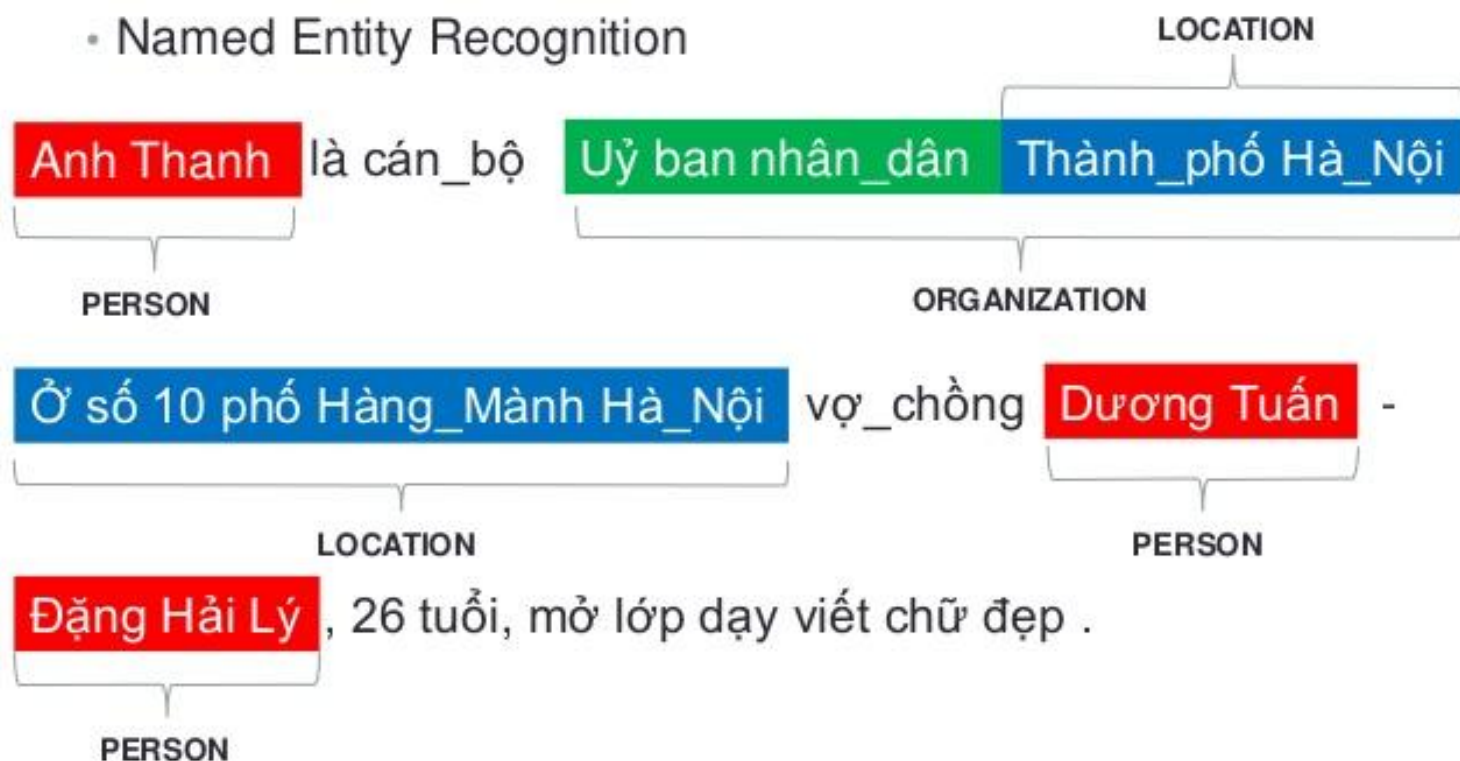# Inspecting Named-Entity Relations

—

Enis Berk Çoban
Soumik Dey

Data Visualization Fall- 2017

- Named Entity Recognition

Anh Thanh là cán_bộ Uỷ ban nhân_dân Thành_phố Hà_Nội

PERSON

ORGANIZATION

LOCATION

Ở số 10 phố Hàng_Mành Hà_Nội vợ_chồng Dương Tuấn -

LOCATION

PERSON

Đặng Hải Lý , 26 tuổi, mở lớp dạy viết chữ đẹp .

