

Plan DOPP Exercise 3

Topic 16 - Change of City Quality of Life Rankings over Time

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Plan of Action

Questions to be answered

Following the task description, we aim to find answers to the following questions:

- How do the rankings change over time?
- How do these rankings correlate with each other for one specific year?
- How do they correlate with other statistics about the countries in which the cities are located? How do they correlate with quality of life rankings of the country in which the cities are located?
- What are the determining characteristics for livability of a city? How do they correlate with cost of living?

Data Sets used

We plan to utilize the following data sets:

- <https://mobilityexchange.mercer.com/Insights/quality-of-living-rankings>
- <http://www.eiu.com/topic/liveability>
- <https://www.cia.gov/library/publications/the-world-factbook/>
- https://www.numbeo.com/quality-of-life/rankings_by_country.jsp
- <https://www.usnews.com/news/best-countries/quality-of-life-rankings>
- <https://www.ncdc.noaa.gov/climate-information/international>
- <https://stats.oecd.org>
- <https://data.worldbank.org>
- <http://www.who.int/healthinfo/statistics/en/>
- <https://worldhappiness.report/>
- <https://www.who.int/airpollution/data/cities/en/> WHO Global Ambient Air Quality Database (update 2018)
- earthquake data?
- <https://www.cafonline.org/about-us/publications/2019-publications/caf-world-giving-index-10th-edition>
- <https://www.weforum.org/reports/global-competitiveness-report-2019>
- <https://report.startupblink.com>

How we plan to answer the questions

Rankings over time

Explorative methods and visualization.

Ranking correlation

We use correlation analysis (cross-correlation coefficient, etc.) to identify how far the rankings correlate with each other.

For this we will first identify the subset of data (cities) which is common among the rankings.

Correlation with Country Statistics

We have listed quite a few data sources with country statistics. At the end we will first evaluate the data sources and select a subset from them. Then we will match the countries with their cities and use correlation analysis.

Similarly we will use country level rankings on quality of life.

Determining characteristics; Cost of Living

This will be done with correlation testing and visualization.

Task sharing in the Team

The data sets are first evaluated and collected, for this they are distributed among the four project team members.

This is planned to be finalized till 31 December 2019.

Afterwards the questions are distributed among the team members.

Open Issues

- Access to private datasets (e.g. Mercer)