

How loT and Al are Revolutionizing Mass Customization

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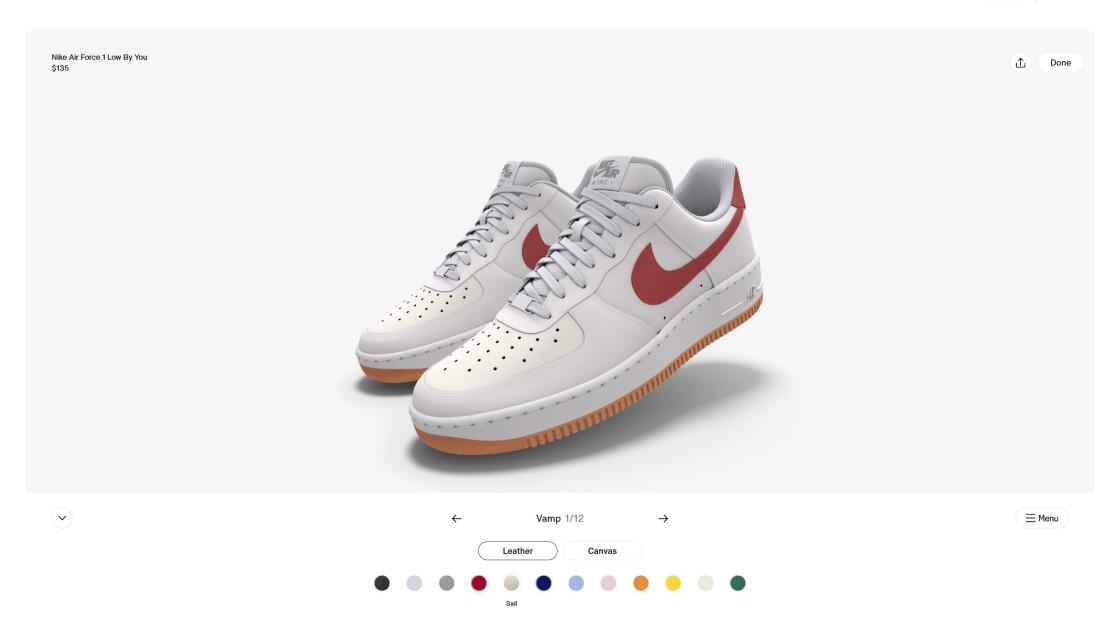
- 1. Traditional Mass Customization
- 2. Al: The New Frontier in Mass Customization
- 3. IoT: Connecting Devices for Personalized Experiences
- 4. Future Visions: The Next Wave of Customization



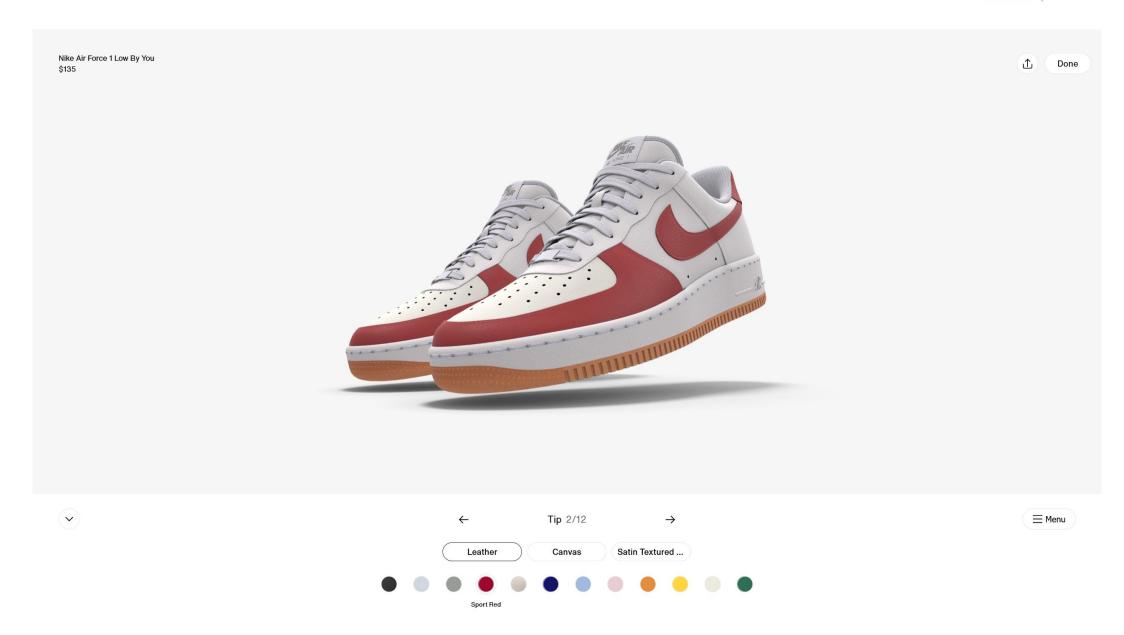


Traditional **Mass Customization** (MC) enables consumers to tailor a product to their individual needs and preferences through an interactive **online sales configurator**. Upon visiting a website, the user is guided through a **sequential process** where he can choose from various options to customize aspects such as color, material, and features. As the users makes his selections, the **product's appearance and sometimes its price are updated in real-time**, allowing the customer to visualize the customizations. This process leads to a tailored product that reflects the customer's unique choices, which he can then proceed to purchase through a checkout process.

