# The automation of marketing

Received (in revised form): 21st July, 2021



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Abstract Today, the average campaign response rate is less than one per cent and with the emergence of artificial intelligence (AI), traditional marketing is wading into troubled waters because the waves of strategic campaigns, the retargeting, the real-time media buying and personalised e-mailing are not moving the marketing needle as they used to. The robotisation of shopping and marketing is changing how brands compete for consumers. This paper stipulates that the real opportunity in marketing today lies in redefining the customer relationship rather than in cutting costs. In the future, humans might only be needed in the consumption phase of the buying cycle and purchasing decisions could be left to IoT-connected bots that order products for the customer. These products will then be delivered by anticipatory systems that understand when orders are to be made. For companies to succeed in this environment, they need to make the marketing, ordering and delivering process as seamless as possible, not just for the humans who will consume the products but also for the bots that will order them.

KEYWORDS: artificial intelligence, customer engagement, personalisation, machine learning, anticipatory shipping, customer relationship management, automated shopping, behavioural marketing

#### INTRODUCTION

A sea change is coming to the advertising world, threatening to radically alter the way marketers reach consumers, and it will not be a moment too soon as the sector currently boasts more than 5,000 unique marketing solutions, yet the average campaign response rate is less than 1 per cent. The maths — 99 per cent of marketing messages are ignored and considered largely irrelevant — is unimpressive, to say the least. As the customer relationship management (CRM),

artificial intelligence (AI) and robotic process automation leader Pega Systems sees it,

'With the emergence of artificial intelligence (AI), traditional marketing is wading into troubled waters — and practitioners don't need a data scientist to feel a major shift coming.'<sup>3</sup>

Rob Walker and Matt Nolan of Pega recognise that the waves of strategic campaigns, the retargeting, real-time media buys, mobile push and personalised e-mails are not moving the marketing needle as they did just a few short years ago.<sup>4</sup>

Being number one has never been more important for marketers. Getting noticed on search, and in voice search, can help companies rise above the clutter. It has never been easier to set up an e-commerce store, so getting high up in the Google rankings is imperative to be discovered by interested buyers. It is also imperative for companies to make their customers feel they are being treated like a VIP. While the concept of one-to-one marketing is two decades old, the technology needed to embrace it has not been ready until now, says Pega:<sup>5</sup>

'Recent order-of-magnitude improvements in real-time interaction and AI capabilities have eliminated technology roadblocks, and the benefits of "doing it right" are massive – increased engagement, response, customer satisfaction, retention, sales conversion, revenue, and profit margin, to name just a few.'6

Surgically striking offers to the market of one rather than blasting a shotgun of offerings to the uninterested many should be the goal of every marketing department today. As Niraj Dawar explains in his *Harvard Business Review* article 'How Marketing Changes When Shopping Is Automated',<sup>7</sup> much of marketing is predicated on companies sending messages to customers through multiple marketing, mobile and social channels to generate a purchase. Dawar says:

'The largest advertisers in the world are companies such as Procter & Gamble, Nestlé, and Unilever, which sell branded low-involvement products that are routinely purchased and consumed at a regular pace.'8

There is, however, probably no more wasteful advertising than money spent on reminders for consumers to pick up basic items such as toothpaste, coffee, washing powder, soap, pet food, and/or groceries. These fast-moving consumer products companies are spending tens of billions of dollars a year to keep their products top of mind. The hope is that when a consumer is short of a staple, memories of the brand they prefer will trigger a purchase.

Dawar envisions a future where retailers know their customers' habits so intimately, they will mail, e-mail or even drone the 200 or so products the customers regularly consume, 'based on when the retailers' algorithms believe they require replenishment'. Once the Internet of Things (IoT) goes fully online, smart sensors and smart refrigerators will order directly from a retailer's algorithms, saving the consumer the hassle of writing shopping lists, remembering which products to buy and/or which products are needed. 10 'Products will flow to the household like a utility', says Dawar. 11 Most purchasing decisions will be handled by a bot, and consumers will only need to consume.12

In 'Humanizing Loyalty', 13 behavioural economist Susan Menke states: 'Decision fatigue and cognitive fatigue are the opposite of flow and seamlessness.' In her paper, Menke touches upon the concept of the psychological script — the idea that the mind does not have to focus on many dayto-day activities as they can be handled without much thought.<sup>14</sup> The more seamless a company can make both the customer interaction and the buying process, the more likely a customer will not only purchase from it once but will repeatedly purchase from it.15 The second purchase is usually the most important purchase a buyer can make. If businesses can lock down the second purchase, the buyer will often become a loyal customer, so companies should focus on making the second purchase as easy and thoughtless as possible.

