Introduction

Welcome to Connected_Politics! This module trains you to conduct research projects relating to computational social science in small teams under the supervision of an assigned project coordinator and the module coordinator. You will address social science research questions by applying cutting-edge methods, such as quantitative text analysis, machine learning, image recognition, and network analysis. You will learn how to collaborate on research projects with your peers, set out short-term and longer-term goals, and divide up various tasks within groups. At the end of the module, you will have gained significant experience in designing and executing a collaborative academic research project.

Learning Outcomes

1. Execute a demanding research project using methods relating to computational social science
2. Collaborate with peers and academic faculty on an academic research project
3. Evaluate and compare a variety of research methods, sources, data, and analysis
4. Critically and thoroughly examine a research question through independent, data-driven research
5. Effectively communicate methods and findings
Indicative Module Content

- Working on collaborative projects
- Research design(s) and the role of theory in the “digital age”
- Formulating and designing a research question
- Case-selection strategies
- Operationalisation and measurement
- Open science practices, research transparency in groups
- Replicability and reproducibility of research
- Presentation of progress

Approaches to Teaching and Learning

This project will train you how to comment critically and constructively on working papers during research seminars, and how to conduct a demanding research project using methods relating to computational social science. To reach these goals, you will attend the Connected_Politics Lab seminar series, work in groups, allocate tasks, present your progress, and write a research paper. The module centres on active and task-based learning in groups and seminar discussions. In addition, we will have check-in meetings (up to 30 minutes) after each seminar to discuss the progress and open questions.

Relevant Literature

This module does not rely on a text book or mandatory readings. The books and articles below provide useful introductions to various methodological approaches and programming languages. Most of these books and papers are freely available online or can be accessed through the UCD Library.

- **Basic grasp of statistics and quantitative methods:**

- **Research design and causal inference:**

- **R, Python, and regression analysis:**

- **Data visualisation:**


- **Quantitative text analysis**:

**Expectations, Assessment, and Grading**

- **Seminar** (throughout the trimester): Attending the Connected_Politics Lab seminar in Spring Term 2022. For one of the seminars, the student needs to write two critical response paper; the response paper must be submitted until the Monday (20:00) after the presentation. Student can select the weeks for their response papers (more details below) [10% of final grade]

- **Presentation**: Conference-style group presentation of the research question, data, methods, initial results, and progress on the project on Wednesday, 23 February 2022 (more details below) [20% of final grade]

- **Group Project**: A 4,000–5,000-word research paper (group work); deadline Wednesday, 4 May 2022, 20:00 (more details below) [50% of final grade]

- **Blog Post about Group Project**: A 1,000-word blog post (group work), describing the question, methods, and findings of the research paper for a broad audience. The best blog posts will be published on the Connected_Politics Lab website. Deadline Friday, 6 May 2022, 20:00, IST [20% of final grade]

**Response Papers**

Students attend the Connected_Politics Lab Seminar Series and write two response papers (around 500 words for each response paper) on the presentations by the external presenters. First, students should summarise the research project in 2–3 sentences. Afterwards, the response paper should identify either a limitation of the project or a possible extension. Note that what is proposed should be feasible. If, for example, the author’s data are weak, then the student should identify better
data, or at least propose a plausible way of collecting these data. If the method is inappropriate, the student should suggest a better approach. In other words, a response paper should focus on one concrete course of action.

The Zoom links for the presentations will be distributed on Brightspace and the Slack workspace for this module. Response papers must be submitted until the Monday (20:00) after the presentation.¹

Seminars usually take place via Zoom between 14:00 and 14:45 (the seminar on 2 February already starts at 13:00). After each presentation, we will have an informal check-in meeting to discuss questions that came up during your group work.

For more details and updates, please check https://www.ucd.ie/connected_politics/events/ and the detailed overview of all events and workshops (pp. 8–12 in this document).

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**Group Work**

After the first seminar presentation on 19 January, project coordinators will present various research projects. You can indicate interest for up three projects, and you will be allocated to one of these projects. You work with your group on this project throughout the entire term.

**Group Presentations**

Each group presents the progress of their research projects in Week 6 (Wednesday, 23 February, 14:00–16:00).

