.

Effects of simultaneously revealing reviews: design changes results

In the control group, hosts and guests could see each other’s reviews before writing their own, whereas in the treatment group, hosts’ and guests’ reviews were not visible until both parties had written their review, or a fixed amount of time had passed.

> Both guests and hosts felt more comfortable leaving honest feedback when their reviews were revealed simultaneously.

> The average rating left by guests was 0.25% lower for simultaneous revelations.

> The rate at which guests and hosts wrote reviews that included negative text increased by 12% and 17%, respectively, for simultaneously revealed reviews.

> Guests were less likely to retaliate against hosts who left them less-than-glowing reviews when the results were revealed at the same time: the rate at which guests left 1-star ratings for hosts decreased by 31%.

> Review rates increased with simultaneous reveals because both guests and hosts were curious what their counterpart had written.

Effects of incentivizing reviews

The second experiment focused on Airbnb guests who had finished their trip but gone many days without yet writing a review of their host. Half of guests were offered a $25 Airbnb coupon in exchange for writing a review, whereas the other half did not receive any incentive to write a review.

> Review rates increased by 70% when guests were offered a coupon.

> The rate of five-star reviews for hosts decreased by eight percentage points when offered a coupon.
In practice it’s quite complicated  

While two-sided reputation systems may seem like silver bullets that solve many of the problems that can keep an online marketplace designer up at night, the reality is unfortunately not so simple. Reputation systems can have flaws due to factors such as reciprocity and retaliation, selective reviewing, and reputation inflation. These flaws cause the ratings collected on the platform to diverge from the actual experiences that marketplace participants are having. When this occurs, two-sided reputation systems are less effective at mitigating moral hazard and adverse selection, which can lead to worse experiences for buyers and sellers alike.

Potential flaws and how to solve them  

Strategic reviewing behavior or reviewer bias can have a strong impact on the reviews that platform participants leave. But reputation design decisions, such as simultaneously revealing reviews or offering incentives to write reviews, can help to deliver a less biased picture of the average experiences.

Strategic reviewing behavior  

Consider the seemingly minor detail of the timing of when reviews are displayed to platform users. Some two-sided reputation systems immediately post reviews online once they are written, whereas others do not. When one party’s review is visible before the other has written their own review, the first reviewing party can use that first review to induce a positive review from their counterpart. Alternatively, one reviewer may wait to write their negative review (or never write it at all), out of fear that their counterpart will retaliate with a negative review of their own. Both of these factors can lead to a two-sided reputation system that makes it seem like peoples’ experiences are, on average, better than they are in reality. This would not be possible if reviews are hidden until both parties submit their reviews. An experiment on Airbnb (Box 1, Figure 1) confirmed that simultaneous reviews contain more negative feedback but reduce retaliation. We also discovered that simultaneously revealing reviews increased review rates and review speed, since guests and hosts alike were curious what their counterpart had written.

Not everyone writes reviews  

In general, online marketplaces and platforms are not incentivizing buyers and sellers to write reviews. Instead, contributing to a reputation system is something people do for intrinsic reasons, e.g., to feel like an expert, or because they like the feeling of contributing to a public good. The intensity of this intrinsic motivation differs from person to person. On top of that, sometimes people just get busy and can’t find time to write a review. As a result, not everyone writes reviews. For instance, on Airbnb, guests review their host 69\% of the time, and hosts review their guest 79\% of the time. If the subset of the population that chose to write reviews were representative, this wouldn’t be a problem. Unfortunately, the population of reviewers can often be quite different from a platform’s overall user population. Another randomized field experiment on Airbnb presented in Box 1 provides insight into this effect: without monetary incentive, the Airbnb reputation system missed out on a large number of guest reviews, and those missing reviews were, on average, less positive. While coupons or other monetary...
incentives provide one solution for collecting more representative reviews, it is unfortunately a costly one. Other policies that may increase review rates include reminder emails and changes to the text of those emails.

Reputation inflation

Another factor that can limit the effectiveness of two-sided reputation systems is what researchers call “reputation inflation”. A recent study of feedback on Upwork, an online marketplace for freelance work, provides a textbook example of reputation inflation. From 2005 to 2014, the ratings provided to freelance workers on Upwork steadily rose, such that by 2014, 80.7% of all ratings were between 4.75 and 5 stars (out of a maximum of 5 stars). This phenomenon emerges because receiving a negative review is costly for freelancers: No one wants to hire a freelancer with a bad rating. Because of this, people feel bad leaving low ratings and are less likely to do so. Subsequently, what counts as a “bad rating” continually, in absolute terms, increases, until ratings are almost uniformly positive. This ratcheting pattern is not observed in private feedback because it does not have the same impact on a person’s long-term business outcomes. This type of dynamic makes it difficult to distinguish between “high-quality” and “low-quality” participants on a platform, especially for new users who may not realize that what seems like a high rating is actually quite low in relative terms. The platform could influence the rate of inflation by changing the wording of the review form, and by displaying ratings computed relative to the other users on the platform. As an alternative, platforms can rely more heavily on private feedback, which is less subject to reputation inflation.

