The Cloud for Beginners

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Cloud for Beginners

Class Objectives

- Introduction to The Cloud
- Advantages and disadvantages of using the Cloud
- Choosing a cloud service
- Using Google Drive

Class Prerequisites

- Some familiarity with computers and the internet
- A google account

Introduction to the Cloud

"The Cloud" is a term used to mean a computer, or a series of computers that is not your personal computer, but is physically located somewhere else in the world, and that you can access over the internet. **Cloud computing** is the practice of using a network of remote computers hosted on the internet to store, manage, and process data, rather than locally based on a personal computer.

For example, if you use an internet-based email service like Gmail, Yahoo, or Outlook, you can access your email anywhere you have an internet connection. This is because the data is stored on servers owned by the respective e-mail providers, not your local machine. If you use email, you already use the cloud. Although the cloud is more like an idea than something you can physically touch, the computers that make up the "cloud" require physical space. The facilities that store the physical equipment used by the cloud are called data centers. Sometimes you may also hear the term server farm. Data centers can be anywhere in the world. They are generally in warehouses that have complex cooling systems to keep the computers from overheating.

Many corporations, websites, and individuals use the cloud to store data, to make remote work more usable, or even to get very large amounts of computing power that could not practically be run out of a single office.

Reasons for using the cloud:

- Extra storage space
  - You can use cloud-based data storage services to save files. This can give you more storage space for your data, a back up copy in case something happens to your personal device, or both.
  - Examples of cloud-based data storage services are <u>Google Drive</u>, <u>iCloud</u>, and <u>Microsoft OneDrive</u>. They are especially useful if you have a lot of photos, movies, music, or other files that take up a lot of hard drive space on your computer.

- Remote access
  - This use of The Cloud allows you to access your work from anywhere in the world.
  - Some examples of cloud-based remote access are <u>Google Workspace</u> and <u>Microsoft Office 365</u>.
- Extra computing power
  - This type of cloud computing is mostly used by businesses that need to handle a lot of data. They may use it to calculate equations, or keep track of very large amounts of data.
  - The most well-known service for this kind of cloud computing is Amazon Web Services, or AWS. It is a part of the same company, Amazon, that sells you books and anything else you want to buy online.
  - This use of The Cloud computing won't be covered in this class.

Advantages and Disadvantages of the Cloud

Advantages of the Cloud:

- It can be accessed from anywhere that has internet access.
- It allows documents and data to be easily used by multiple people.
- There is more storage space available then you would have on any 1 computer.

Disadvantages of the Cloud:

- You must be connected to the internet to use it
- Many cloud services are not free.
- Because it is internet based, cloud computing has some privacy compromises.

Choosing a Cloud Service

There are many, many different services that offer cloud access. In order to determine which is the right choice for you, you need to consider what you want to use the cloud for, and what your personal priorities are.

<u>Do you already have a device, or a service that may include cloud storage or computing?</u>

If you own a computer that has Windows on it, you probably have access to Microsoft's <u>OneDrive</u> cloud storage service. You may also have access to Microsoft 365, which allows you to access your <u>Microsoft Office 365</u> documents from internet enabled computers.

If you have an Apple product such as an iPhone or iPad, you probably have access to Apple's <u>iCloud</u> storage service.

If you have an Android device, such as a phone or tablet, you have access to <u>Google Workspace</u> cloud products, such as Drive, Docs, and Sheets.

These services offer you a limited amount of storage that comes with your device or service. They also allow you to purchase more storage room, although you do not need to. If you have used all of the storage space that you have access to for free, you can either switch to another type of storage (such as storing things on your physical computer or phone, on a USB drive or SD card, or using a different cloud product) or you can delete some of the data that you have stored on the cloud to make more room.

You do not necessarily have to have your own device to access the cloud. Some cloud storage is just software, and doesn't require a specific device. If you have a Gmail address then you already have access to Google's Drive storage service, as well as their online software tools.

Will you be using the cloud for work, or personal use?

If you are going to be using the cloud for work related tasks, check with your employer to see if they have requirements for what kind of cloud service you should be using. Your employer may have specific requirements about what information you can share. This especially true if you work in the medical or financial fields. They may also provide you with access to a remote computing product.

Privacy

Free services, such as Google, Facebook, and Twitter make their money through advertising. Whenever an advertising company asks for your data, they are probably going to use it to sell you ads.

Google's Workspace applications are free and very user friendly. That is why we recommend it in this class. It's very convenient! However, Google is collecting your data and potentially selling it to advertisers, so it is important to be aware of what kind of information you give it.

Examples:

- It is fine to use Google (or other free services) to make a spreadsheet to track your meal planning for the coming month, to store your baby pictures, or to assign shifts to the waiters at your restaurant.
- It's probably a bad idea to use Google (or other free services) to do something confidential, such as your payroll.

If you do not want a service such as Google to be targeting you with ads, you should consider using Microsoft's OneDrive, or Apple's iCloud, or another paid service such as DropBox. These are more expensive, but they prioritize privacy more than free services do. If you'd like to be positive what happens to your data, be sure to read the Terms and Service before signing up for a cloud service.

It is always important to keep in mind that anything done over the internet can be hacked. The risk of this might be very low, but it is always a risk.

It is also important to know that in the United States of America cloud services may be subject to subpoena. If that happened the service provider could be required to hand over any information they have access to, including yours, to law enforcement agencies. Your librarian is not a legal professional and cannot advise you on this issue.

