Use Cases 2023

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#1 Use cases 2023

Business sector:
Gaming

Optimising Development with Generative AI

Issue:
A gaming company needed to quickly and efficiently debug the code of its application provided by a supplier. As the intellectual property of the video game had to be sold quickly and the team had been reduced, there was a crucial need to improve performance and development efficiency.

Solution:
Creation of a generative AI-based tool for code debugging. This tool allowed users to examine the Python code (and codes in other languages) that was not working. The AI was then used to correct, clean, simplify, and add comments o the code.

Results & KPIs:
Significant increase in developer performance, compensating for the team size reduction. The code produced was of high quality, clean, and optimized.

Additional Information:
This use case demonstrated the effectiveness of integrating AI into development processes, especially in a context of reduced human resources.

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#2 Use cases 2023

Business sector:
Software development

Accelerating Code Development with Generative AI

Issue:
Simplification and acceleration of the code development process, particularly for languages like JavaScript and Python.

Solution:
Use of a generative AI for code development. This AI was capable of taking code snippets and generating the necessary code to complete a functionality. It could also propose different types of code based on specific issues.

Results & KPIs:
Significant improvement in code creation performance, especially for JavaScript and Python languages. Users noted a notable increase in their development efficiency, despite slightly lower performance with newer languages like Solidity.

Additional Information:
Increased interest in open-source models, allowing independence from specific solutions like GPT-4.

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#3 Use cases 2023

Business sector:
Software Development and Code Migration

Automating Code Migration via AI

Issue:
Efficiently migrating code from one language to another while staying within the usual development environment.

Solution:
Creation of a solution using artificial intelligence accessible via an API, integrated into the VS Code interface. This AI took existing code blocks and converted them into a new programming language, using the GPT-4 API.

Results & KPIs:
A considerable productivity gain in the code migration process. The tool automated various migration tasks, thus optimizing developers' time and resources.

Additional Information:
Efficiency was improved and disruptions related to the migration process were greatly reduced.

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#4 Use cases 2023

Business sector:
Corporate and ETI

Automated Analysis and Document Reading

Issue:
Need to automate the reading and analysis of voluminous documents (up to 300-400 pages) and to efficiently extract relevant information.

Solution:
Development of a solution using artificial intelligence capable of pre-segmenting, reading, and interpreting large documents. This AI was also capable of summarizing the documents read.

Results & KPIs:
Considerable time savings in document analysis.

Additional Information:
For more complex analyses requiring advanced reasoning, it is necessary to use an AI like GPT-4, which offers significantly superior analysis and synthesis capabilities compared to other models.

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Business sector:
Treatment and Analysis of Legal Documents

Vectorization and Advanced Analysis of Documents

Issue:
The need to efficiently process and analyze voluminous legal documents in order to ask specific questions and find coherencies in information scattered across many pages.

Solution:
Use of AI to vectorize documents. This technology allows for the direct questioning of the documents, with the AI searching for and retrieving relevant response elements, even if they are scattered over several pages.

Results & KPIs:
Significant improvement in accessing and analyzing coherent and relevant information in complex legal documents.

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#6 Use cases 2023

Business sector:
Processing and Analysis of Audio Files

Automation of Transcription and Synthesis of Audio Files

Problem:
The need to efficiently transcribe and synthesize long-duration audio files (1-2 hours), such as meeting recordings, to extract essential information.

Solution:
Development of a tool based on generative AI capable of transcribing audio files and generating customized summaries. The user could add specific questions to guide the synthesis according to their needs.

Results & KPIs:
Significant efficiency gain in processing audio files, with the ability to customize the summary and extract key information. Use of advanced generative AIs like GPT-4 to ensure better understanding and synthesis of the content.

Additional Information:
While the transcription of audio files is relatively straightforward, understanding and synthesizing these transcriptions require advanced AIs for an accurate and relevant result.

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Business sector:
Fine Tuning

Fine-Tuning of Generative AI Models

Problem:
Adapting standard generative AI models to specific needs by training them on targeted datasets, to overcome the limitations of generic models and offer more advanced customization.

Solution:
Use of fine-tuning to train a base model (like GPT-3.5) with specific data, thereby enabling the model to acquire a deeper understanding in a particular domain.

Results & KPIs:
Notable success in the customization of generative AIs, illustrated by the fine-tuned model's ability to mimic the style of the 17th century French philosopher Blaise Pascal. This paved the way for requests to customize AIs in specific writing, speaking, or thought styles.

Additional Information:
The fine-tuning approach represents a significant advancement in AI personalization, offering almost unique versions of models that can better meet specific business needs or mimic individual styles

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Business sector:
Technological Monitoring and Analysis of Online Information

Development of an AI Robot for Scraping and Synthesizing Online Information

Problem:
The necessity to develop a tool capable of automatically searching for information on the Internet, gathering it, and synthesizing it in a concise and relevant manner.

Solution:
Creation of an AI-based robot, specifically with GPT-4 Turbo 128k, capable of performing advanced scraping tasks. This tool can analyze prompts, open internet sites to search for specific information, and then synthesize it efficiently.

Results & KPIs:
Successful implementation of technological monitoring tools that can target specific segments. Producing more accurate and relevant results than GPT-3.5, the GPT-4 API has proven to be particularly effective in accomplishing this task.

