Reengineering Life Sciences in the Era of Agentic AI

How Life Sciences Is Leveraging AI to Meet the Industry's Changing Needs

Contents

A New Era in Life Sciences

The life sciences industry is looking toward a future of innovation and better patient outcomes. At the same time, it is navigating unprecedented changes in the marketplace. Frank Defesche, Salesforce SVP and GM of Life Sciences Cloud, explains, “Life sciences is facing unprecedented change fueled by the evolving needs of patients and HCPs (healthcare professionals), emerging industry trends and operating models, increased complexity of treatments, new data sets, and technology advancements spurred by AI across clinical, medical, and commercial functions.”

As the industry continues to expand, so do the regulatory and compliance issues it needs to address. In addition, an increased focus on advanced therapeutic modalities (ATMs) is driving a need for more complex capabilities to support the future of research and development and manufacturing. The evolving societal need to advance health equity is also driving life sciences organizations to invest in initiatives that can help them design better customer engagement programs and have a positive impact on patient outcomes.

AI: Changing the Way Life Sciences Does Business

The impact of predictive intelligence, generative AI (GenAI), and now agentic AI on the industry is undeniable, with applications in drug discovery, clinical trials, manufacturing, inventory and logistics already changing the game. A recent survey by the Deloitte Center for Health Solutions found that 66% of biopharma and medtech companies are experimenting with AI to test ideas and build use cases. The Deloitte research explains organizations "are exploring ways the technology could automate repetitive back-office functions, reimagine supply chains, or support compliance and regulatory affairs."[1]

One key area in which AI promises to impact life sciences is in the redefinition of marketing excellence. In a marketplace in which customer needs are ever-evolving, AI can help life sciences companies engage customers with hyper-personalized and contextualized content at scale – and with agility and speed via multiple channels. In this way, they will be able to reach customers with relevant content when and where they need it.[2]

Is the industry ready to unleash all this power? At least a couple of concerns and challenges remain.

Potential Outcomes Enabled by AI

Data	AI-enabled data classification, extraction, and integration that enable creation of a robust, scalable data fabric
Insights	Generate rich insights about customer behavior, personas, and customer needs from large volumes of interaction data to inform engagement choices
Brand strategy	Real-time competitive, market, and customer intelligence from public sources to inform and continuously refresh brand strategy
Content development	Efficiency, scale, and velocity plays enabled by automated content tagging, content generation, and hyper-personalization
Precision engagement	Amplify next-best engagement throughout the customer life cycle, from on-boarding to retention, by providing always-on experiences at scale
Measurement	Enable precise, granular measurement of campaign effectiveness at the content attribute level by overcoming barriers to scale associated with manual tagging

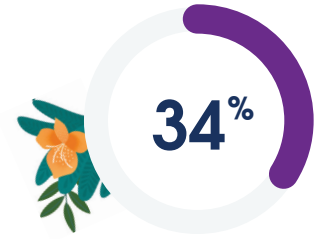
The Data Readiness Gap

While organizations recognize the importance of data readiness for successful AI implementation, many still face significant hurdles in this area. While life sciences companies have vast amounts of data sources, many are finding it a challenge to unify customer data sources and put AI to work creating consistent, personalized experiences across the customer journey.

Many continue to be challenged by fractured data environments, with data stuck in silos or data that is unstructured or not adhering to metadata standards–a scenario that can limit an organization's ability to benefit from AI. A recent survey of experts from pharma, technology, and regulatory conducted by the Pistoia Alliance found that 58% of respondents cited low-quality and poorly curated datasets as the top barrier to successful AI implementation, with 34% saying that privacy and security concerns around data also represented a challenge.[3]

Life sciences organizations need a way to connect all their data in order to have a consistent, complete, and current view of their patients and HCPs, and to transform stakeholder engagement across areas like clinical participant recruitment and enrollment, AI-generated sales communication, patient and HCP self-service, and intelligent orchestration.

of respondents cited low-quality and poorly curated datasets as the top barrier to successful AI implementation.



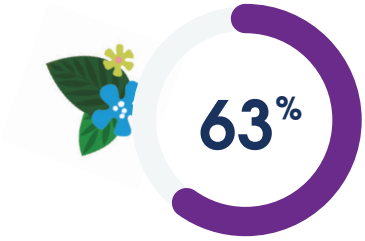
of respondents say that privacy and security concerns around data also represented a challenge.

The effective use of AI relies on the ability of precise AI models to train on extensive datasets. That means that companies that wish to harness the power of AI need to establish a data pipeline that can format data from a wide range of sources consistently and store it efficiently.

