

MIDLANDS ENGINE OBSERVATORY ACADEMIC INSIGHTS

Making Digital Health Environmentally Sustainable



This summary is based on [this article](#) from The Conversation

Theme:

Digital Health is a growing area globally, but it also has significant environmental impacts

Area of Focus:

The pandemic has shown that digital health can improve healthcare, but the environmental issues are often overlooked.

Key Findings:

The pandemic has accelerated the use of digital health across the world and the collection of real-time data. Machine learning can use this data to improve healthcare, and bring positive changes to global care. However, it has an impact on climate change, which disproportionately effects developing countries. Emissions from computing devices, data centers, and communications networks already account for up to 4% of global carbon emissions. There are three main ways to improve the environmental impact of digital health.

- Green Mining – raw materials for technologies often from mines in developing countries where toxic waste and poor disposal of electrical equipment can cause severe health risks. The carbon produced by creating electronic devices makes up 8% of all carbon produced globally.
- Green computing – Health data accounts for 30% of the world's data, but storing it all on cloud services where it is easily accessible can take up to one million times more energy than saving it directly to devices. Green computing and tiny and compact versions of hardware attempt to tackle this.
- Green IT – Does digital health lower emissions? Reductions in carbon emissions are only effective when telehealth replaces trips of over 7.2km. Call centers are also power hungry, although there are models in the Philippines of a more environmentally friendly office.



Midlands Engine Impact:

- The Midlands has the potential to become a digital health care hub in the UK, as the early roll out of 5G and our diverse population make a perfect real world test bed for new technologies. However, if we are serious about meeting the climate goals set out in the Ten Point Plan for Green Growth, then the environmental impact of digital health needs to be considered.
- Climate change tends to have a greater impact on those already experiencing disadvantages, including poorer health outcomes. A balance needs to be found between improving access to healthcare through digital and minimising the environmental impact.
- The Midlands Engine may have a role in pathfinding ways to create green offices and digital solutions alongside our partners to capitalise on our growing digital expertise.



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