

The client

A large technology conglomerate and pioneer of generative AI chatbot development

Industry

Technology services

Established

1998

Headquarters

USA

Operating in

multiple global locations

Solution elements

TrainAI® by RWS

Global tech leader enhances generative AI chatbot with knowledge from 5,000 experts in 53 locales

TrainAI by RWS improved the client's AI chatbot by harnessing the expertise of content writers, AI data specialists and linguists across the globe.

Challenge

Large Language Models, or LLMs, are a type of artificial intelligence (AI) trained on vast amounts of text data to understand and generate human-like language. They produce natural language outputs that enable users to engage in human-like conversations, ask for help to complete tasks, compose multilingual content and much more. When developing new tools based on rapidly evolving LLM technologies, the sheer volume of data required to train and fine-tune LLMs is always a challenge.

Our client wanted to protect the competitive advantage of its proprietary search engine by improving the capabilities and accuracy of its generative AI chatbot. The chatbot was designed to gather and compile real-time data from the internet and deliver it to users browsing for information in an interactive manner.

The client's objectives were to:

- Gain a competitive advantage against a rival company developing an LLM-powered chatbot to research and deliver internet-derived content
- Secure sufficient technical, data and linguistic resources to train its new model
- Train and fine-tune the chatbot with enhanced prompt-response pairs to improve its accuracy

Solution

A perfect mix of AI know-how and talent

The client chose RWS for its ability to handle large-scale projects, its AI, content and language expertise, and its vast pool of in-house and external talent.

Key to this decision was the experience of RWS's TrainAI team, who provides comprehensive AI data and generative AI training and fine-tuning services, including:

- Prompt engineering
- Reinforcement learning from human feedback (RLHF)
- Red teaming/jailbreaking
- Domain expertise
- Locale-specific support in any language and at any scale

The unique combination of scalability and know-how, as well as our preferred vendor status, made RWS an ideal choice.

Recruiting and training at speed

Upon project launch, the first challenge was to meet the tight timelines for the volume of work required – up to 30,000 responses per week – with a flexible, scalable team.

Recruiting got off to a quick start due to TrainAI's ability to tap into RWS's Editorial Services team, which includes a large pool of in-house writers, and its TrainAI community of AI data specialists. This approach ensured a diverse and representative team of project contributors located across the globe that was key to project success.

TrainAI created a complete writer assessment and onboarding program that included comprehensive training delivered via face-to-face calls and pre-recorded sessions based on documentation provided by the client.



Key stats

5,000

AI data experts, writers and linguists

264,000

Hours of work completed in 8 months

30,000+

AI responses processed per week

53

Locales supported

Enhancing prompt-response pairs to optimize chatbot performance

Writers were required to review chatbot responses (outputs) to specific prompts (inputs) and improve them using two primary approaches:

Prompt creation, editing and integration

To keep efforts focused, writers were provided with general topics and asked to create new prompts to input into the chatbot. The writer would then evaluate the chatbot's output and rewrite or restructure the response as needed.

Response review and validation, and fact extraction and verification

The team reviewed the source data that the chatbot used to generate its response for incorrect factual information or details that may have been missed. If issues were found, the writer addressed them by restructuring or rewriting the response.

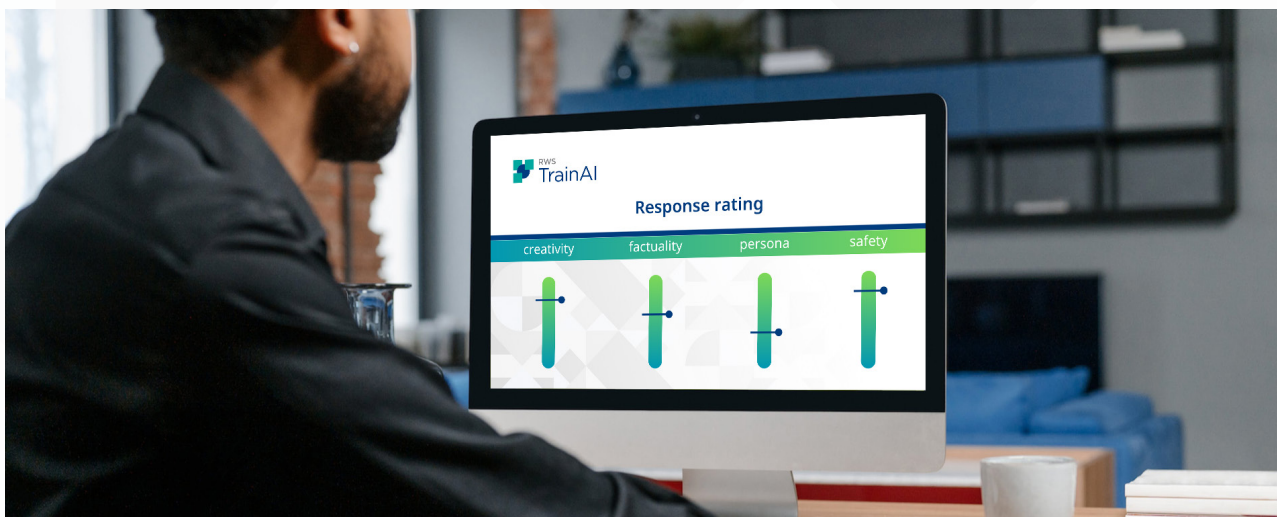
Rating chatbot responses to improve output quality