In a connected world, spending billions to remind a consumer to buy a brand's products will be deemed particularly wasteful.<sup>16</sup> Instead, advertising dollars will

be combined with CRM and customer loyalty budgets to help build long-lasting and rewarding customer relationships. 'Challenging incumbents, increasing rates of consumption, and influencing algorithm designers and owners' should be the stated goal, says Dawar.<sup>17</sup> Influencing algorithms, in particular, will be prized, with a specific emphasis on becoming a native or default brand in the pre-installed software choice.<sup>18</sup>

Out of laziness, fear of technology, or simply because a user does not understand the device, 90 per cent of smartphone and PC owners do not change their default settings, which presents a huge opportunity to those systems that become the default tools, contends Dawar:<sup>19</sup>

'As a result, incumbents will benefit from raised barriers to entry, and challengers, at least in routinely consumed product categories, will have to break through the inertia not just of consumers but also of programmed bots — a much tougher inertia to overcome.'<sup>20</sup>

This is a great opportunity for companies to become default brands. Utilising marketing dollars to reach this goal is probably a better use of this money than trying to reach and retain the top of a consumer's mind. For Dawar,

'brand loyalty will be redefined, forcing marketers to differentiate much more clearly between mere repurchase and actual loyalty. Marketers of incumbent brands will need to ask whether the algorithm is "loyal" or the consumer is.'21

For challengers, they will need to figure out how they can convince consumers to change the algorithm's default settings.<sup>22</sup>

'Much of marketing strategy today rests on the idea that consumers are imperfect interpreters of advertising and marketplace information', claims Dawar.<sup>23</sup> That might be oversimplifying things, however. Buyers are certainly subject to cognitive biases such as selective attention and retention of information, but the advertising industry is hardly innocent in its use of psychology to convince buyers to purchase the products it is trying to sell — frequently items that are not just unnecessary, but superfluous. The advertising industry skilfully uses psychological methods such as the endowment effect, the foot-in-the-door technique, the framing effect, loss aversion, the decoy effect, the availability heuristic and the scarcity principle to move its products. Dawar makes the argument, however, that these techniques will become pretty useless when it is a bot that needs to be converted. 'If routine decisions are made by bots, not humans, marketers need to speak to the bots — and bots tend to do what they are told, without cognitive biases', argues Dawar.<sup>24</sup> Research should be 'focused on understanding the points of influence of bots: What are their sources of data? Which criteria are they programmed to optimize? And what are their learning algorithms? Research on consumers will focus on strategic issues such as understanding consumption patterns and maintaining brand loyalty', contends Dawar.<sup>25</sup>

### THE POWER OF PERSUASION

So, how does one increase brand loyalty and improve brand recognition? In his influential *Harvard Business Review* paper 'Harnessing the Science of Persuasion', <sup>26</sup> Robert B. Cialdini looked at the science behind the power of persuasion and discovered that 'persuasion works by appealing to a limited set of deeply rooted human drives and needs, and it does so in predictable ways. Persuasion, in other words, is governed by basic principles that can be taught, learned and applied'. Cialdini's six principles are:<sup>27</sup>

- 1. *Like*: People like those who like them;
- 2. Reciprocity: People repay in kind;
- 3. *Social proof:* People follow the lead of similar others:

- 4. *Consistency*: People align with their clear commitments;
- 5. Authority: People defer to experts;
- 6. *Scarcity*: People want more of what they can have less of.

For reciprocity, people give what they want to receive and it is the number one thing that creates loyalty in another person. Reciprocity has been appraised and debated since the days of Aristotle and many scholars believe it is the single most defining aspect of social interaction that keeps society together. Reciprocity does not have to be a bar of precious metal that some casinos in Macau use to entice high rollers to return; it can just be the acknowledgment of poor customer service along with a promise to do better the next time.

