Capgemini

Digitising history to shape the future through *AI with Imperial War Museums*

IWM partnered with Capgemini to transcribe and translate parts of its vast oral history collection, enhancing public access and understanding of 20th-century conflicts through AI-driven solutions.

Tackling a vast collection with unique challenges

With collections of over 33.5 million objects, including photographs, documents, film and sound, Imperial War Museums (IWM) is a world-renowned institution dedicated to understanding the causes, course and consequences of war.

The museum has invested significantly in digitising its collections in recent years. This investment was the springboard for further modernising a part of its oral histories collection, a selection comprising roughly 8,000 interviews with service men and women and civilians, conducted between 1945 and the early 2000s. This collection of recordings presented unique challenges, including regional

Client: Imperial War Museum

Region: UK

Industry: Public Sector

Client Challenges:

Imperial War Museums (IWM) needed to transcribe and make 20,000+ hours of historic oral history interviews held on audio files more accessible.

Solution:

Capgemini and Google Cloud used Gen AI to translate, transcribe, and make IWM's oral history collection more searchable, enabling users to easily access, search, and discover these archives.

Benefits:

- Much improved searchability through text transcriptions of audio files.
- Enhanced accessibility for public, research and education use.
- New and improved opportunities for commercial licensing of oral history collection.

accents, specialised military terminology and varying audio quality.

The goal was to prove that transcribing these historic archives and making them available for easier, more discoverable public consumption was feasible and impactful.

Bringing history into the present with AI technology

Together with Google Cloud, Campgemini developed a solution to transcribe these recordings. This involved creating a Google Cloud environment, marking the museum's first foray into AI on Google Cloud.

Beyond basic transcription, Capgemini developed a pipeline to process this wealth of audio files – extracting metadata and passing it through Google Gemini to generate comprehensive summaries of interviews, from which can be extracted details of key people, places, and events. This significantly enhances how IWM can make extensive oral history collection searchable and would have taken 20 years to complete manually.

Sophisticated prompt engineering and Gemini 2.0 enabled the project team to handle challenges such as recording quality, accents, and languages. The finished application enables users to search through interviews that were previously only accessible on audio files, via searchable transcriptions and metadata, listen to recordings while viewing synchronised transcripts, and access AI-generated insights about the languages covered, length of recordings, and subject matter – all in one easy-to-use interface.

In addition, the innovative "Ask a question"-functionality allows users to ask natural language questions about any interview and receive answers drawn directly from the content. This feature is particularly valuable for historical research as the system shows its reasoning process and provides direct citations to the relevant parts of the transcript, ensuring accuracy and trustworthiness in responses, and allowing different users to approach these interviews in completely different ways based on their interests and needs.

Unlocking the past to understand our future

With a remarkable 99%-word accuracy and 94%-speaker diarization (partitioning audio according to the identity of the speaker) accuracy on transcription tests, the solution represents a scalable approach that could be applied to other collections.

Future visions for the application of AI technology at IWM include expanding AI capabilities to include image recognition for photographs, creating a volunteer-friendly workflow that combines AI analysis with human expertise and enabling immersive engagement with the past through image recognition and voice technology.

The digitisation and transcription of IWM's oral histories collection will significantly enhance the accessibility and searchability of these valuable assets. This project will enable the museum to provide the public with better context and understanding of historical conflicts. Not only has it fulfilled IWM's immediate objectives, but it has also paved the way for a more connected and informed future.

"Through this incredible partnership, we've made thousands of hours of oral histories far more accessible and searchable. By harnessing artificial intelligence, we are enabling researchers and the public to connect with these personal perspectives of conflict in ways never before possible. This work goes beyond transcription, enabling new forms of digital discovery.

"This partnership between Imperial War Museums, Google and Capgemini is the first use of such advanced AI technology in the museums sector. It will be foundational in changing how we can all access and learn from our shared past."

Nick Hodder
Director, Digital Engagement and Transformation at Imperial War Museums

"Google Cloud is committed to empowering organisations like Imperial War Museums with AI tools that can transform how we interact with history. The use of Gemini to process and understand such a vast and nuanced audio collection demonstrates the sophisticated capabilities of generative AI to overcome complex challenges and deliver meaningful outcomes."

John Abel
Managing Director,
Office of CTO
Google Cloud

"We are proud to partner with Imperial War Museums and Google Cloud on this culturally significant initiative. This project demonstrates how generative AI can breathe new life into historical archives, transforming them into accessible and captivating experiences. It underscores the power of technology to bridge the past and present, enriching our understanding of history to better guide the future"

Steven Webb
UK Chief Technology and
Innovation Officer, Capgemini
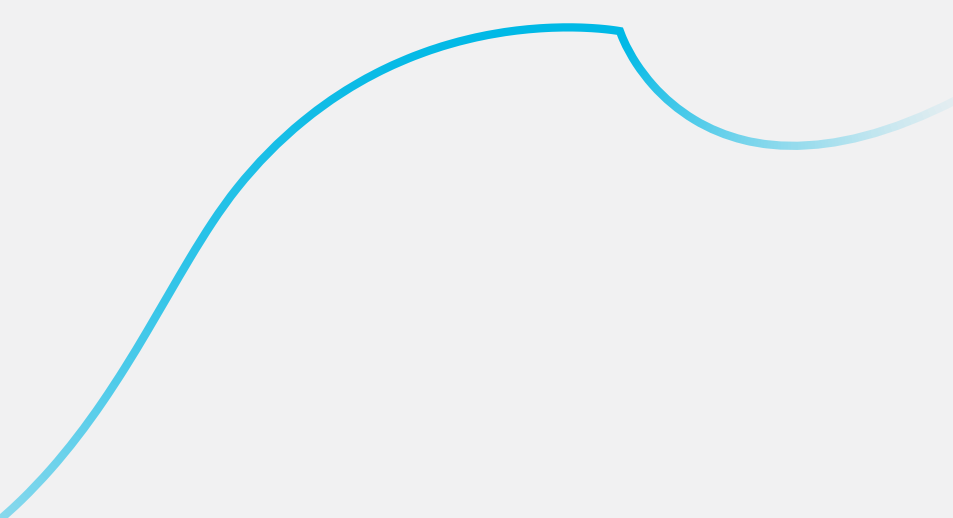
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