How to reduce your daily digital footprint?

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This document presents in a succinct manner the practical actions that can be taken on a daily basis to reduce our digital footprint.

THE ORIGIN OF OUR DIGITAL FOOTPRINT

Although the activities conducted via digital are done virtually, i.e., without meeting and moving, they are done with the help of physical media and energy, be it electronic devices (computers, phones, tablets, headsets, etc.); internet connection equipment linking nations together (cabling, connection boxes, Wi-Fi, transmission towers); and data servers, their power supply and cooling.

The manufacture of these goods requires energy and a wide variety of rare, critical or precious metals, plastics and organic substances. These substances, sometimes dangerous for human health and the environment, are mostly collected and processed outside our borders. A small fraction of the appliances is recycled domestically (13%). The rest is buried, incinerated or sent abroad, sometimes illegally. The social and environmental impacts resulting from the exploitation of resources and the disposal of electronic devices at the end of their life are increased by their short lifespan. Typically, a smartphone is only used for about two years and a laptop for five years. It is also well documented that the lifespan of electronic goods decreases over time.

The use of these goods and the use of the Internet requires energy (electricity) to power all the servers that store the data and send it around the world. As these servers are sometimes located abroad, a significant part of them is powered by fossil fuels and emit CO_2, as do the networks transporting the information from these servers to the users. This is why we can consider that each request made on a search engine or each email sent has a carbon footprint. Similarly, playing videos or having meetings on Zoom or Teams requires energy and results in GHG emissions.

The more massive the data, the greater the impact. For example, an email with a large attachment will have a much higher carbon footprint than a simple message; or watching a high-resolution video has more impact than watching it at low resolution; and every file we put in a cloud space increases the size of the servers, and therefore our carbon and hardware footprint.

Although servers and networks have a carbon footprint, we have to keep in mind that most of the problem in countries like Canada lies in the manufacturing phase of the devices: they use local decarbonized electricity, but

are manufactured in Asia, notably in China with its numerous coal-fired power plants. They are too often thrown away and replaced, posing a double problem: on the one hand the depletion or dependence on critical materials as well as the pollution and ecological impacts to obtain them, on the other hand the accumulation of electronic waste (e-waste) at the end of life that is difficult to recycle and dangerous for the environment. It is estimated that 80% of an Internet user's ecological "backpack" resides in this phase of terminal manufacturing.[1]

Here are some simple practical steps you can take to reduce your digital footprint.

CONCRETE ACTIONS TO REDUCE YOUR DIGITAL FOOTPRINT

Many of the actions presented below are done quickly, especially when implemented on a daily basis. The most time consuming is the first implementation since there are more things to do. The following section is organized into three parts: materials; internet, email and files; videos and conferences.

Equipment (computers, tablets, phone, etc.)

- Buy second hand
- Buy according to your needs (you don't need a high-performance PC if you only do the web, or a large screen if you don't need contrast, etc.)
- Keep your devices for a long time
  - Buy durable devices. In particular, choose them so that they are not quickly obsolete, and sufficiently "open" and modular (removable battery, etc.) to be able to change parts
  - Add memory space as needed and change the hard drive or battery in laptops rather than buying a new device
  - Buy your equipment from a qualified dealer who will be able to give you good after-sales service
- Favour pro-perso (professional-personal) use if possible
- Use moderate screen brightness and contrast to limit electricity consumption and spare your eyes
- Use environments with black backgrounds proposed by software and applications (Facebook, Google, etc.)
- Close unnecessary applications that remain open during work
- Fight against software obsolescence by replacing obsolete operating systems with more flexible ones (e.g.: switch to Linux if your computer is no longer supported by Windows)
- Turn off unused computers and monitors rather than keeping them on standby
- Turn off monitors, computers and power bars at the end of the day

Internet, emails and files

- Regularly reduce the space occupied in your email box(es)
  - Delete unnecessary or outdated messages from folders, including inbox, sent messages and spam
  - Delete unnecessary attachments from emails that you want to keep
  - Create automated rules to automatically delete or categorize recurring messages for quick removal (see "PROCEDURES TO PRACTICE ACTIONS" below)
  - Regularly empty the spam folder and the deleted items folder
  - Regularly archive your emails
- Reduce the space occupied on its servers

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[1] Impact environnemental du numérique : tendances à 5 ans et gouvernance de la 5G, The Shift Project (2021) https://theshiftproject.org/wp-content/uploads/2021/03/Note-danalyse_Numerique-et-5G_30-mars-2021.pdf, accédé le 25 mars 2022

- o Regularly delete unnecessary or outdated files on institutional and personal servers (iCloud, OneDrive, Google Drive, Dropbox, etc.)
    - Especially videos and images
    - As well as multiple versions of the same document
    - Recognize that you cannot have access to all your documents everywhere and at all times, and that it may be preferable or necessary to have a local backup on a hard drive that you already have
- Be measured in sending emails
    - o Do not systematically "reply to all" by limiting yourself to necessary occasions.
    - o Limit the sending of attachments and, if necessary, use a link to a Dropbox for example
    - o Prefer instant messaging when for quick exchanges
- Do not include large signatures in all your emails (images)
- Create attachments that are as "light" as possible, such as those that incorporate images (Powerpoint, Word, PDF, etc.)
    - o Restrict yourself to a minimum size of images that is sufficient to ensure a pleasant reading (there are plenty of ways to reduce the weight of images without any real loss: dimensions, number of colors, etc.); same for videos
- Bookmark the sites you visit regularly rather than using a search engine; you can also bookmark the sub-pages of each site to save several clicks and queries
- For a detailed reading of PDF files, prefer to read them on a computer rather than online
- Close applications that run in the background but are still active (Slack, Teams, Skype, etc.)

Videos and videoconferences

- Do not systematically use video conferencing in favor of the phone
- Watch low resolution videos (YouTube, Zoom, Teams, etc.), there are plug-ins to force low resolution automatically
- Avoid listening to music on YouTube
- Download a video and play it on your computer rather than streaming it; the same goes for Spotify music, etc.
- Adjust the settings on YouTube and similar sites so that the default resolution is not "high definition" (see "PROCEDURES FOR TAKING ACTION" below)
- Adjust the default settings of applications like Facebook so that videos do not start automatically

SOME PROCEDURES TO PUT THE ABOVE ACTIONS INTO PRACTICE

YouTube

In the parameters (icon at the bottom of a video), choose the lowest image quality

Disable automatic video playback: icon

Facebook

At the top right, on the arrow pointing down, go to Settings and Privacy. Then click on Settings. In the left column, at the bottom, choose Videos

- In Default video quality, choose standard definition only
- In Auto playback of videos, choose " Disabled ".
- In Default video volume, choose "Mute"

Outlook

To automatically delete recurring messages from a sender:

- Right click on the message and choose "Rule" and "Create a rule”
- Click on "Server »
- Choose "Advanced Options”
- Check the recipient's box
- Click on "Next”
- Check "Delete permanently" or "Move to Deleted Items")