**SIKS Masterclass "The End of Theory?  On the role of theories in Information and Knowledge Systems research"**

*by Prof.dr. Roel Wieringa (UT)*

**Location**: Vrije Universiteit, Amsterdam, at the Medical Faculty. Room: MF-G513.  (see the Map in the attachment). Entrance: via Van Boechorststraat 7-9, take the elevator to the fifth floor.

**Date:** Wednesday 8th March 2017

**Introduction**

In recent years, the ability to analyze large amounts of data has called into doubt the need for scientific theories. A simple response to this is that predictive theories are scientific theories too. A more substantial response is that, even though correlation is sufficient for prediction, it is not sufficient for the explanation of effects in terms of causes or underlying mechanisms. Whenever we want to understand the phenomena we study, we should look for causes and mechanisms, which means that we should build scientific theories.

However, too many research papers in information systems, artificial intelligence and related disciplines fail to state their theoretical contribution. Technical research papers may present new designs without adequate explanation of why they work; empirical papers may make impressive use of statistics without clear contribution to theoretical understanding; or at the other extreme, interpretative research papers may contain convoluted text about theoretical approaches and contributions, of which the contents may disappear into thin air if analyzed closely. In this master class I explain how to write papers that have a clear and defensible theoretical contribution.

The focus of the master class is on scientific inference: How to describe your measurements, how to explain them and how to generalize from them. In addition to treating scientific inference, I explain what scientific theories are in design science and how to use theories in prediction and design, and I review how to set up your research so that you can infer defensible theories from your measurements.

The master class takes one day and will contain short exercises in which we will analyze fragments of scientific papers. The Master class is aimed at all researchers in the field of Information and Knowledge Systems with a keen interest in research methods and methodology.*Especially SIKS PhD-students are strongly encouraged to participate.*

**Program**

***Masterclass: "The End of Theory?" by Prof.dr. Roel Wieringa (UT)***

10:00 - 10:25 Coffee and Tea

10:25 - 10:30 Welcome by Prof. dr. Patricia Lago (VU)

10:30 - 12:00 PART 1: Design cycle, Theories, Research setup & Exercises  (Slides 1 – 46)

12:00 - 12:30 LUNCH

12:30 - 14:00 PART 2: Description, Abduction, Analogy (Slides 48 – 91)

14:00 - 14:15 Break

14:15 - 15:45 PART 3: Statistical inference (Slides 92 – 134)

15:45 - 16:00 Break

16:00 - 16:30 PART 4: Checklist (Slides 135 – 143)

**Registration:**

Participation (lunch included) is free for all SIKS-members (PhD-students and research fellows). However, registration is mandatory. Please, send an e-mail to office@siks.nl and inform Corine that you want to participate. You may also inform her on your dietary needs.