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THE SOCIAL AND TECHNICAL IMPACT OF EDUCATION AND ACCESS TO OPEN SPACE DATA:
A CASE STUDY OF THE AFRICA OPEN DATA COLLABORATIVES

Abstract

There is a growing demand from developing countries for the use of Earth observation data to address issues related to sustainable development, climate change, and managing infrastructure at national and local levels. These needs for data are being fueled by national and organizational policies making some Earth observation data free and open, coupled with the advent of vastly increased and inexpensive processing power and storage capacity through cloud computing. The combination of free data, inexpensive computing, and inroads in artificial intelligence and machine learning are allowing countries to use data more efficiently and effectively and to gather real-time insights.

The Africa Open Data webinar series provides technical trainings in the use of space data, grant opportunities from ESA, local and international resources including remote sensing data, international collaborations with space agencies leading to real world outcomes for both youth and scientists in more than 45 countries in Africa. The monthly series, now in its 9th year, features in-country experts and scientists in panel discussions and speaker series on the use of open data, remote sensing data, and other geospatial space science data. In the last year we've reached more than 25 countries and 5 continents.

This paper will address two significant and highly relevant topics of concern. The first addresses direct and targeted approaches to promote the use of space data in developing nations and gives an innovative metric framework to measure and address the impact that access to and education in space data has. Furthermore, it will provide resources discussed and developed through the webinar series for those looking for space data to own analyses. Experts highlighted from the series provide use cases from across Africa and cities around the world.

This project has great applicability to global urban environments, as well as those who manage satellite programs and their data products. Several projects formed through the Africa Open Data series have shown innovative and technical advancement in the space sector and led to IAC papers in past years as well as a Special Session.