New reviewing schemes help avoid common pitfalls

Two-sided reputation systems enable much of the peer-to-peer commerce occurring on platforms such as Airbnb, Uber,
While coupons or other monetary incentives provide one solution for collecting more representative reviews, it is unfortunately a costly one.

and Upwork, but designing these systems can be difficult! When reputation systems are not thoughtfully designed, it can be hard to distinguish between the “high-quality” and “low-quality” interactions. This makes it difficult to identify and remove bad actors and increases the chances of a “bad match”. Figure 2 summarizes the problems of poorly designed two-sided reviewing systems and possible solutions. Innovations in reputation system design, such as simultaneous reveal of information, review incentives, and greater reliance on private feedback, are making it easier to implement two-sided systems while avoiding the common pitfalls.

FURTHER READING


A profound understanding of the motives of readers and writers is important to improve one’s own rating system.
Tales from the Land of Consumer Reviews: Taking a Closer Look at Lurkers and Writers

Alexander Mafael and Sabrina Gottschalk

**KEYWORDS**

Online Reviews, Information Processing, Decision-making, Electronic Word-of-Mouth

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**Reviews – omnipresent and highly influential**

Online reviews are one of the most influential sources of decision-relevant information for modern consumers. They contain descriptions of other consumers' consumption experiences and thereby provide a glimpse into the potential advantages and disadvantages of products and services. Reviews tend to be trusted and are present in virtually every context and on all devices, influencing consumers every step of the way. While most consumers routinely read online reviews to inform their purchase decisions, the number of consumers who actively post reviews is astonishingly small. According to the “90-9-1” rule of thumb, only 1% of users frequently contribute content, 9% contribute a bit, and 90% are simply lurkers who read but do not write. Given the enormous impact of reviews (see Box 1), it is worthwhile taking a closer look at how consumers process the abundance of reviews and how and why some individuals strike the keys to report their experiences.

**How consumers handle review overload**

Online review information is available in abundance. A typical hotel on TripAdvisor, such as the Hilton Hotel London Kensington, has accumulated over 5,000 reviews. Other rich information cues, like aggregate statistics, information about the author, or helpfulness ratings, accompany these review texts. How do consumers find their way in this information jungle and how do they reduce the immense information load to make a decision? We conducted several studies to explore these questions and found that consumers apply different processing strategies and do not proceed in a uniform manner.
Reviews are a ubiquitous phenomenon and are featured extensively by different types of companies and platforms (see Figure 1 for an overview of the different platform types). Most prominent are retail websites, such as Amazon.com and Zalando.com; service providers, such as hotel booking platforms like Booking.com or Agoda.com; or event ticket services like Ticketmaster.com. Other platforms provide aggregate and industry-specific information, such as Tripadvisor.com for hotels and travel destinations, Yelp.com for local shops and restaurants, or Airlineratings.com for flight carriers.

They are information powerhouses, leveraging their platforms as profitable business models, with Yelp.com reaching US$1.01 billion and Tripadvisor.com reaching US$1.56 billion of revenue in 2019. Academic research consistently finds a strong effect of online reviews and ratings on company performance, the diffusion of innovative products, and the duration of product lifecycles. A meta-analysis of over 1,500 effect sizes revealed that information generated through consumer word-of-mouth consistently influences sales.
Consumers process online review information selectively. Rather than looking at all available review information, consumers deliberately regard or disregard certain information cues. While some focus primarily on “positive” and “negative” reviews while ignoring “mediocre” ones, others focus on “online review headlines” or “helpfulness ratings” as the most telling cues. Respondents’ perceptions of the value of different informational cues for their own decision-making is oftentimes very pronounced and reflects rather stable patterns.

Groups of consumers employ distinct processing strategies. We identified distinct types of review users who employ different strategies. For example, one group of review users, which we named “The Efficients”, focused on cues that helped them retrieve information quickly, without expending much time or effort. They searched short, timely, and helpful reviews while disregarding “additional” cues like review author information. In contrast, “The Meticulous” group processed a wider variety of review cues to get a deeper understanding of the products or services. They disregarded short reviews, which may not provide enough depth of information.

