WBGU

German Advisory Council on Global Change

Our Common Digital Future
Draft Charter for a Sustainable Digital Age

Preamble

Conscious of the responsibility of all societies for our common digital future,

conscious of the urgent need for decisive action to limit anthropogenic climate change and sustain the natural life-support systems, and conscious of the responsibility of humankind in the new geological epoch of the Anthropocene,

endeavouring to work towards a humanistic vision for a networked global society of the Digital Age in which civilizational and human potential can fully unfold,

recognizing the Universal Declaration of Human Rights, the report of the World Commission on Environment and Development, the United Nations Conference on Environment and Development, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the United Nations-sponsored World Summit on the Information Society, the United Nations 2030 Agenda with its Sustainable Development Goals, the Paris Agreement and similar processes launched by informal initiatives,

the undersigned acknowledge and commit to the implementation of the following goals, principles, freedoms, rights and obligations.

Goals and principles

1. Human *dignity* shall also be inviolable in digital space. Everyone shall have the right to digital identity, sovereignty, data protection and privacy. This shall also include the right to evade digitalization in the private sphere and the right to be informed if an interaction partner is not a human being but a technical system.
2. The development of digital technologies and digitalized infrastructures shall always be geared towards sustaining the *natural life-support systems*. During manufacturing and operation, the planetary guard rails must be observed, global and local environmental problems must be avoided. The polluter-pays, cooperation, integration and precautionary principles must be observed as guiding principles.
3. The development of digitalized infrastructures shall always be oriented in such a way that it is *accessible to all* and offers equal opportunities for societal participation and realization. For the underlying technologies such as microelectronics, tele- and data-communication networks, data processing and artificial intelligence, information on the basic functions should be accessible to all worldwide.
4. The rights of the individual to the *protection of individual freedom of development* in the digital space shall be guaranteed. These rights shall include the general right to protection of personality especially the informational self-determination, the protection of freedom of expression and digital identity, the protection of minorities and protection against discrimination. All people shall have the fundamental right to inspect and correct data stored about them, to determine their use and to have them deleted. These rights shall be legally enforceable.

Digitalization at the service of sustainability goals

5. The potential of digitalization should be used worldwide to achieve the *goals of sustainable development* (2030 Agenda and beyond). Solutions based on digital technology should be considered in societal decisions involving the goals of sustainable development.

6. The development of digital technologies and digitalized infrastructures shall always take the environmental and social impacts into account. The *planetary guard rails* must be observed.

7. Digitalization shall be used specifically to monitor the *UN's sustainability goals* and thus to safeguard social and ecological standards.

8. All countries shall contribute to the development of *digital commons*, to the cultural and natural heritage and to the global state of knowledge, and shall ensure their protection and universal accessibility across generations.

Avoid systemic risks

9. All states and companies shall actively work to minimize *risks to critical infrastructures*. They shall be obliged to inform each other about errors and vulnerabilities and to ensure that these are remedied. Responsibility for damage shall always be clearly defined.

10. The use of digital technology involves obligations. Its use should at the same time serve the *common good*. Digital solutions may not be used to oppress people, to monitor them without cause, or to exercise social control.

11. All states shall have a duty to provide appropriate support for people affected to adapt to the *changes in the world of work* caused by digitalization according to the principles defined above.

12. Human *decision-making sovereignty* in the use of artificial intelligence and algorithm-based automatic systems in societal decision-making processes shall be guaranteed. Human beings shall retain the right to make the final decision. Automated decision-making and decision-making support must always be traceable, and shall take place only within a clearly defined framework and with the option of making corrections. The responsibility for automated decision-making and decision-making support shall always be clearly defined.

13. All states shall have a duty to preserve the *right of the individual to Eigenart and physical and mental integrity*. Societal pressure to optimize the human body through technology shall be countered. All states shall agree on binding rules and ethical guidelines at the multilateral level.

14. *Cyberattacks* shall be subject to the Geneva Conventions on Armed Conflict and their additional protocols, which must be supplemented to include attacks on critical infrastructures. The use of fully automated *autonomous weapon systems* shall be prohibited. The protection of the civilian population shall have the highest priority.

Prepare for procedural challenges

15. All states and companies shall develop coherent and binding *ethical guidelines* on the conception, development and application of digital technologies and solutions with regard to human dignity and sustainability goals and shall create the necessary legal and organizational frameworks for their implementation. This includes in particular the systematic fostering of open source and interoperable hardware and software for public service purposes.

16. All states shall create *institutions* that give advice on the use of digital technologies when they impinge directly on human dignity, the natural life-support systems, the inclusion of all human beings, or the individual's *Eigenart*. All states shall create the conditions for *civil society* to participate in these processes at an early stage.

17. Through *technology-oriented future-proof education*, all states shall enable their citizens to participate in the ethically guided development and responsible use of digital technology, to develop an awareness of global responsibility and a holistic understanding of their options for action in the Digital Age, and to actively participate in shaping future developments of digital technologies and digital infrastructures. This shall include in particular education for sustainable development.

18. All states shall *cooperate* at a multilateral level in accordance with the objectives and obligations agreed in this Charter.

Background: The need for a charter

The institutional framework for global sustainable development in the Digital Age needs a normative reference point in the form of an international charter for a sustainable Digital Age. The WBGU submits here a draft for such a charter. It ties in with the 2030 Agenda and the Declaration of Human Rights and, at the same time, goes beyond them. The charter is intended to serve as a system of principles, objectives and standards for the international community and to link digital change with the necessary global sustainability perspective. It formulates objectives and principles for the protection of human dignity, natural life-support systems, inclusion in and access to digital and digitalized infrastructures and technologies, as well as individual and collective freedom of development in the Digital Age. On this basis, the charter sets out concrete guidelines for action to be drawn up by the international community with a view to the challenges of the Digital Age.

The charter contains three core elements: First, digitalization should be designed in line with the 2030 Agenda, and digital technology should be used to achieve the SDGs. Second, beyond the 2030 Agenda, systemic risks should be avoided, in particular by protecting civil and human rights, promoting the common good and ensuring decision-making sovereignty. Third, societies must prepare themselves procedurally for future challenges by agreeing, among other things, on ethical guidelines and ensuring future-oriented research and education.

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German Advisory Council on Global Change (WBGU)

The WBGU is an independent, scientific advisory body to the German Federal Government, set up in 1992 in the run-up to the Rio Earth Summit. The Council has nine members appointed for a term of four years by the Federal Cabinet. The WBGU is jointly managed by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and the Federal Ministry of Education and Research. It is monitored and supported by an interministerial committee of the Federal Government in which the Federal Chancellery and all the ministries are represented. The WBGU's remit is to:

> analyse global environmental and development problems and report on them,
> review and evaluate national and international research in the field of global change,
> issue early warnings to draw attention to new problem areas,
> identify gaps in research and initiate new research,
> monitor and assess national and international policies for achieving sustainable development,
> elaborate recommendations for action and research, and
> raise public awareness and heighten the media profile of global change issues.

References

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