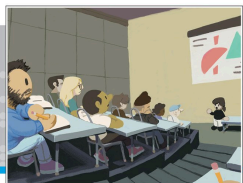# Chapter 8 Technology Skills

Mary Shier

Mary Shier

**Student Success**
An Invaluable Resource for
College and University Students

collection.bccampus.ca    BCcampus OpenEd

This resource is a chapter from the book, *Student Success: An Invaluable Resource for College and University Students* by Mary Shier, published by BCcampus Open Education, illustrated by Gordon Shier.

Note that page numbers reflect the page numbers in the full textbook.

The full text can be found at **opentextbc.ca/studentsuccess**, where it can be read online, downloaded, printed, or ordered.

**Sample APA-style citation**:

This textbook can be referenced. In APA citation style, it would appear as follows:

# Introduction

Technology skills are essential skills, whether for going to school, being in the workforce, volunteering for an organization, or just communicating with your loved ones and friends. The use of computers has become the standard for finding information, sharing information, registering for things, ordering things, making appointments, and shopping.

Technology is definitely useful for taking courses. Whether your post-secondary courses are face-to-face or online, you will require computer skills for many tasks, including applying for school, registering in courses, accessing grades, submitting assignments, researching information, and creating word documents for assignments, researching papers, and taking notes. For taking online courses, students will need familiarity with the online learning platform where they will access the course, write tests, watch lectures, and upload assignments. Many textbooks (like this one) are offered and accessed online (like this one.) Computers are a great tool for giving students access and keeping students organized.

Students range in age from young adults to seniors, most of whom are quite comfortable with many of the learning outcomes from this module. However, you may see a few that you haven't learned or used before. Try to identify and get familiar with any of these. Some seniors and others have very little experience with computers. This is the time to dip your toe in and start using some of the features that will really help you as a student. There are often short introductory computer courses in community colleges that can get you started. It is a good idea to take one prior to starting your educational post-secondary program if you can. The following learning outcomes are covered in this module; you should get comfortable with them for taking courses.

*Seniors love discovering new technology.*

Learning Objectives

In this chapter on "Technology Skills," students will:

- Perform tasks in word processing.
- Use online tools: spelling and grammar checks, thesaurus, synonym finders, dictionaries, and word-web apps.

- Research information on the internet.

- Utilize library services online.

- Bookmark useful references.

- Use electronic communication (e.g. email, social networks, college email, student portals).

- Create and use folders for organizing course work.

- Utilize different storage options (e.g. student drives, USB memory sticks, external drives, and cloud services).
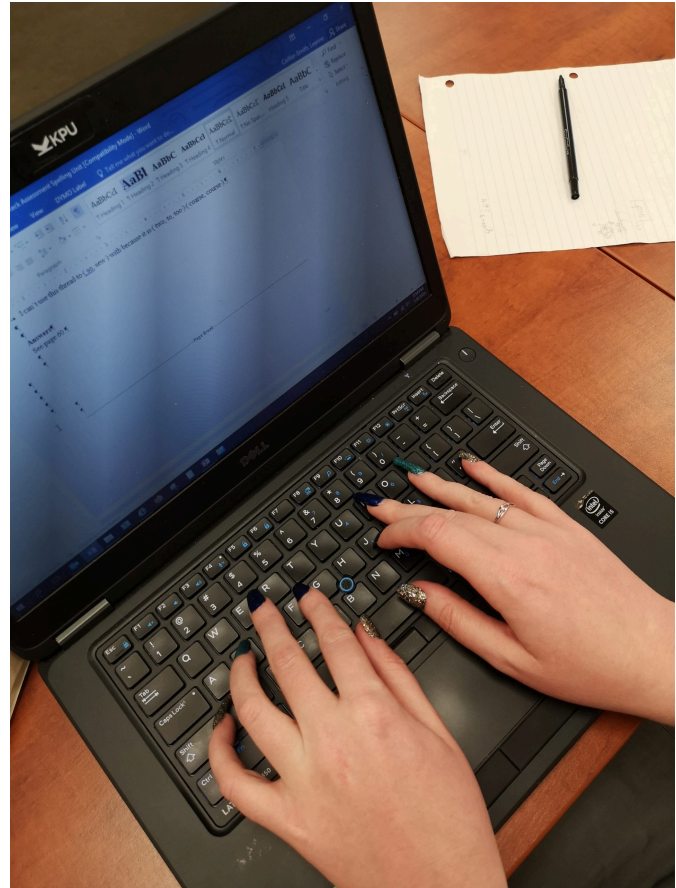
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# 8.1 Word Processing

