

INTERNET 101

What is the web, and how can you make it work for you.

Getting Online

What is the Internet?

The Internet is a worldwide network of computers all connected to each other. When you connect to the Internet you have access to the World Wide Web, which is like a library full of pages of information.

Video: <https://www.youtube.com/watch?v=6kh5bPupMQM>

How do you connect to the Internet? What is the function of an ISP?

Before you can start exploring the web, you will need to set up a plan with an ISP. An ISP, or Internet Service Provider, is the company that allows you access to the Internet and other web services. They provide different ways to connect including dial-up, cable, fiber optics or Wi-Fi. These different connections determine the speed of your Internet access.

Video: https://www.youtube.com/watch?v=9tJHZvR_MKY

How does the Internet get to my mobile phone? Is it different from a desktop?

In general, a cell phone connects to the Internet with the same wireless signal used to make a phone call. Your phone connects to a cell tower in the area, which then connects you to the Internet. Because transferring data between mobile devices and the Internet can get expensive, service providers charge for data plans.

Certain devices, like mobile devices running Android, can also connect to the Internet through Wi-Fi. Wi-Fi lets you connect your phone, tablet or laptop computer to the Internet wirelessly and without the need for a cellular signal or data plan. Generally, Internet connectivity on your mobile phone is faster through Wi-Fi networks, but you have to be in an area where Wi-Fi is available. Many cafes, retail locations, and sometimes entire cities will offer free Wi-Fi.

Video: <https://www.youtube.com/watch?v=LBw5lmHBFf0>

What is a URL an IP address and a DNS? And, why are they important?

A URL (Uniform Resource Locator) is the web address you type into a browser to reach a website. Every website has a URL. For example, the URL www.google.com will take you to Google's website

Every URL also has an IP (Internet Protocol) address. An IP address is a series of numbers that tells your computer where to find the information you're looking for. An IP address is like a phone number—a really long, complex phone number. Because IP addresses were so complex and difficult to remember, URLs were created. Instead of typing in an IP address (45.732.34.353) to go to Google's website, all you have to type is the URL, www.google.com.

Since the Internet has so many websites and IP addresses, your browser does not automatically know where every single one is located. It has to look each one up. That's where the DNS (Domain Name System) comes in.

The DNS is essentially the phone book for the Web. Rather than translating "John Doe" into a phone number, the DNS instead translates a URL, www.google.com, into an IP address, taking you to the site you're looking for.

Video: <https://youtu.be/3xnv-SGad5k>

What is a Browser?

This is the program on your computer that you use to visit websites. Popular browsers include Chrome, Firefox, Internet Explorer, Opera, and Safari.

Just as you go to a library to 'browse' through books, you can find or explore pages on the Internet using an Internet browser. A browser is a type of software on your computer that lets you access to the Internet. The browser acts as a window displaying to you the various websites where information lives. All you have to do is type a web address into your browser and you are instantly taken to that website.

Video: <https://www.youtube.com/watch?v=n8neFZwd9eE>

How do I make the text in my browser bigger (or smaller)?

Sometimes the words on your screen may be too big or too small for you to read them comfortably. To change the size of the words on your browser, press and hold the [control] or [command] button on your keyboard and tap on the plus [+] or minus [-] key. Selecting [+] will make your words bigger, and selecting [-] will make your words smaller.

Video: <https://www.youtube.com/watch?v=z3Min1pojo8>

How do I browse the web with tabs?

If you are exploring one website on your browser and would like to look quickly at another website, all you need to do is create a new tab. The tab is basically another window within the same browser. By creating a tab, you can easily jump between websites. How to create a tab will depend on what browser you use. In Google Chrome you simply click on a new tab.

How do I update my browser?

Using the newest version of your browser means a faster and more secure browsing experience. Figuring out how to update your browser will depend on the type of browser you are using. Each browser type – like Chrome, Firefox, Internet Explorer, Safari to name a few – will have a different update process. The Chrome browser, for example, automatically updates whenever it detects that a new version of the browser is available. The update process happens in the background and doesn't require any action on your part.

Finding Information Online

What is search and how does it work?

Search does exactly what it says. It searches. For example, if you type the word “cars” into Google's search engine, the request is sent from your device through the Internet to Google. Google looks for the correct search results and send them back to your device – all in a fraction of a second.

Search engines achieve these results by crawling and indexing all the information that lives online. The world's information is doubling every two years and the challenge of connecting people with what they're looking for isn't getting any simpler – especially for the 16% of searches every day that are new. Engineers need to constantly work hard to improve search so businesses and customers can keep finding each other.

