Is artificial intelligence the future of the customer experience?

Received (in revised form): 22nd December, 2022

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Abstract Conversations around customer experience have dramatically evolved since the advent of the Internet and big data. Not only are one-dimensional brand-to-consumer communications now reason to abandon loyalty, but personalised experiences have become an integral part of competitive advantage. An organisation's ability to derive actional insights from consumer data at scale — including, now, text-based conversation data from customer interactions — is now a driving factor in efficient use of resources and increased profitability. This paper explores the use of artificial intelligence (AI) to build customised and automated user journeys, and how it changes the dynamic of customer service, and perhaps marketing as well, in the modern era.

KEYWORDS: AI, big data, artificial intelligence (AI), customer experience, automation, marketing, UX

WHAT IS AI?

When you hear the term 'AI' what is the first thing that comes to mind? A robot with human-like characteristics threatening to replace all entry-level jobs? A huge underground bunker filled with computers analysing everything from politics to economics, to the most popular celebrity outfit? Okay, most people have moved past that sci-fi rendition and know by now that AI is the acronym for artificial intelligence. To start our discussion around AI and its impact on customer service, let's leverage a definition of AI from global consultancy Accenture: a combination of systems or machines working together 'to sense, comprehend, act, and learn with human-like levels of intelligence' and utilise the information they collect to iteratively improve their outputs.[1]

AI, standing itself in isolation, does not really deliver much value: it is how companies use AI powered by customer data to deliver high-quality customer experiences and services that does. The customer service applications for AI are incredibly diverse: from 'automated concierge' chatbots, to seamless appointment scheduling (think finding a suitable time, sending an appointment reminder, providing arrival information and guiding users through any necessary follow-up), AI utilises aggregated

customer behaviour to guide users through the most seamless and efficient path to help them achieve their goals more efficiently.[2]

With this definition at hand, let us now look at the process of how many customers start to interact with businesses — the typical 'marketing funnel' with an initial focus on business-to-business (B2B) marketing.

MAYBE THE TRADITIONAL MARKETING FUNNEL MODEL HAS FLAWS

Let us think about the typical B2B marketing funnel students learn about in a standard Marketing 101 course. The marketing funnel usually looks something like Figure 1.

The typical modern B2B marketing flow starts with awareness building campaigns such as search engine marketing (SEM) or 'paid search', and social media marketing — or in more traditional (non-digital) advertising, tactics such as out of home (billboards), print publications or even television ads. While traditional marketing success is measured based on ad exposure metrics, digital success is usually measured by the ability to inspire a customer to visit a kind of website or digital entity, with the purpose of lead generation or direct conversion. This is where the academic marketing funnel often breaks down.

The challenge of digital campaigns is that even the most effectively designed landing pages usually leave the prospect to fend for themselves once they arrive at the destination website. While in some cases this is sufficient, in other instances the user wants more information which is not easily accessible. The tension between creating an aesthetically pleasing visual experience and providing all the information a consumer could possibly want is a constant struggle in the back of every marketer's mind.

Unfortunately, according to AI experts in the customer experience industry, what usually happens is 'a prospect lands on a business website, they're presented with a library of information and are expected to navigate it on their own. The hope, ultimately, is that they'll fill out a form so that they can be contacted by an agent who will then provide information. This traditional funnel is inherently flawed.'[3]

Issues that stem from high mobile traffic but low mobile conversion rates, slow page loading times and poor design already act as barriers to entry for customers. The biggest roadblock, however, is that this digital experience does not immediately reward prospects when they show interest in a product or service. Instead, it requires prospects to proactively find the information they are searching for and provide their

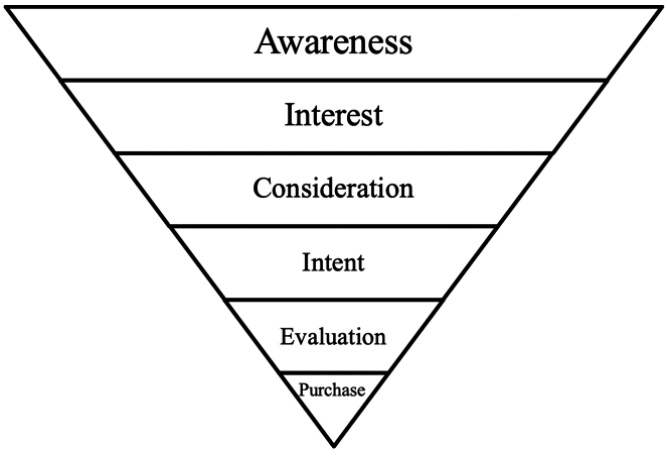

Figure 1: Marketing funnel

own contact details into a website form, which then in most cases get routed to a customer service queue. But what happens if the human customer service representative of that lead does not respond in a timely manner? The risk with the traditional funnel model is that by the time the representative responds to the inquiry, the customer has moved on.