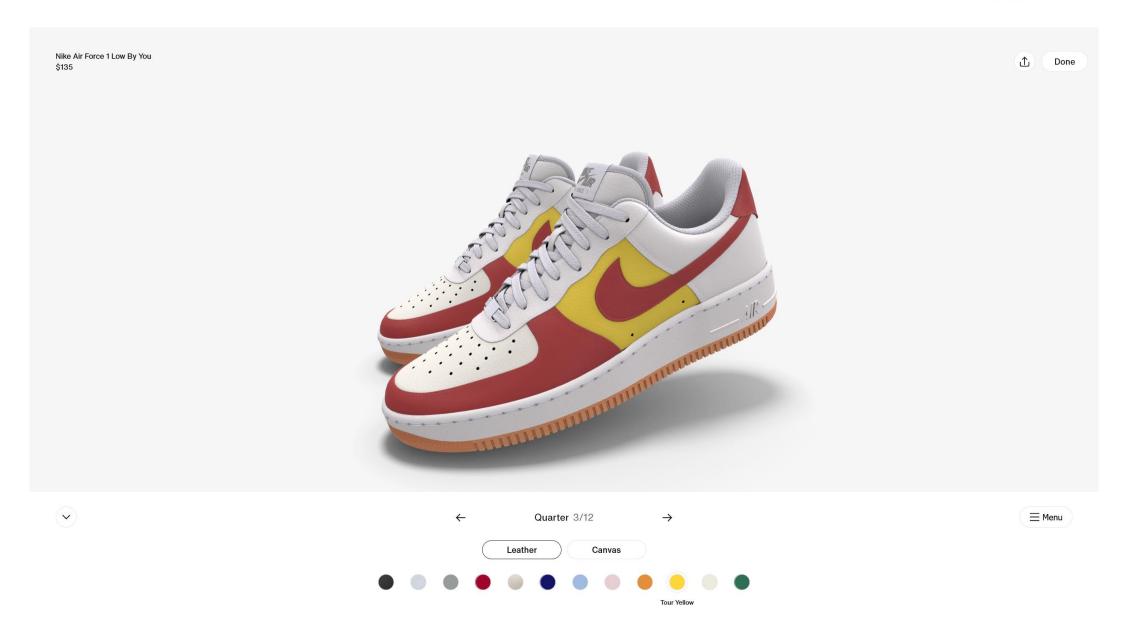




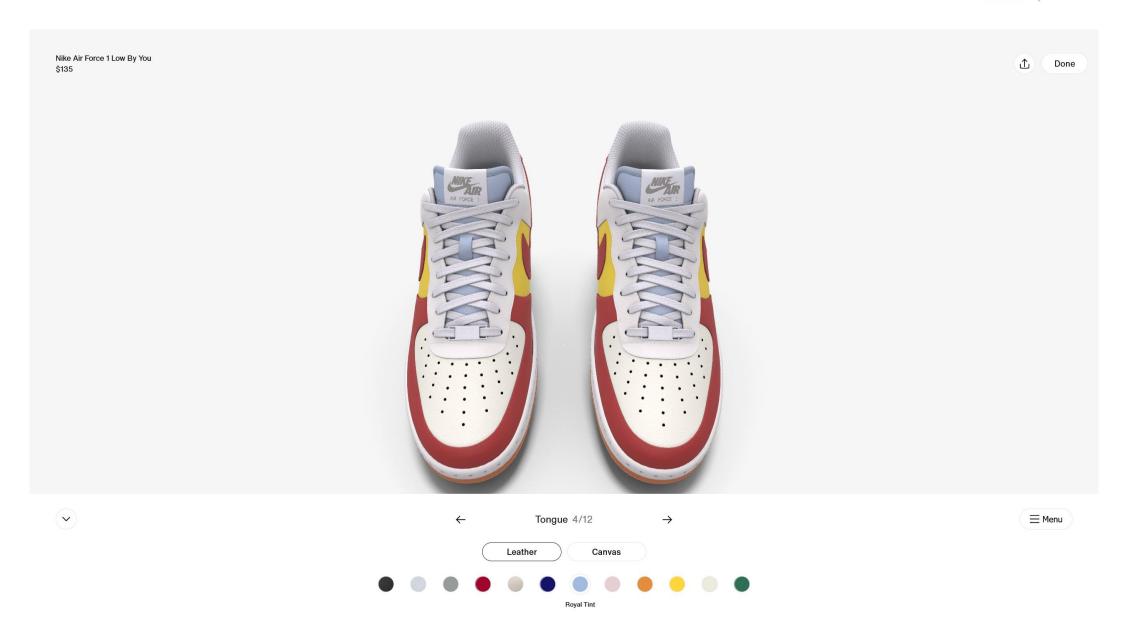




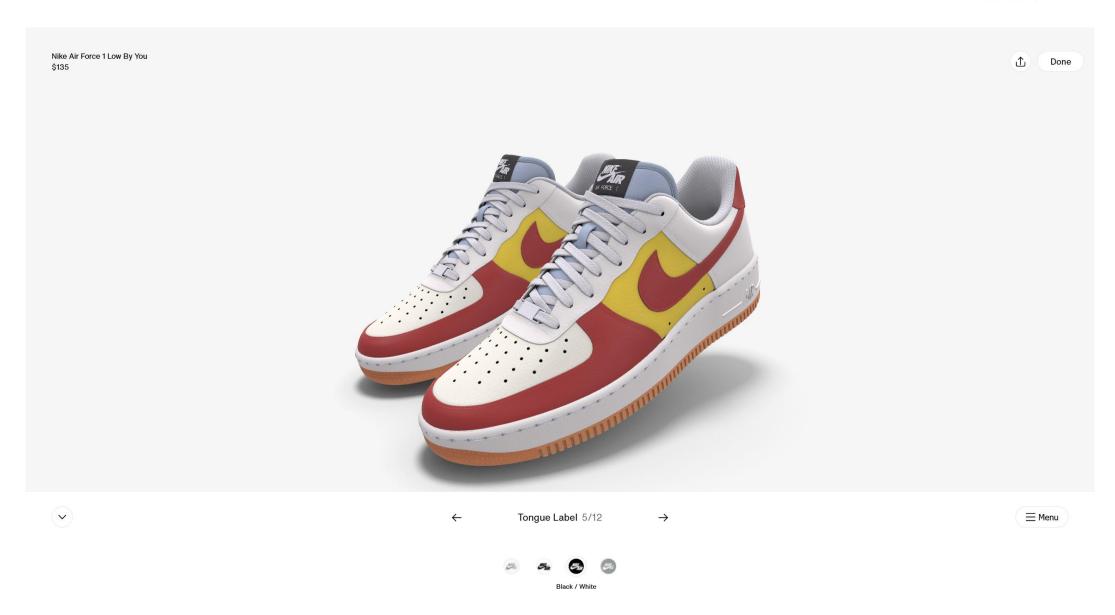




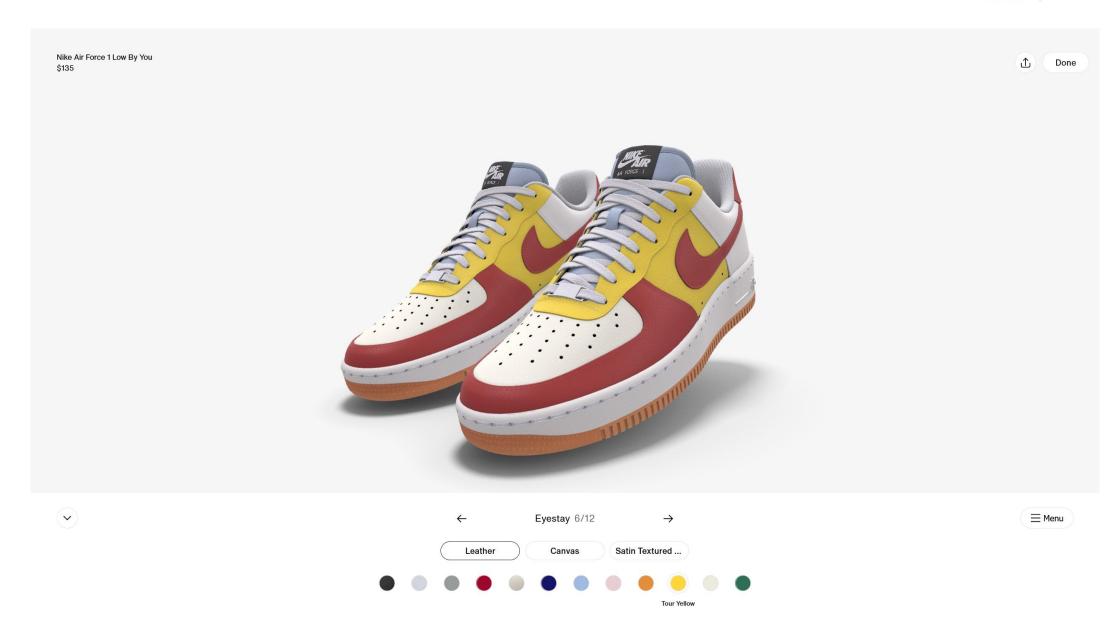




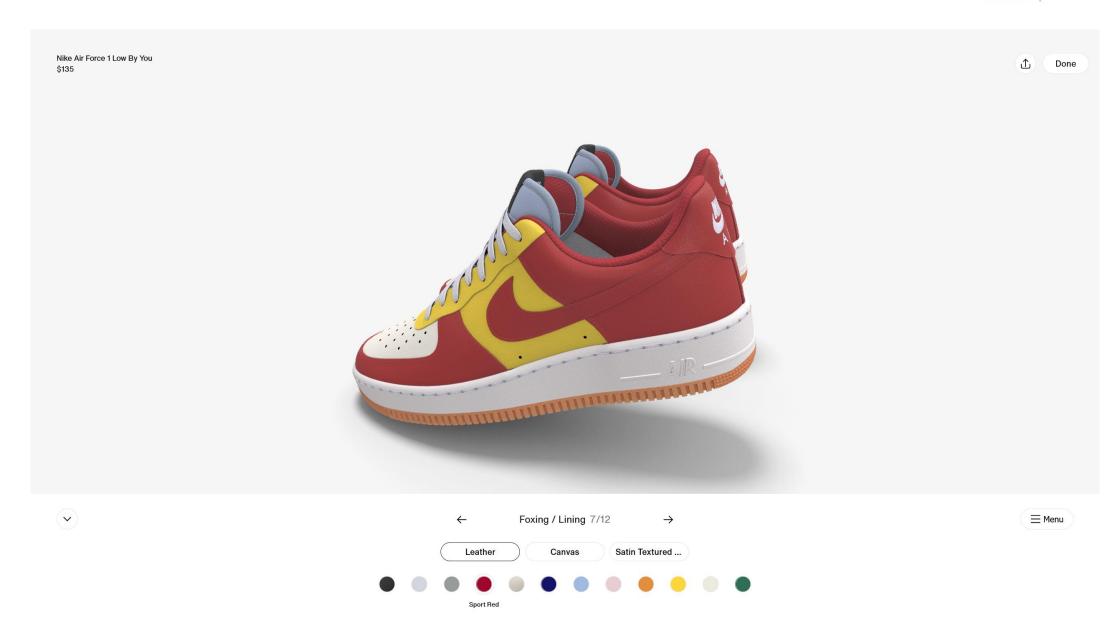




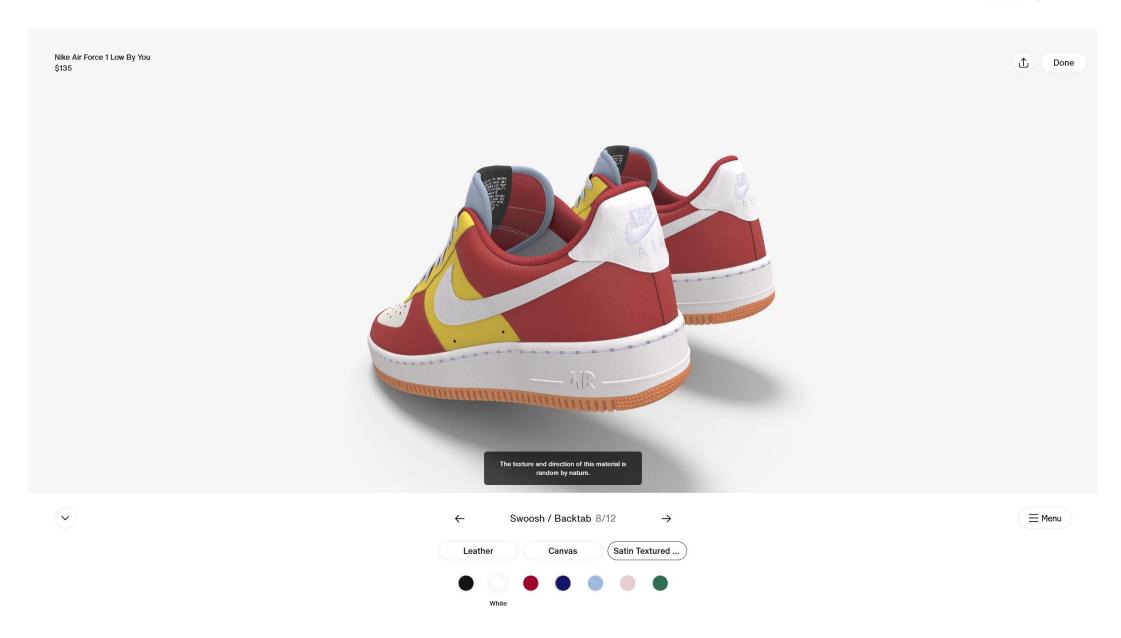




