**Changing our online habits to save the planet.**

Did you know that the internet, and systems which support it, generate the **same amount of greenhouse gas emissions as the airline industry** and this is expected to **double** by 2025? (1)

Not only that, but research commissioned by OVO Energy (2) revealed that over **64 million unnecessary emails a day** are sent in the UK, equating to around 81,000 flights from Heathrow to Madrid, or taking roughly 3,3400 diesel cars off the road! As email and instant messaging (WhatsApp, Microsoft Teams, Zoom, Instagram or Tiktok) becomes an increasing part of our daily lives, the carbon footprint it leaves is growing rapidly.

****Even more shockingly, people in Britain produce a carbon footprint (measured in carbon equivalents or CO2eq) roughly equivalent to **driving from Lands’ End to John O’Groats** just by taking photos and not deleting those we don’t want. The total CO2eq generated in the UK alone from this has been estimated to be the same as 112,500 return flights from London to Australia (or 10.6kg of CO2eq per person)! (3)

**Impact of email and instant messaging**

Using any computer or mobile phone to send an email or electronic message uses electricity to travel through the IT network on its way to your recipient. However, it is the energy needed to manage and store that message that has a major environmental impact.

The internet and our stored data are supported by enormous data centres which house servers that store massive amounts of data. These require huge amounts of electricity to run, because of the equipment needed to cool the machines and maintain temperature-controlled environments. They also use vast amounts of water. These data centres and data transmission networks account for around 2% of global electricity demand, comparable to the entire airline industry. (4)

Whilst individual electronic messages (emails, chats, emojis) have a tiny carbon footprint individually, the cumulative impact is vast due to the sheer number of messages sent. The convenience and speed with which electronic “conversations” can happen (both singly and as a group) means that this is now the preferred method of communication for most people. Many of us send emails or instant messages to “chat” in the same way that we would if we were talking to each other in person without thinking about the impact. WhatsApp and other group chats are particularly bad for encouraging this.

**Is instant messaging better or worse than texting?**

Sending a text or SMS (“Short Messaging Service”) has a much lower carbon footprint than using instant messages or emails for a short message of less than 160 characters. As instant messages use Internet networks, their carbon footprint is more like an email (5).

Texts, instant messages and emails have different environmental impacts because they use different technologies, which use different amounts of energy. A short text via a mobile network uses 0.014g CO2eq – much less than an email or instant message, which uses the internet. A short email emits around 4 g of CO2qe when sent to one person (more if sent to more people). If you attach a photo this increases to around 50 g of CO2eq depending on the size of the attachment.

Adding photos, gifs, emojis and other attachments to emails or chats adds extra megabytes and will increase the carbon footprint. This is the same for texts: adding a photo turns the message into a multimedia message which uses the internet, producing more CO2e. Replying to a message or email with an emoji will be similar to a very short message.

**So what can I do?**

Here are some easy ways to reduce your online carbon footprint:

1. Use texts not WhatsApp for a short message or call via a traditional mobile network.
2. If using instant messages or emails, cut the number of photos, videos or other attachments you send. The higher the number of people you send a message to, the larger the CO2eq
3. Clear Teams, Zoom and WhatsApp chats (especially group chats or photos), as these are all stored on a server.
4. Keep WhatsApp banter to a minimum, avoid using emojis and only send photos if you need to. Also avoid using the “copy message” function as this increases the size of the message.
5. For anyone who uses their smartphone to take photos, delete the ones that you don’t want straight away so you don’t waste storage.
6. Delete any emails you don’t need after reading and weed out old emails regularly (the more you delete, the more you reduce your carbon footprint)
7. Unsubscribe from emails or newsletters you don’t read
8. If emailing, try to send a link instead of adding an attachment (especially a large one)
9. Don’t “reply all” unless it’s essential (the CO2eq you generate will be multiplied by the number of people you respond to!)
10. Avoid using a “read receipt” on email unless it’s essential
11. Delete any email attachments that you no longer need
12. Weed out your cloud storage regularly (both at work and home) by deleting any files you no longer need.

The good news is that any change in our online behaviour will help to reduce our CO2eq emissions, particularly if we spread the word and encourage others to change too. So, next time you’re just about to press reply to a message or email, pause briefly and ask yourself if you really need to!

1. <https://www.weforum.org/agenda/2021/12/digital-carbon-footprint-how-to-lower-electronics/>
2. <https://www.ovoenergy.com/ovo-newsroom/press-releases/2019/november/think-before-you-thank-if-every-brit-sent-one-less-thank-you-email-a-day-we-would-save-16433-tonnes-of-carbon-a-year-the-same-as-81152-flights-to-madrid>
3. <https://www.theiet.org/search?q=carbon+footprint#gsc.tab=0&gsc.q=carbon%20footprint&gsc.page=1>
4. <https://www.iea.org/energy-system/buildings/data-centres-and-data-transmission-networks>
5. <https://youmatter.world/en/whats-more-sustainable-an-sms-an-email-or-an-instant-message/>