**The Evolution of Social Movements: The Tafel**

Tasks:

Despite still being perfectly edible, tons of food are destroyed in Germany every day. At the same time, there are millions of people in this country who do not have enough to eat. The Tafel are working on bridging this gap between excess on the one hand and lack on the other. Furthermore, the Tafel are one of the largest volunteer-based organization in Germany. The first Tafel was established in 1993, since then more than 940 Tafeln have been founded in Germany. This project aims at detecting how social movements as the Tafel evolve and how media attention alters the evolution.

Subtasks:

* Merge data about regional socioeconomic factors, media attention and Tafel branches
* Using machine learning to detect when each Tafel was founded
* Test potential effects of media attention on the founding of individual Tafeln
* Work in close partnership with the Institute of Entrepreneurship
* Use findings to derive general relationships in the evolution of social movements as the Tafel

Expectations:

* Passion to work with R
* Working independently on above data science topics

Ideally:

* Skills in R
* Experience in processing natural language
* Experience in machine learning
* Successfully participation in the course “Busines Data Science Basics” and / or “Business Decision with Machine Learning

**Technology Startups’ Knowledge Composition**

Task:

Technology startups often, early on, patent their inventions. These patenting activates have found to affect the value of startups positively. Hoverer, little is known about which knowledge these startups combine (e.g. distant knowledge, knowledge coming from public sector entities as Universities). This project aims at detecting the knowledge composition of technology startups’ inventions and analyze which techniques are likely to increase startups valuations and success.

Subtasks:

* Merge data from Crunchbase with patent data from USPTO and PATSAT
* Detect knowledge combination characteristics
* Analyze the effect of knowledge combination characteristics on startup success

Expectations:

* Passion to work with R
* Working independently on above data science topics

Ideally:

* Skills in R
* Experience in working with patent data
* Successfully participation in the course “Busines Data Science Basics”

**The Evolution of New Technologies: The Case of Nanotechnology**

**Nanotechnology** has been defined as the engineering of materials at the nanoscale (1 to 100 nm) with novel properties and features. From a societal perspective, it has been proposed as a transformative general-purpose technology with fundamental technological, economic, and societal consequences. Especially its cross-sectoral nature makes nanotechnology an interesting research field when analyzing the interactions between different actor’s knowledge stock. This project focuses on the question which role different technology actors (Startup, Mature Companies, Universities, Government) play in the evolution of new technologies.

Subtasks:

* Based on an existing dataset on Nanotechnology (Patents and Scientific Publications) identify different actors based on authorship
* Detect structural differences of different actors over time and citation behavior
* Analyze actors’ influence eon the evolution of Nanotechnology

Ideally:

* Skills in R
* Experience in working with patent data
* Successfully participation in the course “Busines Data Science Basics”

**Public Entrepreneurship**

Tasks:

Public entrepreneurship is the process of introducing innovation, the generation and implementation of new ideas, in the public sector. However, little research exists focusing on this topic. The aim of this project is twofold: (1) In order to get a better understanding of the topic of “public entrepreneurship” a structured literature review is to be conducted. (2) Analyze how startups aiming at public entrepreneurship are different to other startups.

Subtasks:

* Conduct a structured literature review.
* Developing an identification strategy of startups focusing on public entrepreneurship.
* Analyze differences between startups in the domain of public entrepreneurship and others.

Expectations:

* Interested in the topic of startups especially public entrepreneurship
* Willingness to engage in the topic of public entrepreneurship