

Consumer Experiences with Marketing Technology: Solving the Tensions Between Benefits and Costs

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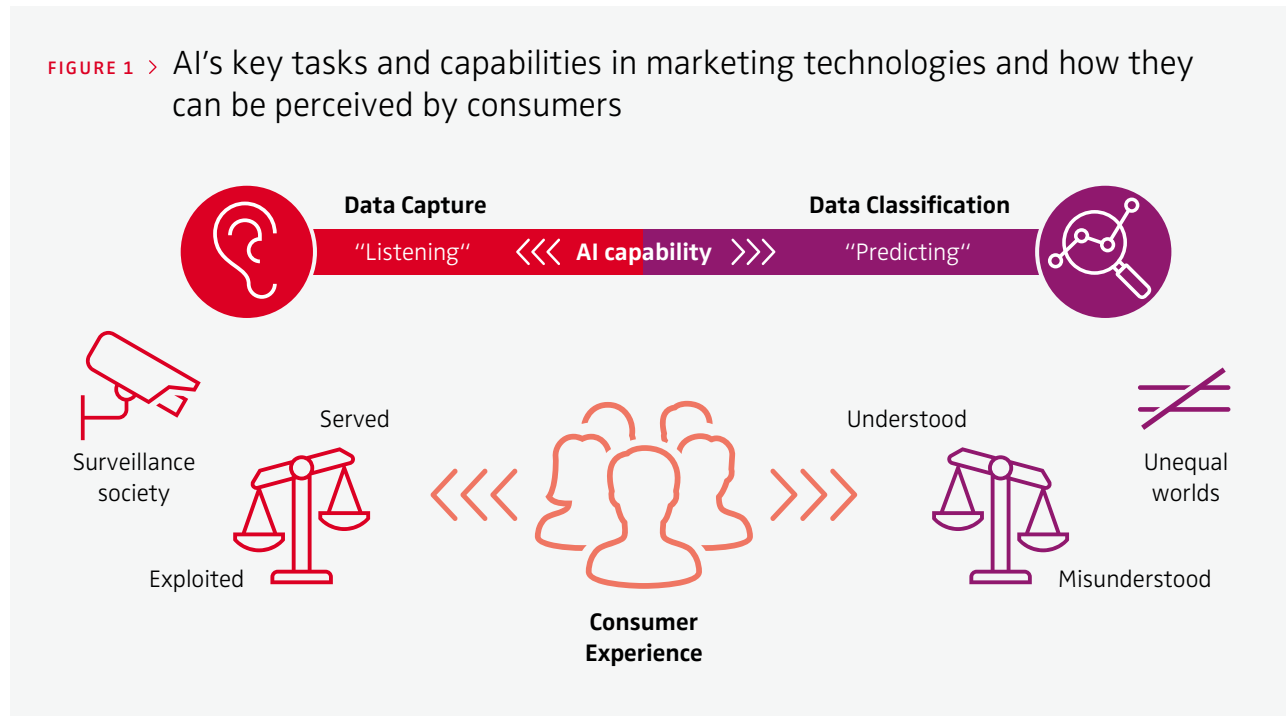
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The pervasiveness of technology in everyday life ✕ Many consumers have diverse interactions with AI (artificial intelligence)-powered marketing technology throughout the day, from Amazon's smart speaker Echo to Google Photo's editing suggestions and Spotify's music playlists or Netflix's movie recommendations. The growing ubiquity of AI in consumers' lives can be very convenient, but even if software developers and marketers strive to create excellent service, consumer experiences are not always positive. For example, computer scientists often characterize algorithms as neutral and efficient tools, but some consumers doubt their accuracy, citing stories about algorithmic discrimination and misjudgment. It seems that companies may overlook the social and individual complexities of the contexts in which marketing technology is increasingly deployed. Thus, whereas AI can improve consumers' experiences in concrete and relevant ways, a failure to incorporate behavioral insight into technological developments may undermine the value that consumers perceive from AI interactions. We discuss consumers' positive and negative experiences around AI's ability to listen to consumers and predict their behavior.

The capability of AI to listen and predict ✕ Marketing technology typically comprises data capture and data collection and uses AI capabilities to "listen" to consumers and algorithms to predict consumer behavior (see Figure 1). Consumers experience both capabilities during their customer journeys. "Data capture" is the experience of giving one's data to AI; "classification" is the experience of receiving AI's

FIGURE 1 > AI's key tasks and capabilities in marketing technologies and how they can be perceived by consumers



personalized predictions. Both experiences can be emotional, cognitive, behavioral, sensorial and social, and consumers may either feel served or exploited. When consumers are classified by the collected data and receive customized offers, they may feel understood or misunderstood. For both experiences we explore benefits and costs from a consumer perspective and derive managerial implications to enhance the positive side of these experiences.

