

SIEMENS ADOPTS GENERATIVE AI MODEL TO SUMMARIZE SOCIAL CONVERSATIONS

Infosys boosts accuracy with effective prompt engineering

Siemens, the German industrial manufacturing conglomerate, has a rich history of capitalizing on advanced technology to drive innovation and operational excellence. The global workforce of Siemens is empowered with collaboration and productivity tools.

Siemens partnered with Infosys to identify use cases for natural language processing, develop proof-of-concept for a shortlist, and implement viable use cases. In addition, Siemens wanted to enhance Microsoft Viva Engage (formerly Yammer), the enterprise social networking platform of Microsoft 365, with generative artificial intelligence (AI) to distill value from internal communication.

Tax consultants at Siemens used Microsoft Viva Engage to follow news updates on TaxTech, changes in regulations, and other taxation-related information. The Tax CoE at Siemens sought a generative AI solution for classifying tax-related conversations and summarizing knowledge.

Inadequate Training Data

Infosys developed a solution to filter tax-specific content and categorize social posts based on sub-domains such as technology, projects, events, news, and internal updates. It helps tax consultants prioritize social messages based on their area of interest. Further, our generative AI solution generates actionable insights from unstructured data, thereby enabling informed decision making.

However, only a small set of labeled social posts was available on Microsoft Viva Engage. Social messages were in multiple languages and manual classification of the posts caused errors. The Infosys team of consultants and applied AI experts addressed the challenge with a large language model (LLM)-based approach.



Knowledge Services on the Social Network

Infosys GPT specialists implemented in-context prompting techniques to establish generative AI capabilities at Siemens. Our team leveraged OpenAI's GPT-3 and Microsoft Azure OpenAI Service for GPT-3 models to facilitate knowledge services on the intra-enterprise social platform.

Infosys developed a sophisticated prompting workflow (Figure 1) with multiple phases for automated identification of the context, classification of tax-related knowledge, and summarization of social communication. Our approach streamlined the implementation of another use case at Siemens – automated generation of a tax newsletter.

