

## 12.4: Technology's Influence on Business

### Learning Objectives

- Explain how technology changes business.

Not since the Industrial Revolution and the introduction of the assembly line has business undergone such rapid change as it has since the birth of the Internet. The technological revolution of the last 20 years has fundamentally changed the ways the businesses do business with each other, their customers, their suppliers and business partners. How customers discover a business's products, goods and services is no longer bounded by geography. People on Main Street U.S.A. can shop the globe for goods and services that meet their needs at a price they are willing to pay. Think about the last thing you purchased. Count the ways that technology impacted your purchase.

In order to get an idea of how business is impacted by technology, let's follow Jim as he goes to a local retailer and purchases a dishwasher.

### Buying A DishWasher

Jim decides to purchase a new dishwasher, but before he heads out to the store he sits in his recliner and searches the Internet for dishwashers. He reads customer reviews and narrows his selection to 2 different models. He then goes to the websites of the companies that manufacture the two dishwashers and looks at the specifications, reads the warranty information and watches videos of people installing the dishwasher. While he is watching one of the videos a small box pops up and offers "live chat" with a customer service representative of Brand X.

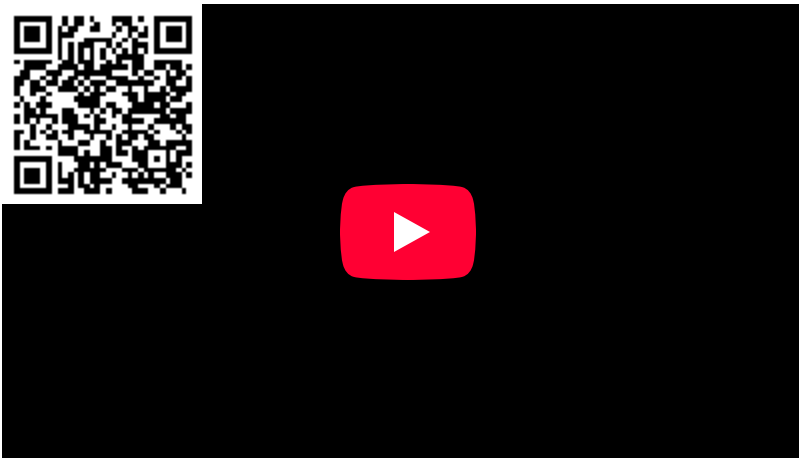
He then goes to the website of the 3 local retailers that carry the dishwasher he wants and compares prices. He also checks to see if the dishwasher is in stock. He is on the website of Store A and while he is checking for the dishwasher an ad pops up and offers a 10 percent discount if he downloads and uses Store A's app. He grabs his phone, downloads the app and logs back into the store website. Through the magic of "cookies" the information from his laptop appears on his phone and he continues shopping. With his decision made he completes the purchase online, using a verified secured server and pays for the dishwasher with his debit card.

Almost at the same time that he hits the "confirm order" button on his phone the inventory level at Store A is adjusted to reflect Jim's purchase. Since the dishwasher Jim has just purchased only leaves 1 in stock, Jim's order triggers the store to request another dishwasher from its regional warehouse using real-time electronic data interchange. Before Jim can arrive at the store to pick up his new dishwasher, a replacement has been identified and robotic stock picking equipment is delivering it to the loading dock where it will be loaded onto a truck and delivered to Store A by 10am the next day.

Jim gets home with his new dishwasher and gets it installed thanks to the video provided by the manufacturer. He goes online and "registers" his purchase, providing his email address. Over the course of the next 6 months Jim will receive emails from the manufacturer of the dishwasher that range from a survey of customer satisfaction to an offer to purchase an extended warranty. He will also begin to see advertisements for other kitchen appliances, related products and "offers" from Store A and their competitors.

So, from the start everything about Jim's purchase is touched by technology. We haven't even talked about how the dishwasher was designed using CAD/CAM software, how computer integrated manufacturing produced the dishwasher or how the component parts of the dishwasher were made using robots and computerized machinery. As we said at the start of the Module —technology has revolutionized the way that business does business.

For an example of the future of technology and business, look at Amazon's latest venture – "Amazon Go." **Amazon Go** is a chain of grocery stores operated by the online retailer Amazon, currently with three locations in Seattle, Washington, two in Chicago, Illinois and one in San Francisco, California. The stores are partially-automated, with customers able to purchase products without being checked out by a cashier or using a self-checkout station. The first store, located in the company's Day 1 building, opened to employees on December 5, 2016, and to the public on January 22, 2018. The flagship store has prepared foods, meal kits, limited groceries, and liquor available for purchase. The video that follows will give you some insight into how Amazon is using technology to totally transform the shopping experience. (Note that the video has no narration. Access audio description by using the widget below the video.)



You can view the [text alternative for “Inside the First Amazon Go Store”](#) [here](#) (opens in new window).

In summary, consider the following ways that technology has changed business<sup>[1]</sup>.

1. **Mobile Solutions.** With the rise of Generation Y (Millennials) more people are using mobile devices to buy, sell, shop, find local businesses, and share their retail experiences with friends, acquaintances, prospects, and Facebook strangers every day.
2. **Cloud Computing.** Cloud computing allows businesses large and small to move some of their operation to third-party servers accessible via Internet connectivity. Not only does this allow for rapid (on-demand) data and mobility it does so without the fear of downtime, crashes, or permanently lost data.
3. **Extreme Customer Segmentation.** With the flow of more and more data, it’s easier now than ever before to understand the customers you’re looking for. Even a simple Google account will let you know where your visitors are from, what type of browser they’re using, how they found your website, what they do while on it, how long they stay, and at which point they decided to leave.
4. **Connectivity.** Technology has also increased the ease with which we can all stay in touch. Whether it’s having your coworkers and employees available via text/video chat at a moment’s notice, or being able to send targeted promotional email blasts to pre-qualified customers when they’re shopping at nearby businesses, the rise of mobile technology has blended almost seamlessly with communication software to create a hyper-real web of real time information.
5. **Social Impact.** The rise of social networking has figuratively shrunk the world and now users can connect without regard to geographical obstacle, financial background, or even social status. Indeed, years ago you may have been able to skate by on “okay” customer service and product offerings but now you’ll likely incur a hateful rant on Facebook or a bad review on rating sites like Yelp.

Businesses are forced to ride the wave of technology or risk going the way of Blockbuster, Toy ‘R Us, Radio Shack or Sears. The reality of business today is that technology will continue to force them to adapt and adopt or risk extinction.

#### ? Practice Question

<https://assessments.lumenlearning.co...essments/11094>

1. Broberg, Orrin. "Eight Ways Technology Is Changing Business." Modus. December 5, 2013. Accessed June 25, 2019. <https://gomodus.com/eight-ways-technology-changing-business/>. ↩

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