



Course and Examination Fact Sheet: Autumn Semester 2023

7,682: Medien/Media: Big Data, Artificial Intelligence and the Algorithmic Society

ECTS credits: 6

Overview examination/s

(binding regulations see below)

decentral - Written work, Digital, Individual work individual grade (60%)

Examination time: Term time

decentral - Presentation, Analog, Group work group grade (20%)

Examination time: Term time

decentral - Written work, Digital, Individual work individual grade (20%)

Examination time: Term time

Attached courses

Timetable -- Language -- Lecturer

[7,682,1.00 Medien/Media: Big Data, Artificial Intelligence and the Algorithmic Society](#) -- English -- [Barassi Veronica](#)

Course information

Course prerequisites

None

Learning objectives

At the end of this course you will have:

- Gained a critical understanding of the history of AI and big data
- Learned the key issues in AI such as the problem of algorithmic bias and ethics
- Acquired an analytical perspective into the opportunities and challenges of AI and algorithms
- Developed an empirical appreciation of the social impacts and social consequences of AI in different areas of social life from governing practices and policing to health and education

Course content

The AI revolution cannot be understood without looking at the history of big data and how over the last twenty years data and algorithmic technologies have transformed the way we work, live and interact. In this course we will explore these questions by focusing on four different thematic areas: history, culture, society and ethics. We will explore the historical rise of both big data and artificial intelligence, we will dwell on the past to understand the present and what led to the emergence of an 'algorithmic society' (**history**). We will also focus on the discourses and beliefs about data-driven decision making, we will debunk 'the promise of predictive analytics' and 'the myth of intelligent machines' (**culture**). In doing so, our aim is to consider how artificial intelligence and predictive analytics have become new 'media' for the production of knowledge and how they are rapidly transforming our societies, from governments and policing to education and health (**society**) and to engage with key questions about data privacy, algorithmic bias and whether we can really talk about 'AI for the good' (**ethics**).

Course structure and indications of the learning and teaching design

This course will run over 12 classes, 4 hours per session. The classes have been designed deliberately in a way that they are dynamic and open.

You can intervene with key concepts, ideas or to share your experience, and you are free to ask questions at any time. Each session will consist of two 30mins long inputs followed by open discussions and group exercises. The Inputs will be video



recorded and uploaded on your Studynet, if taught online.

During class we will be discussing key concepts and key readings and we will engage in 'visual mapping', a seminar technique which will see us working together as a group to unpack different concepts (visualized on the board). This implies that if you have not done the reading for that week, you will be able to participate and interact with your classmates, nonetheless. You will also acquire a good understanding of the key concepts and ideas of the course. I expect the whole class to contribute with questions, concepts and ideas, and I will often ask questions to students directly even if they have not raised their hands.

The class will also consist of different hands-on group exercises, which will include research activities, role playing, debates and games.

Here is a breakdown of the course content, class by class:

- Class 1 - Introduction: Big Data, AI and Surveillance Capitalism
- Class 2 - Big Data's Historical Roots: Social Statistics and Modern Bureaucracy
- Class 3 - The Cultural History of AI
- Class 4 - AI in our Homes and Surveillance in Everyday life
- Class 5 - Data and AI in Education
- Class 6 - AI in Health? Promises, Problems and Data Privacy
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- Class 7 - Profiling Machines and the Culture of Personalization
- Class 8 - Governing through Data and AI
- Class 9 - Data Privacy, Consent and the Problem of Data Regulations
- Class 10 - AI, Data Cultures and The Mediated construction of Reality
- Class 11 - The Human Error in AI and the Question about AI Ethics
- Class 12 - Data Inequality and the Struggle for Data Justice

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 **Courses** does apply.

Course literature

At the beginning of the course you will be provided with a list of texts as well as with an outline of the key readings for each class/topic. You will rely on this list for your examination (see examination description). Here below is a selected list of some of the key readings that we will explore:

Andrejevic, Mark. 2004. "The Work of Watching One Another: Lateral Surveillance, Risk, and Governance." *Surveillance & Society* 2 (4). <https://doi.org/10.24908/ss.v2i4.3359> .