Further, situation-specific factors shape not only the way in which we communicate our consumption experiences but also our motivation and goals when we seek online information to improve our decisions. Our goals and motivational mindsets influence which type of online review information will affect our decisions. Given the large number of reviews, it is impossible to consider everything. Rather, we rely on the information that we consider most beneficial for individual goals in a specific situation. For example, think of a father intending to buy a car safety seat for his newborn child. Research on self-regulatory goals suggests that, in this situation, he will probably have a prevention focus: Above all, he will look for a safe and reliable product. Indeed, evidence shows that in a comparable situation, we are much more likely to give more weight to negative reviews that talk about potential failures than positive reviews that praise advantages.

Posting follows individual strategies. In particular, the most active “top” reviewers on a platform are likely to behave differently from other less frequent posters. Top reviewers often care strongly about maintaining and improving their public rank in a reviewing community. For instance, reviewers dedicate entire forums to discussions on how to become a member of the Amazon Reviewer Hall of Fame. To achieve this goal, they often post strategically to ensure that their reviews stand out from others.

How writers compose their experiences. Biases do not only originate in the review perception process. As mentioned before, there is some imbalance with regard to many lurkers and few writers. This implies that consumers often rely on online review content that is strongly shaped by only a few contributing individuals. And similar to the review readers, review writers neither act uniformly nor without biases. Many posters compose their reviews with ulterior motives in mind and are shaped by prior experience.

Prior reviews influence posting behavior. Further, consumers consider previously written reviews when deciding whether to post or not. We found in several studies that whether a reviewer’s opinion falls into the minority or majority of previously posted reviews plays an important role in this decision. Infrequent posters seem to prefer posting from a majority perspective and shy away from a minority stance. In contrast, frequent posters seem to prefer posting a minority opinion, possibly because it helps their review to stand out, which can lead to a higher status.
How to optimize review management  × Aggregate effects of online reviews (e.g., the impact of average star ratings on sales) clearly matter for companies and are key to developing and monitoring longer-term goals. Yet, managers need to be sensitive to the existing heterogeneity in consumer processing of online reviews. A deep understanding of this variance can be worthwhile and speaks against a uniform, “one-size-fits-all” approach to managing reviews. To optimize review management, companies need to ask the right questions (see Figure 2) and build competencies in three key areas.

**Online review generation**

- Who are your heavy review posters?
- What can you learn about their posting behavior?
- Who are your lurkers?
- How could you motivate them to contribute to posting?
- Is there a clear majority opinion among review writers?
- How may this impact new review writers?
- Are you offering any status rewards for review writing?

**Online review processing**

- Can you identify distinct groups of review users among your customers?
- What review cues do they pay most attention to?
- Can you make it easier for these user types to find the review information that they care for (for instance through website design)?
- Can you identify existing brand attitudes among your review users?
- What shopping goals and motives may be particularly prominent?

**Understand the context of review processing**  × Managers should be mindful of the biases that shape consumer review processing. This may help them make sense of unexpected findings. Building awareness about consumers’ decision goals and their shopping motivation can contribute to a better understanding of the differential effects of positive and negative reviews. Also, specific framing of product benefits can influence consumers’ review processing. In settings where consumers consider negative information for decision-making, advertisements that show related benefits get more attention, according to a series of studies.
Many posters compose their reviews with ulterior motives in mind and are shaped by prior experience.

Leverage individual differences
Companies can help review users retrieve their preferred information cues quickly through the sophisticated setup of review platforms. This can include only displaying cues that one’s target audience cares about or allowing for sophisticated filtering mechanisms. Allowing users to modify and save the display of informational cues on review platforms may enable users to process review information according to their individual preferences.

Monitor and moderate the review-generation process and its key actors
Managers need to find ways to convert more lurkers into posters to get a more balanced picture of opinions. Frequent and infrequent review posters may be easier to motivate depending on whether their opinion belongs to the majority or minority of previous posts. For top review posters, companies might consider providing possibilities to signal their status to other members of the platform.

Finding one’s way around the land of reviews is tricky for consumers and managers alike. Those who have learned to interpret its signs correctly will be able to make good use of its riches and be one step ahead on digital platforms.

FURTHER READING


It’s the Story, Stupid: The Consumer Reviews Most Likely to Influence Purchasing Decisions

Tom van Laer

If you want to persuade, start with a bang. Helpful reviews are like good movies or a good novel: If you’re hooked right away, you stay and remember. No matter how short, a review tells a story in much the same way as a novel. If you want to persuade, it should start with something dramatic and sensational or the key takeaway, rather than saving the best elements for the end. This is just one of the findings of research by my colleagues and me into what gives consumer reviews their power to influence consumer choices. Whether consumers are booking a hotel room, choosing a restaurant, deciding on what movie to see, or buying any number of things, it is likely they have read online reviews before making their decision. In view of the influence reviews have, there is considerable interest in knowing the qualities that make them compelling and persuasive. What is it that makes a consumer review persuasive, though?

