

סילבוס - תוכנית הוראה לקורס
אלגוריתמים ובני אדם: סובייקטיביות ודאטא
פרופ' לירן רזינסקי | התכנית ללימודי פרשנות ותרבות

Algorithms and Humans: Subjectivity and Data

קורס: 271261-01

סמינריון: 271262-01

שיעור וסמינר	סוג הקורס:
4	היקף נ"ז:
תשפ"ה	שנת לימודים:
שנתי	סמסטר:
שלישי 16-18	יום ושעה
לפי קביעה	שעת קבלה:
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_____	קישור לאתר למדה:

תקציר

This course addresses the ubiquity of algorithms in our lives. It aims to study, from a critical perspective, how big data, algorithms and AI change the structure and fabric of human experience.

We are witnessing quantification and datafication of human activity on a large scale. Almost everything we do leaves a data trace. In recent years more and more data is produced and exploited by public institutions and corporations to learn about individuals. Companies, governments and researchers are enthusiastic about the possibility of data-mining, of studying patterns of behavior, desires, preferences, habits, and identities through the large amounts of data produced “unintentionally”. The analysis of big-data is everywhere applied to human activity. This is done for scientific or commercial goals, for surveillance, marketing, improving products, targeting audiences, achieving political goals and so forth. The data can be used to know about and predict or even shape individuals’ behavior and needs. In our seminar, we will mostly be interested in the changes in subjectivity related to the widespread contemporary use of data and data-based algorithms.

We will direct a critical gaze to what are sometimes described as mere technical advancement or as cultural and market products: Spotify, Facebook, Google Search. Waze, Uber, Wolt, Amazon, Netflix, Fitness apps, as well as countless other services. We will examine the use of big data and algorithms critically.

The data we leave can be used to infer things about us. We are “known” by corporations and governments through their databases and algorithms, and constantly interpreted by algorithms based on our data. In fact we are probably more “known” by these algorithms than we are by fellow human beings. The inference – what we are thinking about, who we are, what our desires are, what we are likely to do – is a constant preoccupation of algorithms based on our data and goes on ceaselessly. To put it differently, algorithms are probably much more occupied in understanding who we are than are humans. How does this situation impact how we understand ourselves? This would be the leading question of this seminar.

We will also study how algorithmic knowledge interacts with “old style” human knowledge, we will look at the “humans in the loop” of AI, we will examine the biases of algorithms (racial, gender), and the interaction of human knowledge and algorithmic understanding. We will study more in depth several case studies for some of the phenomena we

discussed more theoretically, such as the Quantified Self, recommender systems, therapy apps and Emotional AI.

Beyond it, we will be interested in studying various aspects of the contemporary ubiquity of AI algorithms, data collection and in general data-life. We will study for example the political consequences of the ubiquitous use of data, the relationship of the current state to neoliberalism, ethical considerations for algorithms, questions of surveillance, the materiality of data centers, and many more. We will be interested in the political, ideological conditions that facilitated the current omnipresence of data and algorithms

Many of the classes are based on my own research. Accordingly, some will include little reading and others much reading. I will be looking forward to hearing critical thoughts and comments and to engage in wider discussions on these materials.

מטרות/תוצרי הלמידה

Beyond this seminar's leading question about the changes of subjectivity, it also serves as an introduction to critical studies of data and algorithms. Students will have a good understanding of the backstage of contemporary data-based algorithmic culture. Students are expected to slowly develop a critical perspective on this algorithmic culture, and be able to look at techno-cultural productions through a richer critical lens.

Students will hopefully be able to

- Gain an appreciation of the wide range of theory that deals with data, algorithms and digital media;
- Examine the relationship(s) between subjectivity and media and technology;
- Think critically about what is at stake with upcoming technologies of datafication;

תכנון מהלך השיעורים:

The course will have a few “series” spaced along it: “In Practice” where we will closely examine from a more practical perspective one specific case study of the use of data; “Changing subjectivity”: Where we will examine aspects of subjectivity that data seems to be changing; A series of guest presentations by speakers from Israel and abroad (zoom). For the sake of making the course less monotonic we will be interspacing these series across the year.

Fall Semester

Week 1:

Introduction to year's main topic and schedule

Week 2:

Big Data Ideology: Enthusiasm, Manifestos and Visions

Reading:

van Dijck, José. 2014. "Datafication, dataism and dataveillance: Big Data between scientific paradigm and ideology." *Surveillance & Society* 12(2): 197-208.