Each presentation should not exceed 12 minutes. Make sure to practice the presentation with your group in advance. Please prepare slides (LATEX or PowerPoint/Google Docs) and send the slides to stefan.mueller@ucd.ie no later than 10:00 on Wednesday, 23 February. Note that we will give the same grade to all group members.

The presentation should present your progress by covering the following aspects:

1. What is your research question and why is it important?
2. What are your theoretical expectations? Which main hypothesis are you going to test in your research paper?
3. Which data are you going to use? If possible, provide descriptive statistics and a short overview (e.g. number of documents/texts/tweets; time span etc.). Describe the data in one or two graphs that effectively communicate the nature of the data source.
4. Which method are you going to apply to test your hypothesis?
5. Ideally, provide initial results.
6. What issues did you have encountered or what are the risks associated with the next steps (if applicable)?

We encourage presentations to be shared between two and three students (depending on the group size). After each presentation, we will have a Q&A which will last for around 10 minutes. You will receive questions from your peers and the project coordinators. Students who do not present are responsible for providing answers to the questions. Therefore, we strongly encourage you to divide up tasks, practice the presentation, and discuss questions that may come up.

¹For example, for the presentation on 2 February (Wednesday), the response paper must be submitted no later than Monday, 7 February, 20:00.
Kieran Healy has published an excellent blog post\(^2\) on how to give presentations and how to design slides that effectively communicate your work and results. We encourage you to follow his advice.

The grade will be based on your progress, the content and clarity of the presentation, and your ability to reply to the questions.

**Research Paper**

Each group submits a 4,000–5,000-word research paper. The research paper builds on the proposals by the project coordinators and the presentation in Week 7. Research papers must be submitted no later than **Wednesday, 4 May 2022** (20:00). Each group will receive one grade (not individual grades per student) for the presentation and research paper, but you may be asked to clearly indicate who took over which parts of the project.

The research paper should contain the following sections:

- **Introduction and research question**
  - Explain the puzzle and research question
  - Highlight the relevance
  - Include the central hypothesis to be tested

- **Theory and expectations**
  - Explain the theoretical assumptions based on previous findings regarding the relationship between your dependent variable and the key independent variable

- **Methodology**
  - Describe your dataset, the unit of analysis, the number of observations included in the analysis, the number of missing observations (if appropriate), the measurement of key variables, and the empirical analysis

- **Results**
  - Present the results of your empirical analysis.

- **Conclusion**
  - Referring back to the introduction, what can we conclude, and what have we learned?

**Blog Post**

Each group submits a 1,000 word blog post. The blog post should describe the research paper for a broader audience, focusing on the importance and relevance, methods, and main findings. The blog post must be submitted before **Friday, 6 May 2022** and counts towards 20% of the final grade. The blog post should describe the results in 1–2 nicely formatted graphs. The following blog post describes how to transform a research paper into a blog post: [https://blogs.lse.ac.uk/impactofsocialsciences/2016/01/25/how-to-write-a-blogpost-from-your-journal-article/](https://blogs.lse.ac.uk/impactofsocialsciences/2016/01/25/how-to-write-a-blogpost-from-your-journal-article/)

**Feedback**

Feedback will be provided by your project coordinator and the module coordinator throughout the module. The module coordinator (Stefan Müller) will grade the response papers, presentations, and

research papers. All assignments will be uploaded on Brightspace. The communication for this module takes place through Slack. Please make sure to check the workspace at least once a day. I also recommend downloading the Slack desktop app.³

Each group will receive one grade (not individual grades per student) for the presentation and the research paper. However, you will be asked who took over which parts of the project.

**Important:** it is the students’ responsibility to raise alarm if collaboration in your project work is lacking. Please inform the module coordinator as soon as possible. Moreover, it is your responsibility to schedule regular group meetings (1–2 per week).

The presentations and research paper will be graded according to UCD’s Module Grade Descriptors.⁴

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<tr>
<th>Student effort hours</th>
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<tbody>
<tr>
<td>Student effort type</td>
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<td>Seminars/Presentations</td>
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<tr>
<td>Autonomous Student Learning</td>
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**Plagiarism**

Although this should be obvious, plagiarism – copying someone else’s text without acknowledgement or beyond ‘fair use’ quantities – is not allowed. Plagiarism is an issue we take very seriously here in UCD. Please familiarise yourself with the definition of plagiarism on UCD’s website⁵ and make sure not to engage in it.