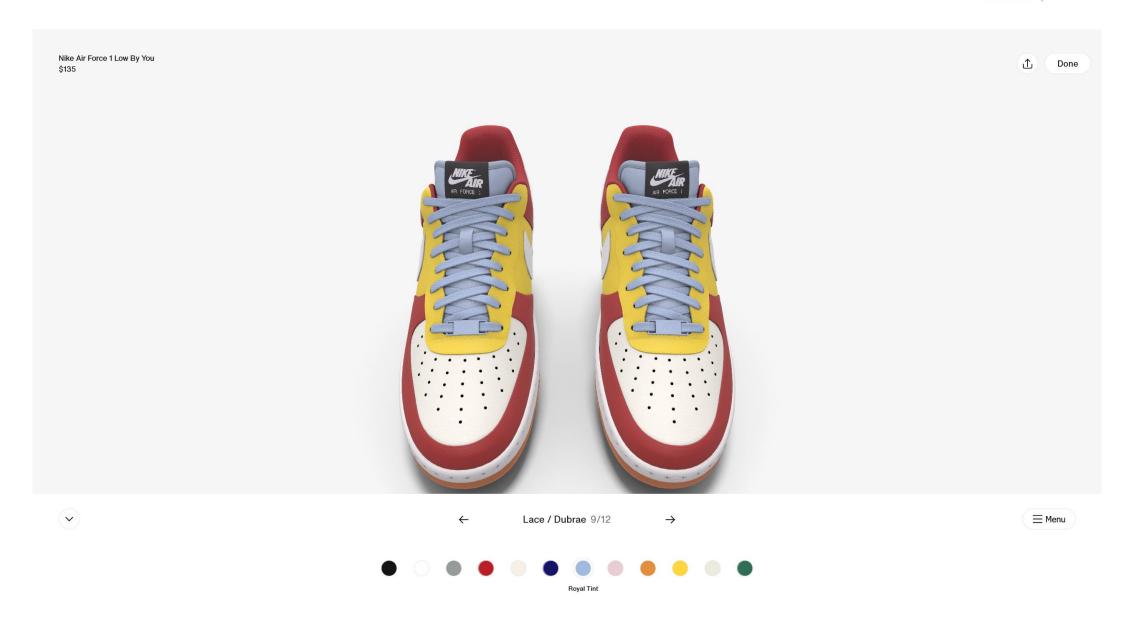




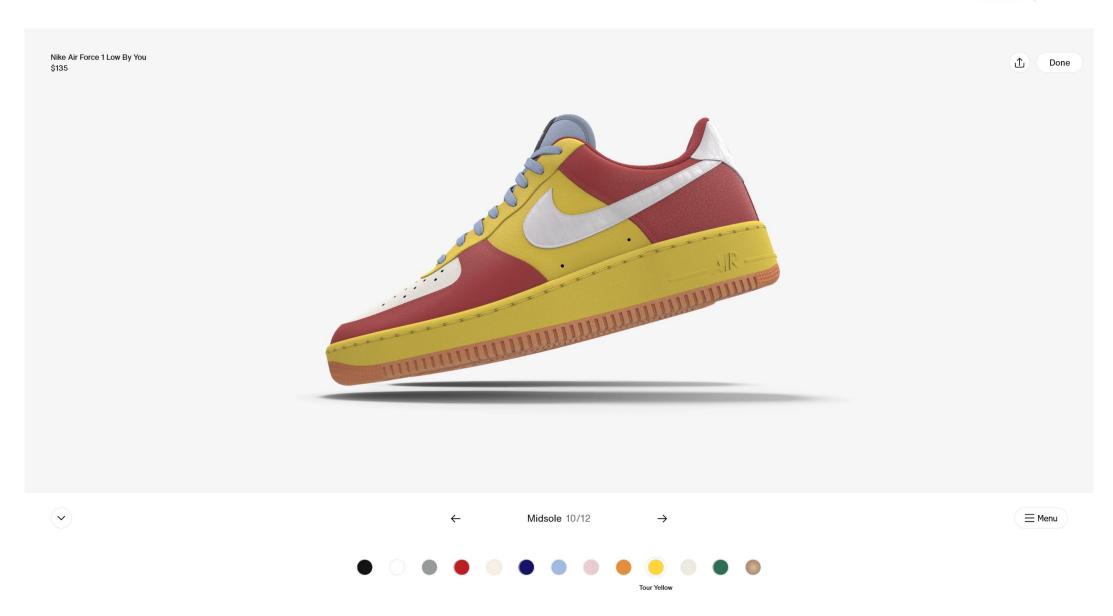




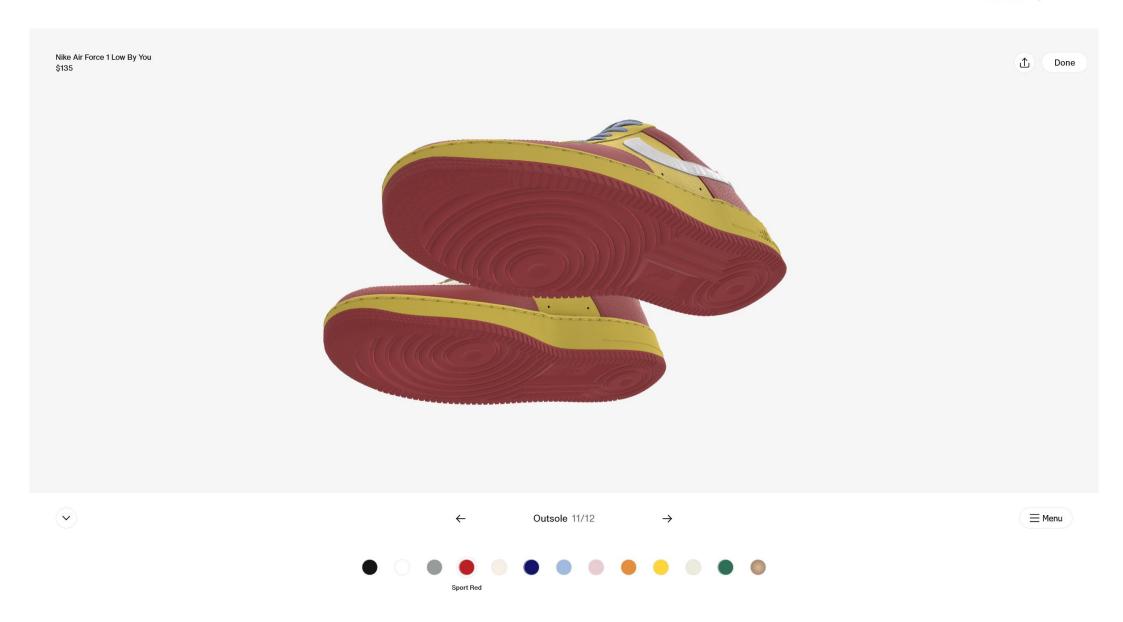




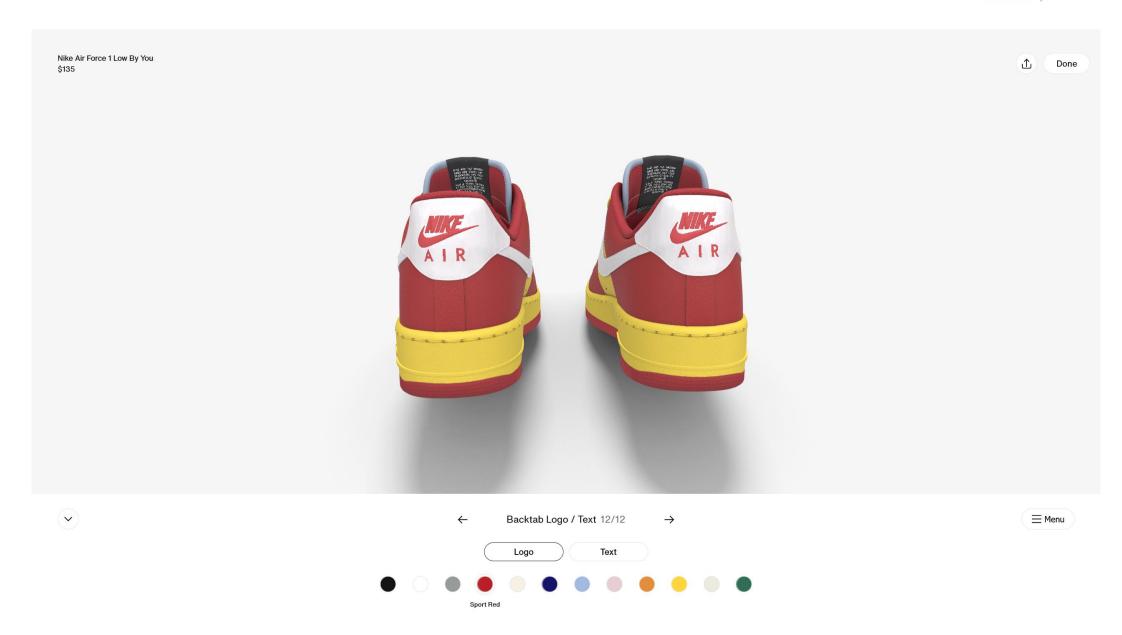






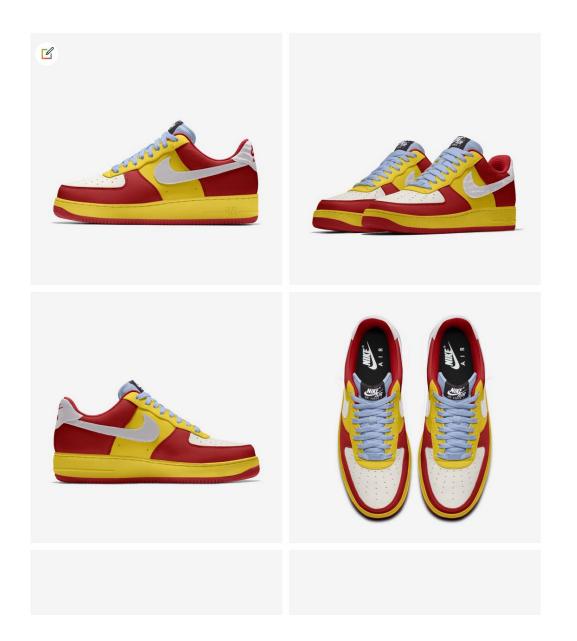






Example: Nike By You (Formerly Nike ID) Checkout





