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EXAMINING TRENDS IN OPEN DATA SHARING FOR EARTH OBSERVATION SATELLITES

Abstract

There has been a significant trend over the last two decades toward open data sharing policies for Earth observation satellites, with an increasing number of space and meteorological agencies adopting these policies. A significant body of research shows that these policies have been critical to maximizing socioeconomic benefits from satellite data. However, recent years have seen an increase in commercial remote sensing and other trends that may limit, or even reverse, these trends. For example, some nations may limit access to satellite data to avoid competition with commercial efforts or may purchase commercial data that is governed by strict guidelines on dissemination.

This project develops a comprehensive data set that includes all civil and commercial Earth observation satellites and the data policies that govern each of them. This dataset will be an update to a similar 2016 dataset previously developed by the author. Comparing these two datasets will allow for a unique analysis of trends within the Earth observation sector. This includes an analysis of changes in the number and types of actors, as well as changes in data sharing policies.

In addition to this quantitative analysis, this project will look at other relevant trends, including commercialization, the development of the Findability, Accessibility, Interoperability, and Reuse (FAIR) Principles, and ongoing debates in international organizations such as the Group on Earth Observations, to help explain what may be driving observed trends. Based on this analysis, the paper will offer suggestions on policies and practices that can continue to ensure that socioeconomic benefits of satellite data are maximized.