**Late Submission Policy**

All written work must be submitted on or before the due dates. Students/groups will lose one point of a grade for work up to 5 working days late (B− becomes C+). Students will lose two grade points for work between 5 and 10 working days late (B− becomes C). When more than two weeks are necessary, the student will need to apply for extenuating circumstances application via the SPIRe Programme Office.

**Questions and Problems**

In this module, we will discuss concepts, methods, and software you might not have heard of before. I am aware that parts of this module could be challenging and we will assist you as best as I can. In addition to the meetings after Connected_Politics seminars, I offer weekly office hours on Tuesdays from 13:00-15:00, either in in person (Room G312, Newman Building) or online. Please sign up for a meeting at [https://calendly.com/mueller-ucd/office-hours](https://calendly.com/mueller-ucd/office-hours).

If you struggle to solve problems relating to R, Python, specific software packages or statistical concepts, please follow the steps outlined below prior to contacting your project coordinator and/or the module coordinator.

⁵[https://libguides.ucd.ie/academicintegrity](https://libguides.ucd.ie/academicintegrity).
• Check the literature provided by your project coordinator and the literature suggestions on Brightspace.
• Get in touch with the other members of your group and try to solve the issue together.
• For questions about software packages: read the package documentation and/or the documentation of a function that returns the error.
• For questions about statistical concepts, I recommend to consult the *Glossary of Statistical Terms*, Van Atteveldt, Trilling, and Calderón (Forthcoming), Ismay and Kim (2020), Wickham and Grolemund (2017), and Healy (2019).
• Try to summarise the problem in your own words and then google this summary. If the problem relates to R, add *rstats* to your search query; for questions about Python add *python*. For example: *how to import csv file in rstats*. I am almost certain that you find a solution to most of your questions.
• If your code returns an error, google the text of the error message. For example: *Error: Can’t subset columns that don’t exist.*

—– If the steps above still do not solve your problem or question, please ask your question in the #questions channel on Slack. We are happy to help, but keep in mind that coding and collaborative work always involves trial and error, and that ‘learning by doing’ is essential and an integral part of this module.

**Syllabus Modification Rights**

I reserve the right to reasonably alter the elements of the syllabus at any time by adjusting the reading list to keep pace with the course schedule. Moreover, I may change the content of specific sessions, depending on the participants’ prior knowledge and research interests. If I make adjustments, I will send an email to all seminar participants and upload the revised syllabus to Brightspace.

**Course Structure**

19 January 2022 – Fabienne Lind (University of Vienna); followed by Introductory Session (14:00–15:45) 8

2 February 2022 – Lucia Motolinia (Washington University in St. Louis) (14:00–15:30) 8

9 February 2022 – Workshop: Using LaTeX and Overleaf for Writing Collaborative Research Papers (Stefan Müller) (14:00–15:45) 9

16 February 2022 – Markus Kollberg (University College London) (14:00–15:30) 9

23 February 2022 – Group Presentations (14:00–15:45) 10

2 March 2022 – Toni Rodon (Universitat Pompeu Fabra) (14:00–15:30) 10

23 March 2022 – Andreu Casas (Vrije Universiteit Amsterdam) (14:00–15:30) 10

30 March 2022 – Workshop: Multilingual Automated Text Analysis for Comparative Social Science Research (Fabienne Lind) (14:00–15:45) 11

6 April 2022 – Sophia Hunger (WZB Berlin Social Science Center) (14:00–15:30) 11
19 January 2022 – Fabienne Lind (University of Vienna); followed by Introductory Session (14:00–15:45)

Building the Bridge: Topic Modeling for Comparative Research

Abstract: In communication research, topic modeling is primarily used for discovering systematic patterns in monolingual text corpora. To advance the usage, we provide an overview of recently presented strategies to extract topics from multilingual text collections for the purpose of comparative research. Moreover, we discuss, demonstrate, and facilitate the usability of the “Polylingual Topic Model” (PLTM) for such analyses. The appeal of this model is that it derives lists of related clustered words in different languages with little reliance on translation or multilingual dictionaries and without the need for manual post-hoc matching of topics. PLTM bridges the gap between languages by making use of document connections in training documents. As these training documents are the crucial resource for the model, we compare model evaluation metrics for different strategies to build training documents. By discussing the advantages and limitations of the different strategies in respect to different scenarios, our study contributes to the methodological discussion on automated content analysis of multilingual text corpora.

