Digitalization is profoundly affecting people, societies, and the environment (WBGU 2019). If digitalization is shaped in a way that spurs progress on the Sustainable Development Goals (SDGs), it can offer great potential for transforming mountain social–ecological systems toward greater sustainability, while preventing potential negative social, societal, and environmental impacts. However, the links between digitalization and sustainable development have not received sufficient attention from research and development communities. Indeed, the United Nations 2030 Agenda does not explicitly address the benefits and challenges of novel information and communications technology (ICT) for sustainable futures.

In the context of mountains, enabling equitable access to ICT and fostering innovative applications can counteract trends of outmigration by providing decentralized education opportunities and health services. This can lead to a revaluation of mountain areas as living and working place. Moreover, they can help to close gaps in knowledge about social–ecological systems by bringing together data and information from different sources, analyzing them, and disseminating them in efficient and transparent ways on novel platforms. Digital tools can also be used to facilitate transparent and accountable co-designing of transformative solutions and pathways that involve stakeholders from different sectors, places, and governance levels.

At the same time, the introduction of digital technologies can have profoundly negative impacts on the environment (eg through overtourism due to promotion of places in social media), as well as on social cohesion and structures (eg by leading to loss of place-based knowledge, or by increasing the marginalization of social groups). For instance, digitalization may promote the gentrification of mountain regions and attract energy-intensive server farms that profit from cheap hydropower and reduced cooling costs, leading to enhanced resource competition. Moreover, there is a risk that digitally transmitted images of a perceived "good life" in urban areas or abroad might encourage many young people to migrate from their communities.

With this focus issue, MRD aims to highlight how the development and applications of digital and digitalized technologies can open up inclusive and sustainable ways of overcoming development challenges of mountain societies and ecosystems. This includes the prevention of disasters through early warning systems and improved monitoring and understanding of social–ecological systems in mountains. MRD's 3 peer-reviewed sections will emphasize different forms of knowledge about these issues.

- **MountainDevelopment** (transformation knowledge): Papers should present systematically assessed experiences of how digitalization supports transformative changes in mountain regions, or how ICT-related risks can be addressed. For example, papers might focus on validated development interventions or transdisciplinary research in areas such as advancement of health and educational systems enabled by ICT, improved provision of public services, smart communities, effective early warning systems, innovative tourism offers, more beneficial agricultural practices, or inclusive values chains.

- **MountainResearch** (systems knowledge): Papers in this section might analyze, for example, how digitalization processes contribute to changes in mountain societies, or how they affect spatial and socioeconomic interrelations between peripheries and centers within mountain areas or between mountains and lowlands. Papers might also scrutinize how digital technologies help to address gaps in knowledge about mountain social–ecological systems by means of new tools to collect, process, and analyze data in efficient and timely ways. Examples of such technologies include mobile applications, remote sensing, machine learning, and natural language processing.

- **MountainAgenda** (target knowledge): Papers can include reviews of existing knowledge, practices, or policies related to digitalization and the development of digitalized tools and technologies. These reviews can be based on a systematic stakeholder process or on a literature review. Analyses and discussions should lead to agendas for future research or policies aimed at harnessing digitalization to achieve the SDGs in mountains.

**Submission details**
- Submit your **full paper by 1 July 2022** using MRD's online submission platform.
- A short **notice of intent** may be submitted to mrd-journal@cde.unibe.ch: we will provide advice if needed or requested.
- The issue is scheduled for completion in **May 2023**; articles will be published on a rolling basis, as soon as they are ready.
- Please read our guidelines for authors at https://www.mrd-journal.org/for-authors/.
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**REFERENCE**

*WBGU [German Advisory Council on Global Change].* 2019. *Towards Our Common Digital Future.* Flagship Report. Berlin, Germany: WBGU. https://www.wbgu.de/en/publications/publication/towards-our-common-digital-future; accessed on 27 January 2022.

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