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Concepts  
& Office

# Technology for Success

## Microsoft<sup>®</sup> 365 & Office 2021

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## Microsoft<sup>®</sup> 365<sup>®</sup> & Office 2021



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The  
**Shelly  
Cashman**  
Series<sup>®</sup>

Concepts  
& Office

# Technology for Success

Microsoft<sup>®</sup> 365<sup>®</sup> &  
Office 2021

# Getting to Know Microsoft Office Versions

Cengage is proud to bring you the next edition of Microsoft Office. This edition was designed to provide a robust learning experience that is not dependent upon a specific version of Office.

Microsoft supports several versions of Office:

- **Office 365:** A cloud-based subscription service that delivers Microsoft's most up-to-date, feature-rich, modern productivity tools direct to your device. There are variations of Office 365 for business, educational, and personal use. Office 365 offers extra online storage and cloud-connected features, as well as updates with the latest features, fixes, and security updates.
- **Office 2021:** Microsoft's "on-premises" version of the Office apps, available for both PCs and Macs, offered as a static, one-time purchase and outside of the subscription model.
- **Office Online:** A free, simplified version of Office web applications (Word, Excel, PowerPoint, and OneNote) that facilitates creating and editing files collaboratively.

Office 365 (the subscription model) and Office 2021 (the one-time purchase model) had only slight differences between them at the time this content was developed. Over time, Office 365's cloud interface will continuously update, offering new application features and functions, while Office 2021 will remain static. Therefore, your onscreen experience may differ from what you see in this product. For example, the more advanced features and functionalities covered in this product may not be available in Office Online or may have updated from what you see in Office 2021.

For more information on the differences between Office 365, Office 2021, and Office Online, please visit the Microsoft Support site.

Cengage is committed to providing high-quality learning solutions for you to gain the knowledge and skills that will empower you throughout your educational and professional careers.

Thank you for using our product, and we look forward to exploring the future of Microsoft Office with you!



# Using SAM Projects and Textbook Projects

SAM Projects allow you to actively apply the skills you learned live in Microsoft Word, Excel, PowerPoint, or Access. Become a more productive student and use these skills throughout your career.

## **To complete SAM Textbook Projects, please follow these steps:**

SAM Textbook Projects allow you to complete a project as you follow along with the steps in the textbook. As you read the module, look for icons that indicate when you should download **sam** ↓ your SAM Start file(s) and when to upload **sam** ↑ the final project file to SAM for grading.

Everything you need to complete this project is provided within SAM. You can launch the eBook directly from SAM, which will allow you to take notes, highlight, and create a custom study guide, or you can use a print textbook or your mobile app. Download IOS or Download Android.

To get started, launch your SAM Project assignment from SAM, MindTap, or a link within your LMS.

### **Step 1: Download Files**

- Click the “Download All” button or the individual links to download your **Start File** and **Support File(s)** (when available). You must use the SAM Start file.
- Click the Instructions link to launch the eBook (or use the print textbook or mobile app).
- Disregard any steps in the textbook that ask you to create a new file or to use a file from a location outside of SAM.
- Look for the SAM Download icon **sam** ↓ to begin working with your start file.
- Follow the module’s step-by-step instructions until you reach the SAM Upload icon **sam** ↑.
- Save and close the file.

## Step 2: Save Work to SAM

- Ensure you rename your project file to match the Expected File Name.
- Upload your in-progress or completed file to SAM. You can download the file to continue working or submit it for grading in the next step.

## Step 3: Submit for Grading

- Upload the completed file to SAM for immediate feedback and to view the available Reports.
  - The **Graded Summary Report** provides a detailed list of project steps, your score, and feedback to aid you in revising and re-submitting the project.
  - The **Study Guide Report** provides your score for each project step and links to the associated training and textbook pages.
- If additional attempts are allowed, use your reports to assist with revising and resubmitting your project.
- To re-submit the project, download the file saved in step 2.
- Edit, save, and close the file, then re-upload and submit it again.

### For all other SAM Projects, please follow these steps:

To get started, launch your SAM Project assignment from SAM, MindTap, or a link within your LMS.

## Step 1: Download Files

- Click the “Download All” button or the individual links to download your **Instruction File**, **Start File**, and **Support File(s)** (when available). You must use the SAM Start file.
- Open the Instruction file and follow the step-by-step instructions. Ensure you rename your project file to match the Expected File Name (change \_1 to \_2 at the end of the file name).

## Step 2: Save Work to SAM

- Upload your in-progress or completed file to SAM. You can download the file to continue working or submit it for grading in the next step.



