

# Machine learning builds bridges between heritage, fashion, past and the present

In 1951, Marimekko's founder Armi Ratia established the company around creative printmaking. Her legacy has resulted in a true treasure trove – the company's vast archive contains over 3,500 prints to date, and new prints add to this continuum of ambitious artwork each year.

In celebration of its 70 years of bold prints and colors, Marimekko launched Maripedia, an interactive online print library. It presents a fascinating peek behind the scenes of Marimekko's art of printmaking from the early 1950s to the 2020s. In the online library, design lovers can identify and explore Marimekko's vibrant prints, discover their designers, and enjoy the stories behind the patterns.

The service was a collective effort of Marimekko's design, marketing and ecommerce teams in collaboration with partner agencies. Thoughtworks designed and built Maripedia's pattern intelligence engine. The machine learning models we created match user-submitted photos to Marimekko's vast library of prints and bring forward fascinating stories and products for the same design.

## Interacting with 70 years of heritage

In the world of fashion, designs usually come and go from season to season. On the contrary, Marimekko's design philosophy is independent of changing trends and Maripedia is a celebration of 70 years of the brand's coveted and timeless designs. For loyal fans, Maripedia reveals the mystique and background of their favorite prints. For individuals new to the brand, it offers a unique way of engaging with a vibrant design house.

To learn more about a pattern, its designers and heritage, users can take a picture of a Marimekko product and upload it to Maripedia. The AI-powered image search feature analyzes the photo, compares it to the breadth of Marimekko's patterns, finds the closest match and brings forward fascinating stories and products for the same design.

*"Marimekko is defying boundaries in the fashion industry through ingenious imagery but is now also serving as an important bridge between the worlds of art, fashion, and technology."* - Elisa Oinonen, Head of Ecommerce development and UX, Marimekko

## Under the hood: Pattern intelligence

First, our challenge was to create a system that understands Marimekko's unique designs in a way that allows us to run operations on them - distance, clustering, similarity, feature extraction. Second, we needed to create a blazing-fast computer vision service that allows for users to take an image, extract the pattern information from that image and compare it across a broad selection of Marimekko's pattern base - all in less than a second, regardless of website traffic.

E-commerce interaction data has been used for quite some time for insights and customer understanding, but the pattern intelligence reveals the underlying trends for a fashion icon in the art of printmaking. It creates novel opportunities for not only captivating experiences but for product design, future portfolio planning and strategic marketing.

It also brings the customer closer. When we understand which patterns and design clusters customers engage with today, we get a glimpse of what they might be interested in tomorrow.

## Extraordinary impact delivered together

Together we achieved impressive business outcomes:

- 79,5% average basket size growth compared to customers who haven't used Maripedia
- 40,000 visits globally during the first month
- Foundations were laid for future computational creativity experiments

*"Our brand's core is the art of printmaking, and therefore it feels especially meaningful to invite our community to discover the fantastic complexity of our prints in this new, interactive way."* Minna Kemell-Kutvonen Design Director, Home & Print Design at Marimekko

To find out more, and learn how our team can help you, [talk to us](#) today.