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How AI is reshaping life sciences consumer engagement

Our AI Inclination Index reveals which consumers are most open to using AI in the life sciences purchase journey—as well as where and how they'll use it. Knowing this, life sciences organizations can develop a highly nuanced and effective consumer-facing AI strategy.

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Introduction

Consumers of life sciences products and services have plenty of reason to use AI-driven tools. Whether it's choosing from the clutter of wellness products on store shelves, navigating the often byzantine process of refilling a prescription drug or figuring out how to properly use a new monitoring device or diagnosis testing kit, the life sciences customer journey can inspire frustration and uncertainty. Who wouldn't be open to the idea of a tool that cuts through the complexity and makes the life sciences consumer engagement experience easier, safer, less time-consuming and more convenient?

The growing use of AI among consumers poses a distinct challenge for life sciences businesses as they strive to effectively engage with and retain their customers. Questions abound: Which consumers are most (and least) inclined to use AI? Which tool would they prefer to use? And where in the purchase process would they be most comfortable using it?

Our recent research uncovered some unexpected answers to those questions. Using data from our recent consumer AI study, we developed the AI Inclination Index (AII), which quantifies consumers' propensity to use AI. While the AII reveals a slightly lower inclination to use AI when purchasing life sciences goods than other industries' products and services (see Figure 1), we also found that AI attitudes are far from uniform across the three key phases of the consumer journey (learn, buy and use) and the four life sciences product categories in our study:

About the research

This research is based on our "New minds, new markets" study, which included a survey of over 8,400 respondents in four countries and across 16 industries, extensive economic modeling and in-depth discussions with 80 consumers.

Prescription drugs

Health monitoring (wearables, in-home monitoring)

Condition diagnosis (online services, at-home testing kits)

Consumer health and wellness products (over-the-counter medications, vitamins/supplements, fitness equipment)

For instance:

Consumers of life sciences products are most apt to use AI in the learning phase. But inclination levels vary widely between using AI to research wellness products vs. prescription drugs. In this more heavily regulated life sciences product area, consumer interest in AI-supported product discovery sank to the lowest level of all four product categories.

Older consumers are more inclined than younger consumers to see the value in using AI to learn about and use life sciences products and services. While people 55+ might generally be seen as resistant to using new technologies, these older age groups often have more experience with using life sciences products and, accordingly, a greater desire to reduce the complexities involved with selecting and using them.

The tool of choice is often conversational AI. However, there is a divergence in terms of which consumers will use this AI tool at which stage of the purchase journey.

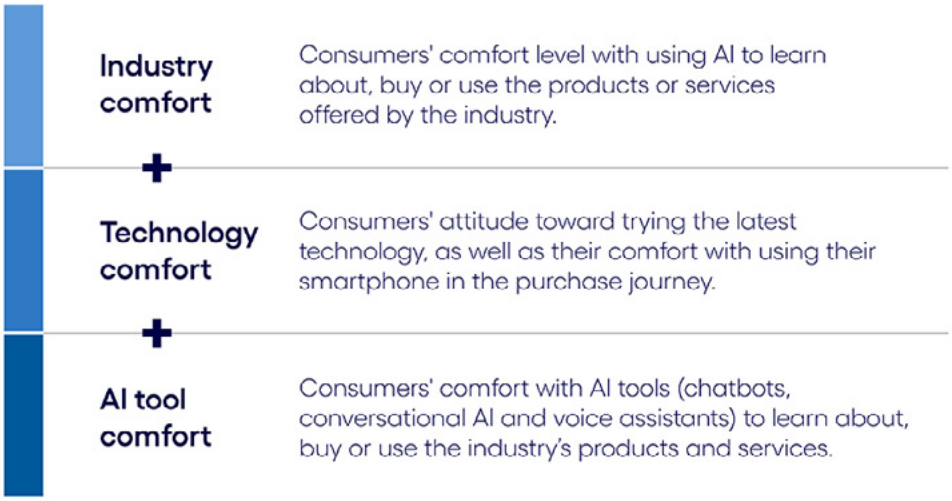
With these variances, it's clear life sciences businesses will need to craft a precise and nuanced AI strategy for consumer engagement that captures the greatest areas of opportunity while avoiding low-value pursuits.