In terms of reciprocity, a 2002 research found a waiter's tips increased by a paltry 3 per cent when diners were given an after-dinner mint, but went up to 20 per cent when the server delivered the mint while looking the customer in the eye and telling them the mint was specifically for him or her.<sup>28</sup>

For the principle of social proof, people tend to follow the lead of similar others. Whenever available, people use peer power.<sup>29</sup> Cialdini adds: 'Social creatures that they are, human beings rely heavily on the people around them for cues on how to think, feel, and act.'<sup>30</sup> Persuasion can be particularly effective when coming from peers.<sup>31</sup> Testimonials from satisfied customers, in particular, 'work best when the satisfied customer and the prospective customer share similar circumstances', argues Cialdini.<sup>32</sup>

In his article 'How to use the psychology of social proof to your advantage', <sup>33</sup> Ed Hallin argues: 'A lot of things go into a person's decision to purchase a product, and social proof is certainly one of those important factors.' <sup>34</sup> Seventy per cent of consumers say they look at product reviews before making a purchase, says Hallin, and product reviews, to no one's surprise, are 12

times more trusted than product descriptions from manufacturers.<sup>35</sup>

For the principle of consistency, liking is a powerful force, states Cialdini, but persuasion involves more than simply making people feel warmly towards you, your brand, idea, or product.<sup>36</sup> Liking is not enough; people need to feel committed enough to do what you want them to do.<sup>37</sup> Good turns are one way to generate feelings of obligation; another is to win a public commitment, which is what brands should do in an active, public and voluntary way. It is possible to do this in a non-exploitive fashion.

In his article '15 Psychological Studies That Will Boost Your Social Media Marketing',<sup>38</sup> Kevan Lee detailed a Princeton researcher's study that depicted the consistency principle:

'[The] researchers asked people if they would volunteer to help with the American Cancer Society. Of those who received a cold call, 4 percent agreed. A second group was called a few days prior and asked if they would hypothetically volunteer for the American Cancer Society. When the actual request came later, 31 percent agreed.'<sup>39</sup>

The marketing takeaway here is for brands is to create expectations for what customers and potential customers should say and/or do. For instance, a brand that sells online marketing courses should aim to get users to opt in to a marketing course and offer tools used by marketing experts. Subscribers may wish to stay consistent with their stated goal of improving their marketing skills and they will then sign up for recommended tools because they fall in line with their expectation to improve their marketing skills.<sup>40</sup>

For the principle of authority, people defer to experts, so brands should project their expertise. <sup>41</sup> In one sense the influencer craze reflects this principle. One could argue that influencers are not exactly experts

in their field, but influencers are looked upon as people who know more about a particular product or service than the general public.

According to Investopedia, the scarcity principle is the 'economic theory in which a limited supply of a good, coupled with a high demand for that good, results in a mismatch between the desired supply and demand equilibrium'. <sup>42</sup> Also known as 'fear of missing out' syndrome, the scarcity principle plays upon the idea that people covet scarce things. As Investopedia explains,

'Consumers place a higher value on goods that are scarce than on goods that are abundant. Psychologists note that when a good or service is perceived to be scarce, people want it more. Consider how many times you've seen an advertisement stating something like: limited time offer, limited quantities, while supplies last, liquidation sale, only a few items left in stock, etc. The feigned scarcity causes a surge in the demand for the commodity.'<sup>43</sup>

### **ENGAGEMENT AND LOYALTY**

So how should brands use these six principles? They should start with engagement and the usual marketing tools such as CRM, marketing automation, realtime marketing, Next Best Offer and Next Best Action platforms while adding AI into the mix. As Lovelock and Wirtz state, 'from a customer perspective, well-implemented CRM systems can offer a unified customer interface that delivers customization and personalization'.44 For Lovelock and Wirtz, at each transaction point relevant patron data, such as a customer's personal preferences, as well as their overall historical transactions should be available to a clerk or rep serving a customer, giving them valuable information about how to interact with that person.<sup>45</sup>

The hotel engagement and loyalty platform (see Figure 1) shows how a hotel would engage its customers in a loyalty platform that utilises social media as an important channel of the process. The platform can be implemented in a multitude of ways. In the 'listening' part, a hotel would define triggers and set up a product such