What we must remember is that modern consumerism is immediate and results-driven. People do not have the patience to wait for answers to their questions, and if your brand cannot provide them at the precise moment the question is asked, there are probably a hundred other competitors out there that can.

Relationships and experiences matter most today, and brands are afforded even less leniency than real person-to-person relationships. Imagine if you sent a message to your best friend and they took a week to get back to you? You would at best be unimpressed, at worst you might even start to reconsider the validity of that friendship. Contemporary consumers' relationships with brands are no different from their interpersonal relationships, and the expectations are similar.[4] This insight is reinforced by survey data which reveals that 83 per cent of consumers' purchase decisions are affected by how they feel brands treat them. Furthermore, this survey reveals that 73 per cent of respondents suggested that the level of brand loyalty influenced spending tendencies — the better the relationship, the more they would be willing to spend.[5]

OVERCOMING FLAWS IN THE FUNNEL: AI-POWERED CONVERSATIONAL MARKETING AND LIVE COMMERCE

As illustrated above, the problems customers encounter can vary in range of complexity and thus some channels are better than others for addressing questions and service requests. Further complicating this situation for marketing and service leaders, research reveals 83 per cent of consumers prefer to be able to switch between channels as they engage with brands, no matter what stage of the customer journey they are at.[6] What can marketing and customer experience leaders do to manage through these modern challenges?

Enter conversational AI marketing. While not a direct evolution of the marketing funnel model itself, conversational AI empowers brands to improve upon their omnichannel marketing efforts through connected conversations that transform customer experience. They do this in a plethora of ways, such as reducing on-hold time, utilising AI data to identify intent and thus address issues more efficiently, providing multiple 'live touchpoints' at scale, and using aggregated behavioural algorithms to create customised user pathways. In addition, these conversations can occur on multiple channels, and can be powered by a combination of both humans and AI.[7]

Ultimately, according to customer experience experts at Adobe, the goal is to 'coordinate engagement across all human and digital channels so that you can engage and react to your customers on the channels they prefer no matter when and where they interact'.[8] Everything from digital and social media, SEM and search engine optimisation (SEO) or organic search, to both digital and live events, webinars and even push marketing and messaging apps provide platforms to engage users along the consumer journey. The key is to know where they are, when they are there and what they use that digital channel for.

Similarly, live commerce, which can complement conversational AI marketing, utilises chat functions and participatory buttons to engage an audience in real time and to encourage instant purchasing of a featured product. Experts from McKinsey suggest that there are two key areas where live commerce is an effective channel in

driving conversations for brands, retailers and marketplaces: accelerating conversion and improving brand appeal and differentiation.

This customer service acceleration is stimulated because live commerce is entertaining and immersive, and thus participants stay engaged for longer periods of time. The scarcity model, combined with gamification, transports consumers straight through the marketing funnel from awareness directly to conversion using tactics such as disappearing deals, lottery-style coupon generation and other entertaining methods that are effective at creating a sense of urgency. According to this research, conversion rates are significantly higher than traditional e-commerce (close to 30 per cent versus a mere 3 per cent).

Live commerce also has a positive effect on brand affinity and market uniqueness both in an existing customer pool and among new audiences, and thus drives increased web traffic. 'It can strengthen positioning among existing customers and attract new ones, especially young people keen on innovative shopping formats and experiences', according to McKinsey, which also suggests that some companies are seeing their share of younger audiences increase by up to 20 per cent.[9]

The rise of interest in both conversational AI marketing and live commerce reveals that it is a hyper-personalised experience that the modern consumer is looking for and that thus delivers the highest return on investment (ROI). Without the use of AI, these modern customer experiences, while perhaps possible to recreate manually on a one-to-one basis, would be impossible to deliver at scale.