Helpful reviews show who did what, where, when, and why. In fact, the same elements that hook the reader of a novel also exist in reviews. A story – no matter how short it is – has the power to draw you in and grab your attention if it uses certain narrative elements. We conducted three studies to determine these elements. In the first project, we tested the helpfulness of consumers’ reviews on TripAdvisor according to a helpfulness rating provided by consumers on

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No matter how short, a review tells a story in much the same way as a novel.
the platform (see Box 1). In the second study, panelists on Amazon Mechanical Turk, a crowdsourcing platform, rated how engaging and helpful they perceived a selection of reviews to be. In the third study, 156 students read reviews about a trip to Agra, India and evaluated them along the same criteria as in Study 2. In addition, they indicated how much they wanted to travel to Agra after reading the reviews. All studies showed that the more narrative elements (see Figure 1) that were present, the more the reviews were regarded as captivating and persuasive. The most persuasive reviews tell who did what, where, when, and why, and provide emotional transitions and climaxes at the beginning.

**Why writing and recognizing helpful reviews is important**

Online reviews differ from offline reviews in scale, scope, and distribution of expertise. Today, more opinions and user-generated content are available to consumers than ever before. Not only the scale, but also the scope of reviews is enormous: Opinions are no longer restricted to a subset of products or services for sale. Instead, consumers can now even find reviews about the least commercial experiences, such as a visit to the Grand Mosque in Mecca, Saudi Arabia. Reviews are also no longer restricted to a handful of elite reviewers. Instead, anyone can write about any purchase, distributing and democratizing expertise. This means that any consumer with an Internet connection and an opinion can claim to be an expert. The advantage is that consumers thus have access to a multitude of perspectives instead of only those of a professional cadre. On the other hand, the quality of many reviews can be questioned, and the ability to access more information about a wider-than-ever-before range of purchases can result in information overload. In addition, there is, of course, the big issue of fake reviews, which means that consumers are vulnerable to deceit. Tripadvisor revealed in a report that more than 1 million fake reviews were removed from the platform in 2018 alone. Obviously, there is a role for digital curation by managers and reviewers. Consumers are always more likely to buy something when the review tells a captivating story – there is no need to lie about it. This is what social media influencers, professional reviewers, software developers, event managers, advertisers, and social network managers can do to raise review quality.
In this study, we analyzed almost 200,000 reviews from the “Things to Do in Las Vegas” category on Tripadvisor. Our computerized technique showed the relationship between combinations of words used and the helpfulness of reviews, as measured by reader ratings. We also used an algorithm to tally how many positive and negative words each review contained and where they featured. This analysis tested the effect of the emotional thread in the stories. The following review characteristics increased the helpfulness of the reviews. A quote illustrates each characteristic.

**Characters who have thoughts and feelings**  
The following extract from a review of “Kà”, a circus show in Las Vegas, offers insight into the writer’s state of mind.  
“There was a lot of action. That I love in this show. I would totally go see it again”.

**Events that happen in a particular place and at a particular time**  
Such events convey a sense of place and a sequence of events, as in this review of the musical “Vegas! The Show”.

“The first half seemed to drag on until the bird trainer and his buddies came on. Because they were hilarious, and their performance seemed to add life to the show and energize the crowd. The second half of the show was a lot of fun!”

**Emotional curves instead of linear narratives**  
Reviews that exhibit emotional curves in their story line and take readers on an emotional journey with ups and downs were rated as more helpful than those that provided a linear narrative. An example is the following review of “Mystery Adventures”, a live-action role-playing game organized in Las Vegas.

“This is definitely an unusual thing to do in Las Vegas, but can be a wonderful change of pace. If you are into CSI and like solving mysteries, this is for you. If you’d rather just kick back, this might be a bit much. Max seemed nervous at first with lots of ‘uhhh’s’ and ‘ummmms’, but warmed up quickly. The mystery started out slow … which might be natural, but picked up pace and excitement as the night went on. And it did go on … from 7pm to well past 10pm. Very exciting and worth the effort we put into it”.

**A climax or bang at the beginning**  
Reviews starting with their takeaway, or most dramatic revelation, tended to be more helpful too. The following opening of a Graceland Wedding Chapel review is an example.

“I was so upset, I did not get married at Graceland Chapel! On our wedding night, there we were, waiting for the limo. An hour after our wedding was to have started, still no driver. By then, our chapel reservation had expired!”
How to ensure influential reviews (and that the right experiences persuade) × What story is being told as well as how it is being transferred affects consumers. To be successful in the rating economy, people need to acquire new skills.

> Build awareness for narrative differences × First, marketers and consumers need to be aware of the influence of narrative elements to make more conscious choices. In other words, both consumers and marketers need to figure out how to make sense of online reviews: They need to read critically, learn how to reconcile differing sets of opinions or perspectives, and understand the roles that good stories play for the discourse around consumption experiences.

