LEHRSTUHL FÜR STEUERUNG INNOVATIVER UND KOMPLEXER TECHNISCHER SYSTEME
PROF. DR. SOFIA PAGLIARIN (Vertretung)

Education Program WS 2020/21

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

Room: F21/01.35 /Online
Time: Thursday, 12-14 h
Start: 5th of November 2020

Short Description:

For long, technology has had a major influence on politics and policy. For example, the arrival of the railway meant that geographical distances changed completely, bringing towns closer to central powers but also giving those towns a means to develop a more independent course. Technology still plays an important role between society, governments and the market. This relationship 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 assess possible solutions for such issues in terms of governance

Course structure:

The course is taught in English and it is organised in sessions as Vorlesungen. The lectures will take place online (Zoom). Further information on online lectures will be shared in due

time on VC. If possible and allowed, occasional face-to-face lectures might be organised following the current hygienic rules and regulations.

Course Evaluation:

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.

Course literature:

Mandatory reading material will be made available online on the Virtual Campus (VS). We will also make a substantial use of the following book:

Gerrits, L. (2012). Punching Clouds. An introduction to the complexity of public decision-making. Litchfield Park, AZ: Emergent Publications.

Course Syllabus:

The detailed Syllabus of the course will be circulated in due time.

Notes:

The seminar will be taught in English.

Registration:

Registration starts on the 1st of September 2020 via FlexNow or during the first lesson.

Speaking hours:

Thursday, 14-16 h (also by appointment)

Mail:

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