GOING DEEPER: TYPES OF AI AND HOW THEY ARE USED

At this point we should probably return to the first, seemingly simple question posed at the beginning of this paper: what is AI? To understand the mechanics that drive AI innovation, we will now dive a little deeper beyond our initial working definition.

Leading experts such as Bernard Marr[10] tend to agree that currently there are four types of AI being both utilised and discussed, and all are at different stages in their development (see Table 1).

With this deeper AI definition at hand, let us now turn to how they can an inform success in customer service and the customer experience.

Table 1: The four types of A1

Reactive AI	**Limited memory AI**
This is the most basic type of AI. Reactive machines cannot form memories nor use past experiences to inform current decisions, ie they will always behave the same way when they encounter the same situation. *Example*: E-mail spam filters ensure that unwanted promotions and phishing attempts stay out of our inboxes.	Limited memory AI is the most common AI used currently. It combines past experiential knowledge with pre-programmed information to make predictions and perform complex classification tasks. *Example*: Autonomous vehicles use limited memory AI to ensure they drive safely by ensuring they are aware of other cars' speed and direction, while also using this awareness to adjust their own route to reduce collision risk.
Theory of mind AI	**Self-aware AI**
With this type of AI, machines will be able to make real-time decisions based on context for themselves; however, we are not quite there yet because human emotions transition so quickly and are directly reflected in behaviour. *Example*: The Kismet robot head was able to recognise emotional signals on human faces and replicate those emotions on its own face.	Self-aware AI is the most sophisticated type; however, it only exists in theory as we have yet to develop the hardware or algorithms to support it. Machines with this type of intelligence are the closest in similarity to human beings and will be able to connect actions, desires and needs with emotional outcomes.

Source: Bernard Marr[11]

FIVE KEY CONSIDERATIONS IN DEVELOPING A SUCCESSFUL AI CUSTOMER EXPERIENCE STRATEGY

Personalisation is key

Consumers have the same expectations of the brands they follow as they do of the people they interact with daily. It is a natural assumption that the dynamic between people depends on the individual relationships and is a complex matrix composed of many different factors. Nowadays the same goes for consumer–brand relationships: they are complex, fast-moving, exist in multiple channels and are influenced by a myriad of factors. And that means in order to be relevant, experiences must feel personal.

The *Harvard Business Review* suggests that personalisation is not simply about knowing a customer's purchase history when they call customer service or following the traditional marketing lead generation funnel: it is now about creating a unique pathway, powered by AI, that utilises multiple channels simultaneously and engages with the consumer across multiple touchpoints (see Figure 2).[12]

Meet consumers where they are

The notion of 'meeting customers where they are' can be interpreted in two different ways.

The first is that not all consumers will feel comfortable knowing that behavioural analytics and AI are being used to serve them relevant content, and even predict what they might want in the future at the same time or at the same capacity. Organisations must keep this in mind when they start to implement their AI strategies, and transparency here is key; there is no need to pretend a chatbot is a real person because both have their purpose, and this is becoming increasingly understood by consumers. By being honest about the kind of experience a person is receiving, it will be better overall. Remember, all experiences today are multi-channel — some are well suited for AI, and some are not. A shifting paradigm means having to keep up with new language and lexical innovations.

Second — and perhaps more crucial — is that businesses convey a carousel of ideas and attitudes from their own business priorities, practices and sentiments; these must be combined with the individual information collected by AI and reflected in the personalised customer experience. Interactions will vary in content and audience, but the connection of carefully chosen and curated pathways should be designed to uphold organisational values and inform a clear, efficient and, most of all, relevant consumer journey.

Similar patterns represent similar (and perhaps future) tastes

We have now identified that knowing what people like, where they are, when they want to see content and the frequency at which that content should be delivered is incredibly powerful. But that alone is not enough. It is the aggregation and analysis of that complex set of information, and then its utilisation to create predictable models, that can have real impact.