> Read critically × Reading critically is a practice marketers and consumers should all adopt, no matter the publication. Narrative qualities are among the hardest ones to fake — so looking out for them minimizes the chance that fake reviews sway opinions. When reading online reviews, marketers and consumers should consider what the reviewers’ state of mind was, where and when their experience took place, how emotions flow across the review, and where the climax is. In that way, they consider who is writing the texts and what their helpfulness really is.
Invest in creative writing expertise across functions. Social media influencers and professional reviewers should now also know that they are better off investing in creative writing or storytelling courses than choosing to analyze experiences factually. Further, teaching software developers at all levels how to distinguish quality, useful reviews from less helpful or relevant ones can help. When they cultivate this skill, they can structure platforms in ways that make writing transporting, helpful, persuasive reviews as easy as possible and can develop algorithms that favor real and useful reviews. Consistent with these emerging issues of expertise and digital literacy, many event managers are experimenting with digital initiatives to connect with consumers through these new media. Event managers of attractions, hotels, restaurants, tours, and other activities can structure their consumer experience as a developing story. Advertisers and social network managers may also wish to cultivate digital literacy skills as part of their mission. Our computerized technique can help predict which review will score highly on helpfulness and thus notify them of a review’s future impact.

Altogether, the highlighted narrative elements can change the way reviews influence people. Media literacy can go a long way. Turning back to our research on Las Vegas experiences, we can all decide whether what happens in Vegas stays in Vegas, stays on Tripadvisor, or changes our next trips.

Reading critically is a practice marketers and consumers should all adopt, no matter the publication.
Hosting Bags Instead of People

Interview with Jacob Wedderburn-Day, CEO and Co-Founder of Stasher – The World’s First Luggage Storage Network

For many travelers, the problem is familiar: You check out from Airbnb and your flight is not till later. So you have time to still enjoy a city, but you’re stuck with your luggage, which stops you from really taking advantage of it. At this point, Stasher comes in. Stasher is the world’s first international luggage storage network. Customers in many cities, mainly in the UK and Europe but also in North America, can now easily and inexpensively book short-term storage for their luggage 24/7 on the platform via the app. What’s more, they can do this locally, and not only near a train station or airport, with the chance for a nice chat plus insider advice on the area.

Giana × Your company is fairly young and the Stasher brand is not yet established globally. Can you tell us a little bit more about your platform?

Jacob × Absolutely. Stasher is a start-up that I co-founded five years ago with Anthony Collias, a friend of mine from university. Today, we’re live in 250 cities, have stored over half a million bags, and are looking at expanding further and increasing coverage in all the places where we operate today. Anthony used to live very centrally in London and he often had people leaving stuff at his home. So, we started thinking about some kind of Airbnb or a platform for storage.

Obviously, you found investors that shared your enthusiasm?

Back in December 2016, when it was me and Anthony not even full-time working on the idea, we cold-emailed the CEO of the Big Yellow Storage Company, really just asking for his advice as a guy who knows the industry well. These conversations progressed to him becoming our first investor, which was awesome. With this funding, we expanded the business around the UK and attracted more venture investment from a couple of seed funds and venture friends. This took us to the beginning of this year when we raised another $2.5 million to further grow the business.

Who are the hosts you are partnering with?

We started out building a really basic website to provide storage in peoples’ homes. But soon after, we started to sign up professional partners. Mostly they are hotels, businesses, or shops with extra storage space, reliable opening hours, and often security features like CCTV, things that make people feel comfortable and safe. No one is really concerned about leaving luggage in a hotel because it’s common practice anyway. Many businesses were indeed very keen to earn ancillary revenues because of the rising pressure of e-commerce or the threat of Airbnb, in the case of hotels. Our offer was received very well: a win–win proposal.
And who are your customers and why do they use Stasher?

People using our service are mostly travelers and tourists, particularly the Airbnb generation. While hotels will mostly be able to accommodate your luggage, Airbnbs will not, and their customers are quite likely to encounter the problem of checking out and not having anywhere easy to keep their luggage. That’s where we come in. Our network provides really cheap storage – normally half the price of lockers – and it's more convenient too because we have locations all around the city. Plus, there is another, very local aspect: If you leave your luggage with a local shop or hotel, they can give you friendly advice on the area, and this also sort of creates a community sense that matches well with the Airbnb spirit.

Your concept is unique and embodies the original promise of the sharing economy: using underutilized resources in an efficient way that fills a genuine need in the marketplace. How do your customers find out about you?

