TAVANT

UNLOCKING THE POWER OF AI FOR A DIGITAL CONTENT PLATFORM

How Tavant's AI-Driven Solutions Revolutionized Document Retrieval and Translation

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THE CLIENT AND THE CHALLENGE

A global leader in digital content sought AI-powered solutions to improve user experience and expand global accessibility. Users faced inefficiencies when manually searching through large documents, leading to frustration and decreased engagement. Additionally, managing millions of multilingual documents with third-party translation services was costly and lacked scalability. The client needed an AI-driven system for real-time document interaction and an in-house, scalable translation solution that preserved original formatting.

THE SOLUTION

Tavant implemented AI-driven solutions to enhance document interaction and streamline multilingual translation. By deploying a Retrieval-Augmented Generation (RAG) framework, users could engage with documents conversationally, improving efficiency and user experience. Additionally, an in-house translation system was developed to process large-scale multilingual content while preserving formatting, reducing costs, and enhancing global accessibility.

THE IMPACT

Tavant's solutions have transformed document interaction, boosting efficiency, engagement, and global reach. Users can now query documents conversationally, enhancing satisfaction and interaction time. The scalable translation system cut costs while expanding accessibility. Automation streamlined operations, reduced manual effort, and accelerated time-to-market for new features. As a result, user interactions, website views, and engagement soared. Stickiness improved with longer average interaction times and extended document view-time, enhancing platform performance and retention.

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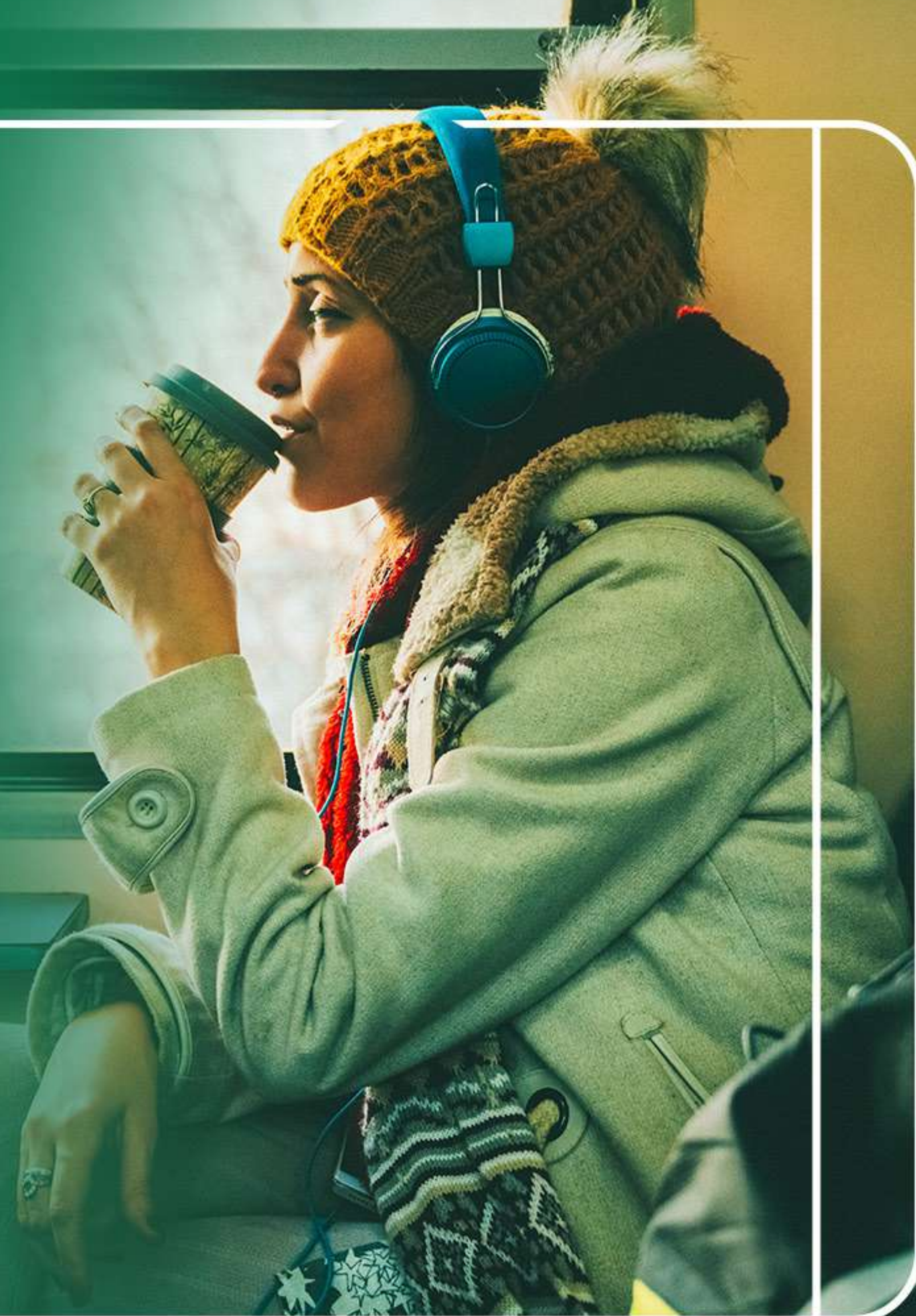
CONVERSATIONAL DOCUMENT INTERACTION
Enabled dynamic, real-time document querying through AI-powered retrieval.

▸ **TEXT EXTRACTION & PROCESSING**
Leveraged advanced libraries for clean content extraction.

▸ **CUSTOM CHUNKING ALGORITHM**
Developed a proprietary segmentation method to enhance contextual accuracy.

▸ **EMBEDDINGS GENERATION**
Fine-tuned models for efficient document representation and retrieval.

AI-DRIVEN DOCUMENT TRANSLATION
Built a scalable workflow to translate multilingual documents efficiently.

▸ **DOCUMENT DECOMPOSITION**
Converted documents into HTML/CSS while handling image text via OCR.

▸ **AI-POWERED TRANSLATION**
Used OpenAI's GPT-4o-mini for structured, high-quality translations.

▸ **ROLLING WINDOW CONTEXT**
Maintained coherence across pages for seamless readability.

▸ **CLOUD-OPTIMIZED STORAGE**
Leveraged AWS S3 with automated workflows for efficiency.