

The Economics of the Digitalization and Information Systems

Course instructors

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Application procedure

Goal and target audience

This course is part of the TUM SoM PhD Summer School and targets doctoral students and postdocs.

Mandatory requirements

No mandatory requirements.

Application process

There is a limit of 15 students maximum for this course. To apply, please use the official application procedure for the TUM SoM PhD Summer School. The application deadline is July 1, 2022.

Course aims

This is a research-oriented doctoral seminar on the field of information systems. This course shall provide a primer on the core but also most current research questions of interest in the economics of information systems field. This field is concerned with understanding the implications that information technology has for firms' value creation, market structures, and competition. The references contain a list of exemplary papers from this field.

The primary goal of this seminar is to familiarize participants with the current topics concerning the management and economics of the digitalization, in particular:

- Principles of information good (cost of production, bundling, versioning, network effects)
- Impact of IT on market structures
- Platforms
- Privacy
- Copyright
- Artificial Intelligence
- Blockchains
- Piracy

To become familiar with these topics, students will be assigned a set of papers to present and

evaluate. All participants will discuss the papers. The course starts with an introductory presentation by the instructor. The remainder of the course is based on group work and presentations by the participants.

Course objectives

- Participants understand the core research questions of interest for the field of information systems economics
- Participants learn to communicate existing research findings
- Participants learn to critically review existing research

Preliminary schedule

The course takes place in the second week of the TUM SoM PhD Summer School from September 19 to September 23, 2022. We will meet in person on Campus Heilbronn.

Course procedures

Further detail will be provided in the first session.

Assessment

Form of assessment: presentation

100% Presentation, pass or fail only

Participation in all sessions is mandatory. Participation requires thorough preparation.

References

Acquisti, A., Brandimarte, L., & Loewenstein, G. (2015). Privacy and human behavior in the age of information. *Science*, 347(6221).

Brynjolfsson, E., Hu, Y., & Simester, D. (2011). Goodbye pareto principle, hello long tail: The effect of search costs on the concentration of product sales. *Management Science*, 57(8).

Foerderer, J., Kude, T., Mithas, S., Heinzl, A. (2018): Does Platform Owner's Entry Crowd Out Innovation? Evidence from Google Photos. *Information Systems Research*, 29(2)

Lambrecht, A., & Tucker, C. (2019). Algorithmic bias? An empirical study of apparent gender-based discrimination in the display of STEM career ads. *Management Science*, 65(7).

Liu, M., Brynjolfsson, E., & Dowlatabadi, J. (2021). Do digital platforms reduce moral hazard? The case of Uber and taxis. *Management Science*, 67(8).

Shapiro, Carl, Hal R. Varian, and Shapiro Carl. *Information rules: A strategic guide to the network economy*. Harvard Business Press, 1998.

Parker, G. G., & Van Alstyne, M. W. (2005). Two-sided network effects: A theory of information product design. *Management science*, 51(10).

Varian, H. R. (2005). Copying and copyright. *Journal of Economic Perspectives*, 19(2).