Word processing programs are invaluable tools for doing your assignments and writing essays. If you are someone who still likes to handwrite assignments, consider this: one of the most useful aspects of doing assignments on a computer is the ability to make changes. You can go back and reword things, correct mistakes, add in extra information to clarify issues or give examples, and reorganize your paper moving a paragraph from one place in your assignment to another using cut and paste and not having to retype it. It's especially useful if your instructor asks you to make changes to your assignment. You can start from your existing document and add to, summarize, or make your writing more concise. Most people are familiar with using at least one word processing program such as Microsoft Word, WordPad, or OpenOffice Writer. Many lap tops come pre-loaded with word processing software.

When choosing software you need to keep a few things in mind. First, you want documents that others can read. If the software you use produces documents that can't be read by anyone that doesn't have the same software, then it becomes frustrating. Also, you want to have some nice

*Knowing how to create quality documents for assignments really helps!*

features with your software. Formatting features such as **bolding**, indenting, bullets, different font sizes, styles, and colours, underlining, *italicizing,* shading, inserting captions, and highlighting, to name a few, are great features to make your documents visually appealing and clearer to read. Other features such as being able to insert and size charts and tables, pictures, headers and footers, symbols, subscripts and superscripts – all help to make creating documents easier. Having the ability to add hyperlinks (https://www.merriam-webster.com/dictionary/hyperlink) to internet sites and videos enhances your documents as well. Using headings and features such as "find and replace" all add convenience and efficiency. Having the ability to track changes is a really useful tool for a student who is trying to get feedback from others or working on a group assignment.

While working on my Master's, I had many group assignments online. We had to share documents all the time, so we used a tool to share the work on the web and we'd track suggested changes from the different group members. On one project, all the members used Microsoft Word except for one student who used an unfamiliar word processing software which didn't work well with Word. She could never see our tracked changes, and we couldn't see her changes. It became quite frustrating and ultimately cost us precious time. It's worth having a discussion at the beginning of a group project about what software everyone is using, and make sure it is all compatible.

— Mary Shier, College of the Rockies

Microsoft Word is a common word processing software. Usually if you are a post-secondary student taking courses from an accredited school, you can have access to a free download of Microsoft Word for a year. You just need an email address from the institution you are attending. Check out your institution's website or contact their IT department for more information.

Spelling and grammar tools are almost standard in most programs now. They help identify if you've spelled a word incorrectly or if your sentence is grammatically incorrect. It's not perfect and it sometimes doesn't catch things that need fixing, or sometimes makes suggestions that weren't what you intended. So you still have to proof-read your work with a critical eye. If your program isn't set to perform spelling and grammatical checks automatically, you may want to go into settings and set it up for automatic checking, or at least perform a check every now and again as you go along.

The thesaurus and synonym tools are extremely useful when you are trying to think of words while writing assignments. You can enter the word that you want to replace and the software will suggest alternate words. It is very useful when you can't think of the right word you want to use, when you have used the same word repeatedly and you don't want to sound repetitive, or when you want to use a more interesting or engaging word. In MS Word and some other programs, when you are writing and use a word you'd like to replace, right click on the word, choose *synonyms* and a variety of words to choose from will appear. Thesauruses and synonym tools help writers make their writing more descriptive, expressive, and articulate.

