

Digital Earth as a Platform for Synthesis of Knowledge Towards Resilient and Sustainable Society

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The Digital Earth (DE) is a virtual representation of our planet on the internet, and enables a person to explore and interact with the vast amounts of natural, socio-economic and cultural information gathered about the earth. DE is designed as a multi-dimensional, multi-scale, multi-temporal, and multi-layer information facility. As Digital Earth 2020 Vision, DE should be a dynamic framework to share interoperable information and improve collective understanding of the complex relationships between society and the environment. DE should make it possible to navigate across space and time, connecting the global issues to local ones. DE should include scientific models to project into the future and helps us all understand how the Earth system works and what are the likely consequences of our actions or inactions.

DE should firstly is employed for the ESD (Education for Sustainable Development). ESD is an indispensable element for achieving sustainable development vision and participatory teaching and learning methods that motivate and empower learners to change their behavior and take action for sustainable development. To try to find solutions to problematique in practice, ESD promotes competencies and essential skills like holistic views, critical thinking, systemic thinking, imagining future scenarios and making decisions in a collaborative way. The DE can also facilitate data-intensive studies for problematiques of the 21st century as well as the above ways. We realize Digital Earth and geospatial information technologies are indispensable tool for ESD. This presentation introduces some exploratory research projects and examines how Digital Earth can help making our society Disaster Resilient and Sustainable as a use case. We propose Digital Earth platform as a public information base which has cloud-based geospatial information system and services in cooperation with multi stakeholder

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