Amsterdam Business Research Institute

Analyzing Digital Data in Business and Management Research

Course Manual

Academic year 2023 - 2024

Course title	**Analyzing Digital Data in Business and Management Research**
Coordinator(s)	dr. Joey van Angeren (main contact); dr. Hakan Ozalp
Lecturer(s)	dr. Joey van Angeren; dr. Hakan Ozalp; dr. Timothy Charlton-Czaplicki
Study period	November – December 2023
ECTS	5 ECTS
Tuition	€1250 20% discount on early bird registration: €1000
Target groups	The Analyzing Digital Data in Business and Management Research course is open to postdocs, PhD candidates, and research master students engaging in research in business and management or related fields such as organization studies. This course is an advanced methods course that assumes prior knowledge of business and management or organization studies as well as a basic understanding of qualitative and/or quantitative research methods. Familiarity with programming in Python or R is also required (full proficiency in those programming languages is not necessary though).
Course content	Many phenomena that are of interest to management and organization scholars are captured in the form of rich digital (trace) data. Detailed work and navigation processes are captured in information systems and activity logs, product characteristics are described in textual product descriptions, gig platforms capture a wealth of data about workers, and CEOs manage the impression of their firms in video-recorded press conferences. The availability of such rich digital data provides novel opportunities for theorization and analysis. To this purpose, scholars of management and organization have turned to methods originally developed in computer science, to collect and work with digital data. A distinct feature of those methods is that they are applied in both qualitative and quantitative research, for purposes that range from data exploration, to theory development, and onto hypothesis testing. The course Analyzing Digital Data in Business and Management Research provides an introduction to a variety of methods that can be used to analyze digital data in management and organization research, be it for the purpose of qualitative or quantitative analyses. Its focus is on the end-to-end research process. The course introduces website scraping and application programming interfaces (APIs) as ways to collect digital data. It surveys and develops hands-on experience with the main research methods to analyze sequences, text, and audiovisual data, and to uncover meaningful patterns in large, rich datasets, and explores how others have applied those methods in both qualitative and

quantitative research. The publication process of papers based on those methods is also covered in the course.

Course goals

After the successful completion of this course, participants will be able to:

- Understand the main methods to analyzing sequences, text, and audiovisual data, and to discover meaningful patterns in large, rich datasets, and how those methods can be applied in qualitative and/or quantitative research
- Reflect on the application of methods for the analysis of digital data in research in business and management or related disciplines
- Collect digital data using website scraping and application programming interfaces (APIs)
- Apply methods to analyze digital data in qualitative and quantitative research studies
- Navigate the publication process for empirical papers that are based on the analysis of digital data

Course design

This course is organized around three modules of two days that will be taught on campus. In addition, there is one online consultation opportunity closer to the end of the course for the group assignment. Each day is dedicated to a particular aspect of analyzing digital data, such as data sources and data collection, methods for analyzing specific types of digital data, or the publication process. Most days will consist of a combination of an interactive lecture, student-facilitated paper discussions, and hands-on exercises. Hence, it is expected that students arrive on campus well prepared. The two-day blocks on campus are organized to facilitate interaction through group work, discussion, and a mini-conference in which student teams present their research projects.

Form of tuition

The estimated time participants spend on study activities is:

Actively participating in interactive sessions	36 hours
Reading literature and class preparation	40 hours
Working on the group research assignment	64 hours
Total	**140 hours** **(5 ECTS)**

Assessment

Attending and actively participating in all sessions is mandatory.

The assessment for this course is based on the following partial grades:

- Class participation that includes paper discussion, a peer review, and a final presentation (50%)
- Group research paper (50%)

Course structure	Dates (to be changed)	Time	Location	Topic
	Wednesday, 1 November 2023	10:00-13:00 14:00-17:00	HG-1G05 HG-14A28	The rise of digital data and computational methods
	Thursday, 2 November 2023	09:00-12:00 13:00-16:00	HG-12A32 NU-02A25 (waiting on confirmation)	Analyzing sequence data
	Wednesday, 22 November 2023	10:00-13:00 14:00-17:00	HG-12A32 HG-12A32	Analyzing textual data
	Thursday, 23 November 2023	09:00-12:00 13:00-16:00	NU-2B25 NU-2B25	Analyzing audiovisual data
	Wednesday, 13 December 2023	10:00-13:00 14:00-17:00	HG-12A32 HG-12A32	Collecting digital data and the rapidly shifting methodological frontier
	Thursday, 14 December 2023	09:00-12:00 13:00-16:00	HG-14A28 HG-01A41	Mini-conference and the publication process

Literature	A collection of papers that will be made available through Canvas.