About the speaker: Fabienne Lind is a postdoctoral researcher at the Department of Communication at the University of Vienna. Her dissertation (defended June 2021) deals with methods of automated multilingual text analysis for comparative research. As project manager of the H2020 project OPTED, she is collaborating with researchers from 17 research institutions to develop an infrastructure that will serve as a major hub for political text analysis in Europe.

After the presentation, we will have our introductory session (lasting until 15:45). We will outline the content and expectations for this module. Besides, the project coordinators will shortly present research projects for this module. After this session, we will distribute an online form where students can express up to four preferences. The following texts (all on Brightspace) offer a good and concise introduction to the field of computational social science. Please read these texts before class:


2 February 2022 – Lucia Motolinia (Washington University in St. Louis) (14:00–15:30)

When Reelection Increases Legislative Cohesion: Evidence from Clientelistic Parties in Mexico

Different start time!: 13:00

Abstract: When legislators have electoral incentives to cultivate personal votes, parties are less cohesive. This is because legislators have an alternative principal with whom they must build bonds of accountability: their voters. I offer a theory for why this will not always be the case. I posit that when
parties control access to the resources candidates need to cultivate a personal vote, the introduction of personal vote-seeking incentives can increase party cohesion, not decrease it. It can do so, because party leaders can condition a legislator’s access to the resources they need to cultivate a personal vote on loyalty to the party’s agenda. To test this theory, I turn to the case of Mexico, where an electoral reform in 2014 introduced the possibility of reelection for state legislators. I estimate the ideological placement of Mexican state legislators by applying correspondence analysis to a new dataset of over half a million speeches in 20 states from 2012 to 2018. Leveraging the staggered implementation of the reform, I conduct a difference-in-difference analysis of its effects on intra-party cohesion. Results accord with the theory and have broad ramifications for work on personal vote-seeking, for Mexican politics, and for countries introducing personal vote-oriented electoral reforms.

About the speaker: Lucia Motolinia is an Assistant Professor in the Department of Political Science at Washington University in St. Louis. Her research tries to better understand how electoral institutions affect the political behavior of individual politicians and parties. She combines observational data, natural experiments, and text-analysis to study the way electoral institutions affect important political outcomes such as political selection, party cohesion, and distributive politics.

We will have an informal check-in meeting after the presentation (from 15:00–15:30) to discuss questions related to your group projects.

9 February 2022 – Workshop: Using LaTeX and Overleaf for Writing Collaborative Research Papers (Stefan Müller) (14:00–15:45)

Instructor: Stefan Müller, PhD (University College Dublin)

Workshop description: This short workshop introduces students to \LaTeX, a popular document preparation system, and Overleaf, a website that allows for collaborative projects using \LaTeX. Overleaf is an ideal tool to carry out group projects. This workshop introduces participants to the intuition behind \LaTeX, shows how to structure a document, and provides a short introduction to reference management software packages. Participation in this workshop is mandatory.

16 February 2022 – Markus Kollberg (University College London) (14:00–15:30)

Challenging the Establishment from Within: Analysing Challenger Party Strategies in the Parliamentary Arena

Abstract: Challenger parties in Europe are on the rise. Previous scholarly work is primarily concerned with how challenger parties get elected but overlooked the consequences of their success for democratic institutions. This is a serious shortcoming because challenger parties’ strategies within institutions – especially, in parliament – matter for democratic deliberation and representation. This article analyses how the policy and rhetorical strategies of challenger parties play out in the parliamentary arena. It argues that parliamentarians’ incentives regarding rhetorical choices differ systematically depending on their status as members of challenger or dominant parties. Whilst the latter need to balance policy-, office-, and vote-seeking strategies, the former’s primary goal is to maximize electoral success. This makes challenger party parliamentarians engage in anti-establishment rhetoric and issue entrepreneurship conditionally on the expected electoral returns. The analysis tests this argument on a new dataset of speeches given in the European Parliament between 1999 and 2017. The article develops a novel measure of anti-establishment rhetoric and issue-entrepreneurship in parliamentary debates combining word embeddings and dictionaries. It also innovatively links this measure to public opinion and expert survey data. By highlighting the situational and strategic element of challenger parties’ communication, this article makes an important contribution because it improves the understanding of challenger party success and its consequences for democratic legislative institutions.
About the speaker: Markus Kollberg is a PhD candidate at the Department of Political Science at University College London. His PhD research, titled “Populist Persuasion in Parliament and Beyond”, analyses the strategic usage of populist rhetoric by politicians and seeks to understand the effects of populist arguments on voters.

