



Here Comes the Hyper-Connected Augmented Consumer

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KEYWORDS

Connected Consumer, Augmented Consumer, AI, Analytics, Real-time

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Yesterday and Today: The Age of the Connected Consumer ///

It is well established that consumers are connected more than they ever have been. This has happened in large part due to the popularity of social media, as well as the proliferation of smartphones. For example, according to a report released by the social media software company Hootsuite and the social media marketing agency We Are Social, as of January 2017, there are about 2.8 billion active social media users and 4.9 billion mobile users in the world. These are large numbers, of course, and they have grown rapidly over the last decade. As a result of the digital connectivity afforded to people around the world, consumers have become what I refer to as “always on and constantly connected.” In other words, we live in an age of connectivity where consumers can access vast amounts of information and communicate with others across massive distances whenever and wherever they like. Search costs have plummeted, individuals’ abilities to digitally express themselves and their opinions have increased, and the opportunities for superior business and market intelligence for companies have skyrocketed.

Opportunities for greater market intelligence ///

This last change is perhaps the most profound for the marketing profession and in this issue you find a selection of recent top research in this area. Marketers enjoy having access to more and richer data due to the rise of the connected, always-on consumer. This is fueling better customer insights and the infusion of data into all facets of marketing and brand management. Social media and word-of-mouth (WOM) are among the most relevant fields in this respect. On page 18 David Dubois analyses what motivates consumers to either

{ Box 1 }

L'ORÉAL PARIS: MAKEUP GENIUS – HOW CONSUMERS AND COMPANIES CAN BENEFIT FROM NEW DIGITAL TOUCHPOINTS

In May 2014, L'Oréal Paris launched a mobile beauty app for their flagship brand. The app, called Makeup Genius, was designed to revolutionize how consumers shop for beauty products like mascara and lipstick. Instead of having to purchase an item in order to try it on, L'Oréal wanted to allow consumers to virtually trial their products using a mobile app. The solution, which was developed by working with Hollywood-grade digital visual effects specialists, was an augmented reality app. This was a transformation of the mass-market beauty shopping experience. Consumers could try products on, create new looks by combining products and colors and share their virtual looks on social media. In some countries, they could even purchase the products directly in the app without having to visit a mass retailer.

This was a big success. In the first year, when the app was only available in the United States, France, and China, it was downloaded approximately 5.9 million times. After two years, with the app available throughout much of the world, it had been downloaded about 16.3 million times and the average

user tried on 18 different products. A newer version of the app is available today. It continues to be a popular digital touchpoint for L'Oréal Paris and the brand sees it as an important digital platform for connecting and interacting with consumers.

What this all means for marketers at L'Oréal Paris is that they now have a new source of consumer insight. By leveraging the always-on, constantly connected nature of consumers, L'Oréal has unlocked a new source of consumer data. Every time a consumer virtually tests a product in Makeup Genius or creates a look by combining several products, L'Oréal potentially learns something new about consumer interest in their products. Likewise, whenever a consumer shares a photo of their look through the app – or makes a purchase – they are getting a signal about consumer interest in and sentiment towards their products that they would not otherwise know about. This intelligence can feed into all sorts of decision making, including product development, supply chain and operations, digital advertising, and more.

Further details: Stephen, Andrew T. and Gillian Brooks (2017), L'Oréal Paris: Makeup Genius App, Saïd Business School Case Study.



share positive or negative WOM with friends and acquaintances and comes up with interesting marketing implications. Yakov Bart (pp. 24) investigates how product seeding not only affects the focal product but the whole category and competing brands, an effect that savvy marketers can leverage to their advantage. Another interesting phenomenon we cover is Social TV. While consumer multiscreen activity tends to be considered as a threat to TV and especially TV advertising, Beth Fossen and David Schweidel (pp. 30) show that TV can indeed benefit from the buzz during their shows. The greater availability of connected consumer data of course

has also enabled newer forms of digital marketing, such as precision targeting and real-time, programmatic advertising that shows personalized ads to consumers at, hopefully, the right moments in terms of place, time and intention. In this context, Michelle Andrews (pp. 36) presents her findings on the effectiveness of mobile advertising in different contexts and highlights the importance of considering environmental factors to improve the relevance and hence effectiveness of mobile ads. Network analysis is the topic covered by Lev Muchnik and Jacob Goldenberg (pp. 42), who demonstrate that networks evolve differently than often assumed

and come up with straightforward recommendations for improved social network analysis marketing. Finally, Robert Kecskes from GfK (pp. 54) discusses how being “always on” changes brand communication.