If you work with highly sensitive information, such as medical records or financial records, don't use a cloud service unless it is a secure service built for the task and your workplace has approved the use of this cloud service.

If convenience or low cost is more important to you than privacy, Google is a very good option.

Google products have many advantages. They don't charge for their services, although they will use your data to show you targeted ads. They also can be accessed from any internet enabled device, and are relatively easy to use. Google has a whole suite of office products on "The Cloud" as well as storage space. You can use Google Drive to store your files, but Google Documents, Google Sheets, and the other Google office products are also on the cloud. This is convenient because you don't even need to own your own computer to use these products. You just need a log on (in this case a Gmail address) and Google will save your work on its computers.

We teach classes on how to use several of these products, especially Google Docs and Google Sheets, here at the library.

- **Signing In to Google Drive**
- Go to Drive.google.com
- Sign in with your Google account
- **Note:** Do you want to save your password? If you are on a public computer (the library, your school, using a borrowed computer) NO! If you are on your own private computer, and you're not worried about someone else in your home accessing your information, then maybe yes. (but you should still remember it, or write it down some where safe)
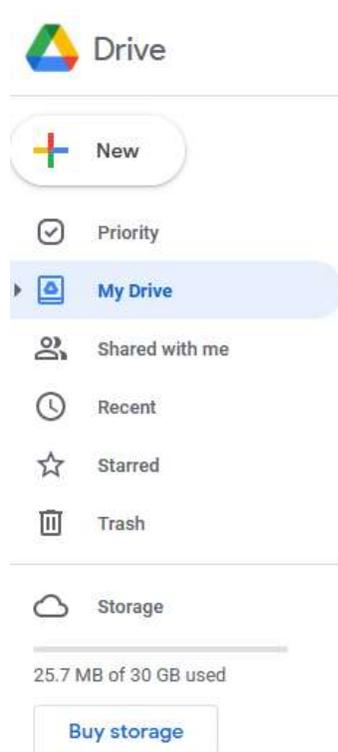
Navigating Google Drive

Once you are logged in you will see a tool bar in the left hand margin.

If you click on the **New** button you can upload documents or files from your computer, or create new documents using the Google Docs, Google Sheets, Google Forms, or many of the other Google Workspace apps.

You can create a new folder, or upload a folder. You see any computers that are synced with your Google drive or look at documents that are shared with you by other users, that you've used recently, that you've starred, or that you've moved to the trash. It also shows you how much of your available Google Drive storage you are using, and gives you the option to buy more if you want to.

At the top of your Drive, Google will display **Suggested** files it thinks you will want to access. It does this based on files you've recently opened. Your folders are underneath the **Suggested** section. To open a folder, double click on it. If you have any unorganized files in Drive, they will appear underneath your folders. Your Folders and Files will be organized by Name by default. You can reorganize them by using the option in the top right of the screen. If you click where it says **Name**, Google will provide other sort options, such as organizing by Late Modified date.

To create a new folder Click on **New**, then select **Folder**. It will ask you to give your new folder a name.

To put documents in your folder you can drag and drop them from other locations, such as the main desktop of your google drive, or your computer desktop. Or, you can click "new", select "file upload", and then find and select a file on your computer.

You can also create new documents using other programs such as Google Docs or Google Sheets. If you create a document using google while you are signed into your google account, it will automatically save your document to your google drive.

You can share your folders and your files with other people either by adding their Google address, or by emailing them a link to your folder or file. You can share files and folders with people who do not have a Google account. Google will provide a warning that "anyone holding this invitation will have access without signing in." This means that, if you send an invitation to someone without a Google account, they can forward the invitation and give the same access to anyone else. Be careful who you share your items with!
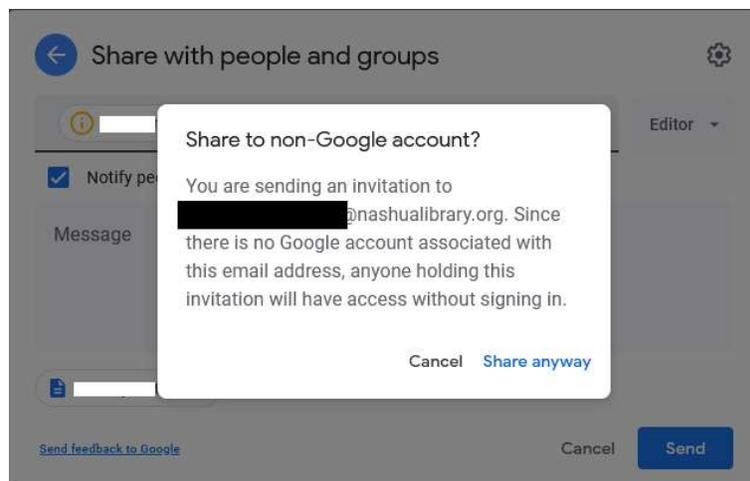
Additional Resources

G suite for dummies, Nashua Public Library, 025.04252 MCFE, Adult Nonfiction

Microsoft Office 365 for dummies, Nashua Public Library, 005.5 WIT, Adult Nonfiction

Explain the Cloud Like I'm 10, Hoopla eBook

The Ridiculously Simple Guide to Google Drive, Scott La Counte, Hoopla eBook