Barassi 2019. "Datafied Citizens in the Age of Coerced Digital Participation:" *Sociological Research Online*, June. <https://doi.org/10.1177/1360780419857734> .

Barassi, Veronica. 2017. BabyVeillance? Expecting Parents, Online Surveillance and the Cultural Specificity of Pregnancy Apps. *Social Media + Society*. <https://doi.org/10.1177/2056305117707188>

Beer, D. (2016). How should we do the history of Big Data? *Big Data & Society*. <https://doi.org/10.1177/2053951716646135>

Bourdieu, P. (1990) 'On Symbolic Power' in *Language and Symbolic Power*. Cambridge: Polity.

boyd, danah, and Kate Crawford. 2012. "Critical Questions for Big Data." *Information, Communication & Society* 15 (5): 662-79. <https://doi.org/10.1080/1369118X.2012.678878> .

Broussard, Meredith. 2018. *Artificial Unintelligence: How Computers Misunderstand the World*. Cambridge, Massachusetts: The MIT Press. (Introduction)

Crawford, Kate, and Jason Schultz. 2014. "Big Data and Due Process: Toward a Framework to Redress Predictive Privacy Harms." *Boston College Law Review* 55, no. 1: 93.

Elmer, Greg. 2004. *Profiling Machines: Mapping the Personal Information Economy*. Cambridge, Mass: The MIT Press.



Eubanks, Virginia. 2018. Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor. St. Martin's Press. (Introduction)

Libert, Timothy. 2015. "Privacy Implications of Health Information Seeking on the Web." Communications of the ACM 58, no. 3: 68-77. <https://doi.org/10.1145/2658983>.

Lyon, D. (2014). Surveillance, Snowden, and Big Data: Capacities, consequences, critique. *Big Data & Society*. <https://doi.org/10.1177/2053951714541861>

Max Weber' from *Social Theory* edited by Charles Lemert, pp. 99-125.

Additional course information

Prof. Dr. Veronica Barassi is Full Professor in Media and Communication Studies (Ordinaria) in the School of Humanities and Social Sciences at the University of St. Gallen, as well as the Chair of Media and Culture in the Institute of Media and Communications Management.

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	60%
Duration	--

Examination languages

Question language: English
Answer language: English

Remark

18000 characters

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	Presentation
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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	20%
Duration	--

Examination languages

Question language: English

Answer language: English

Remark

15minutes

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	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	20%
Duration	--

Examination languages

Question language: English

Answer language: English

Remark

3500 characters

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



Part 1 - Examination Paper Written at Home (Individual) 60% - Essay (18,000 excluding spaces)

Students will need to answer one question from the list of essay questions provided at the beginning of the semester. In the essay - if they want to achieve excellence (6) - the students will have to fulfill all the below three requirements:

1. Demonstrate a theoretical understanding of the relevant topics and debates
2. Show a critical engagement with the literature by bringing different understandings together and their own reflection
3. Apply the theoretical insights to specific real life examples

For their essay the students are encouraged to read *at least* 6 sources from the list of texts that will be provided at the beginning of the course. Please remember that **you MUST use the course literature**, you can enrich this literature with further texts if you wish, but you cannot write an essay without referring to the course literature.

Part 2 - Examination Paper Written at Home (Individual) 20% - Opinion Piece (3,500 characters excluding)

Students will need to write a 'reflexive piece' departing from their own technological use or everyday experience which engages with one of the topics of the course (e.g. data privacy, AI in health, the cultural history of AI, data inequality, etc.) and at least two key readings.

Part 3 - In class group presentation (Group, mark shared) 20%

At the beginning of the semester, students will be divided in different groups. They will have to choose one topic from the 12 classes (e.g. AI in health, data privacy; data inequality etc.) read the two key readings that they will find on the class module in StudyNet, and present the key points of the readings in a visually stimulating and interactive presentation. ALL presentations will take place in class on the last 2 weeks of the semester.

Examination relevant literature

At the beginning of the course you will be provided with a list of texts as well as with an outline of the key readings for each class/topic. You will rely on this list for your examination (see examination description).



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).