

PART I: What is Cloud Computing



What is Cloud Computing?

The 'cloud' is a metaphor for the Internet. Cloud computing is simply storing and accessing data and programs over the Internet instead of on your computer's hard drive; using software or data stored on your hard drive is not cloud computing – that's local storage.

Cloud Computing Advantages

- **Backup:** Storing photos or other important files in the cloud means that if your computer is stolen or damaged, your files are still safe and perfectly accessible.
- **Shared Access:** Working on a collaborative project? Do the work online (in the cloud) and give access permission to your colleagues. You can all work on the project at the same time, and never have version control problems.
- **Large File Transfer:** Files too large to email as an attachment can be saved to the cloud, and a link can simply be emailed to the recipient.
- **Online Software:** If you don't have a word processor and want to create a document, cloud software is available for you to use, wherever you have Internet access.


Cloud Risks and Disadvantages

- **Security:** There is a risk that the files you've saved to the cloud could be hacked. Safeguarding accounts with a difficult-to-guess password is key.
- **Internet Reliance:** Since files saved solely to the cloud are on the Internet, you need connection to the Internet in order to access or update them.
- **Corporate Snooping:** Some companies that provide cloud services may access your data in order to better target you for advertising purposes.
- **Bankruptcy or Corporate Acquisition:** If the company you've stored your data with goes bankrupt, or is acquired by another company, what would happen to your data?

PART II: Google Workspace

Google Workspace

The Google Workspace, formerly known as the Google Suite or G-Suite, is a series of Online Applications and Software. To use Google Workspace, you simply need a Google account. If you have a Gmail address, you already have access to Google Drive. You get 15 gigabytes of free storage with an account, which is shared on all the apps, including your email.

You can access it from the **Google Apps** icon  at the top right of your google.ca page. Click on the **Drive symbol** to begin. Alternately, download Google Drive to your computer (<https://www.google.ca/drive/download/>) which saves your files locally as well as in the cloud. If you download Google Drive, the icon will appear in a PC task bar (bottom right) or Mac menu (top right).

Google Drive



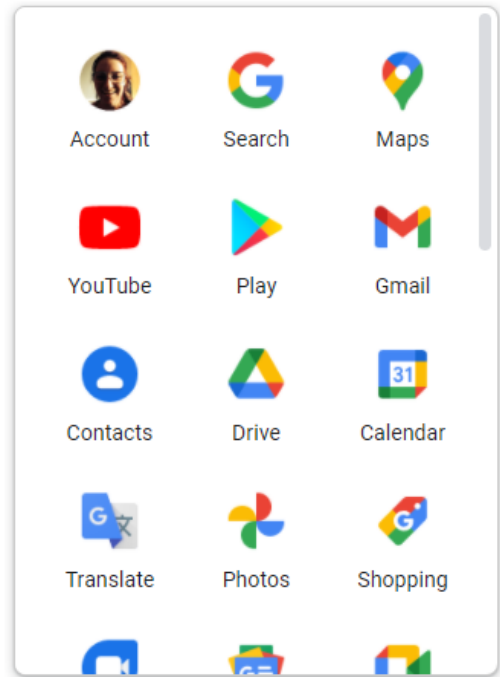
- The Google Drive is where you can upload all kinds of digital files to store/backup – it is also the general term for storing all files in Google
- Store PDF's, Word, Excel, or other Documents. When storing them in the Google Drive they will only be editable if converted to Googles Format
- Create shared documents or folders for group access

Online Backup:

- Great for online backup. Any kind of file can be stored, but it may need to be downloaded before it can be edited. This is because the software available in the Drive is Google software – if you want to open and edit a Word document, doing so in Google Drive will translate the document from Word to Google Docs.
- Beware that for files saved in a Google software format (like Google Docs), you need to be online to access them.
- If you download Google Drive (not just use it on the net) you have the option of selectively syncing which files will be stored both locally and in the cloud. This is great because if you are short of memory in your computer, you can back up material to Google Drive thus freeing up space on your device. To do so, click on the overflow menu (the **three dots**, circled) and choose **Preferences**. Then select which files you'd like stored locally as well as in the cloud.

