OVERVIEW OF THE INTERNET

FOR LIFELONG LEARNERS

Expectations

Developed for first-time Internet users and novices, this workshop explains what the Internet is and how to effectively use a browser like Chrome or Edge. The class includes tips and tricks for effective internet searches and how to navigate the internet like pro. Internet safety practices are emphasized so students can more effectively secure their personal information online.

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OVERVIEW OF THE INTERNET

THE INTERNET: THE LIFEBLOOD OF MODERN SOCIETY

In today's fast-paced world, the Internet has become nothing short of indispensable. It's more than just a technological marvel; it's the lifeblood of modern society. Here's why the Internet's importance can't be overstated:

A Vast Information Repository: The Internet is a boundless source of knowledge, offering access to information on virtually any topic. Whether you're researching for work, learning a new skill, or satisfying your curiosity, the Internet is your go-to library, open 24/7.

Global Connectivity: The Internet shrinks the world. It enables instant communication with loved ones across continents, fostering global friendships and cultural exchanges. Video calls and social media platforms make distance feel irrelevant.

Economic Engine: Online commerce is booming. From shopping for everyday essentials to launching global businesses, the Internet has revolutionized the way we buy and sell. It's a marketplace that never sleeps.

Remote Work and Learning: Especially relevant in recent times, the Internet has made remote work and online education accessible. It offers flexibility and new opportunities, changing the way we approach careers and learning.

Endless Entertainment: Streaming services, gaming, and social media provide endless entertainment options. It's where you binge-watch your favorite series, connect with fellow enthusiasts, and discover new passions.

Awareness and Activism: Social media platforms amplify social and political movements. They're tools for raising awareness, mobilizing communities, and advocating for change.

Lifelong Learning: Online courses and resources empower lifelong learning. It's never too late to acquire new skills, explore hobbies, or embark on academic pursuits.

In a nutshell, the Internet isn't just a tool; it's a transformative force that shapes how we live, work, learn, and connect. It's a testament to human innovation and the gateway to endless possibilities. As you navigate this digital landscape, remember to use it responsibly, harness its potential, and make the most of the incredible resource that is the Internet.

DEFINING THE INTERNET: A DIGITAL WEB OF CONNECTIONS

The Internet, often referred to as the "World Wide Web," is a vast, interconnected network of computers and devices that spans the globe. It's like a colossal electronic spider web, linking people, information, and services together. But how does this digital marvel work?

At its core, the Internet relies on a few key concepts:

Servers: Think of servers as the post offices of the Internet. They store and manage websites, files, and data. When you type a web address into your browser, your request is sent to a server, which then sends the website's content back to your device. It's like requesting a letter from the post office, and they send it to your mailbox.

Routers: These are like traffic directors of the Internet. Routers determine the most efficient path for your data to travel from your device to its destination, whether that's a website server or a friend's smartphone. They ensure data takes the shortest route, just like GPS guiding you to the nearest coffee shop.

Data Packets: Imagine your data as tiny parcels of information. To traverse the Internet, your data is divided into packets. Each packet contains a piece of your request, like a page from a book. These packets zip through the Internet's highways, taking different routes and reassembling at their destination. It's like mailing a jigsaw puzzle in pieces and having it put together at the other end.

Protocols: These are the rules and languages that computers on the Internet use to communicate. HTTP, for instance, is a protocol for web pages. It's like everyone on the Internet speaking a common language so they can understand each other.

In essence, the Internet is a massive, intricate web of connections that allows you to access information, communicate with others, and share data worldwide. It's a digital miracle that operates seamlessly thanks to the cooperation of countless servers, routers, and data packets, making the world feel smaller and more connected than ever before.

INTERNET VS. WORLD WIDE WEB

The terms "Internet" and "World Wide Web" are often used interchangeably, but they refer to distinct components of our digital landscape. Let's unravel the difference between the two, along with some common terminology:

INTERNET

The Internet is the foundational infrastructure, the vast network of interconnected computers and devices that spans the globe. It's like the highway system that allows data to travel. It

encompasses various services and technologies, with the World Wide Web being just one of them.

WORLD WIDE WEB (WWW)

The World Wide Web, or simply the Web, is a subset of the Internet. It's a collection of multimedia documents (web pages) linked together by hyperlinks. Think of it as the information you access using a web browser like Chrome or Firefox.

OTHER INTERNET SERVICES

Internet offers a wide range of services beyond the World Wide Web. Here are some of the most notable.

