

## **Taking a GenAI Agent from Concept to Reality**

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Once again, AI has been all the buzz lately, with the launch of DeepSeek-R1, a much lower-cost generative AI model. But I want to step away from the buzz and come back to a topic we've been focusing on for a while: [how to use GenAI to shake loose powerful new growth](#) within a company.

A year ago, Christoph wrote [Transforming the Poetry of AI into the Prose of Business](#) and highlighted a video from CES 2024 announcing L'Oréal Paris Beauty Genius, a virtual assistant powered by GenAI that gives customers expert analysis of their needs, precise product recommendations, and personalized routines.

The platform, which BCG's [Nicolas de Bellefonds](#) and team helped to create, is an agent that combines ten different large language models and is optimized for speed, cost, and quality of interactions. Beauty Genius is trained on more than 6,000 images and 10,000 products, as well as in-store conversations between customers and L'Oréal's experts. It helps customers quickly sift through an increasingly complex range of products, ask questions they might be hesitant to ask in person, get expert advice about how to use products, and even apply makeup virtually to find the right look—connecting with multiple proprietary digital services that serve these needs.

### **The Learning Journey**

The work has taught us so much. For one, there's the need to look past the "magic" of this technology. You can actually create a roughly functioning conversational AI agent in a few hours, which just a few years ago would have been impossible. But engineering a powerful AI agent tool—an advisor with deep expertise that's reliable, practical, trustworthy, and reflects the company's values and relationships with its customers—is a major effort. It requires careful consideration of the complex architecture of different workflows and systems.

Another critical lesson is the need for high-quality data. An AI tool has no point of view of its own (at least not yet!), so it can only deliver the best answer based on the data it's been fed and how it's been trained. To deliver an effective beauty advisor that is easy to use, safe, reliable, and truly useful, the L'Oréal-BCG team had to structure the data—how it is accessed and interpreted—to best feed the algorithm and get the right output.

And even once we got there, L'Oréal knew, of course, that designing this platform was only the first step, as is the case for its physical products, too. Extensive testing and refinement helped create a market-ready offering for its diverse customer base—and avoided some of the negative experiences people have had with AI, whether predictive, generative, or agentic. So L'Oréal spent months getting Beauty Genius right, first by deeply involving its own employees in the testing and then through smaller external tests. Last week, the fully scaled rollout began.

## **Unlocking New Sources of Growth**

GenAI—and the business surrounding it—will keep evolving and the ways companies can use it to improve productivity will continue to expand. But we see the real value coming from both reshaping entire business functions, where the focus is on people, processes, and data platforms, and inventing completely new ways to build customer loyalty and lasting competitive advantage.

Beauty Genius is doing just that. L'Oréal Paris dove headfirst into the new technology to invent an offering that rethinks the customer experience, generates value creation, drives growth, builds new opportunities—and has become one of the first true success stories

of agentic AI. It has taken creativity and a readiness to test and learn along the way.

We should all embrace this mindset, looking for opportunities not just to use GenAI to improve the way work gets done but to drive growth. How do we prioritize and set out on our own Beauty Genius journeys?

Until next time,



**Rich Lesser**  
Global Chair

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## Further Insights



### Personalizing the Consumer Relationship with GenAI

L'Oréal teamed up with BCG to create Beauty Genius—an AI-powered virtual beauty assistant, available 24/7, that offers customized advice and recommendations.

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Here's how to cut through the noise to create a marketer-AI flywheel—a self-reinforcing loop that will revolutionize your marketing and supercharge ROI.

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Sharing insights from his research, BCG's Mark Abraham highlights a key mindset that can help companies boost their growth—and delight their customers—in today's era of AI.

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