




# AI Unleashed

## Where AI Is Increasingly Delivering For Pharma






**“The pace of change in medical communications has never been faster, and it’s our job on the Foresight Committee of the Healthcare Communications Association to make sense of it, cut through the hype, and help the community understand what truly creates impact. In my role, I see first-hand how AI is reshaping the way scientific stories are discovered, created, and shared.**

**What excites me most is not the technology itself, but the shift in possibility it creates: workflows that unlock deeper scientific insight, teams empowered to focus on higher value thinking, and a future where we transform strategy to evidence, evidence to message, message to content—and content to impact.**

**This article brings together those perspectives, what’s real today, what’s emerging, and where AI is already delivering measurable impact for medical affairs.”**

Paul Archer

EVP, EMC Technology, Product and AI enablement, Envision Pharma Group, on behalf of the Healthcare Communications Association’s Foresight Committee, AI Working Group



## From Innovation to Everyday Impact

AI is no longer the next big change within pharma - it is now woven directly into the everyday routines of medical affairs and commercial operations. But the real differentiator isn't simply having AI embedded; it is how thoughtfully each organisation applies it to sharpen decisions, accelerate insight generation, and elevate the scientific conversations that matter.

Let's be clear, AI is not replacing experts - it's amplifying them. When applied with intent, it untangles complexity, accelerates clarity, and ensures that scientific expertise is directed where human judgement has the highest impact. Across the industry, we are currently seeing this shift take shape in ten powerful ways that are already reshaping how healthcare organisations communicate, learn, and engage.

### 1 **Generative Content Creation: From Drafts To Dynamic Workflows**

What began as a quick way to produce early drafts has evolved into a sophisticated capability that sits at the heart of modern content development. Teams are using GenAI not only to create slide decks, summaries, and field materials, but also to manage entire content lifecycles. AI will now highlight gaps in messaging, harmonise tone across assets, and reduce the administrative burden that once consumed hours of expert time.

Integrated content pipelines are becoming standard, with AI ensuring consistency, structure, and rigorous version control. The true value, however, lies in releasing scientific experts from repetitive tasks so they can focus on shaping narratives with greater nuance and scientific depth.

### 2 **Automated Literature Reviews: Clarity At The Speed Of Science**

The volume of new evidence continues to grow at a staggering rate. AI-driven literature review platforms now process, categorise, and summarise publications in a fraction of the time previous methods require. Instead of spending weeks sifting through data, medical affairs teams can rapidly identify what's most relevant and act on emerging themes with heightened confidence.

This speed doesn't just save time - it reshapes how quickly organisations can align, respond, and build evidence strategies grounded in the latest science.

### 3 **Congress Intelligence: Real-Time Understanding Of The Scientific Moment**

Medical congresses once required days or even weeks of manual synthesis. Now, AI tools analyse sessions, abstracts, posters, discussions, and even online sentiment, all in real time. Heat maps can be used to reveal which topics are sparking the most attention, while automated competitor analyses deliver immediate strategic context.

Many organisations have adopted "day 0/day 1 intelligence cycles," meaning valuable insights are collected during the congress, synthesised overnight, and delivered to leadership within hours of the event closing. AI has transformed congress coverage from a retrospective activity into a high-velocity intelligence operation.

## 4 **Personalised Scientific Intelligence: Tailoring To The Individual**

Healthcare professionals increasingly expect content that aligns with their precise needs, preferences, and prior knowledge. AI now enables true personalisation - crafting tailored briefings that reflect specialty, history of engagement, and preferred formats.

Whether in advisory boards, congress follow-ups, or field interactions, this level of customisation strengthens engagement and ensures scientific exchange feels relevant, timely, and thoughtfully designed.

## 5 **Medical, Legal, And Regulatory (MLR) Transformation: Clearing Bottlenecks With Intelligent Automation**

MLR has long been viewed as a necessary, but time-consuming, hurdle. AI is now addressing this friction by reviewing references, validating claims, and checking content against approved language before it even reaches reviewers.

These AI “pre-flight checks” are becoming part of standard practice, producing cleaner submissions with fewer revision cycles. And because these capabilities can be embedded directly into authoring tools, efficiency rises without compromising scientific or regulatory rigour.

## 6 **Insight Mining: Unlocking Intelligence Hidden In Unstructured Data**

Some of the most valuable strategic signals live in scattered, unstructured sources - call notes, medical information queries, social conversations, and field reports. AI now identifies patterns across these sources, clustering themes, monitoring sentiment shifts, highlighting emerging concerns, and identifying influential voices.

This shift from anecdotal insights to real-time intelligence, enables teams to anticipate needs, respond earlier, and anchor strategies in a deeper understanding of the evolving scientific landscape.

## 7 **Immersive, Synthetic Education: New Frontiers In Learning**

AI-generated simulations, avatars, and dynamic mechanism-of-action explainers, are redefining how complex science is communicated. These adaptable, interactive learning environments help HCPs and patients engage more deeply and consistently, regardless of time or location.

As therapeutic complexity and the challenge of understanding increases, these immersive formats are becoming not just an enhancement, but an expectation.

## 8 **AI Assistants:** Trusted Companions For Scientific Inquiry

Intelligent assistants powered by validated data sources are emerging as vital support for medical teams. They enable compliant conversational access to scientific information and help identify unmet needs or recurring questions across stakeholder interactions.

Rather than replacing expertise, they enhance it - offering rapid recall, supporting field teams, and giving medical information professionals a new layer of real-time intelligence.