Basically, we use three channels for customer acquisition. The first and biggest, is organic and paid Google search: We work on ranking highly for relevant keywords. So, “luggage storage London” would be the most obvious one if you’re looking to drop luggage in London. The second biggest, very promising approach is around referral partnerships. We make a lot of effort with local Airbnb hosts and other travel companies that might have travelers with this problem. So, Airbnb guests will probably ask their host for luggage advice, and it’s great when a host is able to say, “I can’t keep your luggage because I need to clean the room, but I have a deal with Stasher”. Either the customer can have a small discount or the host gets a commission. The third opportunity we see is around Google Maps, fitting our service and ratings into geo-search. This strategy has been quite experimental, but the channel should work really well. Making the product fit Google Maps is quite a challenge, but I think we’re starting to make some real progress here.

Do ratings pay a role in establishing trust between hosts and clients? How does Stasher use ratings?

I’d say ratings play a massive role. We use Feefo, a verified review system with no risk of fake reviews. All of the reviewing customers have definitely used the service, and we’re quite proud of that fact and publish it. We see bad reviews as being as important as good reviews to improve the service and to demonstrate our commitment to customer support. In terms of bad reviews, it’s a great way for us to police our network because we can’t oversee every host. We can collect useful and reliable customer data on hosts that are performing well and hosts that aren’t. The great thing is that most of them are really diligent, and I think that’s really important for a sharing economy service. Reviews are an extremely relevant indicator of trust.
For sure. So how do both hosts and the customers use the ratings?

If you’re choosing between quite close alternatives, you may be tipped in favor of the higher ratings. You can look just at the star score, which is very visible on the map. You can also dig deeper into the detailed reviews and read more in-depth feedback about customers’ experiences. Hosts take pride in their review score and we feel it’s a great motivator for them to perform well. Our review system is only one-way, though. We don’t have hosts review the customers, it’s just customers reviewing the hosts.

I see. And have you found that customers won’t leave their bags unless a place has a five-star review, or are four stars okay? What is the barometer?

I think there is definitely a four-star threshold. We have noticed that if a host slips below four stars, that’s really a problem and it does put off future bookings. Probably because the average is really high across our network – it’s 4.8. So, above 4.5 is great and most customers would see that as a real badge of trust.

It’s amazing to hear that your average is 4.8. How important do you think the qualitative part is, beyond just the star rating?

I think the star score will affect every booking because it’s very visible in the customer flow. The reviews are easily available but have less of an impact on a typical booking than the star score. But it’s worth diving into the details for us and for customers. One of our first hosts on the platform was a barber shop in Paddington. Charlie constantly gets good feedback from people saying how friendly he was, how he gave them great lunch recommendations, etc. For us, this is a really nice validator of how the model is working, and that might be the kind of thing that tips you over the edge as a prospective customer. For us as the platform, it’s a good way to collect more information.

Great. And is Stasher itself, as a platform, rated anywhere, for example, on TripAdvisor?

We bundle the Feefo rating into one service score and use that to reflect on the platform as a whole. Stasher is also reviewed on Trustpilot, on TripAdvisor, own Google Maps, and I believe on Yelp as well, but we only set that up quite recently. We monitor those as well. They have the disadvantage of being unverified, but you can pretty comfortably tell when it’s a genuine review. It’s nice to see good reviews popping up unprompted by us in Trustpilot and TripAdvisor, as both have quite big traffic and big audiences.

For sure. And is there anything that you do to actively manage these ratings, or do you just monitor them, as you said?

We haven’t actively set up or paid for accounts with any other services. So we have less control over it, other than being able to flag reviews that seem problematic, but we’ve never really had to do that either. So it’s mostly monitoring that we do, and it’s just nice to see when stuff comes through. When we started launching the Google Maps campaign we were able to connect Feefo to that, but I suspect Feefo won’t introduce anything like that for Trustpilot any time soon.

Given the success that you’ve had in the past few years, have any competitors entered the marketplace?

Too many actually but this is a good thing! It’s flattering to see the model copied and to see so much market need that the market can currently sustain as many competitors as there are. Still, I suspect we’ll see a big change at the end of this year. We are one of the better-funded companies in that space, and some others have similar levels of venture funding as we have, but for a few smaller ones, it’s going to be very challenging.

We are recording this during the Coronavirus pandemic, which has hit the travel industry hard. How resilient is Stasher?

I’d certainly be worried about our prospects if we hadn’t been lucky enough to close our round of funding in January (talk about timing!). We know that we will be okay to survive this and we hope that it won’t be too long before people start traveling again, ultimately also needing our service. But yes, strange times that we’re living in right now.
I’m glad to hear that Stasher will be making it through. You might not only lose some of your competitors but also some hosts, though?

Right now, a lot of the places that we operate are closed and we’re waiting to see the impact of the pandemic on how many of our hosts will still be in business after the dust has settled. The good thing is that a lot of vacation rental managers have time on their hands now to think about the way they will manage their operations in the future. So, it’s a good time to make contacts, for example, to build referral partnerships. This channel was going really well prior to the pandemic, and I think there will be a lot of opportunity again.