PERSON

Why would you need such a thing ?
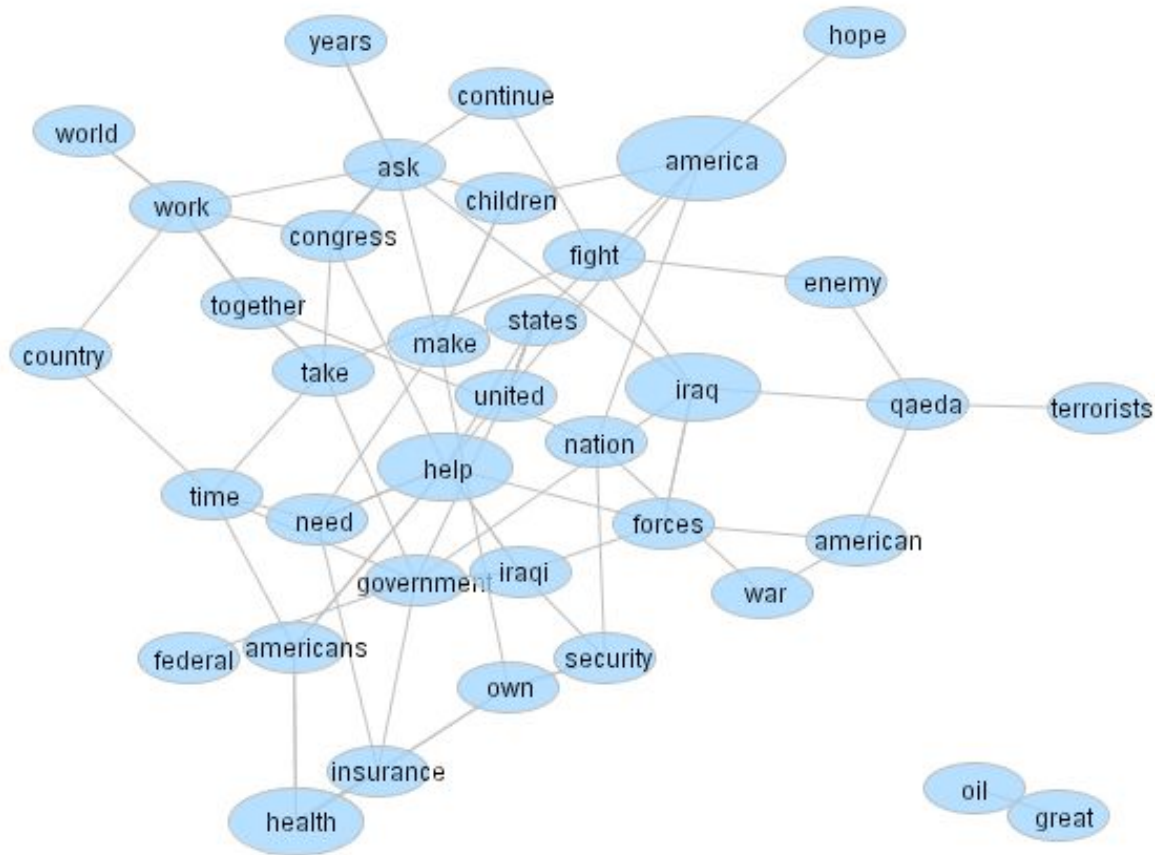
Named Entity
Recognition

