

Disruptive Technology

By Joe Mullen

What is it?

A disruptive technology is one that displaces an established technology and disrupts the existing market value of the industry.

It can also be a revolutionary product that creates an entirely *new* industry.

Where have we seen it?

- **The Personal Computer (PC)** – changed the way we work and communicate, and displaced the typewriter.
- **Email** – completely changed how we communicated and disrupted the postal service.
- **Cell Phones** – made it possible to call, and receive calls from anywhere, which disrupted the telecom industry.
- **Social Networking** – has had one of the biggest impacts on our lives and how we communicate, and has disrupted not only email, but also telephone, instant messaging and event planning.

Disruptive Tech On the Rise

- 3D Printing a house

<https://www.youtube.com/watch?v=GUdnrtnjT5Q>

Disruptive Tech On the Rise

3D Printing Could Become
Mainstream Within Five Years

Mainstream		E-mail 1996: Microsoft integrates Outlook into Office 97	Satellite Navigation 1998: Volkswagen Rabbit's introduced with onboard satellite navigation	MP3 2012: Sales of MP3 files overtake CD sales	3D Printer 2017: ?	
Acceleration		Satellite Navigation 1990: Pioneer introduces first GPS-based satellite navigation	E-mail 1994: First webmail account	MP3 2003: Apple introduces iTunes Music Store	3D Printer 2007: First 3D printer for home use enters the market	↑ -5-10 years
Launch	Satellite Navigation 1967: First civilian use of satellite navigation	E-mail 1971: Ray Tomlinson sends the first e-mail via ARPANET	MP3 1982: Development of MP3 encoding format begins	3D Printer 1986: First 3D printer introduced to market		↑ -20 years

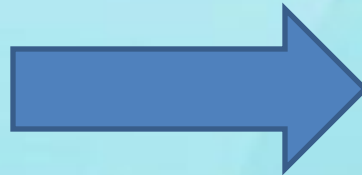
1960s-2000s

2010s

Source: BCG analysis.

Disruptive Tech On the Rise

- Meatless Meats – companies like [Impossible Foods](#), [Beyond Meat](#), and [Memphis Meats](#) strive to create a meat alternative that not only looks like, but also feels, smells, and tastes like real meat.



The Factory of the Future

- The use of technology in factories has not only increased productivity, but has also increased efficiency and has made the factory floor a much safer place to work.
- Consumers are now able to personalize their purchases at no additional cost to the manufacturer, thanks to 3D printing.

The Factory of the Future

- This all sounds positive until you consider the effect it will have on jobs.
- While manufacturers won't replace their entire human workforce, the people who are left employed will need to be skilled in engineering and data analytics, to work alongside this new technology.

Sources

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