Do you have plans to expand your business globally despite Corona?

The financing round of January was designed to set us up for meaningful international scaling. We know we can do a lot more in America and Australia, and potentially in Asia too. We have operational presence there, but it’s time to go for depth and try and win this market really as soon as life is back to normal.

Before we finish up, let’s cycle back to ratings and what the future might bring in this field. Are there any innovations that you would like to see?

I already mentioned the integration with Google Maps and I’d love to see more integrations like that. They would allow you to manage your reputation cross-platform. It’s cool being able to have some kind of sync between maps and Feefo, and it would be great if the Feefo profile were reflected in Tripadvisor, the “go-to” place for tourists as well. Tripadvisor is still very much geared around hotels and restaurants and it’s tricky for other, more novel travel-related services to set up there.

How might ratings and reputation systems evolve in the future?

I hope that the fact that our reviews are verified really matters to customers. It’s hard to guarantee that it does, and I wonder how discerning customers are between the difference, but we’ve always valued it on principle. I think that Google should have a policy of only permitting verified review stars to display in its results, whether paid or organic. At the moment, whether or not ratings are verified, you can have them appear against your links. I think in an effort to crack down on fake reviews, it should be policy that only verified reviews are appropriate. So that’s something I’d love to see, but that’s for Google to decide.

These are excellent points and I am sure a lot of other companies would agree with them. Thank you so much, Jacob, for taking the time to speak with me. Your insights were really fascinating. We wish you all the best to jumpstart your business when travelling picks up again. Hopefully soon!
Thrilled or Upset: What Drives People to Share and Review Product Experiences?

Anja Dieckmann and Matthias Unfried

The Internet is full of reviews and recommendations but also rants about almost everything. Indeed, we may be increasingly reluctant to book a restaurant or order an item online that has not been thoroughly reviewed. But what drives people’s decision to share product and service experiences in the first place?

Why people share their experiences

Research across different disciplines has investigated why individuals share reputational information. Behavioral economists have investigated relevant motives using experiments on social interactions. They demonstrated that, for some people, altruism is the main motivator for sharing experiences, and reviewers simply want to help others in making better decisions. For others, reciprocity seems to be the driving force – for positive as well as negative experiences. For instance, hotel guests experiencing severe failures that ruined their holidays might be inclined to retaliate with bad word-of-mouth or reviews. On the positive side, a highly satisfied customer who enjoyed an exceptionally delicious dinner might be motivated to give something back and publicly praise the restaurant. Another highly discussed factor explaining why people do (or do not) share reputational information is the costs of sharing. Preparing and verbalizing the information to be shared requires cognitive effort. Further, it takes time to actually publish or share the information, leading to additional executional costs. Lower cognitive and executional costs make sharing more likely.
Experimental studies by the NIM confirm that increased arousal is associated with higher levels of social sharing.
Word-of-mouth expert Jonah Berger has identified additional key factors that drive the sharing of information. Individuals want to shape the impression others have of them, or they might want to persuade others by sharing specific content. Some share experiences as a way to bond and socialize with others. Related to that, sharing information can be motivated by the desire to receive social support or additional information. Last but not least, another important function of word-of-mouth is to help consumers regulate their emotions. In the case of a rude service representative, for instance, telling others about it can help customers deal with these negative consumption experiences and reduce the emotional impact.

So, it allows people to vent, but also to spread positive excitement over an experience.

**The role of emotional arousal for social sharing**

Several studies highlight a sender’s emotional arousal as a relevant factor for social sharing and virality of online content. According to psychological research, emotions are accompanied by a state of heightened physiological arousal or activation, which results from experiencing personally relevant events, independent of whether they are positive or negative. Arousal tends to boost social transmission. Ads that elicit more emotional engagement receive more buzz than less activating commercials. Further, the fact that surprising, novel, or outrageous content is more likely to be shared also seems consistent with the notion that arousal boosts transmission.

**The measurement of arousal**

Aside from self-report via rating scales, the measurement of arousal has been technically challenging. Activation was measured via changes in somebody’s heart rate or skin conductance response with elaborate physiological tools and electrodes attached to respondents. More recently, technological progress in the field of Affective Computing has greatly facilitated emotion observation. Software for automatic and unobtrusive analysis of emotion expressions in both the face and the voice have been advanced. Research has revealed that emotional arousal can be validly detected in a person’s voice by technology and/or attentive listeners who can hear when the arousal level of a speaker changes. This is the approach we used in our study on the effects of arousal on social sharing (see Box 1).