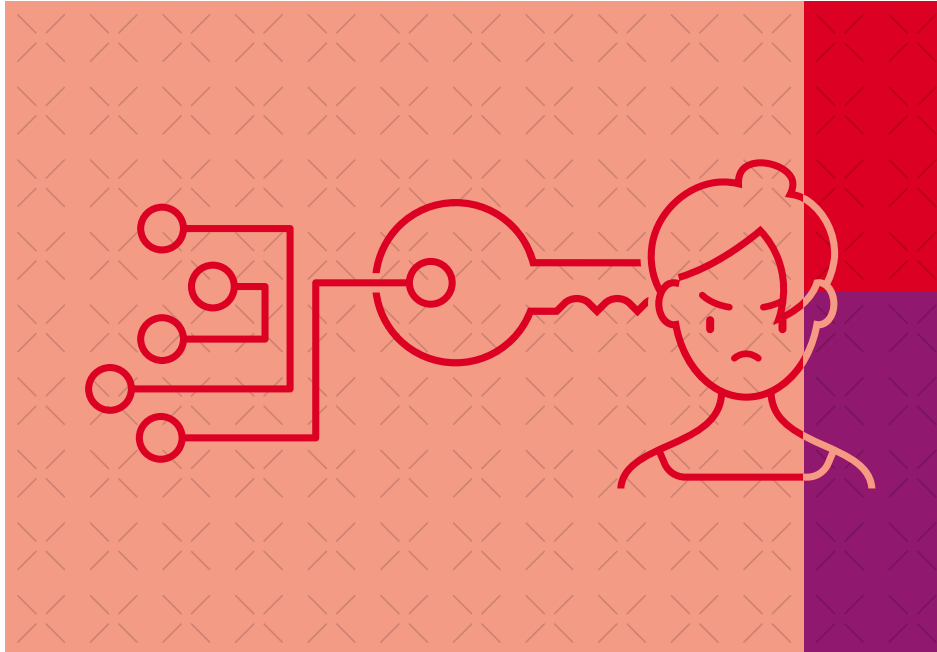
The two sides of the data capture experience ✕ The “listening” capability enables AI systems to collect data about consumers. Even if data is intentionally provided, consumers do not always understand who uses the data and how. But data is also obtained unnoticed from traces of daily activities, as in the case of shopping in a store equipped with facial recognition technology or of an iRobot Roomba mapping a home. In such cases, consumers might be unaware that they are sharing data.

AI “listening” benefits consumers because it can make them feel served: The provision of personal data allows consumers to access customized services, information and entertainment, often for free. For example, consumers who install

the Google Photos app let Google capture their memories and, in return, get an AI-powered assistant that suggests context-sensitive actions when viewing photos. Access to customized services also implies that consumers can enjoy the outcome of decisions made by digital assistants, which effectively match personal preferences with available options without the cognitive and affective effort that decision-making can entail.

Despite providing convenience, however, AI “listening” can also make consumers feel exploited. They may perceive a loss of personal control and feel demotivated and helpless. Privacy is another concern, and privacy invasion or potential violation can threaten careers. In contexts of domestic violence or for political activists, it is not only frightening, but may become a matter of life and death or result in the victim being jailed.

Moreover, data acquisition is increasingly intrusive and difficult to avoid. Stories such as George Orwell’s 1984 or Philip K. Dick’s *Minority Report* envision systems of oppression, and such dystopian imagination further fuels the threatening nature of data capture’s so-called data capitalism.



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The two sides of the data classification experience

× Companies use data collected by AI to predict consumer interest and behavior, and, assisted by AI, they attempt to create ultra-customized offerings and maximize engagement, relevance and satisfaction. Consumers may infer that these recommendations are based on being classified as a certain type of person. Classification experiences can be positive when they lead consumers to feel deeply understood. For example, consumer categorizations can be flattering when personalized offers indicate membership in an aspirational group.

However, classification experiences may also make consumers feel misunderstood when they perceive AI as having inaccurately assigned them to a certain group and they receive biased predictions. Group identity appeals may backfire when they do not sufficiently reflect a consumer’s individuality or are perceived as dated or wrong. Frustration increases when it is impossible to alter a classification that feels wrong, like in the case of Spotify customers who kept receiving rock recommendations despite their musical taste having evolved over time, and who had no chance to alter them.