Email: Electronic mail, or email, allows you to send and receive messages and files over the internet. Services like Gmail, Yahoo Mail, and Outlook are popular email providers.

File Transfer Protocol (FTP): FTP is used for uploading and downloading files between computers on the internet. It's often employed for website maintenance and file sharing.

Instant Messaging (IM): IM services like WhatsApp, Facebook Messenger, and Slack enable real-time text, voice, and video communication with individuals and groups.

VoIP (Voice over Internet Protocol): VoIP services such as Skype and Zoom allow you to make voice and video calls over the internet, often at lower costs than traditional phone services.

Online Gaming: Online gaming platforms like Steam, Xbox Live, and PlayStation Network provide multiplayer gaming experiences and digital game distribution.

Streaming Services: Services like Netflix, Spotify, and YouTube offer streaming of movies, music, and videos over the internet.

Online Storage and Backup: Cloud storage services like Google Drive, Dropbox, and iCloud let you store and sync files across devices.

Internet of Things (IoT) Services: These services connect and control smart devices like thermostats, cameras, and lights via the internet.

COMMON TERMS

URL (Uniform Resource Locator): A URL is like a web address. It's a string of characters that specifies the location of a resource on the Internet. For example, "https://www.gself.com" is a URL. It tells your browser where to find a specific website.

Website: A website is a collection of related web pages hosted on web servers. It's like a digital storefront or a book with multiple chapters. Each page can contain text, images, videos, and links to other pages.

Hyperlink: Hyperlinks, often referred to as links, are like magical bridges on the web. They are clickable elements that connect one web page to another, allowing you to navigate the Internet seamlessly. When you click a hyperlink, it takes you to a different page or resource.

Search Engine: Search engines, like Google and Bing, are your friendly librarians in the digital world. They index the vast web, making it easy to find specific information. When you type a query, the search engine provides a list of relevant web pages.

In summary, the Internet is the massive network that connects devices globally, while the World Wide Web is a subset of the Internet, consisting of interconnected web pages accessed through web browsers. Understanding these terms and their distinctions is crucial for navigating the digital realm effectively.

NAVIGATING THE WEB

TOP 5 WEB BROWSERS

When it comes to web browsers, there are several options available today, each with its own strengths and weaknesses. Here's an overview of the most popular web browsers.

Google Chrome (64%): Google's Chrome is user-friendly and fast, but it can use a lot of computer resources. Some worry about data collection by Google.

Apple Safari (20%): Safari is secure and private, perfect for Apple users. However, it's exclusive to Apple devices and has fewer extensions.

Microsoft Edge (5%): Microsoft's Edge is efficient and works well with Windows, but it's newer and has fewer features and extensions.

Mozilla Firefox (3%): Firefox is customizable and privacy-focused, open-source, but may be a bit heavier with too many extensions.

Other (8%): There are several other browsers with a small percentage of usage.

ACTIVITY 1: START THE BROWSER

1. Start by typing *Chrome* into the Windows search box down in the bottom-left corner of your screen.

2. Look for the **GOOGLE CHROME** link in the search results and give it a click. That's your gateway to the web!

3. With *Chrome* open, enter *google.com* in the search bar at the top of the screen and press **ENTER**.

4. Click Google's search box and type *dogs*.

5. When the search results appear, start scrolling to explore the links Google returns.

UNVEILING THE POWER OF SEARCH ENGINES

In today's digital age, search engines have become our compasses in the vast wilderness of the Internet. These virtual guides help us navigate the billions of web pages to find the information we seek. But what exactly is the purpose of search engines, and why are they so crucial in our online journeys?

THE PURPOSE OF SEARCH ENGINES

Search engines are specialized software applications designed to retrieve and display information from the World Wide Web. Their primary purpose is to assist users in finding relevant content quickly and efficiently. Here's how they do it:

Indexing the Web: Search engines use "spiders" to continuously explore the web and index the content of web pages. Think of it as building a massive library catalog, with each web page represented by a card in the catalog.

Responding to Queries: When a user enters a search query, the search engine sifts through its vast index, looking for pages that match the query. It considers various factors, including keyword relevance, website authority, and user experience.

Presenting Results: The search engine then displays a list of search results, ranked by relevance. Each result typically includes a title, snippet of content, and a URL. This allows users to preview and select the most relevant pages.

WHY ARE SEARCH ENGINES IMPORTANT

Search engines are the gateways to the Internet, and their importance cannot be overstated.

Information Retrieval: They enable users to access a wealth of information, from academic research to local restaurant reviews, with a simple query.