Understanding consumer use of AI, as well as the accompanying pockets of spending power, is essential for leaders in all industries. In our global study New minds, new markets, we found that consumers who are enthusiastic about using AI will account for up to 55% of all purchases made across industries. This amounts to $4.4 trillion in spending in the US, $690 billion in the UK, $690 billion in Australia and $540 billion in Germany.

In this report, life sciences leaders will learn about where in the purchase journey consumers are most and least inclined to use AI, the AI tools they are most apt to use and how this differs among consumers across age groups. With this information, businesses can reshape their approach to customer engagement—where and how it matters most.

AI Inclination Index

To quantify consumers' propensity to adopt AI-driven technology features throughout the consumer journey, we developed the AI Inclination Index. The index was calculated using three measures from our New Minds, New Markets survey data.



AI inclination in life sciences vs. the global average

Consumers are somewhat less inclined to use AI when purchasing life sciences goods than other industries' products and services.

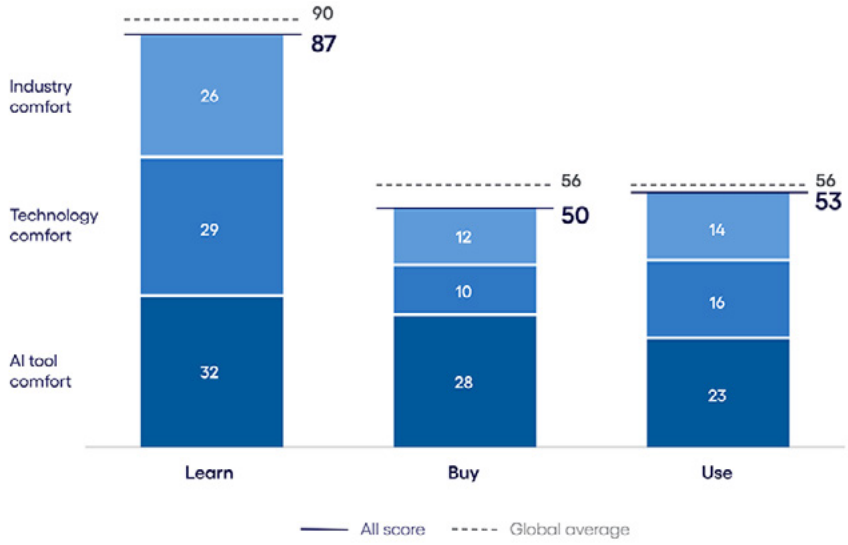


Figure 1

Base: 8,451 respondents in the US, UK, Germany and Australia
Source: Cognizant Research

AI across the life sciences consumer journey

As our life sciences AII indicates, consumers are somewhat less likely than the global average to use AI across the consumer journey. This disparity is most evident in the learn and buy phases, where scores are 5% and 11% lower than the average, respectively.

But a closer analysis reveals the very different dynamics at play between two particular product categories: the highly regulated prescription drugs market and the retail-like consumer health and wellness product market.

Prescription drugs:

In our AII, the prescription drugs category ranks much lower in terms of consumer AI uptake than health and wellness, which effectively pulls the overall AII scores down. This dynamic reflects both consumer attitudes (i.e., they are reluctant to rely on AI vs. speaking to a medical professional to select the right medication) and the ability to use AI in the pharma space (i.e., the data AI would need to be effective is not legally accessible or is heavily restricted).

Health and wellness products:

Meanwhile, the sheer number of wellness products available today and the easy off-the-shelf access to them can be complex and confusing for consumers to navigate. Here, AI would be a welcome way to simplify and speed the path to making the best choice.

This gap between the prescription drug and wellness product areas is important to keep in mind as we review how consumers feel about using AI across all four product categories of the life sciences industry.

About our analysis:

To understand consumer AI behaviors and attitudes at a granular level, we structured our analysis around four key pillars:

The consumer journey

We studied the specifics of AI use at each phase of the customer journey. This journey—how consumers discover, purchase and engage with products and services before and after a sale—is at the heart of the business-customer relationship.

Consumer demographics

To gain a better understanding of how consumer attitudes and behaviors differ by age group, we divided consumers into five categories: 18-24, 25-34, 35-44, 45-54, and 55+.