Member Product

Nike Air Force 1 Low By You Custom Shoes

\$135

Inspiration Your Designs



Select Gender

1.00	
Mens	Womens

Select Size

Size Guide

6	6.5	7	7.5	8
8.5	9	9.5	10	10.5
11	11.5	12	12.5	13
14	15	16	17	18

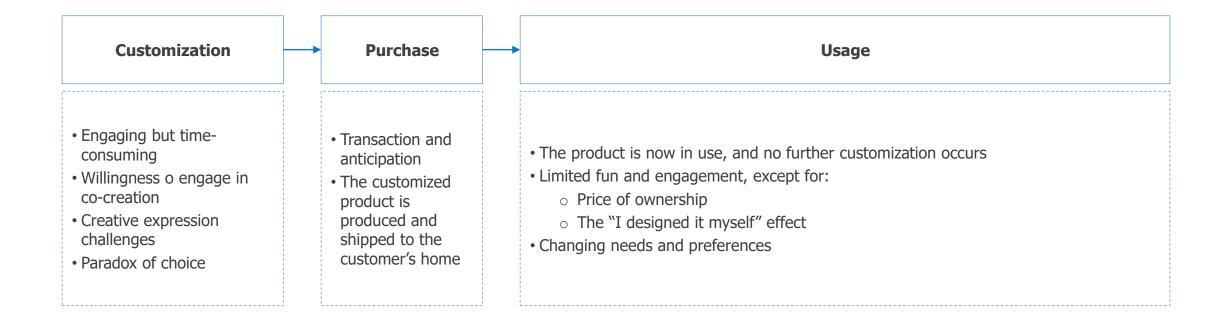