The idea of aggregation is key here. As mentioned earlier in this paper, prior to AI, many organisations were already delivering great customer experiences, they were just difficult to execute at scale and on a consistent basis. Now, using AI-powered

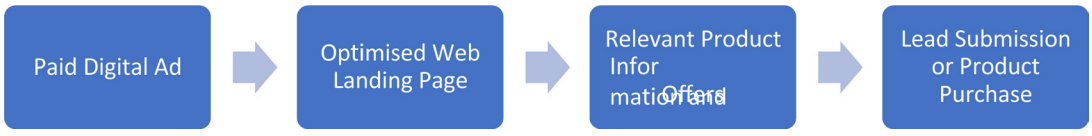

Figure 2: Digital flow[13]

systems organisations can collect user information over time, across multiple channels and for different transactions. They can not only use this information to predict what consumers are going to do next based on previous actions, they have taken it a step further and used one user's behaviour to make assumptions about another user that is displaying similar tendencies. This means that even when a first-time user enters onto a channel, AI algorithms can look at their first action, compare it to a myriad of other prior user behaviours and use that information to make assumptions of what kind of pathway will be most relevant.

That is not even the end of the story. Imagine that beyond delivering a hyper-personalised customer experience, this data could actually predict what consumers will want in the future — before they even know it? That is the direction we are headed, and global organisations are leading the charge.

According to an article by the *New York Times*,[14] 'Netflix is commissioning original content because it knows what people want before they do'. Indeed, the company's director of global corporate communications Joris Evers went so far as to suggest that there were 33m different versions of Netflix, a number that at the time reflected the exact same number of Netflix subscribers.

Furthermore, the fact that companies such as Netflix have such a microscopic understanding of your consumerism behaviours as an individual does raise questions and concerns about data privacy and 'the big brother effect'. At the end of the day, however (and as stated in the same article by media and big data expert Rick Smolan), '[In the past, TV and online video] programmers have been wandering out and shooting a shotgun into the night sky and hoping they hit something, and I end up paying $150 for channels full of nothing I want to watch'.[15]

Given the choice, would you not prefer a curated list of content directly related to your immediate wants and needs as opposed to having to invest the amount of time it takes to search for a needle in a haystack? If Netflix's success is a barometer, many people are saying yes.

Focus on micro-goals

To exist successfully in an experience economy, a focus on the positive moments that make up an entire customer experience can be effective. One can draw on economist and psychologist Daniel Kahneman's peak-end theory for context. Kahneman defines peak-end theory as:

> 'a psychological heuristic in which people judge an experience largely based on how they felt at its peak (i.e., its most intense point) and at its end, rather than based on the total sum or average of every moment of the experience.'[16]

He postulates that two key moments determine whether people remember an experience as positive or negative: how they feel at the most extreme point and how they feel when the experience ends. This is counter-intuitive, as the general assumption is that one's memory of events is an amalgamation of the experience as a whole, rather than something informed by peak–trough moments.[17]

While there is merit to Kahneman's theory, there is also value in the theory underlying the popular proverb 'it's not the destination, it's the journey'. In the case of AI-powered customer experience this is the case, because often there are multiple connected conversations or explorations happening simultaneously, on different channels, that all relate to the same overall pathway. Focusing a customer experience strategy around delivering positive, discrete micro-moments and micro-goals along the entire user journey, across every channel, as opposed to trying to get the user to the marketing conversion moment as quickly as possible, has the power to create a lasting

impression. As we have already seen in the case of live commerce above, this can also act as an accelerator towards conversion, naturally.[18]

Testing, testing and more testing

What we have learned here is that everything is a journey, but it is never perfect. The iterative nature of AI can help organisations continuously how they interact with customers, but to achieve the best possible marketing results, testing is a crucial element for success.

Let us return to the example of Netflix and look now at their 'consumer science' methodology. According to Netflix, people from over 190 countries are either current users or show an interest in engaging with the platform. While Netflix uses a mix of marketing strategies, tactics and channels to build awareness, they also utilise what their team calls 'growth engineering' (see Figure 3) to aggregate this demand, analyse the data, test and create different experiences for all of their global customers (ranging from experiences such as suggested programming to billing preferences).[19] Let us use Netflix's seemingly simple, but in reality very complex, sign-up funnel as a micro-example of the larger role that AI plays in consumer experience.

This funnel consists of four parts:

1. *Landing*: Welcomes new users and highlights the Netflix value propositions;
2. *Plan selection*: Highlights Netflix's plans and how they differ;
3. *Registration*: Enables account creation;
4. *Payment*: Presents payment options and accepts payment.