Consumer AI tools

We defined consumer AI use by asking about their intended use of three key tools that are prevalent in the consumer world: voice assistants, chatbots and conversational AI.

Industry-specific products

We included four life sciences product categories in our analysis: pharmaceuticals, wellness products, home-monitoring and condition diagnosis devices.

The learn phase: An abundance of options drives interest in AI

The discovery phase is where consumers are most inclined to use AI-enabled tools in life sciences. The AII score for the learn phase is 36 points higher than in the buy phase. While prescription drugs score lower than the other three product categories, health and wellness scores exceed the global average (see Figure 2).

As such, the learn phase represents a prime opportunity for businesses to capture attention and influence decisions. Doing so starts with understanding what consumers value about using AI in this phase and the AI tools they're most apt to use.

- Older consumers are the biggest AI enthusiasts in learn
- Prescription drugs capture the least AI interest
- Consumers want AI help with wellness decisions
- Conversational AI is the tool of choice

Life sciences AI Inclination Index: the learn phase

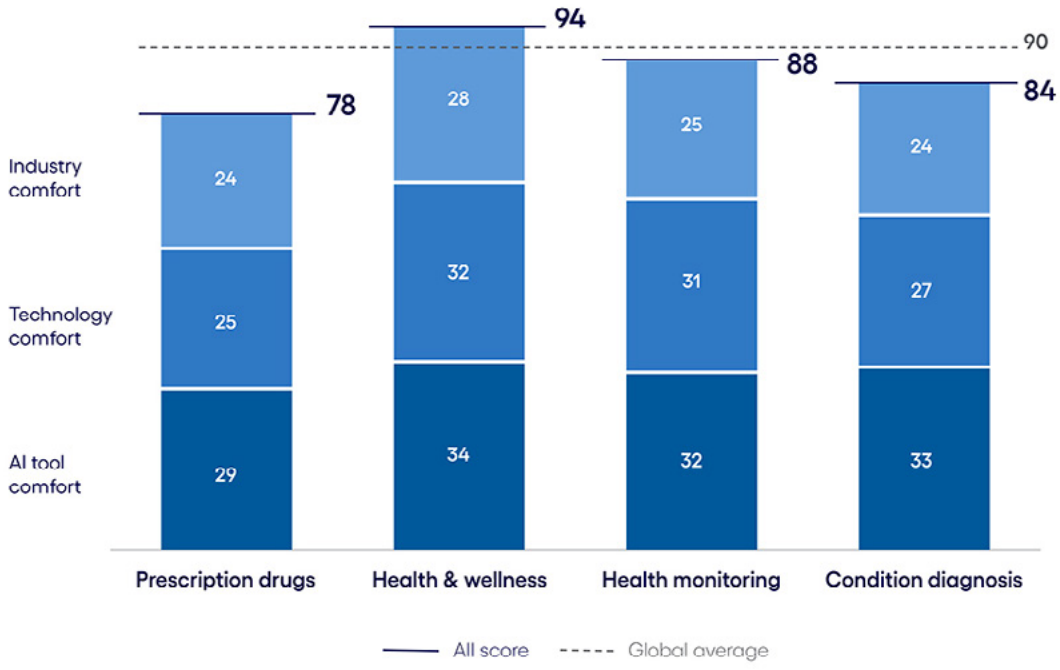


Figure 2

Base: 8,451 respondents in the US, UK, Germany and Australia
Source: Cognizant Research

Older consumers are the biggest AI enthusiasts in learning about life sciences products

While our global cross-industry research study revealed higher AI comfort among younger consumers, the inverse is true in life sciences. Older generations are significantly more inclined to use AI and digital technologies like their mobile phones to learn about life sciences products.

The biggest gaps between the oldest and youngest consumers are in the prescription medications and health monitoring markets. In prescription drugs, the AII score for consumers aged 55+ exceeds the youngest cohort (18 – 24) by more than 20 points, and in health monitoring, the gap is 22 points.

The reason is clear: Older consumers are more likely to be taking a prescription drug. According to the UK's National Health Service, less than 20% of consumers between the ages of 16 and 24 take a prescription drug, compared with over 60% of those aged between 55 and 64.