### Step 3: Submit for Grading

- Upload the completed file to SAM for immediate feedback and to view available Reports.
  - The **Graded Summary Report** provides a detailed list of project steps, your score, and feedback to aid you in revising and resubmitting the project.
  - The **Study Guide Report** provides your score for each project step and links to the associated training and textbook pages.
- If additional attempts are allowed, use your reports to assist with revising and resubmitting your project.
- To re-submit the project, download the file saved in step 2.
- Edit, save, and close the file, then re-upload and submit it again.

For additional tips to successfully complete your SAM Projects, please view our Common Student Errors Infographic.





# Introduction to Technology for Success: Computer Concepts

You probably use technology dozens of times a day on your phone, computer, and other digital devices to keep in touch with friends and family, research and complete school assignments, shop, and entertain yourself. Even though you use technology every day, understanding how that technology works and how it can work for you will give you the edge you want as you pursue your education and career.

*Technology for Success: Computer Concepts* will explain the What, Why, and How of technology as it relates to your life, so you can unlock the door to success in the workplace, at home, and at school. It also provides increased skills and safety with the digital devices you use. *Technology for Success: Computer Concepts* will help you master the computer concepts you need to impress at your dream job interview in this age of digital transformation.

## Key Features

Based on extensive research and feedback from students today, it has been found that students absorb information more easily if the topics are broken down into smaller lessons that are clearly related to their lives. With this in mind, and to ensure a deeper understanding of technology in the real world, *Technology for Success: Computer Concepts* uses the following approach to helping you understand and apply its contents:

- **Headings** distill key takeaways to help learners understand the big picture and serve as the building blocks of the module designed to help you achieve mastery.
- **Review Questions** help you test your understanding of each topic.
- **Discussion Questions** and **Critical Thinking Activities** help you apply your understanding of the module to the real world.
- **Key Terms** list highlights terms you should know to master the module content.

## Digital Learning Experience

The online learning experience includes hands-on trainings, videos that cover the more difficult concepts, and critical thinking challenges that encourage you to problem-solve in a real-world scenario. *Technology for Success: Computer Concepts* is designed to help you build foundational knowledge and integrate it into your daily life with interactive experiences in the MindTap and SAM platforms.

- **Readings** cover focused, concrete content designed to reinforce learning objectives.
- **Videos** complement the reading to reinforce the most difficult concepts.
- **Critical Thinking Challenges** place you in real-world scenarios to practice your problem-solving and decision-making skills.
- **SAM Trainings** are comprised of brief, skills-based videos which are each followed by an assessment. SAM trainings are designed to give you concrete experience with specific technology skills.
- **Module Exams** assess your understanding of how the learning objectives connect and build on one another.
- **In The News RSS Feeds** share the latest technology news to help you understand its impact on our daily lives, the economy, and society. RSS Feeds are currently only available to MindTap users.

# Impact of Digital Technology

MODULE

1



Fatima looks her best for her profile picture.

By submitting her resume online Fatima is practicing green computing.

Fatima has connected her professional social media account to both her laptop and smartphone.

KimSongsak/Shutterstock.com

**Fatima Aktar is finishing her degree in social media marketing. During her time at school she has learned about how to use technology for productivity, and specifically how to use technology in social media marketing. Fatima recently visited her school's career counseling center and received a list of tips to use technology to find an entry-level job in her field. She will use the technology with which she is familiar to search for openings, research the companies, schedule and keep track of interviews, and create a professional online presence.**

In This Module

- Explain the evolution of society's reliance on technology
- Explain the role of technology in the professional world
- Develop personal uses for technology to help with productivity, learning, and future growth

● **IN THE COURSE** of a day you might use technology to complete assignments, watch a streaming video, flip through news headlines, search for directions, make a dinner reservation, or buy something online. At school, at home, and at work, technology plays a vital role in your activities.

In this module, you will learn how technology has developed over time, explore the ways technology impacts our daily home and work lives, and discover how to choose and prepare for a career in technology.

## Explain Society's Reliance on Technology

Over the last quarter century, technology has revolutionized our lives. Because of advances in technology you can more quickly and effectively than ever before access, search for, and share information. You can manage your finances, calendars, and tasks. You can play games and watch videos on your phone or computer for entertainment and relaxation. **Digital literacy** (also called **computer literacy**) involves having a current knowledge and understanding of computers, mobile devices, the web, and related technologies. Being digitally literate is essential for acquiring a job, using and contributing to global communications, and participating effectively in the international community.

A **computer** is an electronic device, operating under the control of instructions stored in its own memory, that can accept data, process the data to produce information, and store the information for future use. **Data** is raw facts, such as text or numbers. A computer includes hardware and software. **Hardware** is the device itself and its components, such as wires, cases, switches, and electronic circuits. **Software** consists of the programs and apps that instruct the computer to perform tasks. Software processes data into meaningful **information**.