**Synonym Finder:**

On first draft, a student wrote, "My instructor is not only a great teacher and really helpful, but she is really nice." While proof-reading, the student realized that the word, *nice*, is fairly nondescript and doesn't tell the reader much. Not only that, but they had used it already several times earlier in their paper in a different context, so they wanted to use a different word so as not to be too repetitive. They used the synonym tool and it gave them the options of *enjoyable, agreeable, pleasant, good, fine, lovely, amusing, wonderful, kind, polite courteous, and gracious.* They thought about which, if any,

of these words better described what they wanted to say. Some weren't applicable in this case, such as *amusing* or *courteous*, as these weren't what they intended. They ended up choosing *wonderful*.

They thought about why they think their instructor is nice or wonderful. It caused them to think more clearly about what they wanted to say. They then realized that it was because their instructor cared about their success and encouraged them.  By going through this process using the synonym finder and taking the time to consider what they wanted to say, they improved their writing and made it more descriptive.

- First draft: My instructor is not only a great teacher and really helpful, but she is really nice.

- Next draft: My instructor is not only a great teacher and really helpful, but she is really wonderful. She takes great interest in her students' success and encourages each of them personally. She believed in me and made me believe in myself which made me strive far beyond what I ever expected.

Using tools in your word processing programs can aid you in producing better writing.

Thesauruses and synonym finders are also useful for discovering definitions of words, along with online dictionaries and word-web apps. As you are reading text and come across words you don't know the meanings of, you can use these tools to quickly give you context for and understanding of your reading. Gone are the days when you had to take the time to physically get up, find a dictionary in book form, and look up the word by scanning through the pages to find the meaning of a word. Now it is as quick as right-clicking on your online text, or typing the word into an app on your phone to find the meaning. In seconds you can be back reading your text with new enlightenment.

If you currently use a good word processing program, check to see if you are able to access its many features. You'll likely never have use for all the features but some are very handy for you as a student. For example, a word processing program with a built in tool for referencing sources in APA or MLA format is extremely useful and time saving when writing research papers.

If you aren't familiar with these tools, get familiar by using one of these options:

- Try doing an internet search on how to use these features in your documents.

- Search YouTube and search for instructional videos on using these features.

- Take a short continuing education course. Colleges often have short evening or weekend courses to help people get familiar with features on their word processing programs.

- Find a short online course that can lead you through the many features.

Learning about the features in your word processing program will ultimately save you a lot of time and you will be able to produce documents that are visually appealing and organized.

## Author's Story

During my online Master's program, it became a signature feature for me to include a chart or graph in all my assignments. At first the reason it was to organize the information, and it was fun to create them. But then I realized the instructors loved them and they always commented on them. Creating charts and graphs went onto my check list for assignments that I always used before handing an assignment in. It was on the list along with proof-reading, editing, checking my references, checking formatting, etc. Try adding a chart to your next assignment. Your instructor will love it!

— Mary Shier, College of the Rockies

## Exercise: Explore Word Processing Features

Create a short Word document. You can choose the topic for your document. Some possibilities include writing about your family, your job, a pet, a holiday, a product you just purchased, or how to make a good cup of coffee. The topic is your choice, but only choose one.

Demonstrate three or more word processing features that you haven't used before or haven't used much. It can be as simple as changing fonts or using italics. It can be using the synonym tool to find better words for your document. It can be inserting clip art, creating a chart, or inserting a photograph. You can use any of the features listed in this section, or some that you have discovered on your own. Then demonstrate them in your document in a relevant way.

At the end of your document, list the features that you are highlighting. If you used the synonym tool or thesaurus, note the words you started and ended with. Note the features you have never used before, if applicable. What features did you find most useful?

# 8.2 Internet Research

The internet has become an invaluable tool to find out information. We have more information than we can deal with right at our fingertips. It wasn't always that way.

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**Author's Story**

I don't necessarily want to age myself, but when I went to university, outside of our textbooks, the only place we could access accurate information for research was at libraries (physical buildings) and we were limited by the library's open hours, which didn't always work with our schedules. We also had to physically go to the libraries which were often a distance to travel. Many of the resources (e.g. encyclopedias) could not be borrowed, so you had to use them in the building. Also, if other students beat you to it, the books you wanted were often unavailable as they had been checked out already and you had to wait until others returned the books, often weeks later.  Ir was even more frustrating to be unable to find the desired information at all. That rarely happens anymore, as the internet is a source of information from around the world, not just from your local library.

