Streaming online pornography produces as much CO2 as Belgium

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The transmission and viewing of online videos generates 300 million tonnes of carbon dioxide a year, or nearly 1 per cent of global emissions. On-demand video services such as Netflix account for a third of this, with online pornographic videos generating another third.

This means the watching of pornographic videos generates as much CO2 per year as is emitted by countries such as Belgium, Bangladesh and Nigeria.

That's the conclusion of a French think tank called The Shift Project. Earlier this year, it estimated that digital technologies produce 4 per cent of greenhouse gas emissions and that this figure could soar to 8 per cent by 2025.

Now it has estimated the CO2 emissions due to online videos alone. The report's authors used 2018 reports by companies Cisco and Sandvine to work out global video internet traffic. They then estimated how much electricity was used to carry this video data and view it on different devices, from phones to TVs.

Finally, they estimated the overall emissions using global average figures for carbon emissions from electricity generation.

Online video accounted for 60 per cent of global data flows in 2018, the report states, or 1 zettabyte of data (one thousand billion billion bytes). The report's definition of "online video" does not include live video streaming such as Skype video calls, "camgirls" or telemedicine, which account

for another 20 per cent of global data flows.

The move to ever higher quality videos, such as 8K resolution, will contribute to pushing up emissions further. So too could the launch of game streaming services, such as Google's Stadia, but the report did not try to estimate their impact.

The authors call for measures to limit the emissions from online videos, such as preventing them from autoplaying and not transmitting videos in high definition when it is unnecessary. For instance, some devices can now display higher resolutions than people can perceive. The report says regulation will be necessary.

The estimates are broadly in line with others, says Chris Preist of the University of Bristol, UK, who studies the sustainability of technology.

"This once again demonstrates the need for the designers of digital services to think carefully about the overall impact of the services they provide," Preist says. "For individuals, upgrading our devices less often, owning less devices, and not demanding mobile high quality internet connection everywhere are probably the most important actions we can take."

To limit climate change we need to reduce energy consumption as well as switching to renewable sources, says one of the report's authors, Maxime Efoui. "Producing new energy infrastructure generates emissions, even if the electricity produced is eventually renewable," he says.