Time Efficiency: Search engines save time by quickly delivering relevant results. Instead of sifting through pages of irrelevant content, users get what they need within seconds.

Discoverability: They aid in discovering new websites, businesses, and resources, supporting both users and content creators.

COMPARING POPULAR SEARCH ENGINES

Google: Google is the reigning king of search engines, known for its lightning-fast and accurate search results. It offers personalized results based on user behavior and is integrated with a suite of other services like Gmail and Google Maps.

Bing: Microsoft's Bing provides robust competition to Google, with visually appealing search results and an integrated rewards program. It's also the default search engine for Microsoft's Edge browser.

DuckDuckGo: DuckDuckGo stands out for its unwavering commitment to user privacy. It doesn't track or personalize search results, making it an attractive option for those concerned about data privacy.

ACTIVITY 2: SEARCH WITH GOOGLE

1. With *Google Chrome* still open, create a new tab by clicking the **PLUS** button on the right of the open tab.
2. In the search box, type the name of a city you know to discover its population.
3. Open a new tab and search for information about climate change. To determine the reliability of the returned links, use clues like the source domain, contact information, and similar news on other reputable sites.
4. To find scholarly papers or court cases, go to *scholar.google.com* and press **ENTER**. Now, find a research report about coal mining.

ACTIVITY 3: DEFAULT SEARCH ENGINE

1. In Google Chrome, click the three dot menu button in the top right corner of the screen.
2. Select **SETTINGS**.
3. On the settings page, select **SEARCH ENGINE**.
4. Select **DUCKDUCKGO** as the new default search engine.
5. Close the *Settings* tab by clicking the **X** button on the right edge of the tab's title.

ACTIVITY 4: SEARCH WITH AI

1. Create a new tab by clicking the **PLUS** button on the right of the last open tab.
2. Type *bing.com* in the address bar and press **ENTER** .
3. Click **CHAT** at the top of the page.
4. Click **MORE PRECISE** near the center of the page.
5. Enter this prompt: *What is the population of Tucson, AZ?*
6. Click **NEW TOPIC** on the left of the input box at the bottom of the page.
7. Click **MORE CREATIVE** near the center of the page.
8. Enter this prompt: *Write a short poem about summer*.

EXPLORING AND ORGANIZING BOOKMARKS IN GOOGLE CHROME

ACTIVITY 5: WEB SHORTCUTS

1. Create a new tab by clicking the **PLUS** button on the right of the last open tab.
2. In the address bar, enter *https://en.wikipedia.org/wiki/Arizona*
3. To save this link, look for the **ADD FAVORITE** star on the right side of the address bar. Click it and choose the **FAVORITES BAR**.
4. Right-click **ARIZONA – WIKIPEDIA** on the Favorites Bar, select **EDIT**, and change its name to *Arizona*. Don't forget to save!
5. To remove a favorite, right-click the updated **ARIZONA** on the Favorites Bar and select **DELETE**.
6. Right-click the web address in *Google Chrome* and choose **COPY**.
7. Right-click on your desktop and select **SHORTCUT**.
8. Paste the web address into the *Location* text box and click **NEXT**.
9. Give your shortcut a memorable name and click **OK**.

EXPLORING THE SOCIAL MEDIA LANDSCAPE

Social media has revolutionized the way we connect, share, and communicate in our digital age. It's a dynamic world where individuals and communities come together, transcending geographical boundaries.

UNDERSTANDING SOCIAL MEDIA

Social media is an online ecosystem where users create, share, and interact with content. It encompasses a wide array of platforms, each with its unique features and purposes. Here are the most popular social media platforms as of Spring 2024.

1. **Facebook** remains the giant, with an astounding 2.91 billion active users monthly. It's the largest social networking site globally, allowing users to connect, share, and engage with a vast array of content.

2. **YouTube** follows closely with 2.6 billion monthly active users. As the largest video-sharing platform, it's a hub for a wide variety of content, including music videos, tutorials, and entertainment. YouTube has a staggering rate of video uploads. More than 500 hours of content are uploaded every minute, which translates to over 720,000 hours of video per day. To put it into perspective, if you were to sit down and watch YouTube videos non-stop, without a break, it would take you several lifetimes to get through just one day's worth of new content uploaded to the platform!

3. **Instagram** has 2.35 billion monthly users, known for its visually appealing content. It's popular among influencers, businesses, and brands for marketing and showcasing creativity.