Online Software:

There are now several different Open Online Software or Google Apps available as part of the Google Workspace. Here are just a few of Googles Cloud-based productivity software:



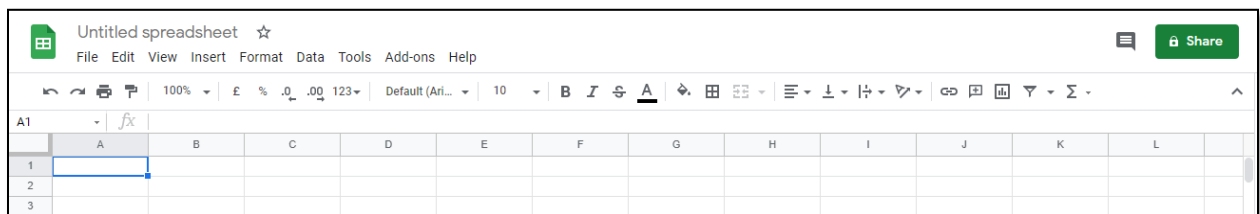
- Gmail Account – Free email account (the original Cloud Software)
- Calendar – Cloud calendar you can access on multiple devices.
- Google Photos – Cloud-based gallery for you to store photos and videos. Easily share photos or create shared albums.
- Google Meet – Online Video Conferencing service like Zoom.

Google Workspace also provides free online productivity software – these are open access, no need to buy a Microsoft Office subscription! They also have excellent collaborative capabilities for group work that does not require single use controls. These tools have a similar layout to Microsoft: Ribbon and Tab structure with like tools grouped together for easy editing.

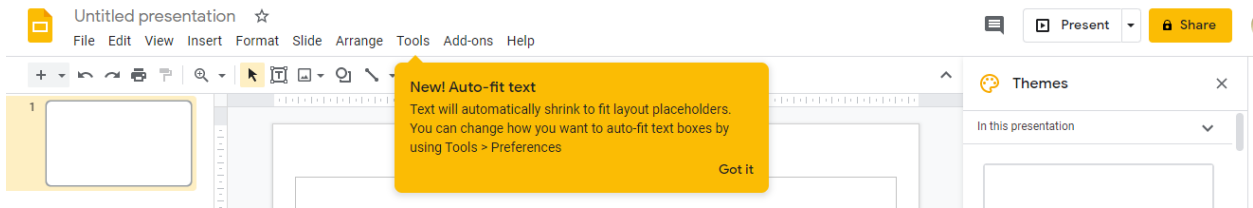
- Google Docs – Googles version of a word processor, like MS Word, and allows you to create text-based documents such as reports, pamphlets, and posters.



- Google Sheets – Googles version of a spreadsheet, like MS Excel, and is able to use formulas to create budgets or calculate things like payments and interest.



- **Google Slides** – Google's version of presentation software, like MS PowerPoint, and allows you to make slideshow presentations.



- **Google Forms** – This app allows people to create fillable online forms that they can share with others. These make great feedback forms, online applications, or requests for comments or questions on a website. Has templates to easily add different styles of questions like “what’s today’s date?”, yes/no answers, multiple choice, and long and short answer responses.

These apps are easy to use, and feature similar templates as Microsoft Office to easily create resumes, cover letters, and budgets, just to name a few.

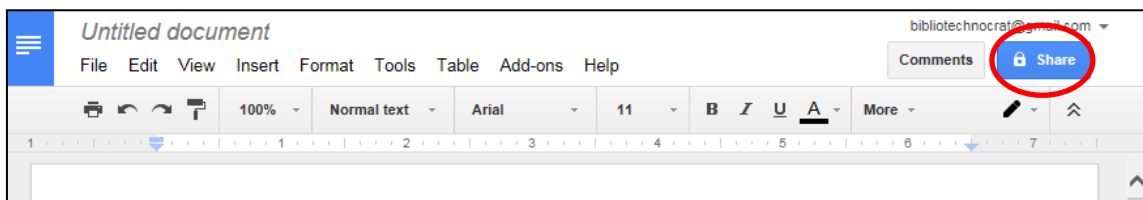
Sharing and Collaboration

Google Apps are excellent for collaborative projects and allows for multiple people work on a document at a time, with no need for version control.

