Course title                     Specialization Seminar in Technology and Innovation “Research on Digital Innovation”
Coordinator(s)                  Prof. dr. Marleen Huysman
Lecturer(s)                      Prof. dr Marleen Huysman and Prof. dr. Hans Berends
Study period                     October 2018 - December 2018
ECTS                             6 ECTS
Tuition                          € 600
Course goals                     Upon completion of this course students will have:

- Acquired a basic understanding of issues around organizational theories on digital technology and innovation;
- Developed an understanding of the importance of a socio-technical perspective and a practice perspective in analyzing the use of technology;
- Developed an understanding of how the nature of digital technologies affect innovation processes and collaboration;
- Developed reflective and critical skills in understanding the role of (digital) technology in organizations;
- Developed the ability to synthesize the literature and integrate knowledge in the field of technology and innovation, and formulate possible research directions based on that;
- Developed the ability to communicate with other experts about the current theories and research on technology and innovation.

Course Content                   The course focuses on classics and contemporary theories and empirical studies addressing various aspects of the role of technological innovations in organizations, and in particular related to digital technologies. Through understanding of theories explaining how technological innovations come about and how technologies influence innovative ways of working and organizing, is needed to avoid the use of limited deterministic perspectives of technological developments within organizations and society at large. Characteristic of the course is its focus on practice perspective while technology is addressed from a socio technical perspective. The emphasis is on digital technologies, including digital innovations in sectors such as healthcare, the high-tech industry, and creative industry.

The purpose of the course is to provide students with a thorough grounding in various theoretical perspectives and in depth empirical studies on technology development and use. This seminar has two major
purposes. One is to explore important contemporary issues at the intersection of organization theory, innovation and technology studies from a number of theoretical, methodological, and topic-oriented perspectives. The second is to practice a variety of skills such as synthesizing research, understanding research designs and developing research questions that should prove useful in your academic careers.

Assessment

The final grade consists of the following elements:

Individual examination (80%): essay-type exam

Class participation(20%)

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<th>Course structure</th>
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Literature

This course has a heavy reading load. You will read four papers a week. You are asked to analyze and be prepared to discuss the readings that are assigned for each class. All students should arrive to the class with their analyses of the readings, ready to go. A good analysis means that you will think about the 'big story' of the day as well as the details of the articles. Write down the answers to these questions and bring this with you to class. You do not need to send it to instructors.

For the 'big story', it may be helpful for you to ask yourself the following questions about the theoretical perspective under review (think about the readings as a collection).

1. What are the core research problems or questions addressed by the theory?
2. What is the typical metatheory (e.g. concepts, assumptions, evidence, methods, etc.) associated with this approach?
3. Can you specify the general theoretical arguments typically used in this approach?
4. What is the state of evidence with respect to various theoretical claims?

For the details it may be useful to ask yourself the following questions about each reading:

1. What are the central theoretical questions addressed?
2. What primary mechanisms are posited?
3. What is the evidence to support the argument(s)? How convincing is that evidence?
4. What are the basic assumptions behind the analysis?
5. How could this analysis be improved? Be specific and practical (do not make suggestions that you could not realistically envision yourself implementing).
6. How does the paper relate to the other papers assigned for this week?

Week 1 (Huysman)


4 Sergeeva A., Huysman M., Faraj S. (under review) Loosing Touch; how robots transform the practice of surgery, Organization Science under review (distributed in class)

**Week 2 (Huysman)**


**Week 3 (Huysman)**


Week 4 (Berends)


OR


Week 5 (Berends)


Week 6 (Berends)