Customize 2

4 interest-free payments of \$33.75 with Klarna. <u>Learn More</u>

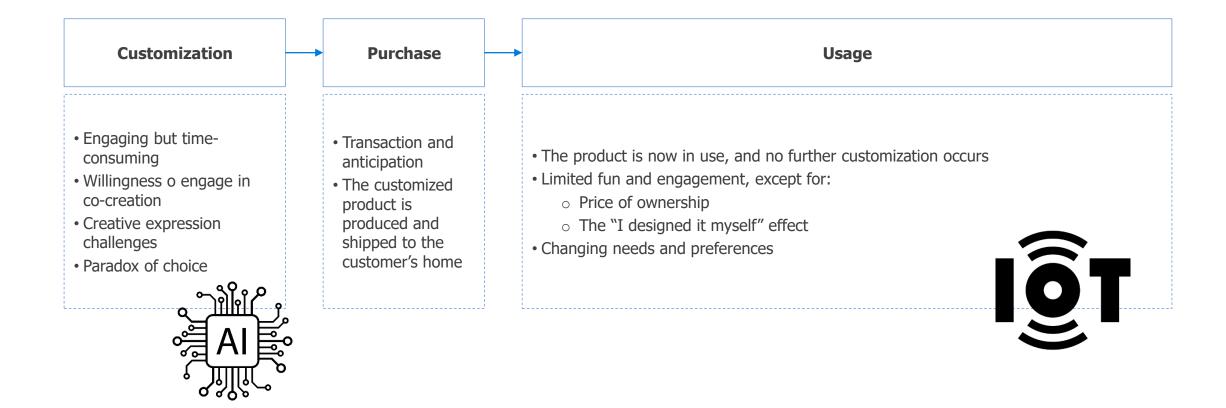
Sign In to Buy

This product is excluded from site promotions and discounts.











The integration of **Artificial Intelligence** (AI) into MC expands the traditional model significantly, allowing for a more intuitive and predictive approach to customer preferences. AI enables systems to learn from customer data, leading to **dynamic product and customization offerings** that are individual for each customer.



Examples of **Personalized Recommendations** in eCommerce

RECENTLY VIEWED AND RELATED ITEMS



Suspended-Neck Swing Dress for Women



Slim Ultimate Built-In Flex Chambray Shorts for Men (10")



Ultimate Slim Built-In Flex Linen-Blend Shorts for Men (10")