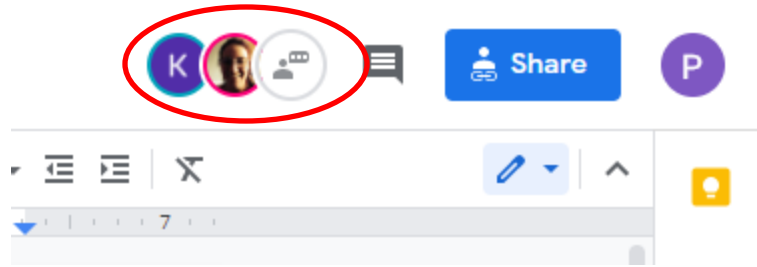
1. Open the document you want to share
2. Press the Share button (top right) from the open document
 - a. Type the name, email, or phone number of the people you want to share with

OR

 - b. Press “Create link” to create a shareable link to the document
 - i. A new pop up window will open, press create link
 - ii. Copy the Link by pressing the Copy button
 - iii. Paste the link in an email or other message and send
3. The document is now shared

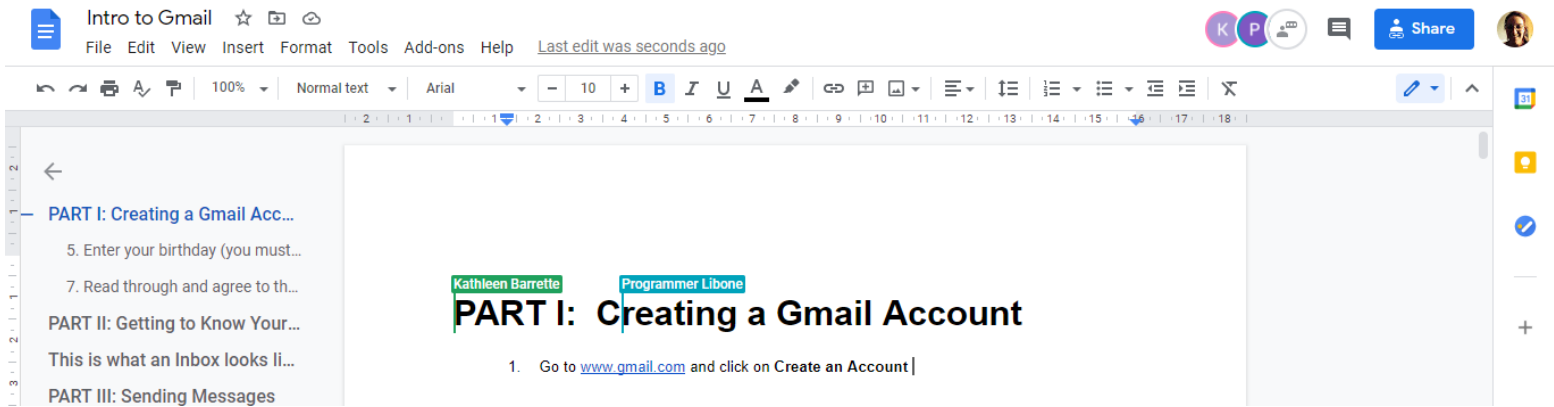


Once the document has been shared anyone with permission to it will be able to access it. The person who sends the links can choose if they send a “View Only” or “Editing Allowed” link. You will be able to see the other people viewing the document by the number of profile icons you see in the top right corner:



- The icons next to the share button indicate how many other people are viewing the document
- You will see multiple cursers in the document – different colors correlate to the circles around the user icons at the top of the document and show you who else is working on the document. Hold your cursor over the colored cursor to expand the info and see who it is.

- You will be able to see other people working on the document at the same time as you!
 - Document control does not prohibit multiple people from working at the same time as most Microsoft documents.



PART III: Learn More

There are lots of resources to explore.

Library Resources

Google [North Vancouver City Library](#), or type [nvcl.ca](#) in the URL bar

- **Class Resources:** Get items like this handout. [www.nvcl.ca](#) > Techconnect (centre-left tab) > Computer Classes > scroll to Cloud Computing and click on Class Resources
- Try a tutorial on Lynda.com, accessible for free on the library website: [www.nvcl.ca](#) > Research & Learn (centre tab) > Online Resources A-Z > **Lynda.com**. Type “Google Drive,” or “Google Workspace” into the search bar and try a class.
- O’Reilly Books Online (you’ll need to input your library card number and password if you’re doing this from home): [www.nvcl.ca](#) > Research & Learn (centre tab) > Online Resources A-Z > **O’Reilly Books Online**. Look for “Cloud Computing”, “Google Drive”, “Dropbox,” or “iCloud.”
- Look for books on the third floor at **Row 26**, 006.78

Other Resources

- **GCF Learn Free:**
 - Google Drive: <http://www.gcflearnfree.org/usingthecloud/googledriveanddocs>