**Higher arousal – more sharing – more persuasion**

The results (Figure 2) of our experiment are in line with other research confirming that increased arousal is associated with
Investigating arousal and sharing of experiences by analyzing the voice

The experiment
Together with academic collaborators, the NIM conducted a lab experiment to identify to what extent emotional arousal drives the sharing of experiences. All participants were asked to select and watch trailers for upcoming movies varying in personal preference. In the next step, they argued for their choice in a spoken review that was recorded. Half of the respondents received a treatment for higher arousal: The participants of this experimental group were informed that, on top of voice analysis, their reviews would be evaluated by a group of peers in randomly matched pairs. A participant would earn a monetary reward when his or her review was perceived to be the more convincing one. At the end of the experiment, all participants in both groups had the opportunity to share their favorite trailer with their fellow participants, if they wanted.

We processed all recordings of the reviews automatically using our voice analysis software and calculated the average arousal level for each recording. In addition, an independent group of psychology students rated the level of arousal in each speaker’s voice, and another group evaluated the persuasiveness of each review.

How did arousal differences affect social sharing and persuasiveness?
We first evaluated whether vocal arousal varied with personal involvement. Unsurprisingly, arousal was higher for personal favorite trailers. Also, arousal was higher in the incentivized experimental group. In consequence, a significantly higher proportion of participants in this group decided to share the trailer with others. And how did arousal affect listeners? We found preliminary evidence that – even when controlling for trailer preference and incentives – arousal had a significant impact on the persuasiveness ratings. Thus, arousal did not only increase the likelihood of sharing experiences, it also made the shared content more convincing, possibly by increasing perceived authenticity or by social contagion. Figure 2 shows an overview of the results.

We need to point out, however, that only ratings by psychology students showed significant arousal differences. In the data from the automatic voice classifier, we did not find significant differences between experimental groups, despite a high correlation with the psychology students’ ratings. This can be explained by a narrower value range and a tendency toward the mean of the automatic classifier – a phenomenon often observed in machine learning, attributed to common error-minimizing training procedures. In defense of the classifier, it should be noted that it was trained and successfully validated in a different domain and simply may not generalize well to the present scenario with inherently moderate personal relevance and arousal levels.
Revealing emotions in reviews may add authenticity and credibility.

**FIGURE 2**  Effects of arousal in the trailer lab experiment

- Participants reviewed trailers of their choice (n=202, number of recordings 606)
- Mean arousal in the voice (on scale from -10 to +10)
- % of participants who shared the trailer
- Average persuasiveness rating (on scale from 1 to 7)

<table>
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<tr>
<th>Control group</th>
<th>Experimental group</th>
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<tr>
<td>No monetary incentive</td>
<td>Monetary incentive, peer assessment</td>
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<td>-0.1</td>
<td>0.7</td>
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<td>59%</td>
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higher levels of social sharing. For practitioners in marketing, the results highlight the importance of arousal for goals like determining whether a product, service, or advertising is perceived as relevant, and whether or not consumers will share their experience in social media. Also, at least for spoken reviews, there is an indication that higher arousal can even increase persuasiveness. Revealing emotions in reviews may thus add authenticity and credibility.

**How to make use of the insights on emotional arousal**

To increase the chances for sharing positive reviews of a product or service, a piece of advice for marketers is to link their brands and products to positively arousing emotions, such as amusement and surprise, beyond pure contentment. On the other hand, alarm bells should sound – quite literally – once customer dissatisfaction evolves into hot anger. Being furious at a company rather than merely disappointed may increase the likelihood of telling others about it. A brand can be seriously damaged when bad reviews escalate. To prevent this, customer service hotlines, for instance, could use voice analysis to flag the increase of arousal during calls to initiate effective countermeasures, like consulting a manager or offering compensation.

To end on a positive note, annoyance caused by negative experiences may not necessarily translate into negative reviews. Research by Nobel-prize-winner Daniel Kahneman and colleagues demonstrates that experiences extended over time, such as restaurant visits or hotel stays, can effectively benefit from positive endings: The peak and the end of emotional experiences is what most sticks to people’s memories. This buys retailers and service providers some time: if something went wrong, negative effects can be partially counteracted by friendly and effective complaint management. According to research findings, a simple apology can make a substantial proportion of customers withdraw negative reviews.

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**FURTHER READING**


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The Dark Sides of Digital Marketing

Illuminating the Dark: Exploring the Unintended Consequences of Digital Marketing
Caroline Wiertz

Algorithmic Bias: Do Algorithms Reinforce the Gender Career Gap?
Anja Lambrecht and Catherine Tucker

Metrics Gone Wrong: What Managers Can Learn from the 2016 US Presidential Election
Raoul Kübler and Koen Pauwels

Personalization: Marketing Utopia or Marketing Dystopia?
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Ghosts in the Dark: How to Prepare for Times of Hyper-Privacy
Felipe Thomaz

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