

BA-WI9(D)

Research in Information Systems

Overview

This course will provide an introduction to scientific research in Information Systems. It will discuss elementary scientific principles of research, explore key decisions in identifying research questions, designing a study, developing and using theory, research methods, and discuss challenges in paper writing, publishing, and scientific ethics.

The course will be taught in an interactive style where we jointly discuss learnings, critique articles, attempt to apply what we have learned to improve and extend our own research and publications, and work together to reach a deeper understanding of how to produce significant Information Systems research. The course will feature readings, lectures as well as student presentations and discussions in the classroom.

Learning outcomes

Students learn to...

- ...understand principles of scientific inquiry such as replicability, independence, and precision.
- ...evaluate phenomena and research problems of interest to information systems scholars
- ...apply discipline and technical knowledge to analyze and evaluate scientific processes and outcomes in information systems.
- ... distinguish, evaluate, and compare different research methods used in information systems research
- ...frame important research questions and design research studies appropriate to address these research questions.
- ...develop written communication skills to structure, explain and defend scientific thinking.
- ...appreciate ethical issues in planning, conduct, and publishing of information systems research.

Contents

The following list of topic exemplifies the contents covered:

- Information systems as a field of research
- Principles of scientific inquiry
- Research questions and research design
- Quantitative methods
- Qualitative methods
- Design methods
- Computational methods
- Mixed methods
- Theory development
- Academic publishing
- Ethics in IS research

Schedule

The course will run in ten sessions of 3h lectures accompanied by four tutorial sessions of 3h.

Week	Topic	Lecture	Tutorial	Room
1	Introduction	3h		ESA K
2	Scientific principles	3h		ESA K
3	Research design	3h	3h	ONLINE / TBA
4	Quantitative methods	3h		VMP 9 S 30
5	Qualitative methods	3h		VMP 9 S 30
6			3h	TBA
7				
8			3h	TBA
9				
10	Design methods	3h		ESA K
11	Computational/mixed methods	3h		ESA K
12	Scientific writing	3h		ESA K
13	Ethics	3h		ESA K
14	Closure	3h	1.5h	ESA K / TBA

Required Reading

The course builds on the textbook

- Recker, J. (2022) *Scientific Research in Information Systems: A Beginner's Guide*. 2nd edition: Springer. The book is available in the library and can be accessed for free electronically through the library.

Additional relevant papers, videos, lecture slides and other learning materials will be made available during the course.

Assessment

Written Individual Exam (100%) of 60 minutes length. The exam will be completed as an electronic exam. More details will be provided once available.

Brief Bio

Jan Recker joined the Universität Hamburg in 2021 as Nucleus Professor and holder of the chair for Information Systems and Digital Innovation, funded through the Excellence Strategy of the Federal and State Governments. He is also Adjunct Professor at the University of Agder (Kristiansand, Norway) and Adjunct Professor at the QUT Business School (Brisbane, Australia) since 2018. Previously, he was Professor for Information Systems and Systems Development at the University of Cologne from 2018-2021, Full Professor for Digital Innovation at the School of Management at the QUT Business School in Brisbane, Australia, from 2016-2017, and inaugural holder of the Woolworths Chair of Retail Innovation and Full Professor of Information Systems in the School for Information Systems at QUT in 2012. Since 2012, he is an Honorary Guest Professor at the International School of Software at Wuhan University, China. Jan Recker holds bachelor's and master's degrees in information systems from the University of Münster and a PhD in Information Systems from the Queensland University of Technology.

In his research, Jan Recker explores how organizations deal with digital innovation, digital transformation, and digital entrepreneurship. As a field researcher, he has cooperated with particularly large organizations (e.g., Woolworths, SAP, Hilti, Commonwealth Bank, Federal Police, Lufthansa, Ubisoft, federal and state governments) and with particularly small organizations, such as different start-ups. Jan Recker employs quantitative, qualitative, and mixed field methods in his research and is also competent in design research.

Jan Recker's research has appeared in leading journals in information systems, management science, organization science, computer science, and social science. He has also written popular textbooks on scientific research and data analysis, which are in use in over 500 institutions in over 60 countries. He ranks as one of the most published information systems academics of all time. In 2019, he was named #1 Business Researcher under 40 years of age by the German publication Wirtschaftswoche. Jan Recker is one of the Universität Hamburg's most cited scholars.

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