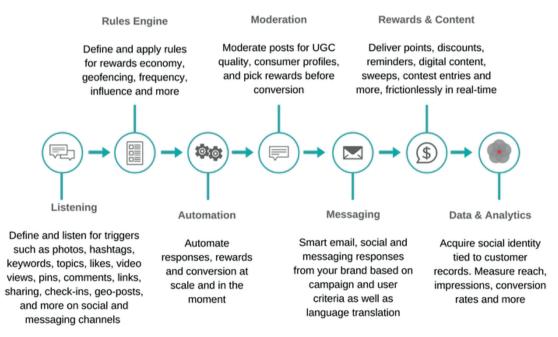


Figure 1: The hotel engagement and loyalty platform Source: Chirpify

as Adobe's marketing cloud to cull Twitter, Facebook, Instagram, or a whole host of social site feeds for tweets, photos, hashtags, keywords, likes or video views about the hotel property. AI can be used to qualify and metatag the hotel's content so any time a photo of the place is posted, Adobe's AI tool, Sensei, will peg it and notify the marketing department of its use. This is helpful for the hotel to understand how far and wide its marketing message is going.

Check-ins and geo-posts from sites such as Facebook, WhatsApp, WeChat, Foursquare, Instagram and YouTube, as well as a host of other social networks, can help brands connect with nearby audiences. Brands should also be listening to comment boards or short-term blogging sites like Tumblr or social news aggregation sites like Reddit for comments about their products and services.

The 'rules engine' step is pretty straightforward; brands are already creating considerable business rules for their companies, and these should be extended to their defined rewards programme, their reward economy and the marketing of the loyalty programme. Rewards programmes are costly to implement and difficult to maintain. Each reward point has a monetary value and, therefore, must be quantified on a budget whether it is used or not, so quantifying everything properly is imperative.

Building a rules engine can streamline the marketing process. The brand must document who gets what, when and/or how they get it, as well as if approval is needed, and through which channel an offer gets delivered. With mobile and social added to the customer channel mix, things are going to get exponentially more complex very quickly, so building a rules engine that lays out things in a highly definable way to interact will optimise the entire customer process.

Once the rules engine is set, automation must kick in. With even small brands now handling databases filled with millions of customers, it would be impossible to market to a customer database without considerable automation going on behind the scenes.

With the real-time personalisation capabilities available today, brands can quickly understand who is accepting their marketing and how much revenue it is driving. Adding a real-time element to the process would be impossible without setting strict rules in place and utilising powerful marketing automation tools that not only send out marketing offers but also quantify them once they are used.

In terms of marketing and customer service, Facebook bots can be created and automated to answer standard customer service questions, and this should lessen the load on a brand's customer service department. Moderated boards and usergenerated content (UGC) content such as Instagram, Facebook, Twitter, or YouTube posts are great ways to market to customers and/or potential customers. They are also good listening channels to pick up customer service compliments and complaints and competitive intel.

As Chirpify sees it, 'Moderation allows brands to increase social efficiency and effectiveness by uniting automated listening triggers while giving moderators the ability to manually review posts and user content for fit before determining their qualification for a reward'. Brands can better personalise each reward based on the user's profile while ensuring each reward will be appreciated by the customer. 46 'Conversation with customers will increase sales, even if the product or service is never mentioned', counsels George Farris, founder of Farris Marketing.

Messaging is the fifth step, and this includes e-mail and social media messaging being used to market to the consumer. This step can include chatbots. Dubbed the greatest customer service technology around, chatbots are everywhere. Four years ago, Gartner<sup>47</sup> saw this revolution coming, saying that by 2020 the average person would 'have more conversations with chatbots than with his or her spouse'. Chatbots are

ubiquitous, even if we cannot see them. Most Fortune 500 companies use them, but they are not just for large and mid-size companies. Chatbots have become so cheap to implement that even small businesses have embraced them. Leftronic<sup>48</sup> reports that 71 per cent of companies with chatbots have between 1 and 50 employees.

There are two types of chatbot: transactional and conversational. The former provides customers with a pre-programmed set of choices, while conversational chatbots utilise AI to understand and respond to customers in natural, human-like ways. Advances in AI, machine learning (ML), natural language processing (NLP) and deep learning (DL) have led to the creation of highly intelligent AI chatbots. These interact with people intelligently, often in a natural, human-like way.

In its 'Best AI Chatbot – 7 Smartest AI chatbot in 2021',<sup>49</sup> Designveloper claims the Imperson platform is one of the most

intelligent AI chatbot platforms available and it can support text, audio, video, augmented reality (AR) and virtual reality (VR) on all major messaging platforms. Customer behaviour is identified through AI and appropriate responses are delivered in real time, says Designveloper.<sup>50</sup> Chatbots can collect leads, raise brand awareness, answer simple questions, provide expert answers and promote brand messaging platforms such Facebook, WhatsApp, WeChat, Telegram and others (see Figure 2).