Trustworthiness Concerns

Even though the adoption of GenAI by the life sciences industry for a broad menu of use cases is inevitable, concerns remain about the trustworthiness of the technology. The Pistoia survey found that, although 70% of respondents acknowledged the potential of AI, 63% expressed concerns that poor data quality could lead to incorrect conclusions and even potentially harmful clinical decisions.

of respondents from the Pistoia survey acknowledged the potential of AI.



expressed concerns that poor data quality could lead to incorrect conclusions and even potentially harmful clinical decisions.

Using AI to Update How Life Sciences Organizations Engage with HCPs

With exponential increases in the cost of medical events and education programs for HCPs, it is more important than ever for life sciences companies to look at the ways they engage with HCPs. “Most life sciences companies will have to update their customer engagement platforms in the next five years,” said David Rosner, Deloitte Consulting Principal. “That has been driving a lot of activity around determining how to use AI in strategic ways.”

A customer engagement model that includes a mix of traditional and digital channels across all touchpoints is quickly becoming the standard for reaching HCPs with relevant messages at the right time. And it is the model HCPs prefer. They want more personalized content, tailored to their therapeutic area, practical experience, and needs and interests.

> **We've heard from HCPs about how they would prefer to engage with digital channels. When you think of all the repetitive tasks an HCP needs to do with a pharma company, those are areas we can look at using digital technology. And they welcome it."**
>
> **Krysten Musich**
> Salesforce Global Head, Healthcare & Life Sciences Ind. Advisory and Strategy

"We've also heard from HCPs that it matters in the execution of the AI. If it's solving a problem–or helping a MSL (medical science liaison) or field rep be more scalable, they're open to it. It's only when it feels like they're talking to AI that it's frustrating."

AI can also augment the work of humans in the field. Capabilities like downloading data about HCP activities with the company can assist teams with pre-call planning so they are more empowered to answer questions from HCPs. For medtech companies, AI can help them with tasks like assisting HCPs in instrument selection or surgical planning for implants.

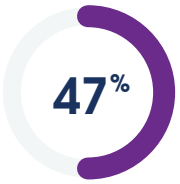
Life sciences companies need to find the right mix of channels for their interactions with HCPs. An omnichannel engagement model–one that tailors interactions to the specific needs of the HCP across multiple channels–is quickly replacing a traditional strategy that relied on push interactions from field representatives as the predominant point of contact with HCPs. It is now important for pharma companies to add a pull component to their engagement strategies, one that enables HCPs to receive the information and resources they need, when they need it.

Driven by advances in AI technology, pharma companies are increasingly moving away from the one-way engagement model and investing in customer relationship management (CRM) and omnichannel platforms.

Taking Stock of the Current Customer Relationship Landscape

A recent Deloitte survey of more than 240 global HCPs and pharmaceutical executives found a persistent gap between what customers need and what pharma companies are doing.[4]

More than 80% of pharma executives are satisfied with their current customer engagement strategy. However, less than 35% of HCPs feel like pharma's customer-facing resources are meeting their needs well.



Nearly half (47%) of HCPs harbor concerns about the scientific validity of communications from sales representatives and question the authenticity of these resources.

Most (67%) of the time, HCPs prefer to get their information from non-pharma company channels, especially since 37% believe that medical science liaisons are not available when needed and don't offer enough engagement when they are present.

What Customers Are Saying

Many Salesforce clients in the life sciences industry have shared their plans to accelerate their customer engagement programs as well as some of their top concerns as they consider those investments. Here are some of the trends.

01

They know that personalization will be the key to providing a superior customer experience. This has been borne out by Salesforce research, which shows that a significant segment of healthcare and life sciences (HLS) leaders consider AI to be key to enabling a more personalized customer engagement model, with 20% ranking personalized consumer experiences as the #1 important outcome.[5]

02

They realize that, even though their sales reps may have access to data, they often lack prioritized, real-time, actionable recommendations. As a result, they are taking deep dives into the potential of AI-powered next best actions (NBAs).

03

Their definition of the customer is changing. As pharmacies continue to evolve into one-stop shops for health and wellness needs, for example, the need for life sciences companies to develop direct connections to pharmacy customers is greater than ever. Similarly, as patients become more interested and educated in health information, life sciences companies are looking for new ways to engage with patients on multiple channels.

04

Harnessing customer engagement data is a challenge. Even with their vast stores of data, pharma and biotech organizations continue to struggle with building a robust data strategy and extracting value from that data.

The intersection of life sciences and CRM is more important than ever. CRM helps life sciences organizations understand their customers and allows them to make data-driven decisions about how to improve products and enhance customer interactions.

> “
>
> **Many companies are making investment decisions around HCP engagement—amplifying personalization, capitalizing on digital disruption with the power of AI and Agents.”**
>
> **Krysten Musich**
> Salesforce Global Head, Healthcare & Life Sciences Ind. Advisory and Strategy

How AI Is Streamlining Life Sciences Workflows

As AI development rapidly accelerates, new cloud and AI technologies are being launched to help life sciences and medical technology organizations tackle administrative and operational tasks. Life Sciences Cloud provides a secure platform for pharmaceutical and medical technology organizations to leverage the power of AI in accelerating drug development, improving patient recruitment for clinical trials, and providing personalized experiences.

