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[White and black RC car on green grass during daytime.](#)

Sustainable Digitalization

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As technology increasingly permeates every aspect of our lives and shapes our societies, it becomes of utmost importance to ensure that this transformative change is happening sustainably. Ultimately the choices we make in the realm of digitalization can either exacerbate environmental degradation and inequality or serve as a catalyst for positive change. UNEP's work on sustainable digitalization aims at mitigating the negative environmental and social impacts from digital technologies and their supply chains.

Our vision: Sustainable Digital Technologies by Design

In the domain of sustainable digital transformation, two primary aspects are:

1. Digitalization for Sustainability emphasizes the proactive development and use of digital tools to achieve environmental targets, leveraging the potential of technology to foster positive outcomes for both the environment and its inhabitants.

2. Sustainable Digitalization involves encouraging the development and use of technologies with sustainability considerations in mind, i.e. sustainability by design. This ensures that technological advancements prioritize ethical considerations and environmental sustainability throughout their lifecycle.

In essence, digital advancements should be pursued with sustainability in mind, and our quest for environmental sustainability can be greatly augmented by embracing these advancements.

Why does it matter?

Sustainable digitalization is the compass that guides us toward a future where technology empowers society while minimizing its environmental footprint. By embracing sustainable practices in our digital endeavours, we can ensure a more equitable distribution of benefits and reduce our impact on the planet, ultimately leading to a better quality of life for all.

Facts

Explore key insights about digital sustainability:

- **Environmental impact:** The information and technology sector contributes nearly 4 per cent of global greenhouse gas emissions, a figure on par with the aviation industry.
- **Carbon footprint:** The energy sector is currently responsible for a staggering 40 per cent of carbon emissions worldwide, equivalent to 13.6 gigatons of carbon dioxide equivalent. This

figure is expected to rise, driven in part by the increasing demand resulting from digitalization.

- E-waste: The world generates a staggering 50 million tonnes of electronic waste annually, with only a meager 20 per cent of this e-waste being recycled.
- Dual impact of digitalization: While closing the digital divide by 2030 is a laudable goal, it is crucial to recognize that digital technologies can have counterproductive effects on the Sustainable Development Goals. This includes promoting consumption, exacerbating environmental impacts, deepening the digital divide, disrupting labour markets, and consolidating power among a select few over the majority. Balancing positive impacts with the mitigation of negative consequences is imperative for sustainable progress.

What we do

- [Digital4Sustainability Learning Path](#)

This free of charge e-learning path explores the transformational role digital solutions and innovations can play in advancing environmental and social sustainability, in particular, how digital technologies power the green transition and how to secure a green digital transition.

- [Playing for the Planet Alliance](#)

The alliance is a UNEP collaboration with 30 of the world's largest video game companies to insert green nudges and activations into video games. The initiative reaches 1.2 billion people monthly and includes action to reduce the carbon footprint of the video game industry.

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