ALESSANDRO ANNONI

DIGITAL EARTH: WHAT NEXT

This presentation aims to introduce the concept of Digital Earth and the evolution of its vision (from Al Gore's speech in 1998) which aimed to build a digital replica of the Earth to contribute to sustainable development through a better understanding of the dynamics of environmental phenomena, supporting responsible decisions and raising public awareness. Remote sensing data was a foundational component of the original vision and still plays a crucial role for Digital Earth. However, while several elements of the original vision have been implemented, there are new opportunities to be fully exploited related to the digital transformation of our society.
New data sources, new technologies, increased computing power, social changes (including the predominant role of industry over government in data collection) and the intensive use of personal data (which raises ethical issues) require new collaboration frameworks and new rules to fully leverage these resources for the benefit of our society.
This presentation aims to highlight the main changes that have occurred and new avenues to be explored by scientists in the near future.

CV

Alessandro Annoni is the President -elect of the International Society for Digital Earth (ISDE).
Prior to his retirement in 2020 he was the Head of the Digital Economy Unit at the Joint Research Centre of the European Commission. His unit provided techno-socio-economic research in support of the Digital Economy, to accelerate the transition towards a data-driven economy in Europe and understand the issues and challenges of a more connected world (IoT). Previously he headed the Spatial Data Infrastructure Unit (the largest group in Europe dedicated to SDI research) ensuring, among others, the technical coordination of the INSPIRE Directive for the development of the European SDI.

In 2006 Alessandro was appointed as co-chair of the Architecture and Data Committee of the Group on Earth Observations (GEO) and subsequently as co-chair of the GEO Infrastructure Implementation.
Alessandro has forty years of work experience in various fields (forestry, agriculture, oceanology, hydrology, nature protection and conservation) dealing with spatial planning, spatial analysis, environmental modelling, Geo-Information and related technologies (GIS), remote sensing, image processing, system design and software development. Before joining the JRC in 1997, he worked for two decades in the private sector in companies specialised in Remote Sensing, Geomatics, Software and Information Systems development.
Alessandro graduated in Physics from the University of Milan. He is the author, co-author and editor of over two hundred papers and books related to GIS and Remote-Sensing.
Alessandro was awarded the 2013 Ian McHarg Medal of the European Geosciences Union reserved for distinguished research in Information Technology applied to Earth and space sciences and he was honoured with the Lifetime Achievement Award, during the Geospatial World Awards 2020 event for playing a pivotal role in the development and proliferation of spatial sciences in Europe.