Life Sciences Cloud provides powerful capabilities for operations in all corners of life sciences:

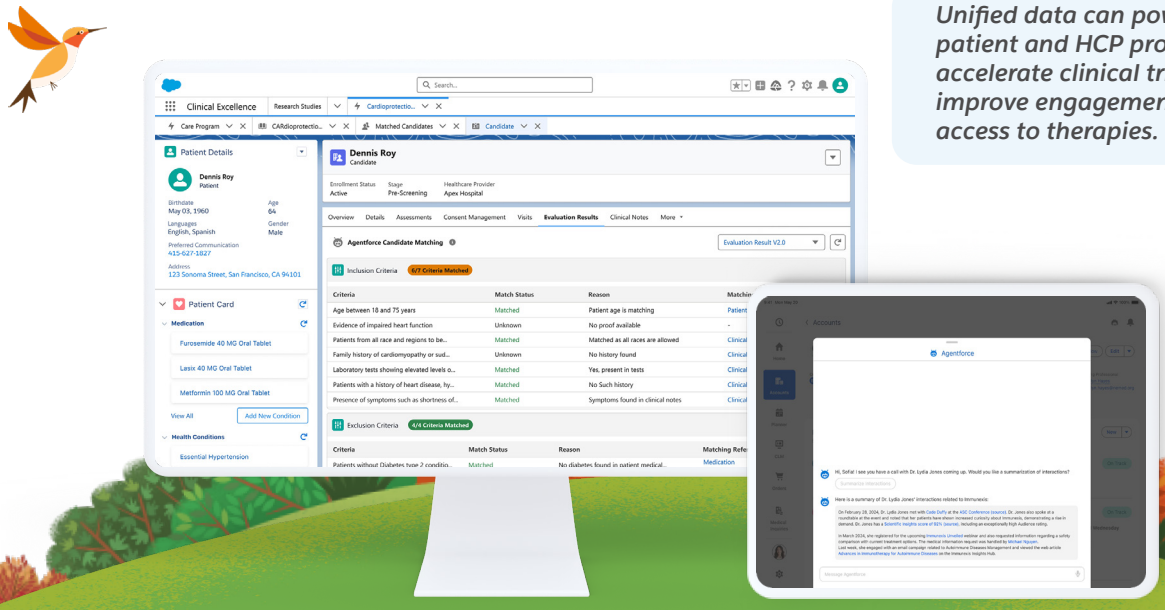
Medtech companies can leverage insights about contract compliance, pricing, and inventory levels to help them manage the commercial lifecycle.

Medtech sales teams can receive alerts about recommended rebates, bundles, or discounted pricing that can help them identify new offerings for customers.

Field reps can send tailored messages created by GenAI to hospitals, clinics, physicians, or other stakeholders about new devices or follow-ups.

Pharma and medtech companies can create and connect patient data from different sources into real-time profiles for new clinical trials or care programs.

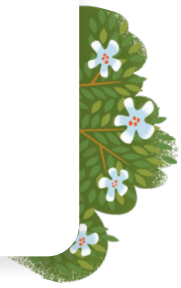
Pharma companies can maintain a traceable digital history of events and chain of custody, promoting safety for highly regulated precision medicines.



Unified data can power patient and HCP profiles to accelerate clinical trials, and improve engagement and access to therapies.

Life Sciences Cloud can streamline clinical trial onboarding with auto-matching and customized portals. This is a critical area in need of improvement. According to the National Institutes of Health (NIH), 80% of trials fail to onboard the required number of patients and must extend their timelines, resulting in delays that can cost as much as $8 million per day in lost revenue for drug development companies.[6]

> **“This is an area where I see a transformative opportunity with generative AI. AI can help identify and engage with prospective and current clinical trial candidates according to their preferences and location, working to accelerate clinical trials and help create a better overall experience for patients, helping to lower the likelihood of attrition and achieve better outcomes”**
>
> **Frank Defesche**
> Salesforce SVP and GM, Life Sciences Cloud



When it comes to improving HCP engagement, Life Sciences Cloud promises to revolutionize the way pharma organizations interact with customers. Its capabilities will include intelligent content, engagement analytics, and built-in compliance, as well as offline tools that harmonize engagement data, claims, and research to fuel AI and inform personalized interactions with HCPs. This can be used to automate manual tasks like email outreach, suggest documents for medical information requests, and prepare for visits with call planning and e-detailing.