## Outline the History of Computers

People have relied on tools and machines to count and manipulate numbers for thousands of years. These tools and technologies have evolved from the abacus in ancient times, to the first computing machines in the nineteenth century, to today's powerful handheld devices such as smartphones and tablets.

The first generation of computers used **vacuum tubes** (**Figure 1-1**), cylindrical glass tubes that controlled the flow of electrons. The ENIAC and UNIVAC are examples of these expensive machines. Their use and availability were limited due to their large size, the amount of power they consumed, the heat they generated, and how quickly they wore out.

The next generation of computers replaced vacuum tubes with **transistors**, which were smaller, cheaper, and more reliable. These computers contained many components still in use today, including tape and disk storage, memory, operating systems, and stored programs.

In the 1960s, computer engineers developed **integrated circuits**, which packed the equivalent of thousands of vacuum tubes or transistors into a silicon chip about the size of your thumb. In 1971, Ted Hoff and a team of engineers at Intel and IBM introduced the microprocessor. A **microprocessor** is the “brains” of a computer, a chip that contains a central processing unit. Microprocessors were even faster, smaller, and less expensive than integrated circuits. Today, microprocessors are often called processors for short.

**Figure 1-1:** Electronic digital computer with vacuum tubes



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In the 1970s and 1980s, computers meant for personal use started to gain popularity. In 1978, Steve Jobs and Steve Wozniak of Apple Computer Corporation introduced the Apple II (Figure 1-2), a preassembled computer with color graphics and popular spreadsheet software called VisiCalc.

IBM followed Apple's lead in 1981, introducing its **personal computer (PC)**. Other manufacturers also started making similar machines, and the market grew. Since 1981, the number of PCs in use has grown to the billions. However, many people today use tablets and smartphones in addition to or instead of PCs.

Today's computers have evolved into connected devices that can share data using the Internet or wireless networks. They are smaller, faster, and have far greater capabilities than previous computers. In fact, your smartphone probably has more computing power than the computer that guided the Apollo mission to the moon in 1969!

Figure 1-2: Apple II computer



## Explain the Impact of the Internet of Things and Embedded Computers

The **Internet of Things (IoT)** is an environment where processors are embedded in every product imaginable (things), and these things communicate with one another via the Internet or wireless networks. Alarm clocks, coffeemakers, thermostats, streetlights, navigation systems, and much more are enhanced by the growth of IoT. IoT-enabled devices often are referred to as **smart devices** (Figure 1-3) because of their ability to communicate, locate, and predict. Smart devices often have associated apps to control and interact with them.

Figure 1-3: Smart devices use IoT to control home functions, such as a thermostat



The basic premise of IoT is that objects can be tagged, tracked, and monitored through a local network or across the Internet. Communication technologies such as Bluetooth, RFID tags, near-field communications (NFC), and sensors have become readily available, more powerful, and less expensive. Sensors and tags can transmit data to a server on the Internet over a wireless network at frequent intervals for analysis and storage.

Developments in Big Data have made it possible to efficiently access, store, and process the mountain of data reported by sensors. Mobile service providers offer connectivity to a variety of devices so that transmitting and receiving data can take place quickly.

An **embedded computer** is a computer that functions as one component in a larger product, and which has a specific purpose. Embedded computers usually are small and have limited hardware on their own but enhance the capabilities of everyday devices. Embedded computers perform a specific function based on the requirements of the product in which they reside. For example, an embedded computer in a printer monitors the ink levels, detects paper jams, and determines if the printer is out of paper.

Embedded computers are everywhere. This technology enables computers and devices to connect with one another over the Internet using IoT. You encounter examples of embedded computers multiple times a day, perhaps without being aware of it.

Today's vehicles have many embedded computers. These enable you to use a camera to guide you when backing up, warn you if a vehicle or object is in your blind spot, or alert you to unsafe road conditions. Recently, all new cars were required to include backup cameras and electronic stability control, which can assist with steering the car in case of skidding. All of this technology is intended to make driving safer (**Figure 1-4**).

**Figure 1-4:** Some of the embedded computers designed to improve safety, security, and performance in today's vehicles

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Critics of in-vehicle technology claim that it can provide drivers with a false sense of security. If you rely on a sensor while backing up, parking, or changing lanes, you may miss other obstructions that can cause a crash. Reliance on electronic stability control may cause you to drive faster than conditions allow, or to pay less attention to the distance between your vehicle and others.

## ATMs and Kiosks

Automated teller machines (ATMs) are one of the more familiar uses of IoT. You can use your ATM card to withdraw cash, deposit checks, and interact with your bank accounts. Recent innovations are improving card security, such as **chip-and-pin technology** that stores data on an embedded chip instead of a magnetic stripe.

ATMs are a type of kiosk. A **kiosk** is a freestanding booth usually placed in a public area that can contain a display device used to show information to the public or event attendees.