

## SYLLABUS

### 1. Information regarding the programme

1.1 Higher education institution	Babeş-Bolyai University
1.2 Faculty	Faculty of Sociology and Social Work
1.3 Department	Sociology
1.4 Field of study	Sociology
1.5 Degree	Master's degree
1.6 Study programme/ Qualification	Advanced Sociological Research

### 2. Information regarding the course

2.1 Course title	AME 0153 Political Economy of Big Data						
2.2 Lectures held by	Irina Culic						
2.3 Seminars held by							
2.4. Year of study	2	2.5 Semester	1	2.6. Type of evaluation	Exam	2.7 Course type	Compulsory

### 3. Total estimated time (hours/semester of didactic activities)

3.1 Hours per week	2	Of which: 3.2 lectures	2	3.3 seminar/laboratory	0
3.4 Total hours in the curriculum	28	Of which: 3.5 lectures	28	3.6 seminar/laboratory	0
Distribution of time:					hours
Learning using manual, course support, bibliography, course notes					50
Additional documentation (in libraries, on electronic platforms, field documentation)					50
Preparation for seminars/labs, homework, papers, portfolios and essays					35
Tutorials					8
Evaluations					4
Other activities:					
3.7 Total hours of individual study	147				
3.8 Total hours per semester (number of credits x 25 hours)	175				
3.9 Number of ECTS credits	7				

### 4. Prerequisites (if necessary)

4.1. curriculum	---
4.2. competencies	---

### 5. Conditions (if necessary)

5.1. for the lectures	---
5.2. for the seminar/ lab activities	---

## 6. Specific competencies acquired:

<b>Professional competencies</b>	<ul style="list-style-type: none"> <li>• Demonstrate advanced knowledge of sociological concepts, theories and methodologies for the description, analysis and explanation of social processes and phenomena, in particular related to changes brought to societies by Big Data</li> <li>• Design and implement quantitative and qualitative sociological research with the aim to collect and structure valid and complex empirical data;</li> <li>• Analyze and interpret complex empirical data produced by institutions or collected within quantitative or qualitative sociological research, updated to new methods associated with Big Data</li> <li>• Competent use of procedures and software specific for advanced methods of quantitative and qualitative data analysis;</li> </ul>
<b>Transversal competencies</b>	<ul style="list-style-type: none"> <li>• Use the acquired knowledge and methods in diverse contexts and social activities;</li> <li>• Communicate in writing and orally on professional matters in an international language and work efficiently in different cultural contexts;</li> <li>• Competent use of the computer and new technologies for professional activities in the domain and also for communication on professional matters;</li> <li>• Work efficiently in trans-disciplinary teams on various levels of intra- and inter- organizational hierarchies</li> </ul>

## 7. Course Objectives (outcome of the acquired competencies)

7.1 General objective of the course	<p>At the end of the course students will have a complex understanding of the way big data structure and organize contemporary social processes. The course will help students understand how the production, transaction, distribution, and use of big data are organised and governed.</p> <p>Sociologically, the political economy of big data investigates the politics and economic forms of the production of value from big data. They are regimes where power and influence structures rest on using, monetizing, financializing, and extracting value of some sort from big data.</p>
7.2 Specific objective of the course	<p>Students will be able to identify modes of collection, storage, use of big data in various spaces of present social life such as education, state and security, citizenship, the economic realm – finances and banks, virtual space, self-generated cooperation networks.</p>

## 8. Content

8.1 Lectures	Teaching methods	Remarks
<p>Topics and mandatory readings:</p> <p>1</p> <p>Introduction. What is Big Data? Problematics of the Field.</p> <p>*Mayer-Schönberger, Victor, and Kenneth Cukier. 2013. <i>Big Data, A Revolution That Will Transform How We Live, Work, and Think</i>. Boston, MA: Houghton Mifflin Harcourt, Chapter 1 (<i>Now</i>), Chapter 6 (<i>Value</i>).</p> <p>2</p> <p>Materiality of Big Data. Collection, Storage, Access, Investigation, Distribution, Security, Transfer.</p> <p>*<a href="#">Steven Levy, Google Throws Open Doors to Its Top-Secret Data Center. Wired-Business, 10.17.2012</a></p> <p>*Mayer-Schönberger &amp; Kenneth Cukier 2013, Chapter 7 (<i>Implications</i>).</p> <p>3</p> <p>Science, Knowledge and Big Data. Examples from various disciplines and fields of practice (Medicine, Linguistics etc.). Big Data and Artificial Intelligence.</p> <p>*<a href="#">Neural networks-deep learning- explanatory video</a></p> <p>4</p> <p>Big Data and the State. The Question of Government. The Question of Security. Policing. Surveillance. Social scoring.</p> <p>*Aradau, Claudia and Tobias Blanke. 2015. "The (Big) Data-security assemblage: Knowledge and critique". <i>Big Data and Society</i>. 2015: 1-12.</p> <p>5</p> <p>Big Data in Economy and Finance. Credit Scoring and Big Data.</p> <p>*Poon, Martha. 2009. "From New Deal Institutions to Capital Markets: Commercial Consumer Risk Scores and the Making of Subprime Mortgage Finance." <i>Accounting, Organization and Society</i> 34 (5): 654-74.</p> <p>6</p> <p>Big Data and Personhood. The Politics of measurement. Quantification, Evaluation, Classification. Algorithmic shaping of the Subject.</p> <p>*Mayer-Schönberger &amp; Kenneth Cukier 2013, Chapters 8 (<i>Risks</i>), 9 (<i>Control</i>).</p>	<ul style="list-style-type: none"> <li>• Interactive exposure</li> <li>• Explanation</li> <li>• Conversation</li> <li>• Didactical demonstration</li> <li>• Text interpretation</li> <li>• Data analysis</li> </ul>	