In health monitoring, younger consumers are more likely to own wearable devices; however, solutions such as personal alarms and telecare monitoring systems are considerably more prevalent among older individuals. As such, older consumers are more apt to have weathered the challenges of finding the best solution for their needs.

The only product area that deviates from this trend is condition diagnosis. Here, 35- to 44-year-olds are the most inclined to use AI-powered product discovery. This aligns with the age when many consumers first start getting screening and diagnosis services. For example, diabetes screening in the US is recommended for people turning 35, while in the UK, annual health checks to screen out common health issues such as diabetes and heart disease begin at 40.

Prescription drugs capture the least AI interest

The prescription medication sector has the lowest AII score in the learn phase. As one consumer said, "I really want to rely on medical professionals for [prescribing medications] rather than AI … and check for any drug interactions, as well."

Even those inclined to use AI to learn about prescription drugs will have limited opportunities to do so, which is reflected in its low technology comfort score. Many regions have strict regulatory restrictions on pharma advertising—a valuable source of data for AI agent-driven discovery. Advertising any prescribed medication to consumers is illegal in the UK. The US is one of the few jurisdictions to permit direct-to-consumer advertising for restricted medications although with strict limitations imposed on it.

As a result, the pharmaceuticals sector will likely see a significantly lower rate of AI adoption in the coming years.

Consumers want AI help with wellness decisions

Meanwhile, consumers' perception of AI is much more positive when it comes to learning about wellness products, where consumer choice takes primacy over practitioner advice. Not only is wellness the one product area whose total AII score exceeds the global average, but the industry comfort component of the index is four points higher than in prescription medications.

The wellness product category is similar to the retail sector; in both, consumers highlight difficulties finding the best product for their needs and cluttered options driving decision fatigue. They are all too eager for a tool that will sift through online advertisements, ingredient information and reviews to discover what will really whiten their teeth, calm their stomach or clear their congestion.

Consumer health companies have a significant opportunity to get on the radar of AI agents and ensure their products and services feature prominently in the discovery phase.

Conversational AI is the tool of choice

Of the three AI tools in our study, consumers voice a clear preference for conversational AI when it comes to researching and learning about life sciences options. While older consumers show more willingness than others to use voice assistants, conversational AI remains the top choice across all age groups.

This is probably because conversational AI can mimic the experience of conferring with a medical practitioner. Imagine a consumer describing a dermatological issue to conversational AI, which then recommends a serum, offers tips on proper use and suggests additional options if the original treatment doesn't resolve the issue.

The buy phase: Interest in AI is low—except for prescription drugs

The purchase phase is where we saw the most hesitation to use AI. Scores in all three areas of the AII are much lower than in the learn phase, particularly the technology comfort component, which drops 97% (or 19 points) between the phases. This indicates an historic inability or unwillingness to use digital technologies such as smartphone apps to buy a range of medical products.

- Younger consumers are more inclined to buy with AI
- Pharmaceuticals see the highest AI uptake
- AI voice assistants are the tool of choice in this phase

Industry comfort is also lower across the board, demonstrating a particular squeamishness about using AI to purchase life sciences products and services. As one consumer argued, "Your health data is quite private, so I'm not sure how much I want AI to know about it."

However, as with the learn phase, attitudes differ across consumer age groups and product categories, particularly when it comes to prescription drugs.