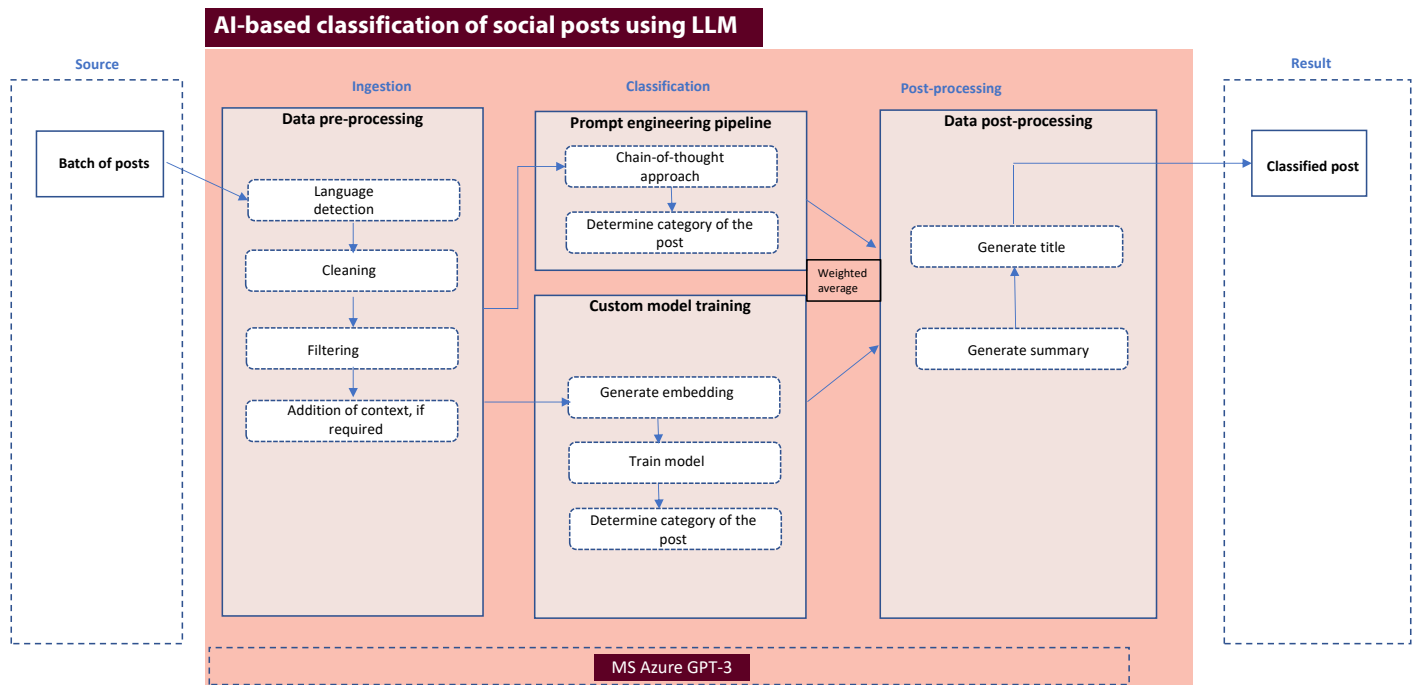
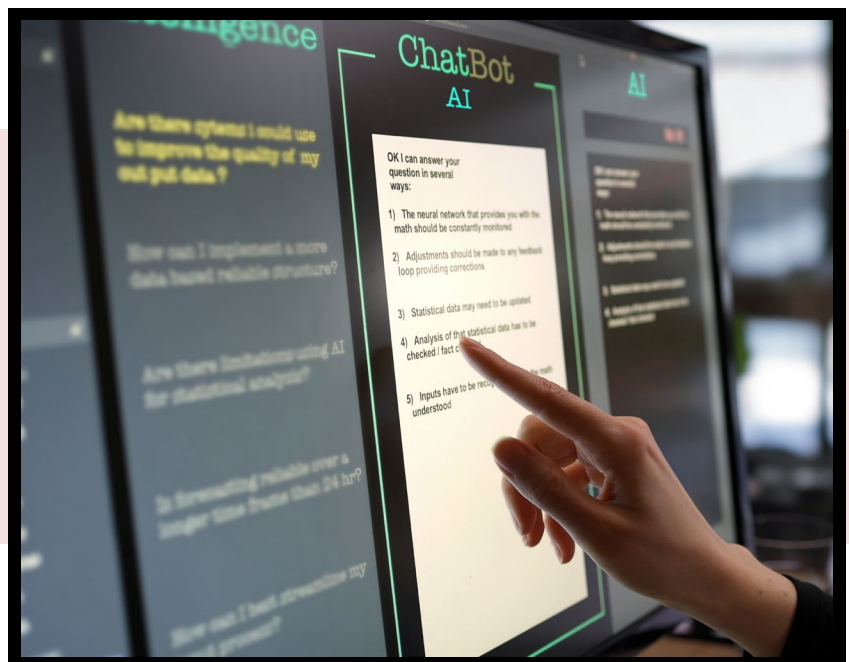


Figure 1: In-context prompting workflow

Advanced Prompting Drives Accuracy

Effective prompt engineering and the incorporation of relevant context ensures ~90% accuracy in binary classification based on the user's interests. Our zero-shot prompting approach drives 85%-90% accuracy in multi-class classification. Notably, the turnaround time for classifying a social post is less than five seconds.



Last word

“Siemens is always looking to technology to boost workforce productivity. We worked with the Infosys AI team to implement the GPT-3 model for knowledge management on Yammer. After deploying the solution in just six months and seeing instant results, we are exploring other enterprise use cases in generative AI.”

- **Leader of Tax Tech Lab, Siemens, Germany**

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