Steuerung technischer Systeme

**Many eyes on Earth:
the governance of satellite data and
an introduction to digital tools for spatial analysis**

When and where: TBD, **s.t.**
Room: TBD
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Office Hours: Tuesday, 14:00-16:00 (also by appointment)

Description
We use Google Maps everyday, which is a tool that revolutionised how we use mobile technology. But, despite new, Google Maps has deeper roots, going back to the 1960s when satellite technology was developed. In this process, both public and private actors have been key in the development of satellite technology. Satellite technology has made possible the creation, management, analysis and storage of what is now called "global observation systems" (observing systems and remote sensing). In the first part of the course, we will examine why global observation systems are so important nowadays, and why and how actor governance was crucial for the emergence and development of satellite technology as a complex, innovative and technological system. In the second part of the course, during a number of lab sessions we will learn the basics of how to use digital tools for spatial analysis with geo-located data.

This course is intended for students interested in spatial analysis broadly understood, and in the role of actors in shaping (satellite) technology.

Course structure: The course is organised in two main parts.
●   First part, sessions 1- 6: Students will follow classes and take part in discussions (structured as a "roundtable") based on the reading material;
●   Second part, session (7 - 8.1/8.4 - 9): Students will follow lab sessions where an overview of the most known tools for spatial representation (Google Earth, Stata shp2dta) and spatial analysis (Esri ArcGIS) will be given. Students will have to do the assigned exercises at home to keep track of their learning. Short presentations are required.

Course evaluation: The evaluation of the course includes: 1) the participation to the roundtable as an appointed discussant (15% of the grade), and 2) the submission of a graded term paper (85% of the grade) with a descriptive spatial analysis of an area chosen by the student. The paper will be in a form of a report including e.g. demographic data, employment data, transport data, represented spatially. Students will have the opportunity to present their paper ideas during a feedback session (session 9), where they will receive comments and remarks on their on-going papers. Feedback will also be given on the assigned exercises that might help the students to build up their paper.

Course literature: Readings will be provided on the VC. The software we will use in the lab sessions (second part of the course) is freely provided to the students through the Uni-Bamberg license. Instructions on how to download the software will be provided in due time.