

At L'Oréal,
**Global Beauty
Tech Services
Director Béatrice
Dautzenberg** is
leveraging hyper-
personalization
to create tailored
skincare, makeup,
and haircare
solutions while
promoting ethical
AI practices to
ensure the
brand remains

Cleverly Chic

BY **KATERIN LEFOLCALVEZ**

52 | IQ INSIGNIAM QUARTERLY | Spring 2025



insigniam.com/quarterly-magazine | IQ INSIGNIAM QUARTERLY 53

“In this world of unlimited choices, universality has given way to singularity and extreme personalization. **Consumers now expect beauty solutions that cater to their preferences, addressing their unique needs and desires.**”

—**Béatrice Dautzenberg**
Global Beauty Tech Services Director, L'Oréal Groupe

The future of beauty isn't just about looking great—it's about technology that *knows* you. Hyper-personalization has become the new frontier, and L'Oréal is leading the charge with AI-driven beauty solutions that don't just enhance appearances but redefine how we experience self-care.

At the helm of this revolution is Béatrice Dautzenberg, Global Director of Beauty Tech Services at L'Oréal Groupe, the powerhouse driving the fusion of cutting-edge tech with the art of beauty. Think AI-powered skin diagnostics, virtual try-ons that nail your perfect shade in seconds, and personalized beauty routines built just for you. From leveraging massive data sets to forging game-changing partnerships with tech giants, L'Oréal isn't just keeping up—it's setting the pace.

In this exclusive 1x1 with Insigniam Quarterly, Ms. Dautzenberg pulls back the curtain on how AI is transforming the beauty industry, what it takes to build truly inclusive and sustainable beauty tech, and why the next wave of innovation will be nothing short of revolutionary.

IQ: Why is hyper-personalization central to L'Oréal's long-term corporate strategy, and how has it served as a growth driver for L'Oréal thus far?

Ms. Dautzenberg: Tech has transformed the customer journey by multiplying the number of possible interactions with brands, thereby redefining points of communication, products and points of sale.

In this world of unlimited choices, universality has given way to singularity and extreme personalization, and the cosmetics industry is no less affected. Consumers now expect beauty solutions (products and services) that cater to their individual preferences, addressing their unique needs and desires.

Transitioning from 'beauty for all' to 'beauty for each,' at L'Oréal, we address the unique needs, expectations, and desires of each individual. We leverage our two powerful engines: Science and Technology, to create the most comprehensive and advanced beauty experiences.

In 2018, L'Oréal transitioned into a new era, introducing the term 'Beauty Tech', seizing the potential of new technologies to invent the beauty of the future – one that is more personalized, more inclusive, and more responsible.

IQ: Which hyper-personalization initiatives have been most effective in driving consumer engagement and loyalty? Where do you see the biggest opportunities for further growth?



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Ms. Dautzenberg: Beauty Tech is revolutionizing the consumer beauty journey with ultra personalization all the way from the hairdresser's chair to beauty points of sales or directly at home through online platforms, augmented beauty devices and mobile applications. We have created a range of offline and online tools and services to offer ultra personalized experiences across multiple categories, from haircare to skincare to make-up.

We also use AI to develop skin analytical tools that allow consumers to understand and diagnose the specific needs of their skin. This helps us recommend products tailored to their

individual needs. In 2024, we provided skin diagnosis and recommended beauty routines in-store in 56 countries through 7 of our brands, such as Lancôme, Prada and Kiehl's. This personalized service is boosting conversion rates with up to 70% of consumers purchasing products after the experience.

Furthermore, with AI we are able to personalize products based on the specific needs of each consumer. This can include customized formulations, skin- matching shades, and personalized product recommendations. For example, by identifying up to 22,000 different skin tones via a unique algorithm, Lancôme Shade Finder can recommend the ideal

Beauty Spot
Based on AI revolution and developed with leading dermatologists, L'Oréal's SPOTSCAN is a skin diagnostic tool for acne sufferers designed to amplify access to dermatology. Spotscan requires just 3 selfies to analyze and score imperfections, thanks to a bank of 6,000 photos of all ethnic skin types and based on a GEA (Global Acne Severity scale) scoring, recognized by dermatologists.



SHADE MATCH

High-Tech Foundation
L'Oréal subsidiary Lancôme's E-Shade Finder analyzes your unique skin tone in order to determine your perfect match. The tool analyzes your skin tone—using a selfie and AI—to match you with your ideal Lancôme foundation shade instantly.

shade match from within Lancôme foundation ranges, with up to 50 different shades available.

In total, in 2024, we provided more than 110 million uses of our Beauty Tech services across all platforms, in 66 countries and 33 brands.

IQ: In developing AI-driven personalization tools, how does L'Oréal address potential biases in AI models to ensure fair and accurate recommendations for all skin tones and types, for instance?