## 9 **Predictive Analytics:** Looking Ahead With Confidence

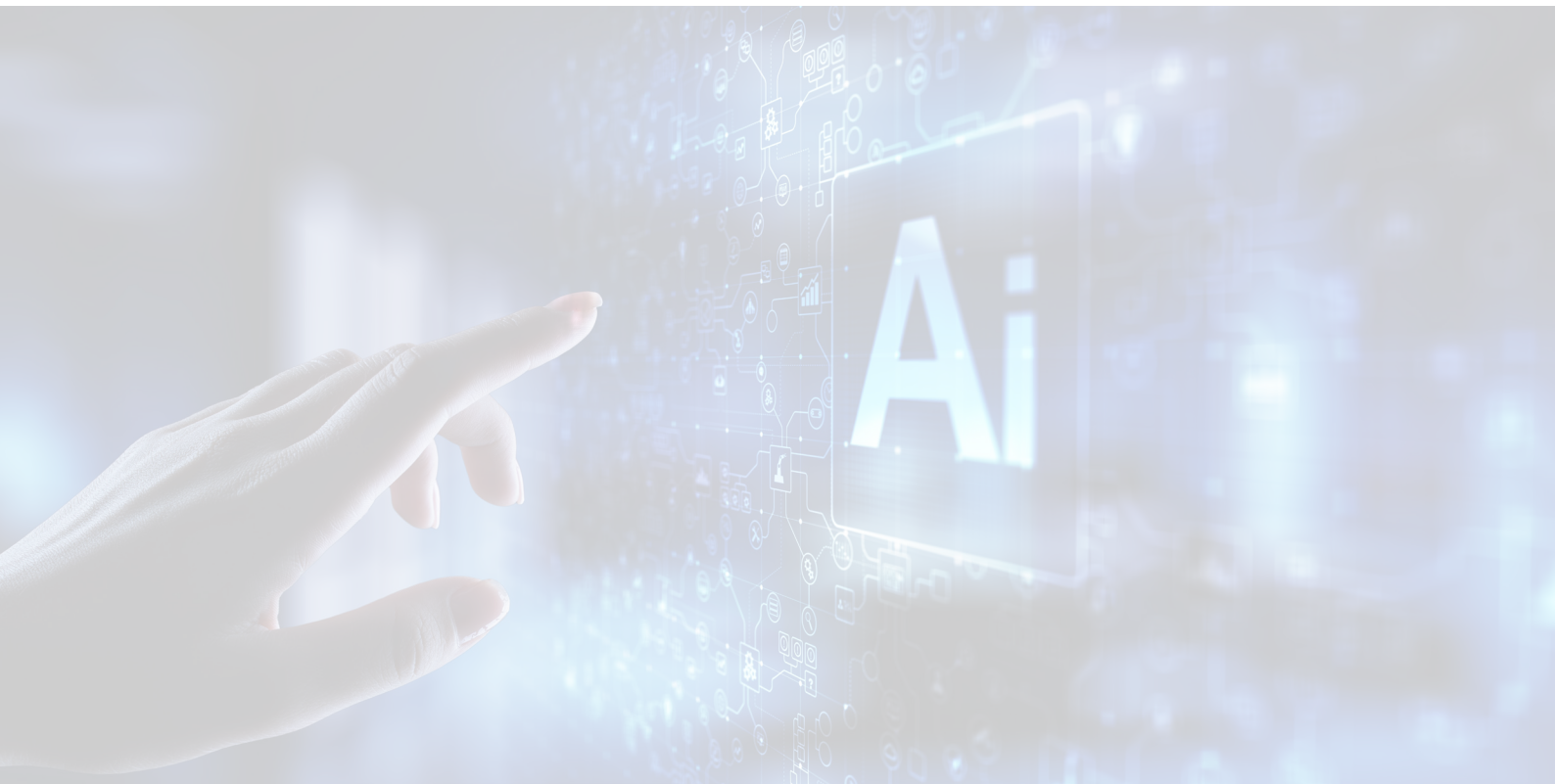
Predictive models are helping teams anticipate everything from HCP behaviour patterns to emerging evidence interests, and frequently raised objections. With these insights, medical and commercial teams can shape scientific engagement strategies proactively, instead of reacting long after signs appear.

As organisations mature in their data infrastructure, predictive analytics will increasingly guide planning, engagement, and strategic decision-making.

## 10 **Integrated Ecosystems:** Connecting The Dots Across The Value Chain

AI is pushing the industry away from fragmented systems and toward cohesive, connected platforms. Instead of isolated content tools, analytics dashboards, and insight repositories; organisations are moving toward unified ecosystems where information flows seamlessly.

The result is a more agile operating model - one where teams can act decisively, with comprehensive visibility and consistent processes.



## Operationalising AI With Defined Intention

The era of simply experimenting with AI is over. The challenge now is to operationalise it in a way that aligns with the realities and regulatory constraints of healthcare communications. Three principles are proving foundational:

- Begin with areas where value appears quickly - such as GenAI-driven content or automated evidence reviews.
- Establish governance early, ensuring ethical, regulatory, and quality frameworks shape how AI is used.
- Equip teams with the skills and judgement to interpret, verify, and elevate AI outputs.

## What This Means For Those Working In Healthcare Communications

This evolving AI landscape enhances the ability of teams to deliver more targeted scientific engagement, while accelerating core activities such as literature review, content development, and congress intelligence. It strengthens compliance through consistent, auditable processes and builds the capabilities required for an AI-enabled future. Ultimately, these advances support more connected, insight-driven operations - enabling organisations to scale effectively, while staying responsive to scientific and stakeholder needs.

Over the coming year, the HCA Foresight Committee, in collaboration with Envision Pharma Group, will take a deeper look at each of these themes, as we continue to explore how AI is shaping the next era of healthcare communications.





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