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Data Analytics and Algorithms. Epistemological Implications.

\*Lucy Resnyansky. 2019. Conceptual frameworks for social and cultural Big Data analytics: Answering the epistemological challenge. *Big Data and Society*, January–June 2019: 1–12.

\*Mayer-Schönberger & Kenneth Cukier 2013, Chapters 2 (*More*), 3 (*Messy*), 4 (*Correlation*).

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Big Data and the Future of Capitalism. Self-regulated Distributed Systems, Algorithms, Fuzzy Control.

\*Jacob Silverman. 2014. „The Crowdsourcing Scam. Why do you deceive yourself?”. *The Baffler* 26. <http://thebaffler.com/salvos/crowdsourcing-scam>

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Elected topic: Commercial DNA Testing and BD

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Selected Supplementary literature:

Anderson, Chris. 2008. The End of Theory: The Data Deluge Makes the Scientific Method Obsolete. *Wired*. Science section. 06.23.2008

<https://www.wired.com/2008/06/pb-theory/>

Dow Schull, Natasha. 2014. *Addiction by Design: Machine Gambling in Las Vegas*. Princeton, NJ: Princeton University Press.

European Economic and Social Committee. 2017. “The Ethics of Big Data: Balancing Economic Benefits and Ethical Questions of Big Data in the EU Policy Context.” 22 Feb. 2017.

<https://www.eesc.europa.eu/en/our-work/publications-other-work/publications/ethics-big-data>

Federal Trade Commission. 2016. *Big Data: A Tool for Inclusion or Exclusion?* Washington, DC: Federal Trade Commission.

Halpern, Orit. 2014. *Beautiful Data. A History of Vision and Reason since 1945*. Duke University Press.

Howard, Philip N. 2015. *Pax Technica: How the Internet of Things May Set us Free or Lock us up*. New Haven, CT: Yale University Press.

<p>Kitchin, Rob. "Big Data, New Epistemologies and Paradigm Shifts." <i>Big Data &amp; Society</i>, (April 2014). <a href="https://doi.org/10.1177/2053951714528481">https://doi.org/10.1177/2053951714528481</a>.</p> <p>Latour, Bruno, and Steve Woolgar. (1979) 1986. <i>Laboratory Life: The Construction of Scientific Facts</i>. Princeton, NJ: Princeton University Press.</p> <p>O'Neil, Cathy. 2017. <i>Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy</i>. Broadway Books.</p> <p>Stuart Russell, Peter Norvig. 2020. <i>Artificial Intelligence: A Modern Approach</i>, Fourth US Edition. New York: Pearson.</p> <p>Zuboff, Shoshanna. 2019. <i>The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power</i>. Campus, 2018; Public Affairs, 2019.</p>		
8.2 Seminars / laboratories NA	Teaching methods	Remarks

**9. Corroborating the content of the discipline with the expectations of the epistemic community, professional associations and representative employers within the field of the program**

Students will be able to use productively and critically the understanding and cognitive, epistemological and practical content acquired in this course in various professional environments such as advanced research institutes, corporations and firms using modern technology and data collection and recording, local and central administration of the state, educational, medical, economic institutions.

**10. Evaluation**

Activity:	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final grade
10.4 Lectures	1) an assignment (BD Issue paper/ desk-research on a selected theme) presented in class and handed in electronically to the instructor in the last two weeks of the semester, January 2024. (50%)  2) a written examination taken in class during the session of examinations, or, if under restrictions due to Covid-19 pandemics, a take-home exam organized during the same set time (1h30min). It will consist of 7 short questions covering the material discussed in class (50%).		
10.5 Seminars			
10.6 Minimum requirements:  Plagiarism will be promptly sanctioned according to university regulations. In order to pass students should get at least 5 points from a maximum of 10 points corresponding to the maximum score/ grade.			

Date: 13 September 2023

Signature of course lecturer

Date of approval: 18.09.2023

Signature of the head of department