Complicated chatbots are really where it is at and there are several chatbot platforms available on the market that do everything by utilising IoT, social and geolocation data. Some connect to databases and then provide on-the-fly information to consumers and/or salespeople. Google Assistant even lets UPS customers track their packages over voice. The UPS My Choice app learns to recognise the customer's voice and when talking to the app's chatbot, the customer does not have

## **Potential Benefits of Chatbots**

If chatbots were available (and working effectively) for the online services that you use, which of these benefits would you expect to enjoy?

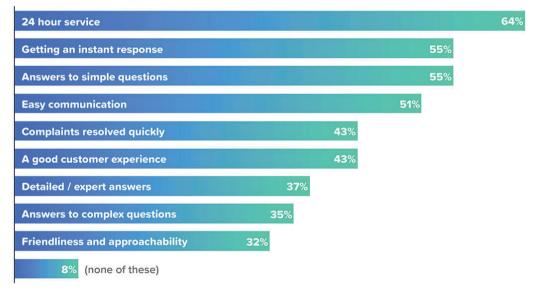


Figure 2: 2018 state of chatbots report Source: Drift<sup>51</sup>

to provide any tracking number or personal information as the chatbot automatically recognises them. This is a great example of how a company can make its service process so seamless that customers will think twice about switching to a competitor.

Chatbots partner well with blockchain also and the use cases are building by the day. In her article 'Why Chatbots Need Blockchain', 52 Aurosikha Priyadarshini explains how chatbots and blockchain work together in the warranty sector. Whenever a client makes a purchase, a guarantee coupon containing a unique blockchained QR code is sent to them. The QR code 'includes general information like the product's name, purchase date, and serial number, along with the address of the chatbot that is operating on the Facebook messenger platform'. Upon receiving the picture of the QR code, the chatbot logs the purchase information, while the customer's Facebook profile is included as the personal identifier.<sup>53</sup> This entire process is seamless and saves the seller's time as well as adding a layer of security into the loop that will be recognised by the client. Combining 'blockchain technology with chatbots helps in the creation of a safe and reliable system with a UI-friendly and straightforward interface', concludes Priyadarshini.54

For businesses, chatbots can drive customer engagement, improve the customer experience, help cross-selling and up-selling, provide stock or insurance quotes and reduce customer churn. One of the most important things chatbots can do is create a one-to-one marketing experience for every customer. It can help customers find what they want, give them prices or stock information about these items, as well as accept payments and send the order to fulfilment. Chatbot assistants can help with shopping and NLP-powered chatbots can understand customer sentiment, then act on it.

In her article, 'The State of Chatbots: Pandemic Edition',<sup>55</sup> Jessica Davis states: 'The biggest use cases for chatbots right now are customer service, IT service desk, and HR, but there are many other specialized use cases, too.' One example Davis notes is that of a bot that was 'deployed by a credit union in the north-western US in April when stimulus [cheques] were on the way'. <sup>56</sup> The organisation created a simple bot that answered basic questions about a person's cheques: was one coming, had it arrived, when would it clear? <sup>57</sup> Such a bot was extremely valuable during the huge spike in customer service calls asking about cheques, but was useless once the stimulus cheque wave was over. <sup>58</sup> Davis contends:

'The push to automate, particularly in the current pandemic environment, is helping to drive growth. Some companies are employing a grow-with-automation first mindset where they deploy chatbots and other automation tools first before they consider hiring humans.'59

Rewards and marketing content can deliver the usual points, discounts and offers, but today something known as 'social rewards' is proving to be a unique way to connect with an audience that has seen everything in terms of rewards programmes. In his article 'Getting it right: Mixing social and economic rewards in hotel loyalty programmes', <sup>60</sup> Lee Jin-soo argues that common examples of economic benefits for hotels will include free rooms, free upgrades and other discounts. Social benefits are more diverse, however, and include preferential treatment or personalised recognition and unique customer attention.

