

33.8: Business Data

Learning Objectives

- Describe the different types of data businesses collect

Information flows in and out of a business in many different directions. The type of data a business collects is informed by a business's goals and objectives. Computing systems can collect a dizzying array of data about the world around us. Businesses must decide what type of data they need to inform their business decisions and where and how that data can be collected. The types of data that businesses collect can be broken down into five broad categories: business process, physical world observations, biological data, public data and personal data. Let's examine each of these categories of data in greater detail.

Business Process Data. In order to remain competitive businesses must find ways to increase efficiency while maintaining quality standards for their products, goods and services. In order to continuously improve their operations, businesses collect data regarding their business processes. This data can range from collecting data on the number of days it takes their customers to pay invoices to the time it takes to assemble and package a product. In order to collect this type of data, many businesses employ enterprise resource planning systems. ERP systems track business resources—cash, raw materials, production capacity—and the status of business commitments: orders, purchase orders, and payroll. The applications that make up the system share data across various departments (manufacturing, purchasing, sales, accounting, etc.) that provide the data.

Another source of process data is Point of Sale (POS) systems. We are all familiar with these – they are the systems that scan the barcodes on our purchases when we check out at the grocery store. When a cashier scans the barcode on an item that scan collects data that may be used in inventory management, loyalty programs, supplier records, bookkeeping, issuing of purchase orders, quotations and stock transfers, sales reporting and in some cases networking to distribution centers. The more data a business has about its processes the more likely it will find opportunities to improve or enhance those processes.

Physical-world observations. Technology has made it possible for business to capture real-time data about the physical world. This data is collected by the use of devices such as radio frequency identification (RFID), wireless remote cameras, GPS, sensor technology and wireless access points. By inserting computer chips into almost any object companies are able to track the movements of that item and in some cases control the object. One of the early adopters of such technology was the On-Star system installed in millions of U.S. automobiles. Through the use of a combination of RFID, GPS and satellites if car owners inadvertently locked their keys in the car they can make one call to On-Star and the doors to their vehicle would be unlocked.

In another application of RFID technology, Delta Airlines sends passengers real-time information about the location of their checked baggage. In 2016 Delta began sending fliers who check bags mobile notifications as bags are loaded onto and off of airplanes and when they arrive at carousels for pickup. By embedding RFID chips in each luggage tag, Delta has achieved an eye-popping 99.9% tracking success rate, according to the company. “In the same way that customers want information at their fingertips about flight changes, we know our customers want clear visibility to their checked bags,” says Tim Mapes, Delta's chief marketing officer^[1].

Biological Data. If you have a newer smartphone, then you may be able to unlock your phone by simply looking at the screen. This is made possible by facial recognition software. Unlocking your laptop with your fingerprint is another example of biological data available to businesses. Although things like voice and face recognition, retinal scans and biometric signatures are currently used primarily for security purposes, it may be possible in the future for this type of data to allow for product and service customization.

Public Data. Businesses have an almost endless source of data available to them free from public sources. Whenever you log onto the Internet, use instant messaging, or send emails, an electronic footprint is left behind. For now this data is considered to be “public” and businesses collect, share and even sell this type of data every day. This has become a very controversial topic in the past several years and recent legislation by the EU regarding this type of data may be the first step in limiting the collection and use of this type of public data. For additional information on this groundbreaking legislation follow this link to the European Commission: [European Commission and Data Protection](https://ec.europa.eu/commission/presscorner/detail/en/ip_18_1111)

Personal Data. Much like data that is considered to be “public” data, as we use technology we provide a wealth of personal data that businesses can use to reveal much about our personal preferences, habits, pastimes, likes and dislikes. For example, Facebook uses information people provide — such as their age, gender and interests — to target ads to a specific audience. Advertisers tell Facebook which demographics they want to reach, and then the social media giant places the ads on related accounts. How businesses collect and use this data is also highly controversial as exemplified by recent disclosures that Facebook has been

collecting and selling personal information gathered from subscribers' activities on the social network. Much like the controversy surrounding publicly available data, what rights an individual has to his or her data is currently being debated globally.

The volume of data available to businesses continues to increase exponentially and as more and more data becomes available collecting, storing and analyzing that data becomes increasingly complex. This data explosion has made data warehousing and data mining of greater importance to businesses.

? Practice Question

<https://assessments.lumenlearning.co...essments/11097>

1. Kang, Ashton. "Delta Introduces Innovative Baggage Tracking Process." Delta News Hub. April 28, 2016. Accessed June 25, 2019. <https://news.delta.com/delta-introduces-innovative-baggage-tracking-process-0>. ↵

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