4. **TikTok**, with its 1 billion monthly active users, is a testament to the popularity of short-form video content. It's renowned for its fun, creative content featuring dance challenges, lip-syncs, and comedy skits.

5. **Pinterest** attracts 450 million active monthly users, serving as a visual discovery and bookmarking site. It's ideal for discovering new ideas and planning projects, particularly for visually-oriented businesses and brands.

6. **Snapchat** boasts 750 million monthly active users. Known for its multimedia messaging, including disappearing photos and videos, it offers a unique, privacy-focused social experience.

7. **Reddit** sees 81.0 billion visits in 2023, highlighting its role as a cornerstone of internet culture with a community-driven approach to content.

8. **Twitch**, primarily a live streaming platform for gamers, recorded 20.0 billion visits in 2023. It's indicative of the rise in popularity of gaming and live streaming content.

9. **Quora** has also seen significant growth, with 19.0 billion visits in 2023. As a question-and-answer platform, it caters to those seeking and sharing knowledge.

10. **LinkedIn** continues to be the professional networking site, with 134.5 million active users. It's a powerful tool for career development, job searching, and business networking.

These platforms, each with its unique features and user base, reflect the varied ways people connect, share, and consume content online in 2024.

ACTIVITY 6: EXPLORE YOUTUBE

1. Create a new tab by clicking the **PLUS** button on the right of the last open tab.

2. In the address bar, enter *youtube.com*.

3. Browse a few of the YouTube videos available. Using the YouTube search feature, look for these types of videos:

    1. Podcast about science

    2. Full-length action movie

    3. Tutorial about drawing

    4. Product review for iPhone 15

    5. Behind the scenes at a football game

ACTIVITY 7: COMMON ONLINE ACTIVITIES

Maps

1. Create a new tab by clicking the **PLUS** button on the right of the last open tab.

2. In the address bar, enter *maps.google.com*.

3. On the map search box, enter *Grand Canyon Village*.

4. Drag and drop the "Pin Man" onto the map to explore the village. See if you can find a view of the Grand Canyon.

Shopping

1. Create a new tab by clicking the **PLUS** button on the right of the last open tab.

2. In the address bar, enter *etsy.com*.

3. Search for a child's apron.

Virtual Tours

1. Create a new tab by clicking the **PLUS** button on the right of the last open tab.

2. In the address bar, enter *virtualyosemite.org*.

3. From the Virtual Yosemite home page, click **EXPLORE THE PARK LIKE NEVER BEFORE** or any of the virtual tours listed below that link.

Recipes

1. Create a new tab by clicking the **PLUS** button on the right of the last open tab.

2. In the address bar, enter *jojorecipes.com/meatloaf/*.

3. Explore the site to look for other recipes.

NAVIGATING ONLINE SAFELY: AWARENESS AND PROTECTION

In our increasingly digital world, where online activities have become an integral part of daily life, it's crucial to be aware of common online threats and take measures to stay secure. Here, we'll explore some prevalent online dangers, such as malware and phishing, and offer tips to safeguard your digital presence.

TIPS FOR STAYING SAFE ONLINE

Strong Passwords: Use complex, unique passwords for each online account. Consider using a reputable password manager to generate and store them securely.

Software Updates: Keep your operating system, browsers, and applications up to date. Updates often include security patches that address known vulnerabilities.

Email Vigilance: Be cautious with email attachments and links, especially if the sender is unfamiliar or the message appears suspicious. Don't click on unsolicited links.

Two-Factor Authentication (2FA): Enable 2FA whenever possible. This adds an extra layer of security, requiring a second verification step beyond a password.

Use Antivirus Software: Install reputable antivirus software to detect and remove malware. Regularly scan your devices for threats.

Secure Wi-Fi: Use a strong, unique password for your home Wi-Fi network. Avoid using public Wi-Fi for sensitive transactions.

Practice Safe Social Media: Be mindful of the information you share on social media platforms. Cybercriminals can use personal details for targeted attacks.

Trust Your Instincts: If something seems too good to be true or feels suspicious, it probably is. Trust your instincts and err on the side of caution.

By staying vigilant and implementing these security measures, you can reduce the risks associated with common online threats and navigate the digital landscape with confidence and peace of mind.

PROTECTING PERSONAL INFORMATION

In today's digital age, where information flows freely across the Internet, safeguarding your personal information has never been more critical. Your digital identity, comprising details such as your name, address, financial data, and even your online behavior, is valuable not only to you but also to malicious actors seeking to exploit it. Here, we'll delve into the importance of protecting personal information online and provide guidance on privacy settings and managing your online presence.