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Business sector:
Automated Transcription and Translation Services

Automated Transcription and Translation with Whisper Large V3

Problem:
The need for an effective solution to automatically transcribe and translate the content of a conference, with a minimal error rate.

Solution:
Using Whisper Large-V3 to automate the transcription and translation of speeches at a conference. This technology provides semi-instantaneous transcription (3-4 seconds delay) and the ability to translate into various languages with high accuracy.

Results & KPIs:
Successful transcription and translation of over 8 hours of conference material with an error rate of less than 5%.

Additional Information:
This innovation represents a major advancement in the field of automated transcription and translation, offering extended possibilities for multilingual events and increased accessibility. Continuous improvement in performance as AI models evolve will reduce latency time and increase accuracy.

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#10 Use cases 2023

Business sector:
Digital Twin Technologies

Creation of Digital Twins

Problem:
Developing a digital twin capable of faithfully replicating a person's writing style and voice, using non-confidential data, for realistic and personalized interaction.

Solution:
Fine-tuning personal data and voice to create an AI avatar that mimics a specific person's writing style and voice. Combination of various technologies such as real-time transcription, voice synthesis, and contextual understanding.

Results & KPIs:
Creation of a digital avatar with a low error rate in replicating voice and writing style. These avatars provide immersive and personalized interaction, with extended capabilities for communication and action.

Additional Information:
This innovative approach paves the way for new possibilities in the field of personalized AI interactions. It offers a unique user experience and potential applications in various fields, including personal assistance and virtual representation.

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Business sector:
Digital Marketing and Advertising

Use of Generative AI Tools for Creating Marketing Content

Problem:
Producing high-quality and customized images for marketing, using advanced techniques to optimize visual renderings and meet specific business needs.

Solution:
Utilizing generative AI tools like Mid-Journey and DALL·E, leveraging different prompting techniques to optimize results. Each tool was evaluated for its specific advantages and disadvantages, to select the best solution for each marketing use case.

Results & KPIs:
Successful creation of innovative and attractive visual content for marketing campaigns, with customized renderings. These images have enhanced engagement and visual impact of marketing campaigns at a very low cost.

Additional Information:
This approach has opened new frontiers in digital content creation, offering increased flexibility and customization for businesses. The generated images can be adapted to various themes and styles, thus providing a versatile and dynamic solution for digital marketing.

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Problem:
Training employees on the necessary skills to develop and manage applications using LangChain, a framework for working with large language models (LLMs).

Solution:
Implementing a specific training program for LangChain, aimed at deepening the understanding of LLMs. LangChain is a tool or a suite of tools designed to facilitate the creation of complex applications using LLMs, focusing on advanced techniques such as combining and integrating different language models.

Results & KPIs:
Trained employees are capable of creating more sophisticated applications using LangChain and demonstrate a deeper understanding.

Additional Information:
This training program teaches how to go beyond simple prompts to fully exploit the potential of generative AI. To meet a school's request, a 48-hour course resulting from this training was created, with necessary adaptations, for Master's students and delivered during the 2023-2024 academic year.

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Business sector:
Training in AI Language Model Technologies

LangChain Skills Development and Training

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#13 Use cases 2023

Business sector:
Digital Marketing and SEO Optimization

SEO Optimization and Creation of Marketing Content

Problem:
Developing effective content and digital marketing strategies, including rewriting and optimizing content, while maintaining a human style to avoid penalties from search algorithms.

Solution:
Using generative AI tools to generate 30-day EEAT (Experience, Expertise, Authoritativeness, and Trustworthiness) content strategies, rewrite and optimize competing blogs, and improve keyword usage. Implementing a hybrid process combining AI and human intervention to maintain content quality and authenticity.

Results & KPIs:
Significant reduction in content writing time, with high-quality articles created in under 30 minutes. Improvement in scoring on tools like Yoast. Positive impact on SEO and online visibility, particularly in English.

Additional Information:
Although generative AI offers considerable advantages in terms of time and efficiency, the importance of a human control remains crucial to ensure content authenticity. Integrating human inputs reduces the appearance of AI-generated content and improves overall engagement.

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#14 Use cases 2023

Business sector:
Data Analysis and
Report Writing

Automation of Report Generation and API Integration

Problem:
Reducing report writing time by integrating data from different sources via APIs and automating their compilation and writing using generative AI.

Solution:
Using a generative AI, specifically GPT-4 128k, to automate report writing. Implementation of a tagging system to guide the AI in filling specific fields. Maintaining human supervision to ensure the accuracy and relevance of the generated reports.

Results & KPIs:
Significant optimization of report writing time, with a faster and more efficient process. GPT-4 128k's ability to handle segmented queries has improved the speed and quality of automated reports.

Thank you for your attention

Interested in Transforming Your Business?

Contact us:

ludovica@tw3partners.com

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Other informations:

Legal Name: Transition to Web3
Commercial Name: TW3 Partners
SIREN Number: 949 610 570
VAT Number: FR19 949 610 570
Registered Capital: €10,000
Address: 51 Rue Geoffroy St Hilaire,
75005 Paris, France
Legal Structure: SAS
Domain of Activity: Consulting in systems and software information technology
Website : www.tw3partners.fr
Email : arochet@tw3partners.com