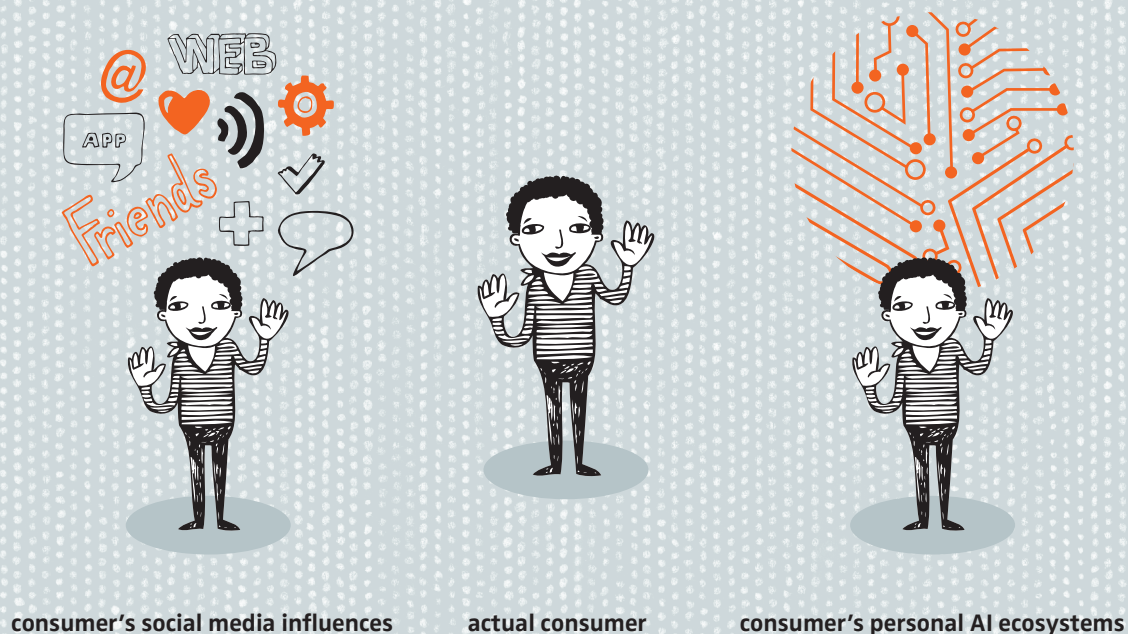
The age of the connected consumer, in which we now live, has given marketers new types of data due to the ability for new digital touchpoints to be inserted into consumer buying journeys. An example of this comes from L’Oréal (see Box 1).

This new age has been marked by the proliferation of digital touchpoints in consumers’ purchase journeys. It has been facilitated by the always-on, constantly connected nature of the modern consumer who is a non-stop user of social media and their smartphone. This has given rise to more, richer, and

new sources of consumer data that marketers can leverage, and has fueled the data-driven insights revolution in marketing. As a consequence, analytics companies like Teradata are working with big retailers to build advanced, real-time analytics engines that facilitate more efficient marketing. In our interview (pp. 48), Yasmeen Ahmad, Think Big Analytics Director at Teradata, illustrates the challenges and opportunities that lie in the data originating from consumers’ 24/7 online presence.

Tomorrow: Moving Into the Age of the Augmented Consumer /// So what comes next? In the age of the connected consumer (yesterday and today), consumers are digitally connected to other people, to digital services and platforms. But the journey isn’t over yet. In the age of the augmented

FIGURE 1:
Augmented consumers themselves, plus their digital extensions



{ Box 2 }

GOOD MORNING, AUGMENTED CONSUMER!

It is 6 a.m. The alarm on your iPhone goes off. Time to start another day. Before leaping out of bed, you check your favorite social media apps – Facebook, Instagram, Twitter. You get the overnight news just from your feeds. You then probably see that many (too many!) emails have arrived during the night, so you take a look at those and quickly identify the ones that will need attention immediately versus those that can wait. You get up, and start getting ready for the day. You ask Siri (or Alexa, if you prefer) to turn up the heat because it is a bit chilly this morning. While you're at it, you ask her to brew some coffee and make some toast so that it is ready in time for when you've gotten out of the shower. At that point, she reminds you that you have an early meeting at the office and that traffic is bad so you'll have to leave in 30 minutes. "Okay, thanks Siri," you say, "Stop making the coffee and toast, and place my usual order at Starbucks for pickup in 45 minutes from now." Quickly, you shower and get dressed and head out the door into your car. "Thanks Siri," you think to yourself upon getting in and feeling the warmth of the seats and steering wheel, a result of Siri pre-emptively turning on the car's heating system 10 minutes earlier. Off you drive, heading to work – but first Starbucks – listening to a Spotify playlist that was curated for you just this morning, with some of your favorite motivational songs that the system knows you love and will need because today's schedule is jam-packed with important meetings.

