

12.18: Putting It Together- Using Technology to Manage Business Information

Summary

In this module you learned about the roles of data and information technology in business operations. Following is a summary of the key points we covered.

Data vs. Information

Technology has made it easy for businesses to gather facts about their customers and business operations. However, data are just facts and figures in their raw form. It's not until the data are processed—i.e., converted into information—that businesses can use them to improve their operations.

Managing Data

Being able to collect data is central to most businesses; however, all that data needs to be stored somewhere so users can retrieve it and use it. The creation of databases—virtual warehouses where data is stored—allows businesses to take the first step in managing and using data. Since the creation of “cloud computing,” businesses have been able to store their data offsite but still access it from anywhere in the world. Businesses mine data in order to find valuable patterns and answers to questions.

Information in Networks

In order to make the greatest use of data, it must be shared. In business this means that data collected by marketing needs to be shared with other departments—finance, production, research, and development—via networks. Again, this is where businesses must make decisions about the best way to share data: through internal networks (LANS), wide-area networks, (WANS) or the cloud. Each has its own set of advantages and disadvantages.

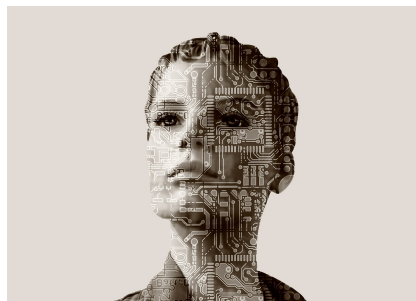
Ethical and Social Issues

Who owns your information? This question is at the heart of many of the ethical and social issues that arise when businesses collect data. The debate about how best to balance the benefits of information technology with the costs to personal privacy has led to a new field of study called technoethics.

Information Security and Cybersecurity

With big data comes big responsibility. This responsibility is about keeping customer and employee data safe from the threat of cyber criminals and illicit users. Large data security breaches have become more prevalent in recent years, and businesses are constantly working to find better and more effective ways to protect their data.

Synthesis



Each of us can be represented by hundreds of data points about our daily activities, our likes and dislikes, shopping habits, income, zip code, mobile phone use, age, gender, marital status, and so on—the list is nearly endless. We are in many respects the sum of the data collected about us. How businesses use that information will continue to evolve as technology changes. It's clear, though, that collecting, storing, managing, and using our data are vital components of virtually all business operations. The issues associated with the use of data and information technology are evolving just as quickly. Society now finds itself torn between the benefits that data can provide and the toll it takes on individual privacy. Most people believe that the organizations collecting our data have a responsibility to protect it against unauthorized access and use. Regardless of whether you pursue a career in business or not, the topics you learned about in this module will apply to you as a citizen, an employee, and an individual. As technology

and data collection methods become ever more sophisticated and complex, the burden is on all of us—consumers and businesses alike—to devise effective ways of managing and controlling them.

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