— Mary Shier, College of the Rockies

You can use search engines such as Google, Bing, or Yahoo to research general topics. This can often lead you to related terms or topics for other searches.

But with all the information available on the internet, you need to know how to discern what information is useful and accurate. The internet is full of information that is based on people's uneducated opinions. Worse than that, it is full of information intended to further specific agendas, to impact people's beliefs and ideas with biased trains of thought, or to sway people into investing their money and resources.

There are sources of information that are deemed credible, and these are where you want to focus your energy. Using information which has been scientifically proven or studied using authentic practices is key. Using search engines such as GoogleScholar will help filter information, and identify material that is from credible sources.

## Libraries

Libraries are great sources for online academic journals. These are documents that have been peer-reviewed by academics and experts in the field who verify that accurate and verifiable methods were used to come to their conclusions. Librarians can help you find credible sources for your topics of research. Your college or university library is a great place to start. On their website they likely have links to academic journals that you can search by field, topic, or author. Often librarians will do workshops for internet research to help new students. There are also inter-library loans for resources if you can't find what you are looking for in your institution's library. Educational institutions often have subscriptions to allow students to access national online academic databases.



*Using the college computer lab*

Students at College of the Rockies can visit the College of the Rockies Learning Commons site (https://cotr.bc.ca/learning-commons/) to check out how simple it is to search for and access academic journals and databases online. Check out their research guide to search fields of study. Alternately, check out the online library services at your own institution.

As well as school libraries, public libraries are also a great source of information. Public libraries are often accessible online, so you can do your research for resources from home before going there. You can see if the books you want are available locally or need to be ordered in from another library. You can see how many copies are currently available and can put resources on hold to ensure no-one snags them while you are on your way to pick them up.

Some of the main differences between academic (college and university) libraries and public libraries include:

**Differences between Academic and Public Libraries**

| Academic libraries | Public libraries |
|---|---|
| • primarily serve the needs of college and university students and faculty and serve the educational objectives of the institution<br><br>• may have some fiction, but the collection primarily exists to serve the educational objectives of the various departments on campus<br><br>• collections including databases usually include the latest research and the most technical information on certain fields<br><br>• media collections are often weighted toward specific informational topics<br><br>• some academic libraries are research libraries which supply their faculty and graduate students with information to support research projects to advance knowledge<br><br>• different branches of the library will specialize in a specific field such as law, architecture, engineering, health, or education | • serve the needs of the entire community, from young children to the elderly<br><br>• have a broader collection that includes a strong component of fiction materials, including romance novels, suspense, mysteries, and literature<br><br>• non-fiction collections rarely have highly specialized materials in their book collection, periodical collection, or electronic database<br><br>• non-fiction collections rarely have highly specialized materials in their book collection, periodical collection, or electronic database<br><br>• media collections, including recordings and movies, are often heavily weighted towards entertainment<br><br>• public libraries are great resources for information about a broad range of topics<br><br>• different branches of the library will offer a similar broad range of subject matter in each branch |

Academic libraries are great for accessing the most relevant and up-to-date information on changing fields such as health care and scientific discoveries. Public libraries are useful for accessing information on topics not usually available in academic journals and current research, or information about topics for which the educational institution is not responsible for teaching. It is always a good idea to start with your school library and then move to the public library if you can't find what you are looking for.

