Deloitte Insights

Disruptive technologies in consumer products

Powerful technologies and solutions can improve efficiency, increase profitability, and enhance customer experience.

BLOCKCHAIN
Increases transparency in tracking and monitoring products, information flow, services, and money

US$13.9B
Projected 2022 revenue

ARTIFICIAL INTELLIGENCE
Drives automation, innovation, decision-making, product personalization, and on-time services. Shipment volume of AI-embedded devices is expected to reach 1.2 billion by 2025.

US$190.61B
Projected 2025 revenue

DIGITAL REALITY
Creates more effective marketing campaigns, interactive product visualizations, virtual product experiences, and product personalization

US$55B
Projected 2021 revenue

CLOUD COMPUTING
Creates the enabling environment for rapid implementation of hardware, software, and disruptive technologies. Consumers benefit in the form of online shopping, blogging, and email

US$278.3B
Projected 2021 revenue

Illustrative use cases for businesses: Increase efficiency and profitability

Blockchain
- Improved traceability and visibility
- Efficient product recall and delivery
- Immutable and genuine financial transactions
- Better product development and innovation

Artificial Intelligence
- Augmented decision-making based on big data
- Real-time asset tracking or product authentication
- Enhanced product innovation, pricing, and demand forecasting
- Better brand reputation protection through social media monitoring
- Improved risk identification and mitigation

Digital Reality
- Enhanced marketing techniques
- Product testing via real-time data capture and analysis
- Interactive real-time trainings
- Virtual service and maintenance of equipment
- Better detection and elimination of bots in e-commerce

Cloud Computing
- Faster access to human resources, customer relationship management, IT, and vendor management operations
- Reduced recurring expenses on data warehousing and maintenance
- Deployment of connected products and ecosystems
- Smoother documentation and better transparency of blockchain solutions

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Illustrative use cases for consumers: Enhance customer experience

Blockchain
- Access to detailed product information
- Better payment and protection solutions
- Apposite after-care services and smart loyalty programs

Artificial Intelligence
- Improved customer experience and engagement with the brand
- Personalized products and online recommendations
- Improved asset tracking and timely service

Digital Reality
- Virtual engagement with products
- Personalized product suggestions
- Enhanced product transparency

Cloud Computing
- Increased data storage and analysis of personal data from a host of connected products
- Seamless access to online shopping and brand engagement

Overcoming the barriers to adoption

- Addressing challenges that hinder effective competition in a digital environment
- Upskilling existing talent with digital skills and developing digital leaders
- Driving innovations and decision-making with digital at the core
- Making digital systems and infrastructure a priority

What the consumer products industry could focus on:

- Realizing the collective value of integrating different disruptive technologies with an overall objective of gaining competitive advantage
- Allowing machines and skilled manpower to work together, harness data-driven insights, and create the desired impact

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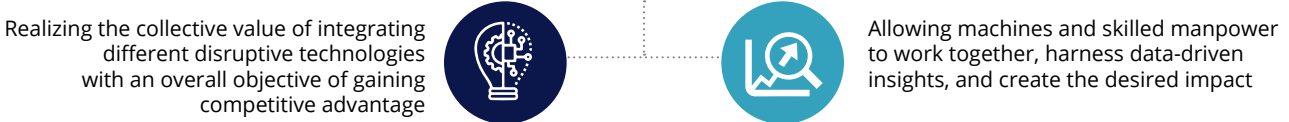
How disruptive technologies are transforming the personal and professional life of Sara, a supply chain executive

AT WORK
An AI-enabled dashboard provides updates on crucial indicators from the factory floor.

Automated bots manage the production process.

Meat produced at the factory is tagged using blockchain tags, allowing consumers to check origination and freshness details via QR readers.

Sara's team trains on factory safety using AR- and VR-based applications.

AT HOME
A humanoid robot cleans Sara's home and cooks her meals.

AR-enabled applications help try on cosmetics before purchasing them.

An AI- & IoT-enabled smart refrigerator suggests recipes, and reads out news and weather.

An AI-enabled smart toothbrush records brushing efficacy and helps improve dental regime.

Endnotes

1. GlobeNewswire, "Global blockchain technology market, 2022—market is expected to reach revenue of $13.96 billion," March 29, 2018.
2. MarketsandMarkets, "Artificial intelligence market worth US$190.61 billion by 2025," press release, accessed May 17, 2019.
3. ABI Research, "Hardware vendors will win big in meeting the demand for edge AI hardware," May 29, 2018.
4. PR Newswire, "Future of global digital reality market, forecast to 2021—VR application in the manufacturing sector is projected to increase by 98.9 percent between 2017 and 2021," September 21, 2018.
5. Gartner, "Gartner forecasts worldwide public cloud revenue to grow 17.3 percent in 2019," press release, September 12, 2018.