Report on ‘Towards our Common Digital Future’

Place digitalization at the service of sustainable development

++ Not to be released until: 11 April 2019, 09:30 hours ++

*Berlin, 11 April 2019.* The German Advisory Council on Global Change (WBGU) today hands over its report entitled ‘Towards our Common Digital Future’ to Federal Minister of Education and Research Anja Karliczek and Federal Environment Minister Svenja Schulze. With this report, the WBGU makes it clear that sustainability strategies and concepts need to be fundamentally further developed in the age of digitalization. The report’s title refers to the Brundtland Report entitled ‘Our Common Future’, published in 1987, which continues to shape sustainability thinking all over the world to this day. Only if digital change and the Transformation towards Sustainability are synchronized can we succeed in advancing climate and Earth-system protection and in making social progress in human development. Without creative political action, digital change will further accelerate resource and energy consumption, and exacerbate damage to the environment and the climate. It is therefore an urgent political task to create the conditions needed to place digitalization at the service of sustainable development; this is one of the report’s key messages.

In the short term, the aim is to harmonize digitalization with the global sustainability goals agreed in 2015 (SDGs, Agenda 2030) and the goals of the Paris Climate Agreement. New technologies should be used specifically and comprehensively to give people access to basic services such as healthcare, education, energy and (environmental) information and to prevent environmental degradation. Examples include promoting the energy-system transformation using intelligent energy networks, reducing vehicular traffic in cities by means of shared mobility (which makes owning a car superfluous), and using digital technologies to promote a circular economy.

In addition, precautions must already be taken today to deal with the profound societal upheavals that will accompany digitalization in the medium term. Examples include the foreseeable radical structural change on the labour markets, the replacement of real-world experiences in virtual spaces, the manifold impacts of artificial intelligence on education, science and democracy, and the challenge of democratically restricting the surveillance potential of new technologies. According to the WBGU’s new report, all digital changes should be geared towards the common good and improving people’s quality of life.

Finally, another issue is preparing for possible long-term upheavals. For example, in human-machine interaction, risks to human integrity are already recognizable today. This concerns, for example, sensitive neuro-data or neuro-prostheses, whose ethical aspects have been insufficiently taken into account up to now. In the age of digitalization, it is necessary to redefine our understanding of ‘human development’.
Strengthening forward-looking policy-making

Although the future digital world is difficult to predict, policy-making should be prepared for profound changes, such as upheavals on the labour markets or cyber attacks on critical infrastructure. To achieve this, countries must build up a strong anticipatory capacity and a strategic bundle of institutions, laws and measures in order to harness and simultaneously contain digital forces. This requires forward-looking mechanisms such as technology impact assessment; furthermore, research into digitalization and sustainability must be networked. A further building block is the creation of discourse arenas by the Federal Government, in which civil society, science, business and politics can exchange views on values, goals and the limits of digital change. Such public negotiation processes should raise awareness of the newly emerging ethical issues and find societal answers to the challenges of digital change. In addition to their purely consultative character, incorporating the results of these discourses should be incorporated into parliamentary procedures.

Turning the sustainability of digital change into a competitive and locational advantage for the EU

Having its own digitalization model would give the European Union an opportunity to make an international name for itself as a sustainable environment in which to live and work. Against this background, the Federal Government should, within the framework of its EU Council Presidency in 2020, commit itself to developing a common European vision and to laying down sustainable development as a model for European digitalization policies. The development of an ‘EU strategy for sustainability in the Digital Age’ would also open up the possibility of firmly establishing new incentives and standards with international appeal. Sustainability, fair production conditions, privacy and cyber-security in technology design and its operation should become central principles, guiding actions in a future European digitalization model. This could also enable the EU to play a pioneering role in the further development of the Agenda 2030 and give fresh impetus to global digital development.

Call a UN Summit on Sustainability in the Digital Age

Germany and the EU should support a UN summit on ‘Digitalization and Sustainability’ in 2022 (30 years after UNCED in Rio). The central theme of the summit should be reaching agreement on the necessary fundamental steps to be taken to achieve digitally supported sustainable development and to avoid the risks involved in digital change. One key result could be a charter naming the fundamental topics that are relevant to the sustainable shaping of the Digital Age and identifying political starting points. The WBGU has submitted a draft on this. In preparation for the proposed UN Summit, the WBGU recommends setting up a ‘World Commission on Sustainability in the Digital Age’ modelled on the ‘Brundtland Commission’.

Create more reliable knowledge about the effects of digital technologies

Assessments of the impact of digitalization, e.g. on the consumption of rare earths, are often contradictory and highly uncertain. At the same time, the range of instruments offered by digitalization makes it possible to conduct a wide range of observational and analytical tasks. Science faces the task of creating more reliable knowledge about the effects of digital technologies as a basis for socio-political discourses and making this knowledge available to the international community via digital commons. Furthermore, public and private technology research should systematically consider questions of ethics and sustainability.
The WBGU: Advising on global change politics

The German Federal Government set up the German Advisory Council on Global Change (WBGU) as an independent, scientific advisory body in 1992 in the run-up to the United Nations Conference on Environment and Development (Rio Earth Summit). The WBGU’s task is to analyse global environmental and development problems and to develop recommendations for action and research in the quest for solutions to these problems. Sabine Schlacke and Dirk Messner are the two co-chairs of the WBGU.

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