WHY PROTECTING PERSONAL INFORMATION MATTERS

Identity Theft: Cybercriminals can use stolen personal information to impersonate you, commit financial fraud, or gain unauthorized access to your accounts.

Privacy Preservation: Keeping your personal information private helps protect your autonomy and control over what you share and with whom.

Avoiding Scams: Protecting your data reduces the risk of falling victim to scams, phishing attempts, or online fraud.

Preventing Cyberbullying: Personal information can be used for cyberbullying or harassment, affecting your mental and emotional well-being.

TIPS FOR PROTECTING PERSONAL INFORMATION

Privacy Settings: Review and adjust privacy settings on social media platforms and other online services. Limit the amount of personal information visible to the public or even friends and acquaintances.

Regularly Review Online Profiles: Periodically review your online profiles and remove or limit personal information that you no longer wish to share.

Monitor Financial Statements: Regularly review your financial statements and credit reports for any unauthorized activity.

Secure Your Devices: Use reputable antivirus software, keep your devices up to date, and ensure your home Wi-Fi network is secured with a strong password.

Be Cautious with Apps: Only download apps from trusted sources, and review app permissions before installation.

ACTIVITY 8: BROWSER SETTINGS

1. Open *Google Chrome*.

2. Click on the **THREE DOTS** menu button in the top-right corner of the screen.

3. From the menu options, select **SETTINGS**.

4. In the *Settings* menu, click on **PRIVACY AND SECURITY**.

5. Interested in cookies? Click on **THIRD-PARTY COOKIES** to restrict these tools.

6. While you're here, take a look at the other privacy settings on this page.

7. Scroll to the bottom of the page, and click **ADDRESS BAR AND SEARCH**.

8. To explore different search engines, click **SEARCH ENGINES**.

9. Now, take a comprehensive review of all your *Google Chrome* settings.

10. Once you've explored and personalized your settings, close the *Settings* tab.

LAST WORDS

The Internet is a vital part of our lives, offering many benefits.

Access to Information: It's like an always-open library with endless knowledge.

Global Connection: It helps us talk to people worldwide through video calls and social media.

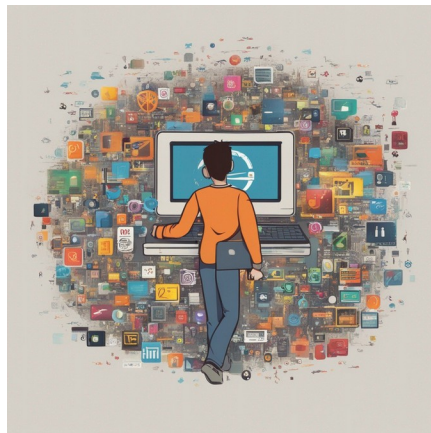**Online Shopping**: We can buy almost anything online.

Work and Learning: It enables remote work and online education, giving us more options for careers and learning.

Entertainment: We can watch shows, play games, and connect with others for fun.

Social and Political Change: Social media helps raise awareness and support causes.

Lifelong Learning: You can always learn new skills or explore hobbies online.

The Internet isn't just a tool; it transforms how we live and connect. We should use it responsibly and make the most of its potential.

APPENDIX: RECOGNIZING MISINFORMATION AND AVOIDING SCAMS

RECOGNIZING ONLINE MISINFORMATION:

1. **Source Evaluation:** Check the credibility of the website or author. Reliable sources often have established credibility in their field.

2. **Cross-Verification:** Verify information with multiple trusted sources.

3. **Check the Date:** Outdated information can be misleading.

4. **Beware of Sensationalism:** Headlines or content that seem overly sensational or evoke strong emotions might be misleading.

5. **Fact-Checking Websites:** Use reputable fact-checking websites to verify information.

AVOIDING MALWARE AND PHISHING SCAMS:

1. **Suspicious Links and Attachments:** Avoid clicking on unknown links or downloading attachments from unfamiliar sources.

2. **Secure Websites:** Ensure the website is secure (look for 'https' in the URL and a lock symbol).

3. **Personal Information Safety:** Never share personal information like passwords or bank details over email or unsecured websites.

4. **Update Software:** Keep your operating system and antivirus software up to date to protect against malware.

5. **Emails from Unknown Senders:** Be cautious with emails from unknown senders, especially those requesting personal information or action.

6. **Pop-Up Warnings:** Be wary of pop-ups warning of viruses or offering prizes; they could be phishing attempts.