



Information Systems & Digital Business

# AI for Good

Summer Semester (annual rotation)

Institute:	Institute of AI in Management
Lecturer:	Prof. Dr. Stefan Feuerriegel
Assistant:	Assistants are annually changing
Weekly hours:	Coaching sessions by individual arrangement.
Credits	6
Examination:	Seminar paper and video presentation, group work.
Prerequisites:	Sufficient programming skills required (e.g., R, Python), such as taught in one of our previous courses ("AI for Managers", "Introduction to AI", etc.).
Course Material:	All course materials will be shared via Moodle. Students are required to self-enrol to the course through Moodle. The self-enrolment key can be accessed via LSF.

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## Course Description & Main Objectives

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In this seminar, students will apply AI methods on real world data to solve societal problems. Participants will analyse real world data and apply different AI methods to visualize and gain insights on their data. Students are encouraged to work in teams of four. Topics are selected with a focus on having a positive impact on society. Subsequently the students will summarize all findings in a report and a presentation.

- This is our flagship **research seminar**. Our objective is to do a proper, rigorous, and novel research project end-to-end with you and where we guide you through all steps. The output should be an academic paper that is submitted to one of the top conferences in "AI for Good" (such as ICWSM <https://www.icwsm.org/> or ACM Web Conference).
- We plan for **extensive and detailed feedback sessions**. This will be needed to ensure that we ramp you up to the standards of a scientific conference. For this, we will invite groups to additional meetings to have frequent project updates and provide extensive feedback (e.g., every 2-4 weeks). We will aim for Zoom at an evening slot (to avoid overlap).
- We expect students to allocate **a substantial amount of time** (as we also do the same on our side). This seminar is thus best suited for those eager to really ad-

vance their skillset further, plan for an academic career, etc. (from experience, the paper re-writing process will need 2-3 cycles alone). If you prefer to have a more "traditional" seminar etc., it may be better for you to choose one of our other seminars.

- Grading depends on whether the objective of having a paper that is in publishable form at one of the above scientific outlets and thus of the corresponding scientific contribution (e.g., where one would expect a positive response in the peer review process). We reserve very good and good grades exclusively for that (however, this should be doable if you invest sufficient effort).
- By participating in the seminar, you agree that we submit the result as a paper and make the materials public. We do so by acknowledging your contribution in a fair manner according to good scientific practices (the intention is listing you as a co-author. However, if things don't work out well or if there is a skew in the contributions within your group (e.g., somebody is taking it "too easy"), we may retain the right to list someone in the Acknowledgements only).

We have carefully designed research questions that are novel and of direct scientific and public significance.

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## Lectures Overview / Course Outline

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Final dates and times will be shared via Moodle.

- All topics will be published on Moodle approx. one week before the semester starts.
- The first session usually takes place in the first week of the semester, via Zoom.
- It is important to participate in the first session, because groups will be set-up and topics will be distributed.
- Coaching sessions by individual arrangement.
- Submission of seminar paper and video presentation via Moodle, usually towards the end of the semester.

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## Literature

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