We will have an informal check-in meeting after the presentation (from 15:00–15:30) to discuss questions related to your group projects.

23 February 2022 – Group Presentations (14:00–15:45)

In this session, each group will present their progress. Detailed instructions about the presentation and format are outlined on page 4.

2 March 2022 – Toni Rodon (Universitat Pompeu Fabra) (14:00–15:30)

Parliament Strikes Back: Agenda-setting and Power Voids in Early Representative Assemblies

Abstract: Previous research has sought to explain the emergence and predominance of early representative assemblies over monarchs. Yet, how parliamentarians behaved during the struggles for power remains largely unknown. We contend that parliamentary elites used periods of uncertainty to set the political agenda and show their strive for sovereignty. We test this claim on seventeenth century England using activities reported in the Journals of the House of Commons and the House of Lords. In addition, we implement a novel strategy of measuring institutional power based on entropy of topic shares in daily records of parliamentary activity. Our results show that elites strategically used power voids to expand their attention to a wider set of topics, increase their pressure on the monarch and present themselves as rulers which were ready to govern. Our findings have important implications for our understanding of early and contemporary representative assemblies.

About the speaker: Toni Rodon is currently an Assistant Professor at the Universitat Pompeu Fabra (UPF) and a Visiting Fellow at the London School of Economics and Political Science (LSE). Before that, he was a postdoctoral researcher at the Department of Government at the London School of Economics and Political Science (LSE) and at the Spatial Social Science Lab at Stanford University (2014—016). He has also been a visiting student at Nuffield College (University of Oxford), at the Institute for Social Change (University of Manchester) and at the Juan March Foundation (Center for Advanced Study in the Social Sciences). Toni’s research interests include electoral participation, political geography, comparative politics and historical political economy, as well as public opinion and the study of nationalism.

We will have an informal check-in meeting after the presentation (from 15:00–15:30) to discuss questions related to your group projects.

23 March 2022 – Andreu Casas (Vrije Universiteit Amsterdam) (14:00–15:30)

The Geopolitics of Deplatforming: Which Politically-Interested Iranian Accounts get Suspended on Twitter?

Abstract: Citizens increasingly rely on social media to express opinions and engage in politics. In recent years social media companies have played a more active role in regulating freedom of speech by removing content and accounts. Initially companies did so to improve the health of the platforms, battling bots and toxic behavior. However, there are today many discussions around whether mainstream platforms such as Facebook, Instagram and Twitter suspend users for ideological reasons. We tackle this question from a geopolitical angle. The U.S. government pressures US-based platforms to suspend the accounts of people and organizations included in their international sanctioning plans, as
well as those who support them. Despite some transparency efforts from the platforms, we know very little about the impact that these suspensions have on the political conversations in the platforms. After identifying about 600,000 Twitter users interested in Iranian politics, for a six-month period we track their activity and whether they get suspended. We then use computational methods to assess differences between suspended and non-suspended users. We find that after accounting for many alternative explanations, conservative (Principlist) users and those supportive of the Iranian government are much more likely to be suspended. We illustrate how in turn, these suspensions bias the types of political content available in the platform. From a theoretical perspective, the results contribute to the debate on deplatforming by emphasizing its (geo)political dimension and consequences. From a more practical point of view, the study contributes to keeping accountable the companies regulating our online environment, and to inform public and policy debates on the topic.

About the speaker: Andreu Casas is an Assistant Professor of Communication Science at the Vrije Universiteit Amsterdam. His research interests encompass the areas of political communication, public policy processes, and computational social sciences. He is particularly interested in how social movements and interest groups influence the political agenda and the decision making process in the current media environment. His methodological interests and strengths are natural language processing (text as data), computer vision (images as data), and machine learning and artificial intelligence in general.

