



Course and Examination Fact Sheet: Autumn Semester 2023

7,722: Technologien/Technologies: The Economic and Social Impact of Artificial Intelligence

ECTS credits: 6

Overview examination/s

(binding regulations see below)

decentral - Written work, Digital, Individual work individual grade (10%)

Examination time: Term time

decentral - Written work, Digital, Individual work individual grade (50%)

Examination time: Term time

decentral - Presentation, Analog, Group work group grade (40%)

Examination time: Term time

Attached courses

Timetable -- Language -- Lecturer

[7,722,1.00 Technologien/Technologies: The Economic and Social Impact of Artificial Intelligence](#) -- English -- [Meckel Miriam](#) , [Steinacker Lea](#)

Course information

Course prerequisites

None

Learning objectives

After the successful completion of the course, Students

- are acquainted with the history and potential of Artificial Intelligence applications, such as facial recognition, and their underlying technological methods, like machine learning.
- are acquainted with an analytical concept (Code Capital) and coherent framework that allows the in-depth analysis of the economic and social impact of AI systems on an international scale to better understand why and how crucial questions have to be answered before as well as in the course of the implementation of new AI-based technologies.
- know how to apply the framework to case studies so that they can critically reflect the entangled sociotechnical configurations that together create effects in different fields of practice, like business, public surveillance, voting etc.
- know how to look on the impact of AI from interdisciplinary angles and with distinct methodological approaches in order to lead a debate about the respective pro and con arguments that explore the multi-faceted role and development perspectives of AI.

Course content

Advanced techniques in the field of Artificial Intelligence (AI) have been applied in commercial applications and public service across sectors to classify data, predict behaviors, and orchestrate choices. AI systems have immense economic, social, political, cultural, and environmental implications. This seminar provides students with an overview of the history of AI's historical origins, as well as with theoretical and empirical perspectives on the range of its impact today on international competition, democratic processes, job markets, social interaction, communication, inequality, and inclusion.

We provide students with the original concept of Code Capital, an interdisciplinary account of the configurations that comprise an AI system's source of impact. Through the eponymous CODE framework, we enable students to analyze AI along four dimensions - Conception, Operations, Data, and Environment - and to express bespoke circumstances of each system, bringing to



the fore its normative forces from design to deployment. Using the example of case studies (e.g. Facial Recognition Technologies, AI voting systems) we will learn how to apply the framework and derive useful insights into the economic and social impact of AI systems.

We will explore these topics through lectures, discussion sessions, an excursion, and wide-ranging readings. This course will, thus, be very discourse driven and requires the willingness for active participation by all students.

As part of the course, students will also get to participate in an on-site visit at Microsoft in Munich, one of the central global players in the AI economy. During the excursion, students will get to have a direct discussion on the topics of the course with Managing Director for Microsoft Germany and former Microsoft Country Manager for Switzerland Dr. Marianne Janik.

Course structure and indications of the learning and teaching design

Virtual Kickoff and an **excursion** to Microsoft in Munich.

Contextual Studies are considered part of **Contact Learning**; thus, taking part properly implies **regular attendance**. It is the students' own responsibility to ensure that there is **no timetable clash** between the courses they have chosen. A detailed course outline and all relevant documents will be made available on **Studynet**. Only the current timetable as published on Stundenplan online does apply.

Course literature

A detailed list of pre-readings and references will be provided at the kick-off.

Additional course information

Miriam **Meckel** is Professor for Corporate Communication at the University of St. Gallen as well as Co-founder and CEO of "ada Learning", her research focuses on communication and technologies, social and economic impact of new technologies, like AI, and journalism.

Léa **Steinacker** is a researcher on new technologies, inclusion and social justice. Trained at Princeton and Harvard, she teaches at the University of St. Gallen and is Co-founder and CIO of "ada Learning". She is a member of the German "Atlantikbrücke" and was honored by Forbes as one of their "30 under 30" leaders".

Examination information

Examination sub part/s

1. Examination sub part (1/3)

Examination modalities

Examination type	Written work
Responsible for organisation	decentral
Examination form	Written work
Examination mode	Digital
Time of examination	Term time
Examination execution	Asynchronous
Examination location	Off Campus
Grading type	Individual work individual grade
Weighting	10%
Duration	--

Examination languages

Question language: English

Answer language: English



Remark

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Examination-aid rule

Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

Supplementary aids

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2. Examination sub part (2/3)

Examination modalities

Examination type	Written work
Responsible for organisation	decentral
Examination form	Written work
Examination mode	Digital
Time of examination	Term time
Examination execution	Asynchronous
Examination location	Off Campus
Grading type	Individual work individual grade
Weighting	50%
Duration	--

Examination languages

Question language: English

Answer language: English

Remark

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Examination-aid rule

Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

Supplementary aids

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3. Examination sub part (3/3)

Examination modalities

Examination type	Presentation
Responsible for organisation	decentral
Examination form	Oral examination
Examination mode	Analog
Time of examination	Term time
Examination execution	Asynchronous
Examination location	On Campus
Grading type	Group work group grade
Weighting	40%
Duration	--

Examination languages



Question language: English

Answer language: English

Remark

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Examination-aid rule

Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

Supplementary aids

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Examination content

Interview guide (10%): Individually, students prepare and submit ahead of the excursion an interview guide based on pre-readings for the on-site discussion with the Managing Director of Microsoft in Munich.

Group presentation & facilitation (40%): In small working groups, students apply the Code Capital framework to analyze a particular AI system and facilitate a class discussion.

Individual Essay (50%): Students use Generative AI, for example ChatGPT, to analyze the social and economic impact of a specific AI system, document the process of interacting with the tool, and write a reflective essay - without any assistive AI tools - of 12,000 characters on their experience and the results. Each student has to hand the documentation of using the AI tool (eg. the dialogue) as well as the essay.

Examination relevant literature

A list of pre-readings and references will be sent out to all participants by September 18th.



Please note

Please note that only this fact sheet and the examination schedule published at the time of bidding are binding and takes precedence over other information, such as information on StudyNet (Canvas), on lecturers' websites and information in lectures etc.

Any references and links to third-party content within the fact sheet are only of a supplementary, informative nature and lie outside the area of responsibility of the University of St.Gallen.

Documents and materials are only relevant for central examinations if they are available by the end of the lecture period (CW51) at the latest. In the case of centrally organised mid-term examinations, the documents and materials up to CW 42 are relevant for testing.

Binding nature of the fact sheets:

- Course information as well as examination date (organised centrally/decentrally) and form of examination: from bidding start in CW 34 (Thursday, 24 August 2023);
- Examination information (supplementary aids, examination contents, examination literature) for decentralised examinations: in CW 42 (Monday, 16 October 2023);
- Examination information (supplementary aids, examination contents, examination literature) for centrally organised mid-term examinations: in CW 45 (Monday, 06 November 2023);
- Examination information (regulations on aids, examination contents, examination literature) for centrally organised examinations: two weeks before the end of the de-registration period in CW 45 (Monday, 06 November 2023).