Rating generative AI responses is a crucial aspect of its learning and improvement. Response ratings function as labels that guide the model to adjust its parameters and generate better quality responses. This creates a reward signal for reinforcement learning, enabling the model to iteratively fine-tune itself based on response feedback. This enhances its ability to produce accurate, high-quality and contextually relevant responses over time.

In addition to enhancing the AI chatbot's prompt-response pairs, the client also asked the team to perform:

Response rating

TrainAI data specialists rated prompt responses in accordance with the client's guidelines, focusing on four key pillars: creativity, factuality, persona and safety.



About TrainAI

Blending technological understanding and human intelligence, TrainAI provides data collection, annotation and validation services for all types of AI data, in any language and at any scale, based on the principles of responsible AI.

Our data services for training and fine-tuning GenAI models cover:

- Data/content creation: prompt engineering
- Reinforcement learning from human feedback (RLHF)
- Risk mitigation: red teaming or jailbreaking
- Locale-specific support
- Domain expertise

Expanding the chatbot's global reach with locale-specific support

Most of the work to date has been completed in English. However, to expand the chatbot's global reach, the client also required:

Locale-specific chatbot support

TrainAI was able to leverage RWS's in-house Language Services team to deliver expertise in Japanese, Korean, Brazilian Portuguese, Mexican Spanish and 48 other languages. This effort expanded the chatbot's language capabilities, with the goal of adding additional locales as the chatbot's performance becomes more robust.

UI and content localization

TrainAI was also able to leverage RWS's core translation and localization competencies to localize the chatbot's user interface (UI), help articles, marketing materials and perform accessibility testing in multiple languages.

Results

Gaining a competitive edge in a fast-moving field

TrainAI helped the technology conglomerate's generative AI chatbot gain a competitive advantage against its rivals by:

- Rapidly scaling the team to 5,000 AI data specialists from the TrainAI community, as well as writers and linguists from RWS's Editorial and Language Services teams
- Delivering in excess of 264,000 hours of work within the first 8 months of the project
- Processing more than 30,000 chatbot responses per week
- Providing support for 53 locales and counting
- Delivering the complete range of services required to improve the chatbot's performance all from a single provider

The project scope continues to expand to meet the client's needs.



Shaping the future of AI

As generative AI technologies evolve and expand, the TrainAI team continues to support companies in harnessing the power of AI – and as a result – is helping clients gain a competitive edge in today's rapidly evolving global market.

From managing complex generative AI projects involving vast volumes of data, to providing thousands of human resources with the right skillsets to effectively train and fine-tune generative AI, TrainAI is actively shaping the future of AI.

Discover more about TrainAI by RWS

rws.com/trainai

About RWS

RWS Holdings plc is a unique, world-leading provider of technology-enabled language, content and intellectual property services. Through content transformation and multilingual data analysis, our combination of AI-enabled technology and human expertise helps our clients to grow by ensuring they are understood anywhere, in any language.

Our purpose is unlocking global understanding. By combining cultural understanding, client understanding and technical understanding, our services and technology assist our clients to acquire and retain customers, deliver engaging user experiences, maintain compliance and gain actionable insights into their data and content.

Over the past 20 years we've been evolving our own AI solutions as well as helping clients to explore, build and use multilingual AI applications. With 40+ AI-related patents and more than 100 peer-reviewed papers, we have the experience and expertise to support clients on their AI journey.

We work with over 80% of the world's top 100 brands, more than three-quarters of Fortune's 20 'Most Admired Companies' and almost all of the top pharmaceutical companies, investment banks, law firms and patent filers. Our client base spans Europe, Asia Pacific and North and South America. Our 65+ global locations across five continents service clients in the automotive, chemical, financial, legal, medical, pharmaceutical, technology and telecommunications sectors.

Founded in 1958, RWS is headquartered in the UK and publicly listed on AIM, the London Stock Exchange regulated market (RWS.L).

For further information, please visit: www.rws.com

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