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RAMON LLULL UNIVERSITY

ENVIRONMENTAL IMPACT OF ARTIFICIAL INTELLIGENCE

Every action done with **technology**, its fabrication, installation, artificial intelligence (AI) training, its maintenance and use, **have an impact on the environment.**

Each search on the Internet, every click, all interactions with AI-based tools generate digital footprints **stored** in databases and physical information processors that **consume power and water**, generate residues, and emit greenhouse gases. **An impact of which, often, no one is aware of.**

IMPACT AWARENESS

Although pollution cannot be seen, knowing the use of AI has **consequences** on the **environment** is key to using it **sustainably and responsibly.**

"Training a single AI model can emit up to 283 Kg of CO2, which is as much carbon as five cars in their lifetimes"

(Universitat de Massachusetts Amherst, 2019)

Visit our **"Recommendations for the propper use of Artificial Intelligence-based tools"** on URL's website

STORAGE

Clearing browsing histories and stored data helps to **release storage** and to **decrease its energetic use** and **environmental impact.** Videos, images, and voice messages should be replaced by text if possible.

"Data centres and transmission networks are responsible for 1% of greenhouse gas emissions"

(Data Centres and Data Transmission Networks, 2024)

NECESSITY ASSESSMENT

Before asking a chatbot, it should be taken into account if it is necessary. Sometimes the answer can be found by **other means as fast.**

"A google search emits, on average, 0.003 KWh whilst a question made to ChatGTP does between 0.001 and 0.01 KWh. That is, ChatGPT is up to three times more polluting"

(Instituto de la Ingeniería de España, 2024)

CONSUM D'AIGUA

AI does not drink **water**, but **data centres**, where AI systems are trained, use a great deal of it to **cool the servers.**

"GPT-3 needs a 500 ml whater bottle to give 10 to 15 answers"

(Making AI Less "Thirsty". UC Riverside i UT Arlington, 2023)

"If the INTERNET was a COUNTRY, it would be the SIXTH most polluting in the world"

(Clicking Clean: Who is Winning the Race to Build a Green Internet? Greenpeace, 2017)