Life sciences AI Inclination Index: the buy phase

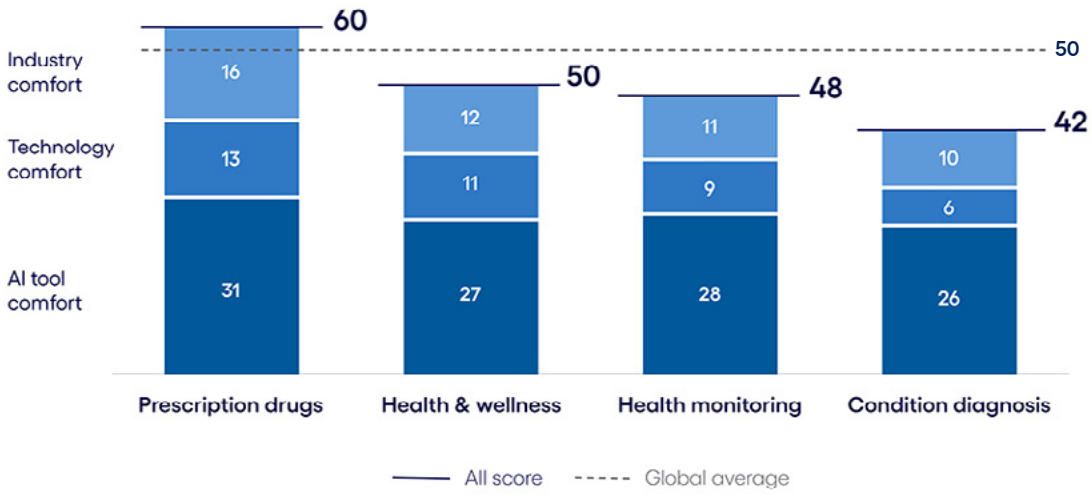


Figure 3

Base: 8,451 respondents in the US, UK, Germany and Australia
Source: Cognizant Research

Younger generations are more inclined to buy life sciences products with AI

Unlike in the learn phase, where it's older consumers who are most enthusiastic about AI, it's consumers aged 25–54 who are leading AI adoption in buy.

For instance, within the wellness sector, the highest AII score is in the 45- to 54-year-old age group, which surpasses the 55+ cohort by 9 points and the 18–24 cohort by 18 points. A similar disparity appears for prescription drugs.

This may be because consumers in the 45–54 age group may have more established health and wellness routines. They are old enough to have experienced the frustrations of buying healthcare products and young enough to feel comfortable relinquishing purchase control to AI.

Conversely, it's even younger consumers (aged 25–34) who are most likely to use AI when purchasing monitoring products, scoring 12 points higher than the 45- to 54-year-old age group. This age group has grown up in a digital world and is more comfortable and trusting of technological innovations, which explains their higher scores in this area—and indeed a broader willingness to embed AI into the buying process for other products and services.

Prescription drugs see the highest AI uptake

Prescription medications is the only life sciences product category to rank higher on the AII during the buy phase than the global average (see Figure 3). For consumers, purchasing a medication that's been prescribed by a health system is more hands-off than buying a product that's available online or a store shelf. As such, they're more willing to relinquish control. Further, consumers likely view the process of managing prescription refills and authorizing restricted medications as promising areas for AI assistance.

In some geographies, when a patient is prescribed a medication for a chronic condition such as hypertension, the patient could use AI to automatically order the medication from their chosen pharmacy, track the shipment and set reminders for refills. In the US, where healthcare insurance providers are involved with approving treatments, AI could work on the consumer's behalf to close frustrating process gaps related to prescription refills, prior authorization processes and denials.

Streamlining these processes not only conserves time but also promotes treatment adherence. According to the World Health Organization, nearly half of patients fail to take their prescriptions as prescribed for a range of factors—from forgetfulness to challenges with complex administrative processes. Increasing treatment adherence with AI would improve health outcomes and the bottom line for pharmaceutical companies.

AI voice assistants are the tool of choice in this phase

AI voice assistants have the highest AII scores in the purchase phase, across all age cohorts. This differs from the learn phase, where conversational AI is favoured.

Whereas conversational AI can support intensive information-gathering and mimics physician-patient interactions, the purchase phase involves more transactional engagements. Consumers at this stage are looking for quick answers or clarifications on order updates, quantity confirmations or renewal reminders.

The use phase: Intelligent use cases win over cautious consumers

Consumers' inclination to use AI shows a slight uptick in the use phase, especially in the wellness and monitoring product categories, where AII scores are nearly equal to or surpass the global average (see Figure 4). From the buying phase to the use phase, technology comfort scores in wellness increase from 11 to 14 (a 24% jump), while in monitoring, industry comfort spikes from 11 to 17 (a 43% increase). The biggest reason for this upswing is the wide range of ways in which AI can support consumers as they interact with life sciences products and services.

