# **B** HSEUNIVERSITY

# **Final Project Description**

The goal of the project is to offer an example of a complete cycle using real and / or training (test) data functions, with the active implementation of this process, both theoretical description and empirical processing. Obviously, the product of the work is a series of presentation material (flash cards) that contain a full range of different types, properties of "typical" studies. You have to try what happened here.

#### Team specs:

This task can be done in groups. Please indicate in a special form at the link the composition of the group + other necessary data. The team can consist of 1 to 3 members. The optimal number of participants in a team is 2 members.

#### **Research Proposal & Structure:**

To start this task, it is recommended that you first inform the instructor about your intentions, namely the topic of the work, the object of study and the selected data sources. To select the optimal topic (concept) of the study, it is recommended to look at the <u>material of Section 2</u>, which provides some examples of completed studies with social network analysis. I am also attaching some examples here (you can easily find them on Google Scholar).

- ◆ Basov N. Socio-material network analysis: A mixed method study of five European artistic collectives //Social Networks. 2018. T. 54. C. 179-195.
- ◆ Basov N., de Nooy W., Nenko A. Local meaning structures: mixed-method sociosemantic network analysis //American journal of cultural sociology. 2021. T. 9. №. 3. C. 376-417.
- Kinsella D. The black market in small arms: examining a social network //Contemporary
  Security Policy. 2006. T. 27. №. 01. C. 100-117.

The key thesis is that it is necessary to maintain the structure in the following format: Problem  $\rightarrow$  Relevance (trends)  $\rightarrow$  Theoretical argumentation framework  $\rightarrow$  Description of data sources  $\rightarrow$  Demonstration of the process of mining network data and their analysis  $\rightarrow$  Interpretation of data, connection with theory (hypothesis)  $\rightarrow$  Conclusion.

#### How to submit the Project:

You will need to make two types of presentation slides (Microsoft PowerPoint or LibreOffice Impress): A Large Presentation of at least 55 slides<sup>1</sup> (more is better), where you optimally balance text, thesis and graphic materials. It will also be necessary for Study Week to prepare a Small Presentation with a volume of no more than 15 slides based on the Large Presentation. The block structure of a presentation might look like this:

At least 55 slides

- 1. Problem statement, actual trend and topic validity
- 2. Literature overview and formultation of an argument framework + reason to SNA
- 3. Operationalization + constructing the measurements + theoretical/empirical object description
- 4. Data Sourcing + Data Processing + Network Construction + Analysis
- 5. Interpretation + Visualization + Conclusion
- → Appendix with R code for Stages 4 & 5 (unlimited number of slides)

#### Submission Deadlines:

It is assumed that the preparation of the Big Presentation and the Small one will be carried out sequentially. A **Large Presentation** must be prepared and sent to the instructor no later than **December 24, 23:59** (Moscow Timezone). Presentation of materials based on the **Small presentation** (mini-conference) will take place during the Study Week (**December 30**).

# Data Sources eligible for the Research Project:

You can generate your own dataset of social network structure (min. 30-40-50+ nodes), or you can access some of the repositories linked below:

- https://snap.stanford.edu/data/
- https://www.kaggle.com/search?q=social+network
- ◆ https://datasetsearch.research.google.com/search?src=3&query=social%20network %20&docid=L2cvMTFxOTyxMnhfaw%3D%3D
- <a href="https://qithub.com/awesomedata/awesome-public-datasets#socialnetworks">https://qithub.com/awesomedata/awesome-public-datasets#socialnetworks</a>
- https://networkrepository.com/soc.php
- https://www.nature.com/articles/s41597-019-0056-z
- ♦ https://sites.google.com/a/umn.edu/social-network-analysis/resources/dataset
- https://networks.skewed.de

### Form to submit a Proposal

Please feel free to submit Final concept of the Research Proposal via this link: <u>Yandex.Forms</u> It is assumed that the Instructor can contact your team for details & recommendations.

<sup>1</sup> Here it is assumed that 55 slides, but -1 for title, -1 for «Thank you», -1 for Table of Contents.

## **Assesment system**

The score for the project consists of two parts: the score for the material of the Large Presentation (Component 1, 70%) and the score for the Small Presentation + Oral Presentation (Component 2, 30%). The final score is the sum of the two components multiplied by the specified weighting factors. The following criteria are taken into account:

	Criteria	Grade (range)
Large Presentation (70%)		
1.	The presentation does not reflect the main sections of the study. The theory, methodology and empirical section of the study are not presented at the proper level. The conclusions are rather similar to the results of similar studies. The Presentation file has less than 52 slides.	0-2 points
2.	The presentation reflects the concept of the study, but it blurs the content of the prob- lem, the theoretical framework, there are questions to the chosen methodology of data analysis. The conclusions are rather abstract in nature, from which the thesis is not clear.	3-4 points
3.	The presentation reflects an interesting concept of the problem situation, the relevance of the work is shown. There is a good data analysis pipeline, conclusions are presented. But there is no qualitative analytical framework (theoretical framework). As a result, the study turned out more like data-driven, which is not entirely relevant for SNA. There are problems with the presentation of the results.	5-6 points
4.	The study is a balanced combination of an interesting problem situation and empirical analysis. There is a good theoretical framework for the study, an interesting and understandable description of the methodology for collecting and analyzing data. There are flaws in a number of aspects of the study, there is no elaborate interpretation of the data output and no connection with the theoretical framework. There is no conclusion or it is not fully understood.	7-8 points
5.	The presentation contains a large number of slides, from which you can see a full-fledged study on the collected data array. A qualitative analysis of both the theoretical framework and the empirical part has been made. In general, a deep study of the pipeline and conclusions is visible.	9-10 points
Small Presentation + Oral Presentation (30%)		
1.	The presentation contains a large number of slides, from which you can see a full-fledged study on the collected data array. A qualitative analysis of both the theoretical framework and the empirical part has been made. In general, a deep study of the pipeline and conclusions is visible.	0-2 points
2.	The presentation demonstrates an understanding of the general concept of work, while there is no qualitative and systematic reflection of the main stages of work. There is a feeling that the author(s) of the study do not fully understand the concept of their study.	3-4 points
3.	The presentation as a whole showed the intent of the study, the main stages are reflected, but there are separate situations of misunderstanding of what the author(s) did in the study, i.e. some aspects of the work are omitted. Because of this, it seems that something was done, but it is not entirely clear why.	5-6 points
4.	The study is a balanced combination of an interesting problem situation and empirical analysis. There is a good theoretical framework for the study, an interesting and understandable description of the methodology for collecting and analyzing data. Managed the timing very well. But do not answer well on the spontaneous questions.	7-8 points
5.	The presentation contains a large number of slides, from which you can see a full-fledged study on the collected data array. A qualitative analysis of both the theoretical framework and the empirical part has been made. The slides are very informative and capacious, there is no situation of misunderstanding of the questions. The author(s) know the study well, answer spontaneous questions.	9-10 points