Ms. Dautzenberg: The group has worked to lay down a Responsible Framework for Trustworthy AI. One of its 7 principles includes “Non-Discrimination and Fairness”: L'Oréal seeks to ensure that its AI systems are inclusive of multiple dimensions of diversity. Alongside experts, L'Oréal actively works on the framework to reduce bias.

The group aims to avoid creating or reinforcing unfair bias in its AI systems by ensuring that data sets used by these systems are representative of the diverse populations with which it engages. By training our algorithms on inclusive

LANCÔME

data sets, as well as having experts actively working on our framework to reduce bias risk, the group commits to diversity and inclusion in AI development and deployment.

As an example, while working with Microsoft Teams and Maybelline New York to launch the beauty app that allows you to effortlessly choose a virtual make up powered by AI, to best express your personal style, we partnered with the Geena Davis Institute to make sure our solution was as inclusive as possible and would work with all skin tones.

IQ: How does L'Oréal leverage consumer data for AI-driven personalization while ensuring privacy protection and compliance with global data regulations?

Ms. Dautzenberg: Since the beginning of L'Oréal's journey into AI, data has been our driving force, with Data Governance teams playing a pivotal role in its strategic use. After over a century solely dedicated to beauty, we have the world's richest database with 14,500 terabytes of data concerning all aspects of beauty – from skin and hair knowledge to formulation science, and from beauty routines to connecting with our consumers across our 37 international brands across all beauty categories and channels. Data shared by consumers is one of a company's most valuable assets, and digital services are among the best quality data providers in a cookie-less world.

It is fundamental to earn consumers' trust by operating with the highest standards of ethics and transparency - particularly by developing inclusive, unbiased algorithms. We have what we call a virtuous data circle, allowing us to power formulation and innovation, and to elevate our beauty experiences.

IQ: What is the strategic rationale behind L'Oréal's commitment to corporate partnerships with technology companies and platforms? What objectives do these collaborations fulfill?

Ms. Dautzenberg: L'Oréal Groupe is diligently building strategic and exclusive partnerships to shape the future of beauty. These partnerships offer expertise that compliments the group's strengths.

From academia to startups, tech companies and giants, our partnerships are diverse and uniquely crafted. Co-creating with our partners makes open innovation the catalyst for creating unparalleled advancements and unprecedented innovations.

IQ: L'Oréal's collaboration with Meta focuses on hyper-personalization through generative AI. What have been the key outcomes of this partnership, and how has it impacted consumer engagement?

Ms. Dautzenberg: During VivaTech 2024, L'Oréal Groupe and Meta unveiled the New Codes of Beauty Creator Program to empower the next generation of 3D, AR, and AI creators and explore new creative frontiers in beauty.

This has led to more than 50 campaigns co-developed with artists using cutting-edge tech, resulting in over 100 million views across digital platforms for brands such as L'Oréal Paris, Lancôme and La Roche Posay.

IQ: With the launch of AI-powered tools like Beauty Genius and Lancôme's HAPTA, how is L'Oréal ensuring these innovations cater to diverse consumer needs and enhance the consumer experience?

Ms. Dautzenberg: Today, consumers have a hard time finding the right products, with over 70% overwhelmed by the number of choices available. They ask friends, search online, or watch videos to try and make sense of the sheer number of products on store shelves, often facing decision paralysis.

Furthermore, consumers have very personal questions they aren't comfortable discussing publicly, but don't get answers because they have no one to turn to.



BIO: Béatrice Dautzenberg
Global Director of Beauty Tech Services, L'Oréal Groupe

Béatrice Dautzenberg is the Global Director of Beauty Tech Services at L'Oréal Groupe, leading the integration of technology into beauty services to enhance personalization and consumer engagement.

With over 22 years at L'Oréal, Ms. Dautzenberg has held various leadership roles across countries including France, the UK, Australia, Belgium, and Canada. Her career encompasses positions such as Managing Director of L'Oréal Professional Products Division UK & Ireland and Director General of L'Oréal Professionnel Canada.

Ms. Dautzenberg holds a business and marketing degree, having studied in France and Spain. She is passionate about leveraging technology to transform collaboration and consumer experiences in the beauty industry.

“As brands use AI for personalization, they must ensure it’s unbiased, inclusive, & respects privacy. Ms. Dautzenberg profoundly understands both tech and human needs. She’s not just using AI to enhance beauty—she’s making sure it reflects the diverse consumers L’Oréal serves.”

—Katerin LeFolcalvez
Partner, Insigniam & Partner, Elixirr

To solve this, as the number one beauty brand in the world, L’Oréal Paris has launched Beauty Genius, a Gen AI-powered personal beauty assistant available 24/7 in our consumers’ pockets. Available on L’Oréal Paris’ website, Beauty Genius offers AI-powered diagnostics, virtual try-on, and personalized tutorials through a seamless, enjoyable user experience with a friendly tone, intuitive emojis, and interactive features.