Consumers may also feel misunderstood when they fear AI is using a social category in a discriminatory way to make biased predictions about them. This is particularly problematic when these predictions enhance consumers' vulnerability because the predictions restrict access to marketplace resources such as loans or credit cards. For example, fintech companies increasingly use easily accessible digital information to predict consumers' payment behavior and judge their creditworthiness. At the societal level, classification by AI is linked to a dystopian narrative in which access to resources and freedom is restricted for some groups.

How organizations can reduce consumers' fears of being exploited and misunderstood ✕ Rather than ignoring tensions between the benefits and costs of marketing technology, companies should pay attention to harmful experiences to maximize the benefits. We suggest that companies enhance their organizational learning about consumer anxiety and take concrete steps such as the ones we suggest here to design improved experiences around data collection and classification.

> **Strive toward greater organizational sensitivity around consumer privacy** ✕ Consumers feel they have substantially less control over personal data than organizations that capture it. Companies should therefore listen empathetically and at scale to consumers' feelings about this situation and especially to those who feel exploited by data capture. Furthermore, rather than accepting the surveillance society narrative at face value, companies should explore when, how and whether their own data capture activities play into or counteract this narrative.

Managers should also listen to consumers who feel wrongly or too narrowly classified. They could experiment with diversifying and broadening the content they provide and

also develop formats to propose products that are dissimilar from the user's preference profile. Indeed, Spotify has launched Taste Breakers, a function that introduces customers to music to which they normally do not listen. Similar attempts at "bursting the bubble" are important, as AI that provides information based on past choices ignores individual long-term goals, does not reflect short-term behaviors and increases attitude extremity and polarization. To reduce potential frustration, companies could also address feelings of being misunderstood by asking consumers to validate AI-based inferences and by offering the opportunity to update the AI's view of themselves.

> **Design choice architecture and default options carefully** ✕ Recent regulations, such as the European Union's GDPR (General Data Protection Regulation), aim to limit exploitation. They make organizations responsible for giving consumers the possibility to opt in and out of specific data collection processes like cookies and require greater clarity on how to use the data.

However, as AI becomes more pervasive and ubiquitous, consumers are often overwhelmed by an overload of choice options and information along the customer journey and become even more anxious. Therefore, the way in which data capture options are presented – the choice architecture and the default settings – plays a key role. Default settings have proven especially effective in facilitating decision-making as well as influencing specific behaviors, since individuals tend to passively accept defaults instead of exercising their right to opt out. To account for heterogeneous preferences, choice architects should attempt to personalize defaults, and AI itself could assist consumers in the automatic implementation of preferences about how their data is captured and analyzed.

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> Test for algorithmic biases and eliminate them

× While data capture errors are often noticed with delay and are hard to correct in real-time, classification errors produce signals soon after they occur, and marketing and consumer-facing departments are challenged to detect them. For instance, if an AI system has rejected a college applicant due to a biased algorithm, it is likely to surface in the college’s admissions department, and this decision might even be used in assessing the next round of applications. However, college admissions managers might assume that the classification represents the natural outcome of the competitive process and may not immediately be aware that a given outcome results from a socially or racially biased algorithm. Organizations must thus focus on learning about the specific biases present in their algorithms and processes to root them out. In the United States, the Algorithmic Accountability Act of 2022 requires companies to assess whether AI systems lead to inaccurate, unfair, biased or discriminatory decisions and to address any problems. However, rather than reacting to a changing regulatory landscape, companies should proactively collaborate with technology experts and thought leaders in computer science, sociology and psychology to develop and conduct such audits. Organizations should also diversify their hiring to include more members of social minority groups and ensure that their culture and processes represent diverse viewpoints at all stages of the design of AI classification experiences.

Addressing consumers’ problems with marketing technology is important for society as a whole

× AI-enabled marketing technology promises to make consumers happier and more efficient. To live up to this promise, managers should pay attention to consumers’ anxieties. If they understand when and why consumers feel exploited or misinterpreted by AI, companies can provide more value for consumers individually. But learning about and acting upon negative AI experiences is also relevant on a broader level. Companies will be able to design both de-biased and anti-bias AI experiences that foster an inclusive society rather than perpetuate inequality. Companies should share both their audit processes and outcomes, such as by engaging in lobbying efforts, to ensure that regulations passed in the name of consumer welfare include meaningful and technologically appropriate provisions to protect consumers from exploitation and discrimination.



FURTHER READING

Puntoni, S.; Reczek, R. W.; Giesler, M.; & Botti, S. (2021): “Consumers and Artificial Intelligence: An Experiential Perspective,” *Journal of Marketing*, 85(1), 131–151.
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