

A smart education: How an artificial intelligence solution generated clinical summaries for healthcare professionals in minutes



As part of a Sanofi pilot project focused on combating digital fatigue amongst healthcare professionals, SciencePOD used artificial intelligence (AI) to generate summaries of clinical studies within minutes.

### Challenge — Combating digital fatigue

We are all bombarded with information from our phones, laptops, and televisions, and healthcare professionals (HCPs) must also take in specialist content from pharmaceutical companies and medical education boards, often from a number of different channels.

Combined with an increasing number of remote consultations and previously in-person events becoming virtual, many HCPs rapidly became overwhelmed by media during the COVID-19 pandemic, resulting in digital fatigue.

As an example, Sanofi – a multinational pharmaceutical company headquartered in Paris – found that some medical professionals received more than 100% extra emails and were invited to almost 400% more webinars during the pandemic.

The challenge Sanofi faced was how to continue to provide evidence-based medical education to HCPs and combat this digital fatigue.

### Solution — A new way of sharing information

Amidst the deluge of information, Sanofi set out to find a way to provide medical education to HCPs in a way that suited these busy professionals best and would alleviate their digital fatigue.

Sanofi focused on the International Human Microbiome Consortium Congress 2021, a virtual symposium including 98 sessions and 49 hours of clinical research presentations. Sanofi wanted to develop a single page summary for selected Congress lectures. This represented an innovative approach over the traditional Congress summary, which can be hundreds of pages long and take weeks to develop.

Sanofi understood that "if it takes more than 5 minutes to consume a piece of content, that content is unlikely to be noticed and may not stimulate engagement with at all."

By producing short educational teaser material, Sanofi's goal was to capture the attention of HCPs with easily digestible and relevant content, leaving them to set aside time for the longer read later.

For this project, Sanofi partnered with SciencePOD, a content creation platform that specialises in creating clear and accessible content from complex science. SciencePOD applied an AI solution to generate summaries of the clinical research studies connected to selected presentations from the Congress.

Other partners in the trial included healthcare engagement specialists ViiHealth, who used an automated audio-text transcription platform which was used by a SciencePOD medical writer to write a summary of the presentation summaries (a Brazilian medical writer that delivered culturally appropriate summaries in Portuguese for a target audience of Brazilian HCPs). In parallel, a professional medical writer from the agency Publicis created English language summaries aimed at a wider international audience.

In each case, after the summaries were drafted, they were sent to Sanofi by performed medical and legal review and approval. Once approved, the summaries were sent to HCPs by email in a randomised, blinded manner. Some HCPs received content summarised by the SciencePOD medical writer whose work was supported by ViiHealth's audio-text transcript. Other HCPs received the SciencePOD AI-generated summaries of clinical research studies in the HCP's native language. Although the AI summarisation engine is optimised for English, SciencePOD used state-of-the-art automated translation prior to submitting the content for Sanofi's medical review.

### Results — AI-generated rapid summaries show a clear advantage

Sanofi measured the speed of delivery of content created by professional writers alone, of content created by a professional Brazilian medical writer with the assistance of audio-text transcription, and of the AI-generated summaries of clinical studies.

The results revealed the clear speed advantage of AI; SciencePOD's system was able to turn the clinical research into automated summaries within seconds, and the overall publishing process only took minutes, after taking into account the necessary medical and legal review time. The summaries then went through Sanofi's review process, and they were available for distribution in just 35 minutes per AI summary.

SciencePOD's AI solution was more than twice the speed of the professional medical writer (even with the assistance of the audio-text transcription service provided by ViiHealth). And compared to a previous medical writer-driven pilot run in 2020, the AI solution was almost seven times faster.

### Outcomes of AI vs. Human Generated Content

	AI-developed content content	Human-developed content
Number of HCPs* reached	17,000	3,600
Number of HCPs* that engaged with the content	5,000	1,000
HCPs**	90	100
% of HCPs who rated the content as highly valuable	83%	75%
% of HCPs who would like to receive this type of content in the future	100%	100%

\*HCPs = healthcare professionals. \*\*NPS = net promoter score, a market research metric which measures satisfaction with a service.

With the summaries in their inboxes soon after the congress lectures had ended, HCPs were able to quickly review the information and pick out the studies they wanted to explore in more depth later.

The pilot demonstrated that HCPs value having access to modular, easy-to-digest information to help them keep up to date with the latest clinical developments.

All of the surveyed healthcare professionals said they would like to receive this type of content in the future (AI or human-generated), with email being the most popular means of receiving the information.

On evaluation, more than 80% of professionals rated the AI-generated content as highly valuable to their clinical practice.

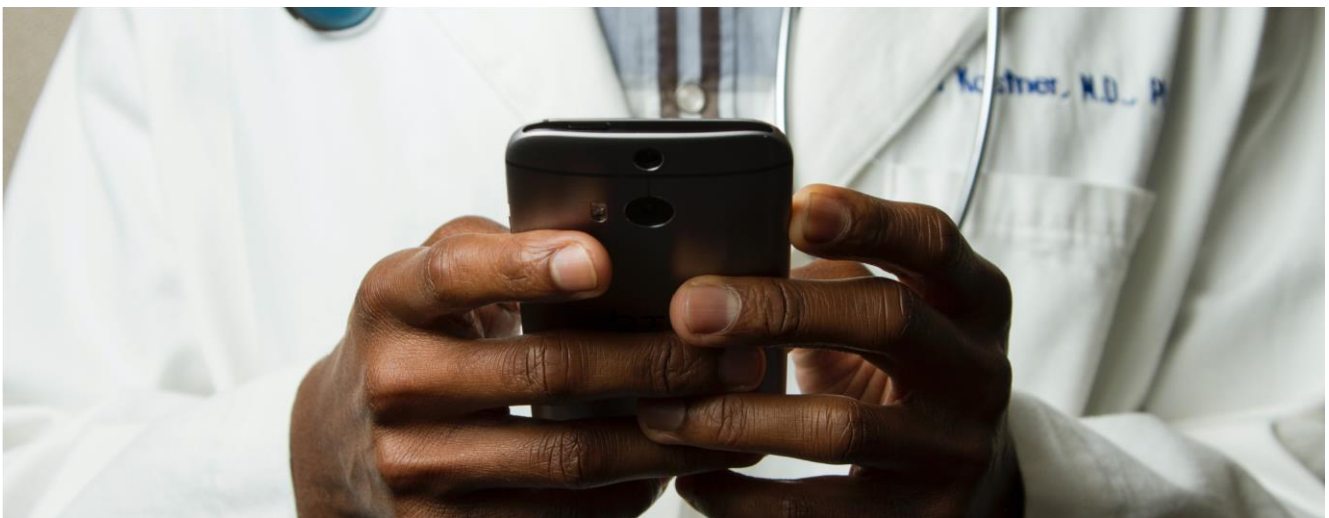
### The future of content creation?

This case study demonstrates the huge potential of AI for content development, even when the source material is highly specialised or technical.

“Our pilot projects shows that AI can be successfully used to create content quickly and at scale, and to add value to healthcare professionals’ clinical practice,” says Jose Maria Guido Avila, Global Brand Lead of HCP Marketing at Sanofi.

Importantly, the use of AI can help to deliver content to HCPs in a format and at a time that works for them – gone are the days where doctors would need to watch congress footage for hours at a time, or pore over hundreds of pages of summary documents.

Based on the success of the pilot project, Sanofi plans to create a working group, including SciencePOD and the other companies involved in the pilot, to continue covering medical congresses in this way. They also plan to investigate and pilot other uses of AI to create modular content for HCPs.



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