JACOB, MARC VINCENT

THE ENVIRONMENTAL COST OF AI

THE DEVELOPMENT OF AI COMES AT THE COST OF OUR ENVIRONMENT

HOW AI HARMS THE ENVIRONMENT

- AI models evaporate 700,000 liters of freshwater (Li et al., 2025).
- AI data centers produce hazardous substances for the environment (UNEP, 2025).
- Around 1.5% of global energy consumption in 2023 is used up by AI data centers (Sun, 2025).

ENERGY CONSUMPTION IN VARIOUS AI TASKS

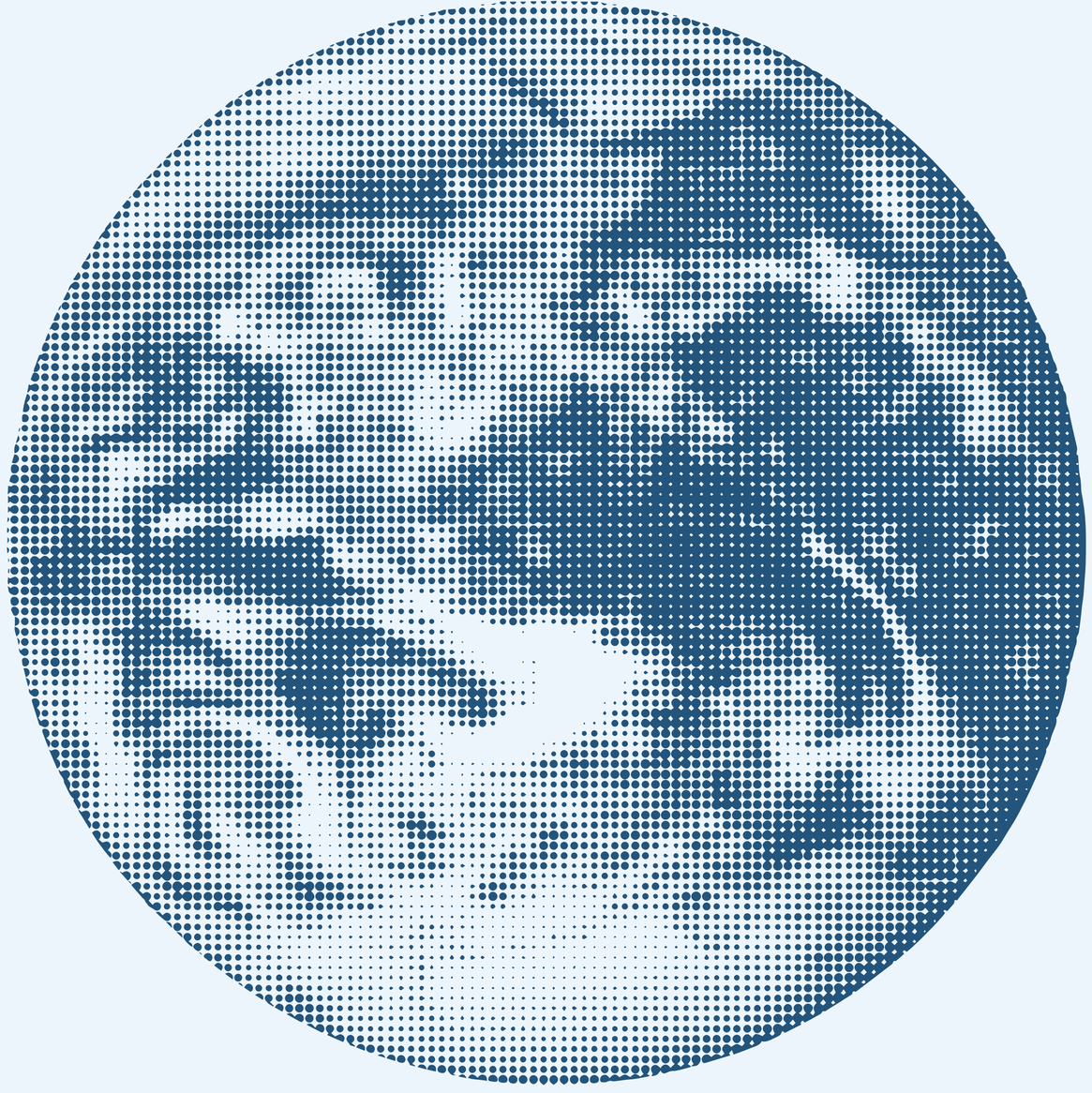
AI Task	Energy Used per 1,000 Queries (kWh)	CO_2 Emissions per 1,000 Queries
Text classification	0.002	~0.3g CO_2e
Text generation	0.047	~7.5g CO_2e
Summarization	0.049	~8g CO_2e
Image classification	0.007	~1.1g CO_2e
Object detection	0.038	~6.1g CO_2e
Image generation	2.9	1,594g CO_2e (4.1 miles driven)

(Anderson & Safdie, 2023)

REFERENCES:

THE IMPACT OF AI

AI has an alarming impact on the environment. It brings negative effects like increasing energy consumption and carbon footprint. With the development of AI, more resources are extracted, contributing to pollution. If not addressed, AI boosts environmental degradation.



ACTIONS FOR ORGANIZATIONS:

- Use renewable energy for AI data centers
- Have strict regulations on the use of natural resources
- Properly recycle e-waste produced by AI development

ACTIONS FOR EVERYDAY PEOPLE:

- Advocate for sustainable AI practices
- Recycle old electronics rather than discarding
- Limit the use of AI when not needed