Anderson, Chris, "The End of Theory: The Data Deluge Makes the Scientific Method Obsolete." *Wired Magazine* 16 (07).

Bell, Gordon and Gemmell, Jim. *Total Recall*,

Gary Wolf, "The Data-Driven Life". *New York Times Magazine*. May 2010.

Pentland. Alex, "Reinventing Society in the Wake of Big Data"

Mayer-Schönberger, Viktor and Cukier Kenneth. *Big Data: A Revolution That Will Transform How We Live, Work and Think*, Canada: Eamon Dolan/Houghton Mifflin Harcourt, 2013.

Week 3:

Why Would Algorithms Come to Change Who We Are (Mediating Factors)

Week 4:

Surveillance Capitalism: The New Data Economy I

Reading: Zuboff, Shoshana. *The Age of Surveillance Capitalism*, Profile, 2019.

Class presentations of chapters of Zuboff's book

Week 5:

Surveillance Capitalism: The New Data Economy II

Class presentations of chapters of Zuboff's book

Week 6:

Surveillance Capitalism: The New Data Economy III

Class presentations of chapters of Zuboff's book

Week 7: On the Nature of “Data”

Reigeluth, Tyler. “Why Data is Not Enough: Digital Traces as Control of Self and Self-Control.” *Surveillance & Society*, vol. 12, no. 2, 2014, pp. 243-254.

Loukissas, Yanni A. *All Data Are Local: Thinking Critically in a Data-Driven Society*. Cambridge: MIT Press, 2019.

Week 8:

In Practice (Case Study Close up) I: The Quantified Self: Self Knowledge through Numbers

Reading: Various texts about the phenomenon of the Quantified Self

Week 9:

Changing Subjectivity, Cluster I: Internal Organization, Database Structure

Week 10:

Changing Subjectivity, Cluster II: Towards what Future?

Week 11:

In Practice (Case Study Close up) II: Streaming Content and Recommender Systems

Reading:

Eriksson, Maria, Fleischer, Rasmus, Johansson, Anna, Snickars, Pelle and Patrick Vonderau.

Spotify Teardown. Inside the Black Box of Streaming Music. MIT Press, 2019

Reigluth, Tyler. “Recommender Systems as Techniques of the Self?”

Week 12:

Perspectives On the Data Subject

Reading: Cheney-Lippold, John. *We Are Data. Algorithms and The Making of Our Digital Selves*. New York: NYU, 2017

Goriunova, Olga. “The Digital Subject: People as Data as Persons.” *Theory, Culture & Society* 2019, Vol. 36(6) 125–145

Week 13:

Changing Subjectivity, Cluster III : Inside/Outside, Interiority, Reflexivity, and Our Point of View.

Week 14:

Changing Subjectivity, Cluster IV: Transparency and Opacity

Reading: Glissant, Edouard, "On Opacity" (From *The Poetics of Relation*)

Han, Byung-Chul. *The Transparency Society*. Translated by Erik Butler, Stanford University Press, 2015.

Spring Semester

Week 1:

Algorithmic Governmentality: On the Algorithmic Fabrication of Subjects. Antoinette Rouvroy

Reading: Various texts by Antoinette Rouvroy

Week 2:

In Practice (Case Study Close up) III: Emotional AI (Guest Speaker Noura Howell, Georgia Tech)

Week 3:

Data and Neo-Liberalism: The Neoliberal Subject and the Dataistic Subject I

Reading: Han, Byung-Chul . *Psychopolitics: Neoliberalism and New Technologies of Power*. Trans. Erik Butler. Verso, 2017.

Week 4:

Data and Neo-Liberalism: The Neoliberal Subject and the Dataistic Subject II

Week 5:

The Biases of Algorithms (Guest Presentation, Prof. Lauren Klein, Emory)

Week 6

The Political Subject Algorithmified (Deleuze, Foucault and Beyond)

Week 7:

Data and the Other: Datafication and Other Human Beings

Week 8:

Digitality and (as?) Control

Reading: Franklin, Seb ,*Control: Digitality as a Cultural Logic* .MIT 2015 .

Galloway, Alexander R. *Protocol. How Control Exists after Decentralization*. Cambridge, MA and London, UK: The MIT Press, 2004.

Week 10:

In Practice (Case Study Close up) IV: Algorithms and Psychotherapy (Therapy Apps, Data and Emotional Well Being)

Week 11:

Silicon Valley Ideology

Reading: Turner, Fred, *From counterculture to Cyberculture. Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism*. Stanford UP.

