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**THE RIPPLE EFFECT**

Stories of purpose and lasting impact

# Accelerating GenAI innovation to embolden human imagination

Shutterstock transforms the creative process with emerging technologies for image generation and editing.

# DISRUPTION WAS A CATALYST FOR OPPORTUNITY

## THE SITUATION

Generative artificial intelligence (GenAI) was seemingly on every company's radar in early 2023 and the topic of countless conversations. Shutterstock had already engaged Deloitte Digital to conduct research into ways it could take its existing products to adjacent markets and unlock new growth opportunities, and GenAI soon became the conversation.

Artificial intelligence wasn't new for Shutterstock, which was already leveraging AI for visual search and other product features. But GenAI was different; it was already creating significant disruption across creative industries. Shutterstock leaders quickly realized that GenAI's potential may very well eclipse image search using AI, and they believed the rapidly evolving technology was here to stay, bringing many new opportunities for which Shutterstock could be at the forefront.

First, Shutterstock needed to better understand where the GenAI market was headed and identify opportunities where Shutterstock could meet that demand with existing assets and products and, potentially, with new ones. The company recognized an immediate need to develop GenAI-enabled capabilities for its core product offering, to empower creative customers with the latest tools. Shutterstock also wanted to explore how GenAI could inspire all new offerings that could help drive potential growth.

With the market moving so quickly, it was important not to contemplate but to act—and Shutterstock wasn't moving forward alone. The company partnered with Deloitte Digital to help accelerate development of new features and craft a business and tech strategy that could help optimize them.



## THE SOLVE



Deloitte Digital's first step was to build upon the initial market assessment. A strategy team conducted extensive interviews with Shutterstock stakeholders and surveyed current and potential customers for a better sense of the user groups a new product would be designed for and their evolving needs. Then, in collaboration with Shutterstock, the team prioritized opportunities based on fit, attractiveness, and feasibility.

Next, an engineering team began working with Shutterstock data scientists to build a user experience and interface that could enable customers to create AI-generated images and edit them using GenAI tools. It was a cross-business team that augmented Deloitte Digital resources with the breadth of Deloitte's organization.

The product was built with a range of capabilities, beginning with a search engine that could respond to a descriptive prompt—such as “Show me a kangaroo on a skateboard wearing a fedora”—by generating a picture that turns imagination into reality. These pictures are generated based on a library of images that Shutterstock legally owns or has rights to, enabling Shutterstock to provide its customers with certain legal protections for the use of these AI-generated images. To foster further creativity and iteration, Shutterstock partnered with Deloitte Digital to develop editing features that could transform the kangaroo's fedora into a beret or enable a user to “zoom out” and expand the image beyond its border to provide additional context, such as by placing the kangaroo in the middle of Paris. These GenAI tools helped shape an integrated experience designed for enhanced engagement with customers.