- Older consumers' interest in AI rebounds in the use phase
- Monitoring devices are the top choice for all consumer groups
- Trust in AI plummets for condition diagnosis

Consumers, especially older demographics, recognize the value of AI-driven assistance—from reordering or amending prescriptions, to handling routing maintenance of their monitoring device.

Other product categories, such as prescription drugs and condition diagnosis, show less opportunity for life sciences companies to inject AI. And as with other consumer journey phases, there are big differences among consumer groups.

Life sciences AI inclination index: The use phase

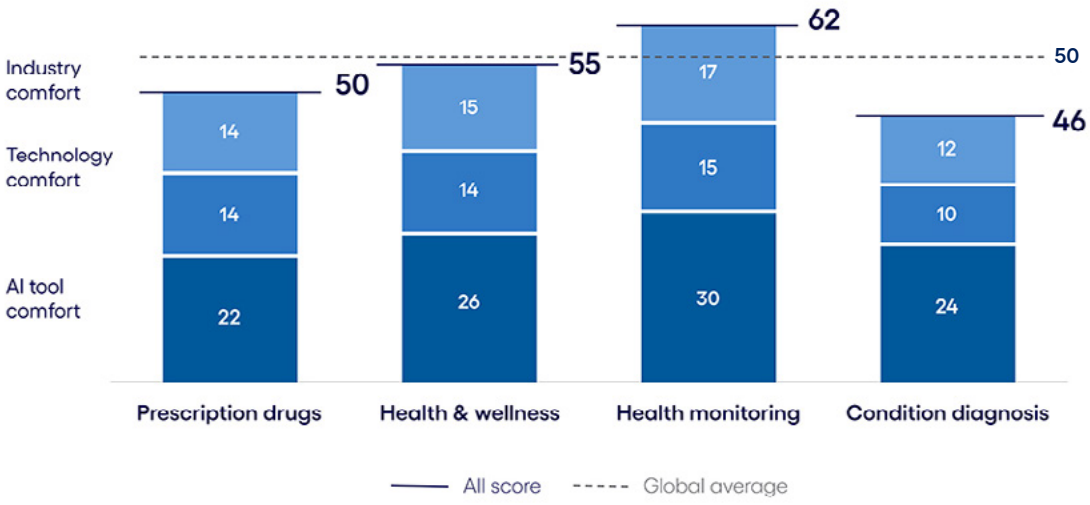


Figure 4

Base: 8,451 respondents in the US, UK, Germany and Australia
Source: Cognizant Research

Older consumers' interest in AI rebounds in the life sciences product use phase

In all product categories except prescription drugs, older consumers are more inclined than younger consumers to see the value of AI in the use phase. Within wellness, scores for individuals aged 55+ are 16 points higher than those of the youngest and lowest scoring cohort, aged 18–24.

The health monitoring segment sees a similar trend, where the 55+ cohort surpasses the lowest scoring age group (35–44) by 19 points. As with other life sciences product categories, older consumers are more likely to have experienced the frustrations of using these products and services.

Monitoring devices are the top area of AI interest

Consumers indicate a high level of comfort with AI being injected into the use of health monitoring devices. Here, AI could use the individual's health data to automatically schedule appointments and provide personalized wellness recommendations. As one consumer noted, "AI could serve as my healthcare center, where I obtain personal health information, identify issues quickly, and assist me on my health journey."

AI could also boost the effective use of these devices. Even as health monitoring becomes more prevalent in home settings, recent studies show that patients' difficulty in operating these devices negatively affects their efficacy. The inclusion of virtual assistants and conversational AI interfaces within these tools could address these issues.

For instance, blood pressure monitors—one of the most prevalent and user-friendly home monitoring devices—are highly dependent on correct positioning, timing and other factors. AI could guide users with a range of customized languages and engagement styles to ensure a higher use rate and accurate readings.

Trust in AI plummets for condition diagnosis

Consumers are much less inclined to want AI involved with their use of condition diagnostic services, from home-testing solutions to more advanced products such as DNA sequencing kits. Concern about exposing confidential data is the driving force here. Consumers could fear their highly sensitive diagnostic data could be used by third parties, such as insurance companies, or be exposed in a security breach. There have even been reports of ransom or extortion based on information regarding psychiatric or substance use diagnosis and treatment.