We also decided to use tech to create inclusive beauty. Indeed, 1 out of 7 people worldwide live with a disability, including tens of millions who experience limited hand mobility due to accidents, cerebrovascular diseases, or Parkinson’s disease. We partnered with Verily – an Alphabet precision health company - which had developed a fork for individuals seeking autonomy, to create HAPTA by Lancôme

The world’s first AI-powered motion-stabilizing device for users with limited hand, wrist and arm mobility, adjusts movements in real-time using smart motion controls with 360-degree rotation and up to 70-degree flexion.

IQ: Looking ahead, which emerging technologies do you believe will further enhance L’Oréal’s ability to deliver hyper-personalized beauty solutions?

Ms. Dautzenberg: While GenAI focuses on creating original content (such as text, images, music, or code) based on human guidance, agentic AI represents the next wave in AI evolution, being action-oriented and capable of making decisions and acting autonomously with minimal human intervention.

In essence, while GenAI creates, agentic AI acts. At L’Oréal, Beauty Genius is a perfect illustration of agentic AI in action, showcasing how this new wave of AI can transform the beauty experience by combining autonomy with intelligence.

IQ: From your vantage point, how do you see hyper-personalization expanding beyond luxury into the mass market? From your perspective, how can it be scaled effectively while keeping costs under control?

Ms. Dautzenberg: In mass market, consumers do not have Beauty advisors to whom they can ask for advice or personalized recommendations, yet we know that 81% of consumers prefer companies with personalized shopping experiences. They are now seeking experiences that go beyond transactions: they are looking for enjoyable moments and practicality in their shopping. To meet these new expectations and stand out in the vast retail landscape, brands must be agile and constantly elevate the consumer experience.

For L’Oréal, augmented products are a direct response to a strong consumer demand for greater transparency as well as increased personalization. As we continue to champion Beauty Tech, our vision of augmented products goes beyond providing information; it opens new ways to connect with consumers through innovative digital services and personalized experiences.

We have already deployed this technology on nearly 1.8 billion products across our brands in 2024, but we are not stopping there. We are scaling across our portfolio in the coming years, and our goal in the long term is to equip with QR codes 100% of our eligible products (with product size above 20ml).

IQ: What lessons from hyper-personalization in the beauty industry could be applicable to other sectors? Are there insights from consumer-driven industries that could be relevant elsewhere?

Ms. Dautzenberg: We have entered the services economy. Consumers expect services and personalization in their daily lives. In an ocean of choices, they want to be guided, to access diagnostics and recommendations based on their needs. People like to do simulations with augmented reality before buying to be reassured. This quest for coaching is true for beauty and is relevant for many other industries.

What is key for companies when working on personalization is the quality

of the data, along with strong governance on AI and new technologies. Based on our ethical principles (Integrity, Respect, Courage and Transparency) we have established seven “Principles for Trustworthy AI.” By working with experts to define a framework that guides L’Oréal in the development, deployment, and use of AI systems. Those principles are:

- **Human Oversight:** To prevent over-reliance on algorithmic decision-making.
- **Safety and Reliability:** To ensure careful implementation of data sets and algorithms.
- **Privacy and Data Protection:** To provide consumers with appropriate information and control over their data.
- **Transparency and Explainability:** To inform consumers when and how they interact with AI systems.
- **Non-Discrimination and Fairness:** To represent all of the diverse populations with which we engage.
- **Accountability:** To guarantee risk-prevention and quality management systems.
- **Sustainable AI:** To leverage sustainable development commitments and monitor the environmental footprint of these systems.

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With L’Oréal beauty tech, new frontiers are opening. We are crafting beauty for each, more personalized, more inclusive and more responsible.

IQ: What excites you most about the future? Conversely, are there any challenges or constraints that keep you up at night?

Ms. Dautzenberg: We are now going one step further in personalized diagnosis, revolutionizing the projection of skin evolution for long-lasting, healthy skin. As an example, we partnered with Google Maps Platform, the Climate Tech company, to uncover insights around the impact of environmental exposure on skin. It allows us to gather anonymized, location-based data on environmental factors like air quality, UV exposure, and weather to better understand how they impact the health and appearance of skin. To keep leading in beauty we will continue to lead in beauty tech, designing the most personalized, high-performing and memorable beauty experiences for over a billion people across the globe. **IQ**

Tech for Good, Beauty For All.
First unveiled at CES 2023, HAPTA by Lancôme, a L’Oréal subsidiary, was designed to make beauty more inclusive for individuals with hand-motion disorders, arthritis, and mobility challenges. HAPTA uses advanced sensors and motion-stabilizing technology to keep the device level, constantly adjusting to the user’s position. It is also ergonomically designed, with an easy-grip handle specifically made for those with mobility conditions.