LEHRSTUHL FÜR STEUERUNG INNOVATIVER UND KOMPLEXER TECHNISCHER SYSTEME
PROF. DR. LASSE GERRITS

Education Program WS 2018/19

Lecture: **Governance of Complex Technological Systems I**

Room: F21/01.35
Time: Thursday, 12-14 h
Start: 18th of October 2018

Short Description:

For long, technology has had a major influence on governance. For example, the arrival of the railway meant that geographical distances changed completely, bringing towns closer under central control of powers but also giving those towns a means to develop a more independent course. Such issues are still current. The relationship between technology and governance has become increasingly complex as technological systems expand and impact many aspects of daily life.

But what does it exactly mean to say that the complexity has increased? What characterizes the relationship between technology and governance? And what does governance look like in the face of technological change? This lecture series addresses these questions. We will discuss various theoretical concepts from the realm of complex systems that can help us in analyzing and understanding the issues raised here. Using empirical examples, we will look at dynamical aspects such as feedback, self-organization, path-dependency and chance. We will then shift our focus to several pressing challenges such as energy transitions and the governance of the dark web. Combining all these insights will give us a better understanding and appreciation of why governance works or fails under various circumstances.

Learning goals:

- To describe the core elements of complexity and governance
- To provide an overview of theories of complexity in relationship to governance
- To analyze a technological policy issue in terms of complex systems
- To propose possible solutions for such issues in terms of governance

Test:
Students will be required to take a written, open-book exam in order to complete the course. The exam consists of open questions. Knowledge will be tested on five levels:

reproduction, meaning, application, synthesis, and evaluation, but with an emphasis on application, synthesis and evaluation. An open-book exam sounds easier than it actually is so please be well-prepared.

Literature (mandatory)
- Gerrits, L. (2012). Punching Clouds. An introduction to the complexity of public decision-making. Litchfield Park, AZ: Emergent Publications
- E-reader, available online through Virtual Campus

This syllabus contains the program, the requirements for the test and the list of mandatory literature.

Notes:
The seminar will be taught in English.
Test and grading: written exam, open book

Registration:
Registration starts on the 1st of September 2018 via FlexNow or during the first lesson.

Speaking hours:
Thursday, 11-12 h

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