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Guidelines for Reducing Digital Carbon Footprint

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Guidelines for reducing digital carbon footprint

The rapid growth in data usage, the increasing number of electronic devices, and new digital services are putting more strain on the environment. Every online activity consumes electricity: browsing on a smartphone drains its battery, and data travels long distances through networks. Most of this energy use is not directly reflected in the consumer's electricity bill, as the energy is consumed by globally distributed servers and data centres that require constant cooling. This makes it difficult to estimate the emissions caused by one's own internet use.

The carbon footprint of individual online activities is small, but with two-thirds of the world's population now using the internet, the overall impact is significant. Therefore, the choices made by all electronics users matter in reducing environmental effects.

Reduce searches

Search queries consume energy, so if you know the address of the website you want, it's better to go directly to it. Direct addresses also offer better security. Bookmarking regularly used sites makes access easier.

Keep your browser tidy by closing unnecessary tabs, as having many tabs open increases your device's energy consumption and maintains constant connections to various servers. This load increases especially when tabs with ads are open. You can put unused tabs to sleep and remember to clear your browsing history from time to time.

Use AI sparingly, as large language models consume more energy than a single search engine query. If you only need a quick translation or a simple calculation, lighter applications are a better choice than AI services.

For quick information searches, using a mobile device such as a smartphone or tablet can be more energy-efficient than a computer.

Minimize the carbon footprint of emails

Sending emails consumes a lot of energy, so for short matters, it's better to use fast communication tools like Teams. It's also wise to avoid unnecessary emails that simply say "ok" or "thanks."

Send messages only to those who truly need them, and avoid attaching large images or files to emails. Share documents via links if possible. Keep your email signature as simple as possible and without images, especially in internal organizational messages.

Unsubscribe from unnecessary newsletters and delete messages that you have already processed, especially those with large attachments. Remember to regularly empty your spam folder.

Turn off devices and use power-saving settings

The larger the device's screen, the more energy it consumes. Reducing screen brightness helps save electricity. Laptops use less energy than desktop computers.

Set your computer to go to sleep automatically when not in use, and turn off devices completely if you'll be away for a longer period. Separate monitors should also be turned off entirely.

Modems can consume a lot of electricity because they are often left on continuously. Turn them off when leaving home for an extended time. Your phone's battery will also last longer if you use its power-saving settings.

View and create video content with careful consideration

About 80 percent of global internet traffic consists of downloading and uploading various videos. Streaming services are significant energy consumers. Video consumption can be consciously reduced both at home and at work.

Lowering the resolution of videos reduces energy consumption considerably, and in Teams meetings, you can keep your camera off when it's not needed, such as during presentations or when it's not your turn to speak. In video calls, you can lower the default video quality in the meeting platform's settings, which also helps reduce emissions. It's also advisable to try to shorten the duration of video meetings.

Videos should not be used as background music, and browser tabs that may be playing video ads unnoticed should be closed. Disabling automatic video playback also promotes energy efficiency.

Prefer fixed broadband

Mobile networks are significantly less energy-efficient compared to fixed networks. Therefore, it is recommended to use fixed broadband and wireless networks (Wi-Fi) whenever possible. In particular, streaming videos should be avoided on mobile networks to minimize energy consumption.

Clean up regularly

Go through your cloud services regularly and delete unnecessary or duplicate files, images, and videos. Agree with colleagues on cleaning up shared folders and removing unnecessary or outdated files. Archive or delete old online content, such as social media posts and blog entries, as well as unnecessary social media accounts.

Remove unused apps or at least disable app notifications. Turn off GPS and Bluetooth functions when not in use. Also clean up your phone's text messages and other message history. Save data locally on your device or transfer rarely needed files to an external hard drive when possible and safe. These do not consume energy when not in use, unlike cloud services.

Use the internet wisely

Many people check social media and email several times a day without a clear purpose and often perform searches on search engines just for fun. Changing these habits can be justified both from an environmental perspective and for improving personal well-being. Reducing multitasking, ie. using several devices at once, helps increase concentration and positively affects the environment. Limiting screen time has also been shown to bring significant health benefits.

Consider your device needs carefully

Digital devices consume a lot of materials, so it's worth extending their lifespan by repairing and maintaining them. Buying a new device is not always necessary, and used, good-quality devices can be found from reliable sellers. Old devices should be recycled when no longer needed. A new device is a sensible purchase only if it is clearly more energy-efficient and will be used extensively.

Websites also have their own environmental burden

A website owner cannot fully control the site's carbon footprint, as electricity is consumed at every stage of website use. The most effective way is to reduce the carbon footprint during the site's design, by choosing appropriate technologies and construction methods to influence server and site load. Investing in mobile-friendliness helps reduce users' device energy consumption, as mobile devices require less electricity than laptops or desktops. Therefore, increasing the number of mobile users is beneficial.