A survey of 334 participants conducted by the School of Hotel and Tourism Management at the Hong Kong Polytechnic University found a social reward-dominant programme was 'more effective than an economic reward oriented program in encouraging favourable relational behaviours toward programme providers'. <sup>61</sup> The study concluded that financial incentives alone would not prevent customers from switching

over to a competing programme. <sup>62</sup> To foster relational behaviours and gain long-term benefits from a loyalty programme, hotels needed to consider offering both social and economic rewards. <sup>63</sup>

As an example of a customised social reward, Lee mentions one leading hotel's offer for loyalty members to join Thailand's Phuket Marine Biology Centre and the Royal Thai in their annual release of baby turtles into the sea. <sup>64</sup> At the event, 'only members of the hotel's superclass loyalty programme are allowed to release baby turtles into the sea, which is a rewarding and memorable experience, especially for children'. <sup>65</sup> Lee concludes: 'Such a preferential treatment is so meaningful to customers that they become reluctant to switch to any competing hotel that offers equal or even better financial incentives.' <sup>66</sup>

A campaign management solution can enable a brand to develop and manage personalised customer communications strategies as well as orchestrate the delivery of offers through a multitude of channels. Users can rapidly create, modify and manage multichannel, multi-wave marketing campaigns that integrate easily with social channels or fulfilment channels, automatically producing outbound and inbound response history. Target segments can be defined, selection rules prioritised, while campaigns can be scheduled and executed. Advanced analyses can then help predict patterns of use and evaluate the success of the entire marketing process.

The customer journey starts a long time before the customer even connects with a brand. It begins the moment a potential customer browses a brand's webpage or notices an advertisement for the company on television, on a website, in print or on a billboard. It can even be while connecting with a brand's social media accounts, or even the moments leading up to a customer's purchase. Throughout this entire customer journey, the brand's data warehouse should be collecting, analysing, visualising and then,

potentially, live-streaming recommendations and/or offers to those who might utilise them, all to strengthen the bond between the company and the customer.

# THE START OF A BEAUTIFUL RELATIONSHIP

On 3rd March, 2021, Google announced it would no longer allow third-party cookies on its ad networks and its Chrome browsers. <sup>67</sup> In effect, Google agreed to stop 'selling web ads targeted to individual users' browsing habits', explains Sarah Morrison. <sup>68</sup> Google Chrome will no longer allow cookies that collect this data, while ad companies relying on cookies will have to find other ways to target users. <sup>69</sup>

Third-party cookies have been used since the early days of the Internet to collect data on browsers to track their movements from website to website. This is why Google ads are so effective. Users who visit Travelocity to search for a holiday in Thailand and do not buy that trip will often see ads for a trip to Phuket that is suspiciously similar to the one they had just been searching for previously. Google's ad business has been powered by the third-party cookies on millions of websites that feed the company massive amounts of user information about the sites they visit, says Morrison.<sup>70</sup> Google saw the privacy writing on the wall, however, and recognised it had to adapt. This is where Google's Federated Learning of Cohorts (FLoC) comes in, says Chetna Bindra.71

With FLoC, Chrome keeps track of a user's browsing habits across the web and then places the user in various audiences, or 'cohorts', based on those habits. 'Advertisers will then target their ads to cohorts, rather than an individual user', says Bindra.<sup>72</sup> Google still delivers targeted ads to users, but in a more anonymous way.<sup>73</sup> Google claims this has little effect on an advertiser's ROI compared to cookie-based tracking, and it is currently testing FLoC with advertisers to

see if it is a worthy cookie replacement, but questions about the effectiveness remain.<sup>74</sup> Who knows what the future holds for FLoC, but Google is at least confident enough in it to declare the death of cookies, which should be additional motivation for companies to realise that the advertising times, they are a'changing.

Google still plans to collect first-party data through its products like YouTube and Search, says Rani Molla,<sup>75</sup> and it will target ads based on that information. Perhaps this is the biggest lesson from Google's announcement: first-party data is becoming increasingly valuable to advertisers as third-party data sources dry up. The bigger point here is that companies need to develop those one-to-one relationships with their customers, like Google has with its Search and YouTube users.

'The robotization of shopping and marketing changes how marketers and consumers interact and how brands compete', says Dawar,<sup>76</sup> who believes the real opportunity lies in redefining the customer relationship rather than in cost-cutting.<sup>77</sup> In the future, humans might only be needed in the consumption phase and we will leave our purchasing decisions to an IoT-connected bot that orders what we need when we need it. It might be high time for companies to realise the future lies in making it as seamless as possible not just for humans to order from them but also for a bot.

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