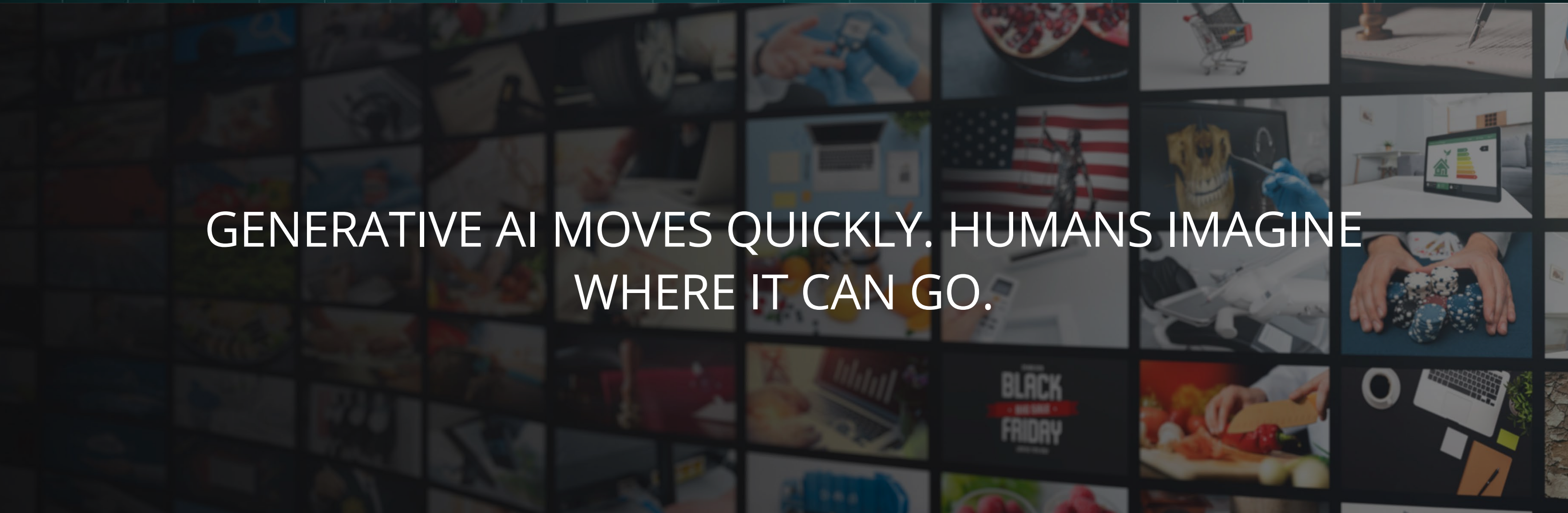
The creative AI product is expandable and able to integrate new features as they're developed and as the technology evolves. Deloitte Digital also collaborated with Shutterstock to explore additional capabilities that could continue to grow its relationship with customers, including the ability to draft text, such as marketing copy or social media posts, to accompany an image created through the platform. These are the early days of the market's GenAI-driven transformation, and the technology's potential is boundless—much like human imagination.

EVERY PICTURE TELLS A **MULTITUDE OF**  
**STORIES WITH GENERATIVE AI**

# THE IMPACT

By leveraging our ability to integrate a multitude of GenAI tools and our deep strategy capabilities, as well as create new product pathways to help increase engagement, first-time purchases, and recurring revenue, Shutterstock was able to bring its creative AI offering to market swiftly and effectively.

The pace at which Shutterstock has developed GenAI tools is competitive with pure-play technology companies. Beyond this, through our collaboration, Shutterstock was able to better understand how to position its current product and differentiate itself in the market.



GENERATIVE AI MOVES QUICKLY. HUMANS IMAGINE WHERE IT CAN GO.

# THE PEOPLE

Meet the team behind the work. Discover how their unique skills and collective efforts have created lasting impact.

## MARTINA'S CONTRIBUTION

As the Web Architecture Technology Lead, Martina was responsible for creating a unique tool that combines the cutting-edge capabilities of AI image generation with user-friendly image editing. Through her time at Deloitte Digital, she has developed a deep flexibility for adapting to new technologies and navigating new, unknown spaces.

In her day-to-day work, Martina mentors the engineers on her team, fostering an environment that helps breed creativity and technical excellence to drive advancements in GenAI.



## MARTINA PURCIELLO

Deloitte Consulting LLP  
Web Architecture  
Technology Lead

## RAJAN'S CONTRIBUTION

As the Data Science and Prompt Engineering Team Lead, Rajan utilized his experience in GenAI technology to help enable this project's success. Rajan and his team were responsible for creating the social media content generator that enabled platform-specific optimization and an intuitive interface that allows instant creation of social media posts.

This project, in particular, highlights Rajan's understanding in designing scalable solutions that provide intuitive and memorable experiences.



## RAJAN TIWARI

Deloitte Consulting India  
Private Limited  
Data Science and Prompt  
Engineering Team Lead



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