## Bookmark References

There are bookmarking tools on most web browsers, such as Internet Explorer, FireFox, and Chrome. This is helpful when you find sites on the internet that you want to return to. Similar to putting a bookmark in a book, this keeps a short cut back to the chosen web page. This is useful when you are researching sources for your assignments.
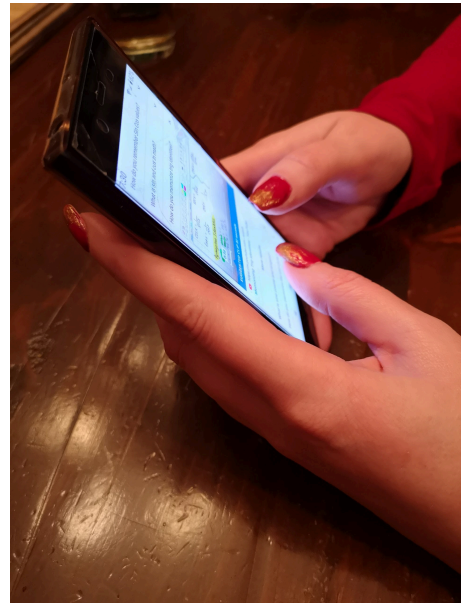
**Exercise: Internet Research**

Use Google Scholar to find an interesting article on a topic of interest. Then bookmark the site so that you can return to it later. Close the page and use the bookmark to return to the site. You can even start organizing your bookmarks according to topic or category or course.

# 8.3 Electronic Communication

Electronic communication has almost become more prevalent than speaking and listening. Sending quick messages via text, messaging systems, emails, and social media are fast, convenient, and efficient ways to communicate. Sending group information is a great way to have a multi-way conversation. These methods are useful for communicating with your instructors, your class-mates, your friends and family—even if it's to quickly explain that you can't join them for a movie because you're working on an important assignment.

Unless you don't use a computer at all, most people are used to using at least one of these modes of communication. They all have pros and cons and specific ways they are more useful for certain situations. For example:

- **Social media:** When a new mom posts pictures of her new baby on Facebook or Instagram, family and friends can all enjoy the occasion and make comments under the pictures that all can enjoy. This is revolutionary compared to the days when people had to print their pictures, seal them in an envelope, and mail them to a recipient who didn't get it until much later. This method had a financial cost as well, including the printing of the pictures and the cost of postage. Posts on social media mean people can see them instantly and respond in a timely manner. This is a useful medium when you want several people to access the information or visuals.

- **Texts:** Texts allow people to send quick messages back and forth instantly. It's great for meeting up with people or finding out information quickly. It's great when you require a quick answer to an easy question. It is less disruptive than a phone call and can often be done fairly unobtrusively. Texts often use data and can be expensive if sent or received out of the country, when it may make more sense to use an app that uses wireless connections.

- **Instant messaging:** Apps that use wireless internet are really useful while traveling or for those that don't have data plans. People can check in with family members and can share details of their trips. Apps such as Messenger, WhatsApp, Line, Viber, and SnapChat are examples. They can be used to share messages, links, videos, and pictures.



*Social media is at your finger tips.*

- **Tweets:** Tweeting is a form of social media but it differs in that it is broadcast to the general public. Anyone can see your tweets if they look for them. Some tweeters have many followers. Followers are those who have signed up to get notifications from specific tweeters. President Donald Trump is notorious for tweeting out his opinions in the middle of the night, and subsequently his tweets have made the news by

morning.

- **Emails:** Emails are more useful for longer bits of information as it is easier to type an email on a keyboard on your laptop. They are useful for conversations in which you will expect a lot of back and forth messages. Emails can be easily searched to find a conversation string.

- **College email:** Often post-secondary students are given a college email when they register. This is useful to check for college announcements such as important dates (statutory holidays, college closures, exam times, semester start and end dates, bookstore buy-back events etc.) It is also useful for student announcements and special offers to post-secondary students.

- **Student portals:** Student portals are special sections of the school's web-site that are specifically for students. You usually need your student number to sign in. In can be used to buy and sell used textbooks and other items, arrange student car-pooling, and notify students about cancelled classes. This is a useful information portal for students while they are registered in courses.

- **Video chats:** Voice Over Internet Protocol (VOIP) allows voice and video chats electronically. Popular platforms include Skype, Messenger, Microsoft Teams, WhatsApp and others. These allow you to hear and see the people you are talking to. This enables stronger communication because not only words are used in communication, but facial expressions, tone of voice, and gestures.

Exercise: Electronic Communication

Choose a method of electronic communication that you haven't used before. Use it – you may have to download the app onto your phone or computer first. Once you have used it, report on what you used, how easy or hard it was to use, whether or not you had any responses (comments, messages, etc.), and whether you think you would like to continue using it.