Video: <https://www.youtube.com/watch?v=1j6XNswPpxg>

How do I search most effectively? How do I know which search result to follow?

First, you should keep in mind three simple tips before you begin searching:

Search terms should be simple. Describe what you're looking for with the least possible terms. Imagine how the page you wish to find should be written. Use words that may appear in the page.

Use descriptive and specific words. Avoid common words.

When choosing a link to follow, consider the title, the snippet and the web address. These pieces of information provide necessary clues to what you may find on the resulting page. Some common questions to ask yourself before clicking on a result:

Do I know the domain? (For instance: google.co.in, pandora.com)

What type of domain is it? (For instance: .com, .edu, .gov, .club, .info, etc.)

Video: <https://www.youtube.com/watch?v=fXFbQKz3anw>

How do I get directions on Google Maps?

Looking for the nearest gas station on your road trip? Trying to get to grandmother's house? Getting driving, walking or transit directions is simple. On Google Maps for desktop and your mobile device, you just need to enter in your current location and the address of your destination.

Video: <https://www.youtube.com/watch?v=wtXFWU4r9FQ>

How do I translate text?

Learning a new language or understanding signposts in a foreign country has never been so easy. With online translation tools, you can quickly translate everything from small snippets to entire websites and book chapters.

Google Translate is one of these free translation tools.

Video: https://www.youtube.com/watch?v=di_Jt7eHvEQ

How do I make bookmarks?

Most browsers allow you to save shortcuts to your favorite websites. By bookmarking your most frequented websites, you can quickly navigate to the page without typing in a URL. In Google Chrome you simply click on the star on the right hand side of the address bar.

Connecting and Sharing:

What is cloud computing?

Simply put, every time you use the Internet, you are cloud computing. What this means is, all the information you seek is stored on servers in various locations around the world. Whether you're watching a video, reading the news or listening to music, you're getting information from the cloud, not from your computer's hard drive.

In recent years, cloud computing offered even more benefits. Now we can upload our own personal files (photos, videos, documents, music, etc.) to cloud servers and access them from any computer, protecting us from losing these files to viruses, crashed hard drives, or our own human error. Google's version of cloud storage is called Google Drive.

Video: <https://www.youtube.com/watch?v=doHnLiAzQ5M>

What are web applications, and how do they work?

If you play online games, use an online photo editor, or frequent web-based services like Google Maps, Twitter, Amazon, YouTube or Facebook, then you're an active resident in the wonderful world of web apps.

Web applications, also known as "apps" are programs that live on your browser or on your mobile device. They connect you to Internet services enabling you to do simple tasks, like bookmark websites and check emails. They also can do more complex tasks like share photos, navigate cities or listen to music. Your standard car navigation system is a good example of an app. Within this app, you can get real-time information based on your location. You can pan and zoom around the map, get driving directions, find alternate routes and search for specific destinations.

In addition to accessibility, web apps are actually safer. Since they run in your browser, you never have to download them to your computer, protecting you from [viruses](#), [malware](#) and [spyware](#). You now have much more access, and much safer access than ever before.

Video: <https://www.youtube.com/watch?v=ljQ4HLRIaHM>

What is open source?

To understand what "open source" is, it's important to first know what "source code" is. Source code is the language in which software is written. It's the language used in web browsers and applications telling the software how to operate and behave.

"Open source" means the source code is open and available for anyone to look at. You can experiment with, tweak or add, and reuse it for other products or services. The web browsers Chrome and Firefox are examples of open source software.

Video: <https://www.youtube.com/watch?v=hhm5jw3pN8U>

What is email?

Email stands for electronic mail. Sending an email is like posting an electronic version of a letter. When you send your email, it usually arrives at its destination in seconds. Just like a house address, everyone has a unique email address. You have to create an email account so that you can send and receive mail.

If you already have an email address and want to create a new one, it is quick and easy.

Video: <https://www.youtube.com/watch?v=HJ4XUsxqvG8>

How do I transfer files between computers?

If you have a big file or even a few small files, you can easily transfer them from computer to computer by using a USB flash drive. A USB flash drive is basically a small storage device that you can drop in your files. When you plug the device into another computer, you can then drag and drop that file over.

Video: <https://www.youtube.com/watch?v=l2EmJAJ5-a4>

How do I manage my digital reputation?

As you start to create and upload content online, take a moment to think about what you're sharing and its impact on others. What you post and the content you upload will represent your online self. This is also known as your digital reputation. Don't forget the invisible audience – those who might be able to see your content or reshare it without your knowledge. Rule of thumb: if you don't want your grandmother to see it, don't post it.

Make sure to visit your privacy and security settings on social networking platforms.