Using Salesforce’s advanced reasoning engine powered by retrieval augmented generation (RAG), sales reps can unlock insights previously hidden in emails, meeting notes, call transcripts, scientific publications, product documentation, and more. RAG can take that data from all of those unstructured materials in Data Cloud to facilitate the creation of a meeting brief, helping reps quickly prepare for customer conversations based on all the relevant background information. The Atlas Reasoning Engine, the brain inside the Salesforce tool

Agentforce, autonomously analyzes data, makes decisions, and completes tasks, providing reliable and accurate results. This is what allows Agentforce to act, not just assist. Sales reps can ask an HCP engagement agent, “Who are my HCPs with declining scripts over the past 6 months?” or “Which content and key messaging should I be using for this call?”

Agentic AI will streamline inquiry management across channels by auto-generating responses that help get critical information to providers. It will also simplify the benefits verification process, recommend support programs or financial assistance, and orchestrate personalized medicine – all to accelerate approvals to get patients on therapy faster.

> **“Data is the driver behind AI and there is more of it than ever before. Our technology is built on a secure platform that brings together data with trusted AI and CRM capabilities to help life sciences organizations speed up drug and device development, enlist and retain patients across the clinical trial journey, and use trusted AI to deliver personalized experiences to customers.”**
>
> **Frank Defesche**
> Salesforce SVP and GM, Life Sciences Cloud

How Agentforce Is Ushering in a New Era of Happy Customers

Agentforce for Life Sciences enables life sciences companies to increase and scale their workforces on demand with a few clicks.

With limitless data analysis, decision-making, and action-taking capabilities, Agentforce's digital labor force can take on many of the repetitive tasks that prevent human agents from spending time on more complicated functions, including responding to customer service inquiries, qualifying sales leads, and optimizing marketing campaigns.

Salesforce AI and Agentforce has evolved from a solution that provides predictive AI capabilities and GenAI to the current iteration, which includes assistive and autonomous agents that combine the power of humans, AI, data, and actions to help drive success.

The Einstein Trust Layer protects customer data through robust security features and guardrails like zero data retention, toxicity detection, secure data retrieval, and dynamic grounding – improving the safety and accuracy of outputs while ensuring the responsible use of AI agents across the Salesforce ecosystem.

Agentforce enables users to interface with data conversationally. This means that life sciences companies will be able to transform their operations by employing a digital workforce that seamlessly blends human input with AI-driven actions. Salesforce is leveraging the power of AI to help life science businesses scale their workforce with AI agents that can create contextual interactions with HCPs. With Agentforce for Healthcare and Life Sciences, users can easily create Agentforce agents by identifying the skills needed to perform a specific role, pulling from existing workflows and APIs.

The Future of Work Is Hybrid

Every company has more tasks than the resources available to do them. That's why too many are often not addressed or completed. When you consider that about 41% of employee time is spent on repetitive, low-impact tasks,[7] it's easy to see that augmenting human workloads by using a digital labor force of AI agents for those tasks – enabling people to focus on higher-touch, higher-value, and more strategic outcomes – is a smart solution.

Conclusion

Life Sciences Cloud and the new advanced reasoning abilities made possible by Agentforce are just some of the ways Salesforce is transforming the life sciences ecosystem and helping the industry harness the power of AI to contextualize data, automate processes, and drive actionable intelligence.

As the industry moves into the future, the impact of AI will continue to be profound, as it helps life sciences organizations meet their complex challenges. While this emerging technology is already transforming day-to-day operations, it also holds great promise for shaping a future in which life sciences companies utilize generative AI to speed clinical development, revolutionize application development and testing, and amplify marketing excellence.

"We are at an incredible moment," said Madeleine McCray, EVP of Healthcare and Life Sciences at Salesforce. "We have the opportunity to combine AI and trusted data to create endless possibilities within this industry."

Learn more about the possibilities for pharmaceutical, biotech, medtech, and other companies to use the innovative tools of Life Sciences Cloud and take interactions with providers, partners, and patients to the next level.

[1] https://www2.deloitte.com/us/en/blog/health-care-blog/2023/outlook-for-life-sciences.html
[2] https://www2.deloitte.com/content/dam/Deloitte/us/Documents/life-sciences-health-care/us-lshc-gen-ai-blog-1.pdf
[3] https://www.technologynetworks.com/informatics/blog/the-adoption-of-ai-critical-concerns-in-the-life-sciences-389333
[4] https://www2.deloitte.com/us/en/pages/life-sciences-and-health-care/articles/future-of-life-sciences-crm.html
[5] Salesforce Healthcare and Life Sciences Insights Report, https://www.salesforce.com/resources/research-reports/healthcare-life-science-insights-report/
[6] https://pmc.ncbi.nlm.nih.gov/articles/PMC7673977/
[7] Salesforce Trends in AI Report, https://www.salesforce.com/form/conf/conf-trends-of-ai/