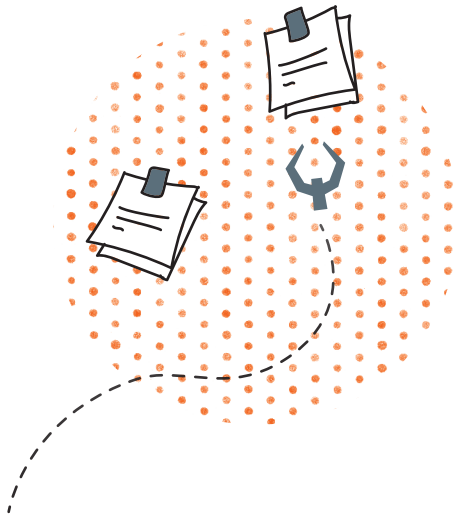


consumer (tomorrow), we will still be connected to people, services and platforms, but we will also be connected to smart devices and sensors. Box 2 illustrates what a typical morning routine might look like in a world full of wearable devices, smart sensors, consumer IoT devices, smart homes, and, critically, artificial intelligence ecosystems (AIE). This is the future. It is not a distant future that is 10 or 20 years away, though. This is the future of the next few years and, in some cases, it is already here. In marketing, we are quickly moving from the age of the connected consumer to the age of the augmented consumer. These new technologies will not only connect, but also substantially and meaningfully augment the consumer in terms of their thoughts and behaviors.

If we think of this coming age, what we ultimately see is a consumer who is completely augmented by other intelligent entities. They will be hyper-connected in the sense that they are not only tethered to smartphones and social media but also to sensors, wearables and other smart IoT devices. All of these connections will produce streams of data that personal artificial intelligence ecosystems (AIEs) will use, in real-time, to guide consumer behavior. Thus, in the near future marketers will have to think about consumers who are an amalgamation of a number of entities, each of which has some influence on behavior: the actual consumers, or persons themselves, the consumers' social media influences, including friends and family, as well as "influencers" that they follow and pay attention to and the consumer's personal artificial intelligence ecosystems (see Figure 1).

Artificial intelligence ecosystems as advisers and butlers /// The AIEs will have voice-based interfaces like Siri and Alexa, or interfaces as with the more familiar mobile apps and web-based platforms. They are ecosystems in the true sense of the word – systems of systems – because they link various AI systems into a seamless, integrated user experience. I foresee two broad types of AIEs: prescriptive and delegational (see Figure 2).

First, there will be **prescriptive AIEs** that try to help consumers make better decisions through "prescriptions" or recommendations. For example, Apple and Google can already scan your calendar and suggest when the best time to leave for an appointment will be, given traffic conditions and your preferences for modes of transport (e.g., mass transit, driving, walking). We'll continue to see prescriptive AIEs offer these kinds of seemingly helpful services to consumers.



Second, we will soon see the rise of **delegational AIEs**. These will go beyond offering consumers advice, recommendations or suggestions. Instead, they will go ahead and act on their recommendations so as to automate various decisions, workflows, and facets of consumers' lives. This will be based on combining consumer data on their stated preferences, learned or inferred preferences, and prior behaviors with other kinds of data that capture conditions in the external

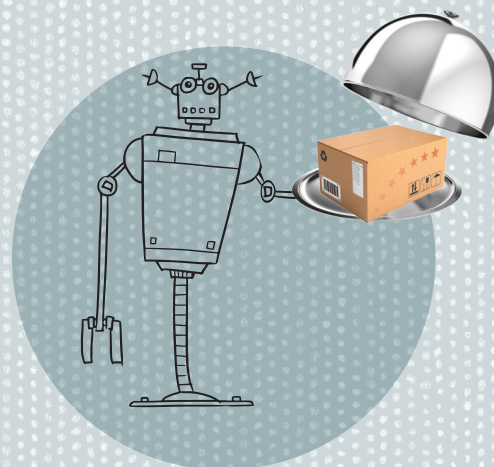
environment. A simple example comes from the morning routine vignette in Box 2. Instead of having to manually turn on the car's heating system before leaving, a delegational AIE knew to pre-emptively heat up the car without its owner having to intervene. It took consumer data, like the typical time of leaving, the calendar for the day and prior use of car heating and combined it with environmental data such as outside temperature and traffic conditions. Another example