Netflix acknowledges that there is only a small window of opportunity for them to understand what their users want, and to do that they perform ongoing A/B testing to improve and make more efficient these experiences. If the sign-up funnel is only four steps, however, why does the funnel require experimentation and testing? Going back to the thesis of this paper — it is because there are millions of different

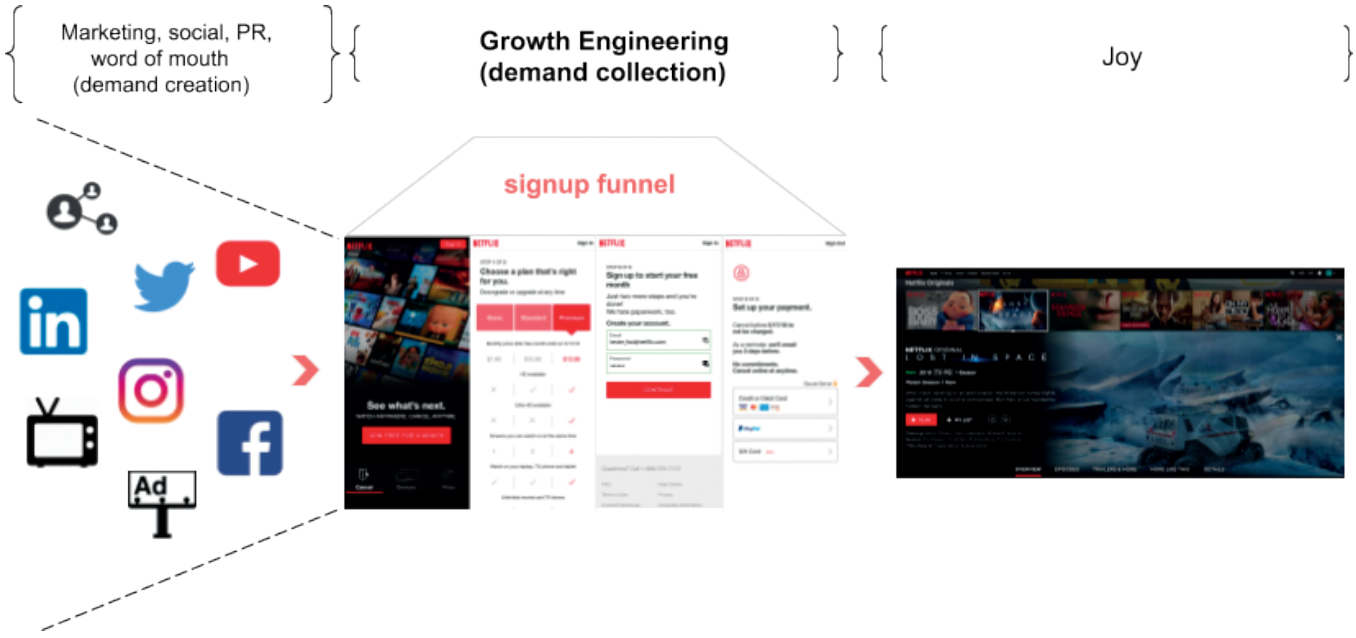

Figure 3: Growth engineering[20]

needs, asks, wants and thus many possible outcomes when you consider the scope of a user audience. In fact, data suggests that people exhibit different viewing behaviours depending on context (such as the day of the week, the time of day, the device and even location).[21]

Netflix took these insights to heart. Beyond their advanced approach to their sign-up funnel, Netflix applies the same 'consumer science' and 'growth engineering' strategy, along with the tactic of testing once a consumer has converted into a subscriber. Using a 'near-real-time' recommendation process, they can hyper-customise what subscribers see on their home page through batch processing data combined with real-time member interactions, trending popularity and new show launch promotions.

CONCLUSION

At the end of the day, the most important thing that businesses can focus on is customer experience — and AI is a powerful tool in the omnichannel marketing toolbox. Consumer experience is a mixture of multiple factors; from building a relationship with consumers through transparent communications, to utilising multiple communications channels to reach audiences in an authentic way, to leaning on AI technology to deliver hyper-personalised customer service and experiences, a successful strategy will understand how all these factors integrate and interact with one another.

By understanding consumer behaviour trends and using that data to interact on touchpoints all throughout the user journey, brands can not only deliver a more relevant day-to-day customer experience but in fact gather valuable information that they can use to inform organisational improvements, platform developments, and even future product innovation. Leveraging the power of AI, organisations have the opportunity to go above and beyond traditional ways of interacting with those they sell to and serve, delivering peak moments that exceed customers' expectations and create truly memorable, positive experiences.

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