Table S1: key-strings used for searching the academic literature on Web of Science

Keyword strings	Number of retrieved articles
AB=(environment* sustainab* OR "carbon footprint" OR "environmental footprint" OR "environmental impact" OR "environmental assessment" OR "environmental damage" OR "electricity generation" OR lifecycle OR "carbon emissions" or "greenhouse gases" OR GHG OR "environmental effect" OR "e-waste" OR "end of life" OR "natural resource*" OR biodiversity OR weee OR "circular economy" OR "Paris Agreement" OR "IPCC" OR "climate change" OR "Net-zero" OR "low carbon" OR "energy transition" OR "renewable energy") AND AB=("big data" OR AI OR "artificial intelligence" OR "data cent*" OR ICT OR "information and communication technolog*" OR "cloud computing" OR "internet traffic" OR "machine learning" OR "IOT" or "Internet of things" OR "smart cit*" OR "smart system" OR "smart energy" OR "bitcoin" OR "cryptocurrenc*" or "natural language processing" OR "4th industrial revolution" OR "fourth industrial revolution" OR blockchain)	3,683
AB=("GREEN AI" OR "green ICT")	11
AB=("energy efficiency" OR "energy consumption" OR "energy management") AND AB=sustainab* AND AB=("big data" OR AI OR "artificial intelligence" OR "data cent*" OR ICT OR "information and communication technolog*" OR "cloud computing" OR "internet traffic" OR "machine learning" OR "IOT" or "Internet of things" OR "smart cit*" OR "smart system" OR "smart energy" OR "bitcoin" OR "cryptocurrenc*" or "natural language processing" OR "4th industrial revolution" OR "fourth industrial revolution" OR blockchain)	624
TI and KP=Digital AND AB=(environment* sustainab* OR "carbon footprint" OR "environmental footprint" OR "environmental impact" OR "environmental assessment" OR "environmental damage" OR "electricity generation" OR lifecycle OR "carbon emissions" or "greenhouse gases" OR GHG OR "environmental effect" OR "e-waste" OR "end of life" OR "natural resource*" OR biodiversity OR weee OR "circular economy" OR "Paris Agreement" OR "IPCC" OR "climate change" OR "Net-zero" OR "low carbon" OR "energy transition" OR "renewable energy") [performed as two searches, one title and one keyword searach]	453 (title search) and 146 (keyword search)

Table S2: coding schedule for coding the academic literature.

approach	sustainability	tech_analysed	awarness	discipline
What is the objetive of the research - to solve a sustainability issue or explain a sustainability matter?	What sustainability (or other) issue is addressed in the research?	What DT is analysed in the research?	Does the researcher explicitly reference a climate or sustainability risk or problem as a motivation or justification for the research? If the research is solely focused on solving a technical issue based on financial performance, for example, then the answer is "no".	Main academic field of the research based on the keywords of Web of Science
(1) Solve and explain (0) Only explain *see below for explanation	(1) energy (2) e-waste (3) carbon footprint (4) air (5) water (6) general sustainability issues (7) Other	(1) Data centres (2) Cloud services (3) AI (4) ICT (5) Machine Learning (6) General (7) IoT (8) Other	(1) Yes (0) No	(1) Computer Science (2) Science & Tecnology (3) Engineering (4) Environmental Studies or sciences (5) Social Sciences (6) Other

Solve and explain: the research analyses or explains a sustainability problem and outlines potential technology-based solutions. Example 1. A paper that assesses carbon footprint in the ICT industry and offers actionable recommendations on how to mitigate and curb the ICT carbon footprint. Example 2. A paper that analyses de drivers of energy consumption and evaluates how to address them to reduce the levels of consumption. Example 3. A paper introduces a machine learning-based measurement to improve the recycling of unused mobile phones (e-waste). *Only explain*: the research analyses or explains a sustainability problem and its relationship with digital technology. Example 1: A paper that investigates the nexus among information and communication technologies (ICT), total factor productivity (TFP), and carbon dioxide (CO_2) emissions in emerging market economies. Example 2: An article that argues the metrics and rhetoric of corporate social responsibility exaggerates the benefits and obscures AI costs. Example 3: A paper that evaluates the influence of investment in ICT and the trade of ICT tools on CO(2)emission. *Sustainability*: refers to the research's central focus on sustainability. These concerns might be about energy, water, or waste. For instance, if the article is focused on data centre energy efficiency, the topic of sustainability is "energy." Another example may be the issue of water waste in a particular city, which would be classified as the primary focus of the investigation. If two or more sustainability issues were identified, they were classified as "general sustainability issues." For instance, one research initiative tries to increase data centres' energy efficiency to lessen their carbon footprint. Then, because the document tackles two topics: energy and carbon footprint, it was categorised as "general sustainability challenges." This would be the same for an article addressing several sustainability issues. "Other" was used to classify uncommon concerns addressed by our sample, such as biodiversity. "Energy" mainly refers to energy efficiency, including those articles that do not mention the impact of energy efficiency on carbon emissions.