Unlike with health monitoring solutions, which focus on measuring biological markers, condition diagnosis products and services draw conclusions that, in some cases, could have a stigma attached. Consumers are unwilling to share that type of information without clear oversight of how it will be used.

That said, some consumers highlight the benefits they'd realize from more intelligent diagnostic processes. As one consumer said, when AI is presented with a wide range of different symptoms, "it can provide a possible diagnosis and reasoning for that diagnosis. And then I could just keep on providing information to narrow down what's my best course of action."

Meeting consumers where they are in life sciences

Consumer use of AI is growing fast and, with it, the emergence of consumer AI agents. These AI agents will act like a personal digital concierge, orchestrating complex tasks across the purchase journey. Soon, the internet as we know it today will become the agentic internet: an interconnected ecosystem of AI-enabled tools and agents that autonomously locate, evaluate, purchase and maintain the products and services they rely on.

While consumer AI uptake may be somewhat slower in life sciences, we believe leaders have less than five years to navigate this change.

To prepare for the AI-driven consumer era ahead, life sciences businesses will need to rethink how they operate across these five areas of consumer engagement:

Take AI into the home environment:

With more health treatment being conducted in the home, AI can play an important role in reducing errors and adverse reactions when patients are following complex health regimens and using sensitive monitoring equipment.

A virtual nurse, for example, could guide patients in timing their prescriptions or using a health monitor or diagnostic tool. This virtual nurse could offer personalized advice tailored to each patient's unique medical history and conditions, ensuring treatment adherence. Additionally, AI-driven analytics could track patient progress and flag anomalies that might need medical attention, enhancing healthcare outcomes.

Drive trust in AI by addressing consumer concerns:

Trust will make or break any AI-driven consumer engagement. Life sciences businesses need to be transparent about how consumer data, including any interaction with a virtual assistant, will be used and protected, with the option to delete data upon request.

Businesses can also build trust by imbuing AI interactions with as much of a human sensibility as possible. When implementing a virtual assistant or virtual nurse, for example, it is essential to work with the most cognitively sophisticated technologies available to avoid robotic-sounding interaction.

By doing so, life sciences organizations can foster a stronger, more trustworthy connection with their customers.

Be visible to online communities:

Consumers are very interested in using AI in the discovery phase. However, many life sciences businesses are unable to promote their products due to logistical and regulatory challenges. The prohibition on advertising, for instance, complicates the dissemination of information on certain products and services.

But there are other ways to become visible to consumers at this stage. When exploring novel treatments and therapies, for instance, consumers often turn to online community groups focused on specific diseases, to share research findings and personal insights, and recommend therapies and treatments based on their own experiences.

Life sciences organizations should ensure these forums have access to their current research and clinical trial data. Doing so will make that information accessible to consumer AI agents that are seeking information on behalf of a patient.

Connect consumer AI agents to internal operations:

The prevalence of consumer AI agents also introduces significant opportunities for implementing agentic systems within the business. By integrating customer-facing AI agents with middle- and back-office agents, for example, patients with specific characteristics could be automatically routed to the clinical trials department. This integration would streamline processes, reduce operational costs and improve customer satisfaction. Additionally, it opens the door to more personalized and responsive healthcare services, ensuring that patients receive the most appropriate care for their needs.

Integrate AI agents into the broader ecosystem:

Life sciences companies can use AI to improve coordination among the various players in the healthcare ecosystem and ensure a seamless transition of care. This could mean embedding an AI-driven monitoring device into a healthcare practice or optimizing prescription drug adherence with an AI-enhanced application from a healthcare provider.
Additionally, by integrating AI agents with others in the healthcare ecosystem, life sciences businesses can facilitate more efficient data sharing and analysis, leading to better informed medical decisions and outcomes.

Target use cases that add real value:

AI should be used in product categories and buying phases where consumers see the benefits, even if they exhibit a lower propensity to use AI. This is particularly relevant in the life sciences sector, where older generations tend to be more inclined to use AI to address problems throughout their purchase journey.

Personalized medicine and remote patient monitoring are good areas to demonstrate the tangible benefits of AI. Moreover, businesses will need to educate consumers about the safety mechanisms they've incorporated to help overcome initial skepticism and pave the way for broader acceptance.

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