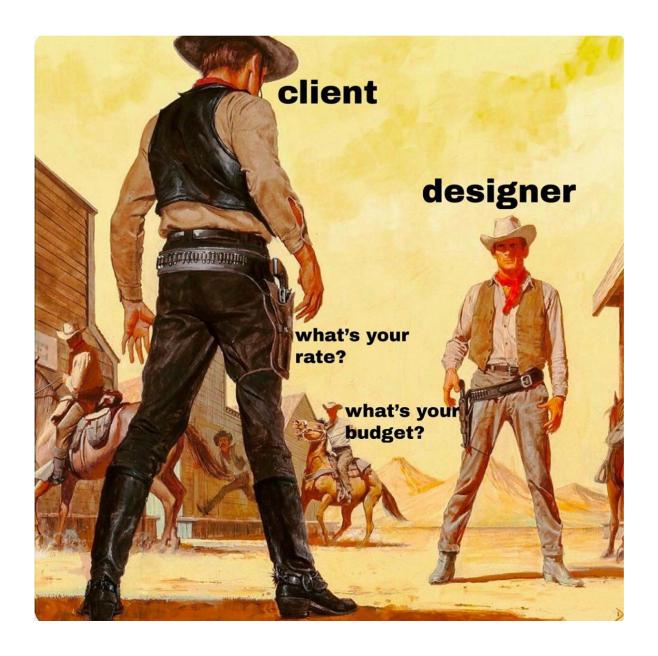
Linen-Blend Cargo Shorts for Men



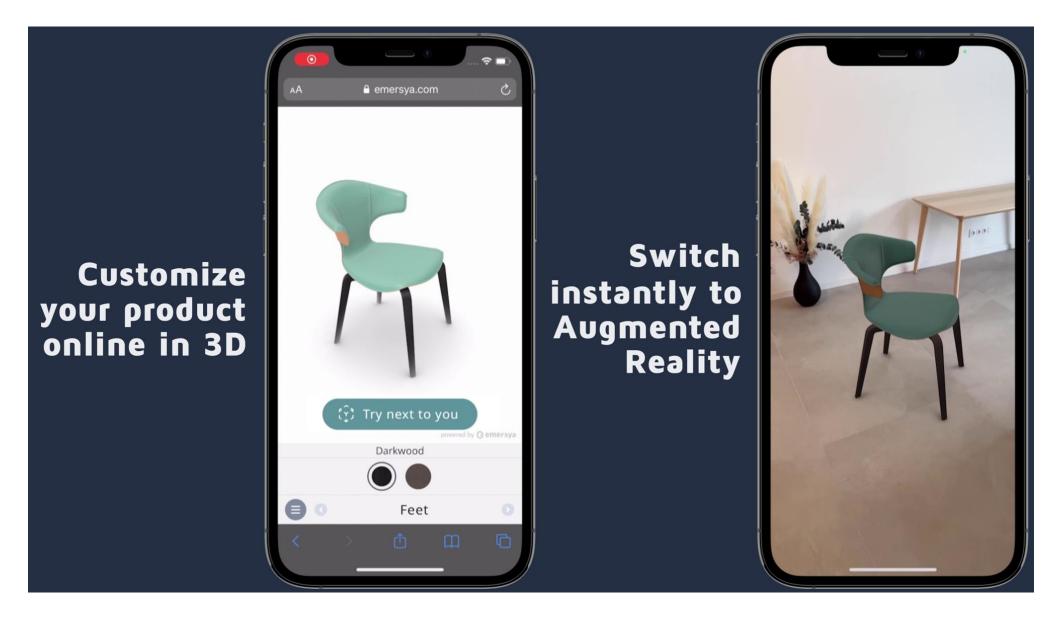
Broken-In Built-In Flex Ripstop Cargo Shorts for Men (10")

AI: Budget-Optimized Customization











The **Internet of Things** (IoT) has the potential to transform the traditional post-purchase phase of MC by **customizing the usage experience** based on the individual's immediate **context and needs**.

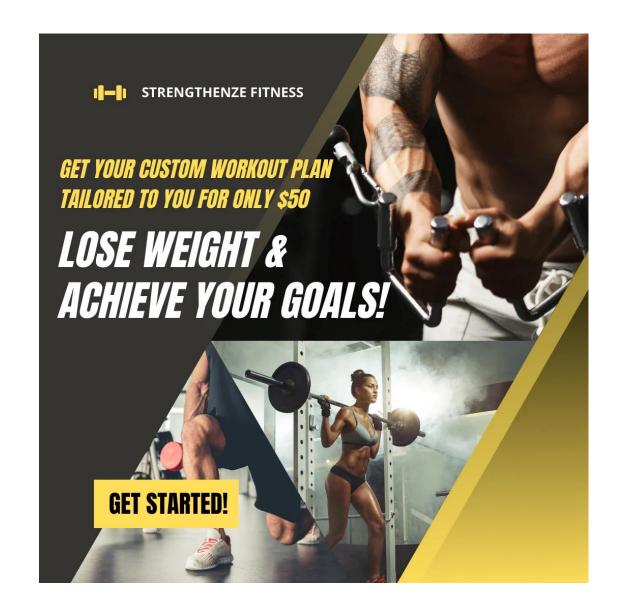
















A few examples of future technologies in MC include **smart fitting rooms** using augmented reality, **mood-based customization**, and AI-driven platforms that design products based on **social media activities** with limited user interaction.

Future Visions: Natural Language Processing (NLP) for Customization













Contacts

Prof. Dr. Thomas Aichner



Prof. Dr. Thomas Aichner currently serves as the Scientific Director of South Tyrol Business School. Before taking on this position, he spent three years as Assistant Professor at Alfaisal University in Riyadh, and two years as Associate Professor at John Cabot University in Rome. He holds a joint PhD in Management Engineering from the University of Padova and a Dr. rer. pol. in Business Administration with a focus on Marketing from Berlin's ESCP Business School, with the special mention of *Doctor Europaeus*. His research is primarily focused on country of origin, mass customization, digital management, and artificial intelligence.

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