FIGURE 2:

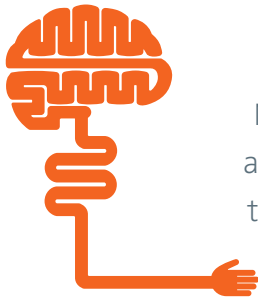
Prescriptive and delegational augmented consumers' AI ecosystems



AI ADVICE



AI SERVICE



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might be automated shopping services, something that we might expect to see from a company like Amazon in the not-too-distant future. They might combine data on a consumer's past purchases, their shopping habits and price sensitivities, their brand preferences and their bank information with external data on product pricing and promotions. As a result, a delegational AIE for shopping could easily know when a consumer is likely to want (and able to afford) a certain product and will just buy it.

Thus, when we think about the future that is upon us, the trend of consumer connectivity is not going to slow down. It will accelerate into hyper-connectivity as we see more opportunities for connection between consumers and other entities – particularly AIEs – that will automate a lot of consumer decision making and behaviors. Consumer-facing intelligent systems are going to be extremely important in this space, similar to how marketing automation (and artificial intelligence) has become popular among digital marketing professionals in the last year or two.

Marketing challenges in a hyper-connected world

/// The hyper-connected, augmented consumer will be a combination of the self and an extended self. The digital extensions encompass the social influences that have been a hallmark of the current age of the connected consumer, plus the new AIEs that will become the hallmark of the age of the augmented consumer. Extended consumers pose new challenges.

> **Marketing to algorithms instead of people** /// The biggest challenge for marketers will lie in how they approach marketing to this new type of consumer. Particularly to the personal AIEs. Marketers will be forced to think about how they communicate and engage with not only the consumers themselves but also their personal AIEs. This means

marketing to algorithms, instead of people, and that is very different to how most marketing work is currently done. As I recently said in my monthly column for Forbes CMO, one of the aspects that will become important for the future of work in the marketing profession will be the need to understand and build marketing programs targeted at algorithms and intelligent software systems.

> **“Upskilling” the marketing workforce** /// Many of the world's largest marketing-driven companies have started to realize this development, but it is early days. At the moment, preparing to face this challenge involves equipping your marketing workforce with new, digital-focused skills. So-called “upskilling” is now a strategic imperative and companies such as the digital skills learning pioneer General Assembly and forward-thinking universities and business schools are helping big companies forge ahead in this regard. But the concept of marketing to AIEs is a very new idea, and something that upskilling and digital marketing education programs are yet to embrace. Getting ready for this, however, is a strategic imperative.

> **Handling AI resistance and differences in adoption speed** /// Another critical challenge marketers will need to address early on in the age of the augmented consumer is consumer resistance to the use of AIEs. As with any new technology, consumers will adopt it at varying rates, with the classical “early-adopters” enthusiastically jumping in at the start, and others joining over time. A factor that will regulate the speed with which we will enter into the age of the augmented consumer will be consumer trust in personal AIEs. Relying on algorithms to make decisions probably does not come naturally to many people, and relinquishing control will be hard for many. The technology

companies leading the change in AI – Amazon, Facebook and Google – have a collective vested interest in rolling this out as quickly as possible, and they will likely succeed at this. However, consumers may resist and marketers will have to grapple with this. Consumers will, however, eventually learn to trust and rely on their augmented AI helpers. The challenge for marketers, though, lies in deciding when and how to embrace this new type of consumer. Do you jump in early so that you can experiment and learn a lot? Or do you sit on the sidelines and wait it out? Additionally, when marketers do start to embrace the age of the augmented consumer, they will need to ensure that the experiences they create and the approaches they take are responsible and lead to improvements in satisfaction.

Get ready for the real science fiction! /// We have been living in the age of the connected consumer now for some time. It has been an exciting time for consumers and marketers alike, as new technologies have transformed and enhanced our lives in meaningful ways. Advances in artificial intelligence and machine learning, coupled with the proliferation of smart connected devices and sensors within the consumer IoT space are combined with the growing embrace of data-driven, analytics-focused approaches to marketing. This all means that the time is upon us where we will shift into a new age. The age of the augmented consumer takes us to a science-fiction world where consumers are part human, part machine. The future is intriguing and presents new challenges and imperatives for the marketing profession. We are heading into this quickly, and marketers should get ready now before the train has picked up too much pace to still hop on.

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FURTHER READING

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