Curtis, Adam. *All Watched Over by Machines of Loving Grace*, 201.

Week 12:

The Humans in the Loop: Tagging, Interpreting and Mediating

Reading: Paulsen, Kris. “Shitty Automation”: Art, Artificial Intelligence, Humans in the Loop. *Media-n* 16.1 (2020): 4-23.

Kotliar, Dan M. The return of the social: Algorithmic identity in an age of symbolic demise. *New Media & Society* 2020, Vol. 22(7) 1152–1167

Week 13:

Algorithmic Understanding vs. Human Understanding

Week 14:

Final meeting

This is an initial list of classes. We might change contents along the course. Here are some of the other topics we might cover:

– **The Problem of the Black Box**

Reading: Pasquale, Franck. *The Black Box Society. The Secret Algorithms That Control Money and Information.*

– **In Praise of folly I (What do we want from Algorithms): Automation and Optimization**

Reading: Andrejevic, Mark. *Automated Media.* Routledge, 2019.

– **In Praise of folly II (What do we want from Algorithms): Objectivity and Overcoming Human Biases**

Reading: Hong, Sun-ha. *Technologies of Speculation. The Limits of Knowledge in a Data-Driven Society.* New York University Press, 2020.

– **In Praise of folly III (What do we want from Algorithms): Algorithmic Arbitrage: Algorithms as Culture Machines.**

Reading: Finn Ed, *What Algorithms Want. Imagination in the Age of Computing.* MIT Press, 2017.

– **Where is the Cloud? On the Materiality of Data-Centers**

Watching :Jeffery, Ryan S. and Levin, Boaz. *All That Is Solid Melts into Data* (2015).

– **Can algorithms Really Know Us?**

– **Algorithmic Ethics**

Reading: Amoore, Louise. *Cloud Ethics. Algorithms and the Attributes of Ourselves and Others.* Duke UP, 2020.

– **Literature and Data**

Reading: Sections from: Van de Ven, Inge. *Big Books in Times of Big Data,* Leiden Univ. Press, 2019.

– **The Measured Subject**

Reading:

Day, Ronald E. *Indexing It All. The Subject in the Age of Documentation, Information, and Data*. MIT, 2014.

*ייתכנו שינויים בסילבוס בהתאם לקצב ההתקדמות ואפקטיביות הלמידה



משקל בציון הסופי	תיאור התוצר
30 % מהציון הסופי	השתתפות פעילה ומעורבת בכיתה ובדיונים, קריאה שוטפת של החומרים
30 % מהציון הסופי	שלוש פרזנטציות בכיתה
40 % מהציון הסופי	מטלת סיום



The seminar will be discussion-based. This means students are expected to arrive ready to class, having read the materials, and be engaged in the discussion.

Three class presentation are to be delivered during the year, some more independent than others. Details will follow.

A final assignment will be handed in exactly one month after the course's last meeting. It is the students responsibility to discuss the ideas for the assignment with the teacher BEFORE the last meeting.

Students are expected to attend all classes. As it happens, life circumstances do not always make this possible. Attendance should not however go under 85%.

Students are required to read ahead of class the materials for discussion. Almost all readings will be provided to you in electronic form.

As an integral part of a small, graduate-level class, students are expected to come to class prepared for the discussion of the reading materials and actively engage in it.

If by nature you are uncomfortable to speak in public or and are more reserved, please be in touch with me and we will look for other engagement options. Also, if for some reason you feel a difficulty speaking in this specific seminar, please come talk to me and we will see how we can help create a more comfortable feeling in class.

It is extremely important that we manage to establish a supportive environment for

everyone. To use the words of my colleague, “give others the kind of curious attention, generosity, compassion, and benefit of the doubt you yourself would like to receive.”

Academic Honesty Policy

All assignments turned in for this class must be the student’s own writing. Any quotations must be properly attributed to the original source with proper citations.

In addition, as this is a work in progress seminar, a legal note is required: All reading materials and oral presentations that more closely concern the research project on which the seminar is based are strictly for the student’s eyes (and ears) only. No materials, texts or summaries, class notes or recordings should be circulated in any way to a third party.



None. Please, however, join this seminar ONLY if the topic appeals to you and you intend to be engaged. In addition, this seminar is held in English, so make sure you only take it if your level of English is good enough to follow a class discussion.

ביבליוגרפיה: ראו פירוט בתכנית השיעורים המסודרת 