We will have an informal check-in meeting after the presentation (from 15:00–15:30) to discuss questions related to your group projects.

30 March 2022 – Workshop: Multilingual Automated Text Analysis for Comparative Social Science Research (Fabienne Lind) (14:00–15:45)

Instructor: Dr. Fabienne Lind (University of Vienna)

Details: This workshop is organised by the Connected_Politics Lab. You find more detailed information on the virtual event at https://bit.ly/3F3ThNZ

Workshop description: Automated text analysis methods have become popular in computational social science. They appeal as they promise the automated extraction of meaning from large numbers of documents, thus allowing to better understand the contents and, indirectly, the document creators and audiences. While the existing techniques are well established for English-language text, the situation is different when it comes to the study of text in more than one language and in languages other than English. Yet it is precisely these multilingual techniques that are needed for (country) comparative research designs. This workshop will start to motivate the need for comparative social science studies that base their interpretations on text data. The main part will provide guidance and many practical tips to help plan such research designs. In particular, it will cover considerations related to the definition of comparative research goals, the selection of a case comparative text data set, the definition of concepts, and the creation of a human annotated validation baseline. The workshop will then focus on methodological strategies that can be employed to obtain measurements from a multilingual corpus with automated text analysis methods. All steps will be illustrated with an applied example. The workshop materials, including slides and scripts, will be made available on GitHub.

6 April 2022 – Sophia Hunger (WZB Berlin Social Science Center) (14:00–15:30)

There is No Bad Publicity? - Disentangling Different Types of Parties’ Agenda Influence on the Migration Issues
Abstract: How parties are able to set the media agenda is a frequent topic of interest in political science research. In most of this research, emphasis has been on the extent to which specific topics are covered by the media. We argue this picture neglects that parties may have multiple ways to influence the agenda and – depending on their ideology and their inclusion in government – incentives to influence the agenda in certain ways differ. We draw on the case of the immigration issue, to distinguish three ways how parties’ issue-emphasis strategies may influence the media agenda: driving the salience of an issue, affecting how an issue is talked about (framing), and making it to the headlines. We use a combination of text-as-data methods in order to acquire fine-grained over time measures of party and media salience and framing of the immigration issue, which we combine with social media data. Our study focuses on the years 2013 to 2017 in Switzerland and Germany, a period of heightened attention which includes the so-called refugee crisis. Furthermore, our data structure allows for comparing ‘normal’ times with election campaigns, which we expect to differ in their interaction-logic. By showing diverse incentives and paths of agenda influence, our findings contribute to scholars’ understanding of party-media interactions as well as the role of challenger parties in modern democracies. Our work also speaks to the importance of studying parties’ immigration rhetoric in more detail.

About the speaker: Sophia Hunger is a post-doctoral research fellow at the Center for Civil Society Research located at the WZB Berlin Social Science Center. Her research focuses on protest movements, political engagement, party competition, political communication, and applied quantitative methods, particularly machine learning and automated event extraction. In the WZB Protest Monitoring, a BMBF- and BMI-financed research project on political radicalization and protest in Germany, she is responsible for the construction of a database on protest events in Germany. Sophia Hunger obtained her doctorate at the European University Institute in 2020, where she was also involved in the ERC-POLCON project.

We will have an informal check-in meeting after the presentation (from 15:00–15:30) to discuss questions related to your group projects.

Additional Meetings Throughout the Term

Besides the six Connected_Politics Lab seminars, the workshops, and the group presentations on 23 February, you will be meet the other group members (virtually) to work on the research project. It is your task to organise group meetings, allocate tasks, and communicate with your peers. We recommend that you communicate and chat through Slack and that you have at least one or two group meetings per week to discuss your progress and allocate tasks.

In addition, you will have at least two meetings with your project coordinator. The project coordinators will provide a list of literature to get you started with your project, answer selected questions about methods or software. Yet, it is your task to get familiar with prior work, the required software packages and writing code – working with software and coding collaboratively are integral parts of the group work. The project coordinator will also meet you after your presentation to discuss strengths and weaknesses and the required actions for the research paper.

Important: it is the students’ responsibility to raise alarm if collaboration in your project work is lacking. Please inform the module coordinator as soon as possible.

If anything is unclear, you can always contact the module coordinator (Stefan Müller) on Slack.