# 8.4 Organization and Storage

Students need to keep their work organized. Once you start working on multiple assignments, you want to be able to find and access your work easily. If you aren't used to keeping your files organized, then this section will be very important for you. There are two parts to keeping your work organized: saving and backing up.

## Saving

Some people save everything on their desktop or in their documents file. They just hit save and let it save to the default destination. This results in a huge collection of documents in one place. This can make it hard to see what documents you have, and to find them when you are looking for them. It's the equivalent of having a huge pile of papers sitting on your desk, and you can't find anything. This is true for all documents, whether it is for work, volunteer organizations, random household documents, or vacation planning. As a student, it often makes sense to create file folders for each course you are taking. File folders are just like what you would expect in a regular filing cabinet. A filing cabinet contains file folders usually organized in alphabetical order, or possibly by theme. Inside the file folders are all the documents pertaining to that topic. Students should make a file for each course. Then it's important to name the documents carefully so that they are easy to identify. That way you can pull a document out of a file at any time. Once you have saved a document into a file folder (using the "Save As" function) then it will automatically save it in the same place every time you hit "Save". You should hit save often to make sure you don't lose your work if a sudden power outage occurs or your computer fails or shuts down suddenly.

You can have file folders within file folders. For example, you may have a file folder named College Courses. When you open that folder, you could have sub-folders named for each of your courses. Within each folder you can have all the documents which are related to that course – your assignments, labs, saved reference material, etc. Then it's easy to locate your documents. The more courses you take, the more you will appreciate having your documents saved in an orderly manner.

Whenever you are working on an assignment or research paper, make sure to save regularly. Saving regularly is critical. There is nothing more frustrating than putting your heart and soul into an assignment, only to lose it. It usually happens to every student once, because it is a hard lesson to learn. Once they have suffered the loss of a lot of hard work put into an assignment, students rarely allow that to happen to themselves again. Students need to save their material regularly.

Author's Story

I usually hit the save button about every paragraph. Sometimes I hit it more often if I have struggled to word a sentence just right; I'll hit *save* immediately as soon as I'm happy with it. Anytime I've fiddled with sizing

a picture or wrapped text around a picture and fussed with it until I'm happy with the layout, I hit *save*. Anytime I've created a link or formatted all the headings, I hit *save*. Whenever I've cut and pasted information, or moved chunks around on the page, I hit *save*. If I'm going to hop up from the computer to make a cup of tea, I hit save. That way if I get distracted and come back later, I know the file has been saved. My motto is to save often enough that you wouldn't be frustrated if you lost the unsaved data and had to recreate it. For me that's virtually every 5-10 sentences or every paragraph. If you can't remember the last time you hit *save*, then hit *save*!

— Mary Shier, College of the Rockies

## Backing Up

Backing up your documents is critical. Just as losing unsaved material is frustrating, so is losing entire documents that have been saved. Back-ups provide extra copies of your important documents (which includes your course assignments) in a separate location, just in case. Some insist you should have two back-ups for all your important documents. You can lose your data for various reasons: your computer dies suddenly and you can't recover any of the documents; your computer gets a virus and the documents are destroyed; your computer has hot coffee accidentally spilled on it, or is thrown in a mud puddle by your helpful toddler; the power goes out after several hours of typing, but you realize you didn't save the document because you were so focused; the document mysteriously disappears off your computer; maybe someone unknowingly hit "Delete," or it got saved off into cyberspace somewhere. Sometimes there are no explanations as to why a very important homework assignment goes completely missing days before it is due.

The answer is to back up your material regularly. There are several options to do this.


*USB memory sticks.*

**Memory stick:** Use a memory stick to have your assignments saved on an external storage device. At the end of every work session, store your work on your computer (where you should have been hitting saveall along) *and* on a separate memory device. The advantage is you can carry your stick with you wherever you go and work on it on other computers if needed. If choosing this as an extra back-up, remember – it isn't useful if it's still attached to your laptop when you drop the laptop in the lake. Then both the lap top and the memory stick are hooped. A back-up is only a back-up if it is in a separate place than the original copy. If the computer and memory stick are both in your computer bag, and the computer bag goes missing, you've lost your back-up too.

**Student drives:** Educational institutions are often on a network drive. Students then receive their own personal drive which can be accessed with their student number and password. This ensures that students using college computers can save their work on their personal drive. No-one else can access, revise, or delete their work because it's stored under their own personal drive. The other advantage is that the

student drive can be accessed from any computer in the building. Students don't have to wait for a specific computer to access their documents.
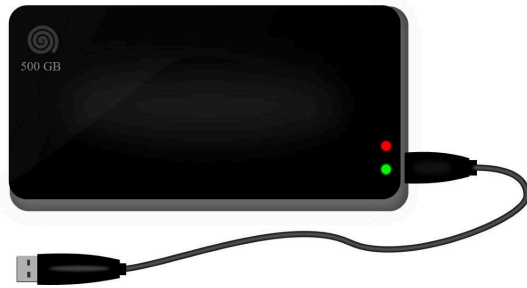


*External hard drive.*

**External hard drive:** Many people back up their files on an external hard drive. This provides a second copy of their files which is stored in the home or office. The advantage of this method is that all files are stored and backed up in the same place. In the case of an emergency such as a fire, the external hard drive can be grabbed and will have all important files and pictures  on it.

**The Cloud:** Cloud storage is convenient and can be accessed from anywhere there is access to the internet. Cloud storage such as Google Docs, Xdrive, MediaMax, DropBox, OneDrive, and Strongspace are especially handy, because even if your home explodes and takes your electronics and storage devices with it, your documents are still safe.

**Email:** This is one of the easiest ways to back up your work while you are still working on it. If every now and then (say after you have done a significant enough amount of work that you'd be upset if you lost it) email the document to yourself. You can name it Draft 1, Draft 2, Draft 3 and so on. That way it's available from anywhere that has connectivity and you have the most recent back-ups of your work.

Regardless of which tool you use, make sure to save and back up  your school work! Save every few minutes and back up every work session. You will be glad you did!

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# 8.5 Chapter Review and Activities

## Key Takeaways

Technology skills are invaluable for your success as a student.

- Use word processing software  for your assignments and get to know the tools and features of the program so you can utilize maximize efficiency, visual appeal, and function.
- Use spelling and grammar check tools to make sure your assignments don't have unnecessary errors.
- Use synonym finders, online thesauruses, and digital dictionaries to keep your writing expressive and your reading meaningful.
- Researching information on the internet for your course work requires finding credible sources and up-to-date information.
- Using electronic bookmarks to create short-cuts to favourite web pages help to organize reference material when researching a topic for an assignment.
- Libraries are useful places to find information such as online academic journals and databases.
- Use electronic communication such as messaging, texting, emails, and video chats, noting that different types are better in different situations.
- Organize your documents into file folders according to courses. Keep them organized so they are easy to locate.
- Saving documents regularly and backing up documents onto external storage such as USB memory sticks, external hard drives, or cloud services ensures that documents don't go missing or get inadvertently destroyed.

## Exercise: Technology Skills

Choose a topic that interests you. Some suggestions are: student success, technology, the value of education, a career you are interested in, a health topic, a sport or hobby, a political topic, faith, a controversial issue—whatever you like. If you are having trouble choosing a topic, speak to your instructor. Write approximately one page about this topic.

1. Use a word processing program to write out your assignment.
2. Use spelling and grammar checks to locate and fix errors.

3. Research your topic on the internet and use information from credible sources in your paper. Make sure to bookmark your sources on your web browser.

4. Utilize your school's library online to find information about your topic.

5. Save your document into an appropriately labelled folder.

6. Back up your document to at least one external storage device.

7. At the end of your paper:

   ◦ Note the sources that you used. Use your bookmarks to go to the sites and copy the links to include here.

   ◦ Note the name of the folder you saved your document in and where it is stored on your computer.

Email or message your assignment to your instructor.