Relations
Between Named
Entities

In 1917, Einstein applied the general theory of relativity to model the large-scale structure of the universe. He was visiting the United States when Adolf Hitler came to power in 1933 and did not go back to Germany, where he had been a professor at the Berlin Academy of Sciences. He settled in the U.S., becoming an American citizen in 1940. On the eve of World War II, he endorsed a letter to President Franklin D. Roosevelt alerting him to the potential development of "extremely powerful bombs of a new type" and recommending that the U.S. begin similar research. This eventually led to what would become the Manhattan Project. Einstein supported defending the Allied forces, but largely denounced using the new discovery of nuclear fission as a weapon. Later, with the British philosopher Bertrand Russell, Einstein signed the Russell–Einstein Manifesto, which highlighted the danger of nuclear weapons. Einstein was affiliated with the Institute for Advanced Study in Princeton, New Jersey, until his death in 1955.
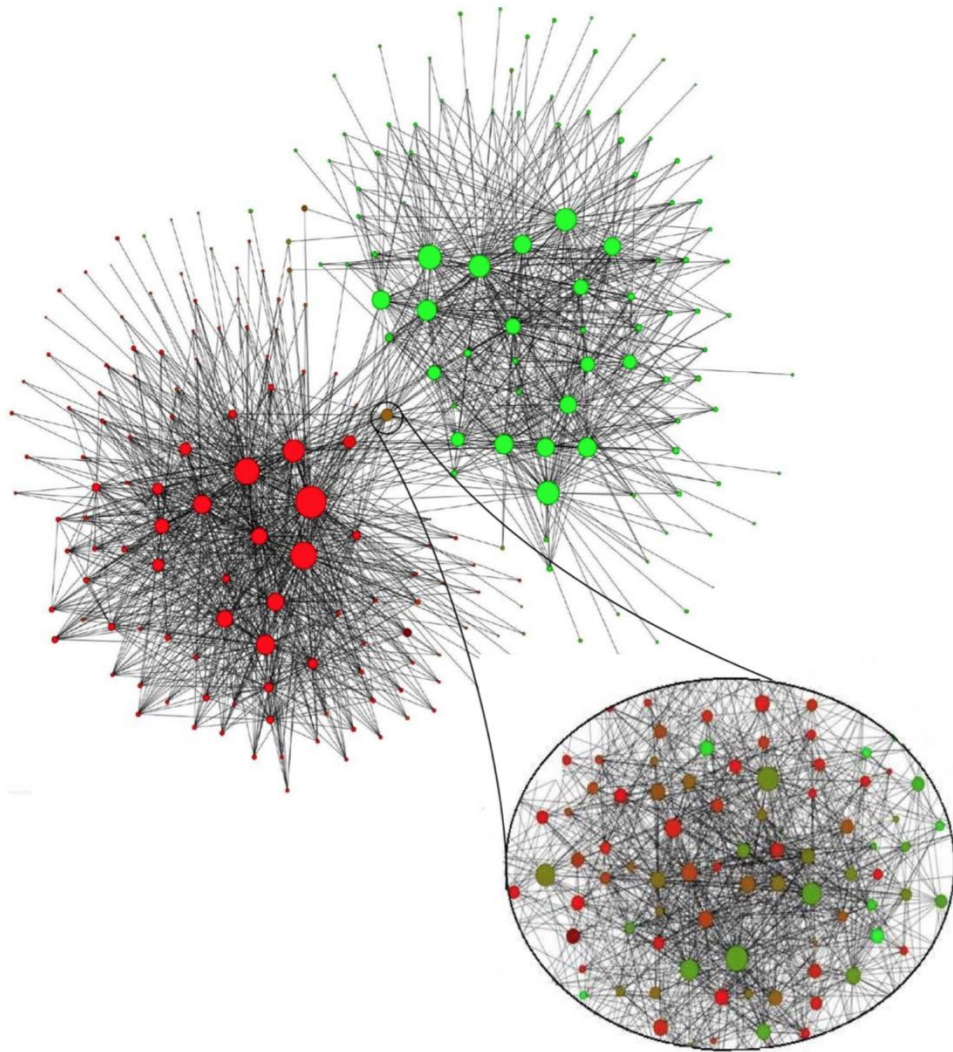
Tag colours:
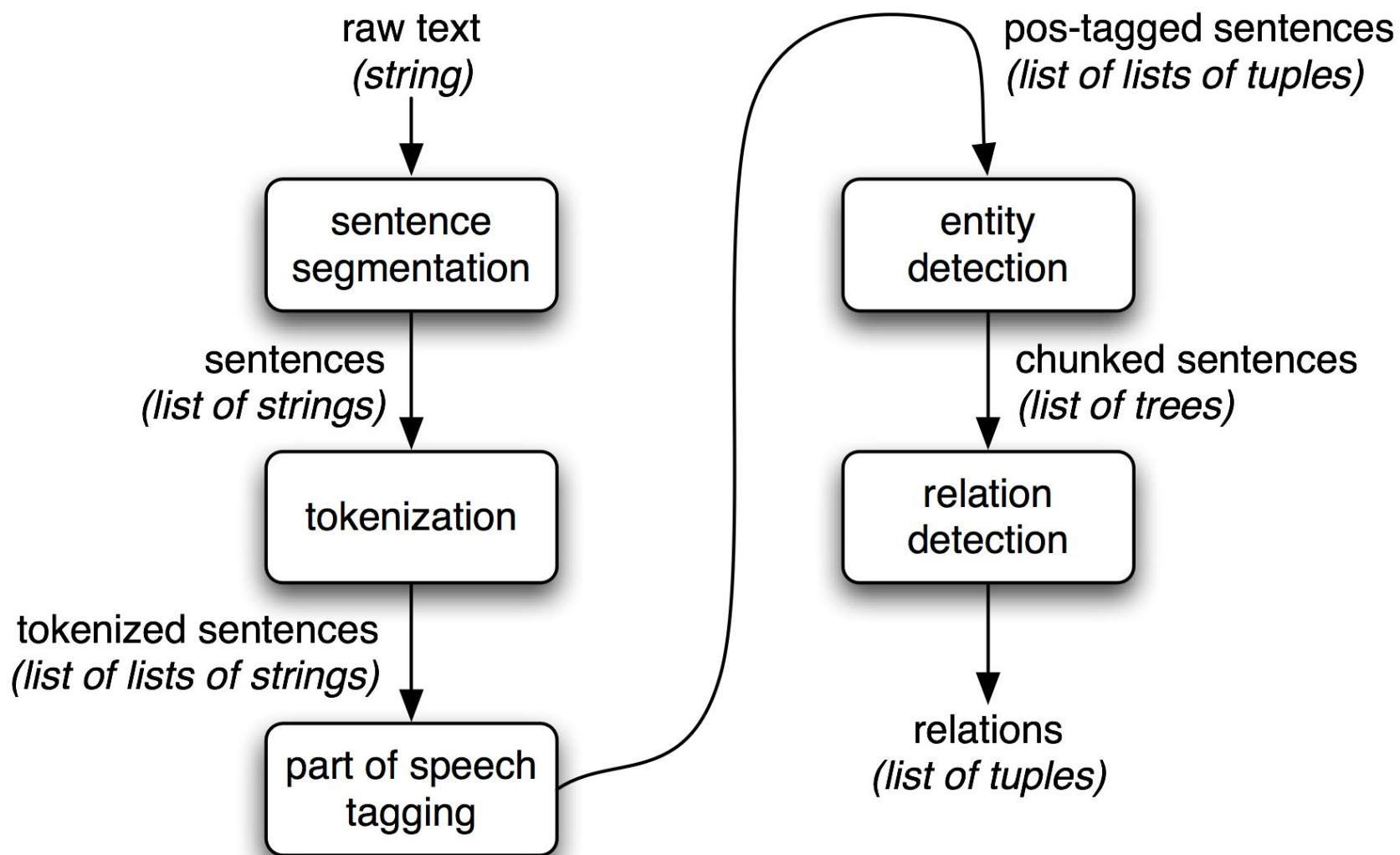LOCATION TIME PERSON ORGANIZATION MONEY PERCENT DATE

Relation visualization

Clustering:
modularity[1]

1-arXiv:0803.0476 [physics.soc-ph]

raw text
(string)

↓

**sentence
segmentation**

↓

sentences
(list of strings)

↓

tokenization

↓

tokenized sentences
(list of lists of strings)

↓

**part of speech
tagging**

pos-tagged sentences
(list of lists of tuples)

↓

**entity
detection**

↓

chunked sentences
(list of trees)

↓

**relation
detection**

↓

relations
(list of tuples)

(understanding)Relations

Tf-Idf=importance of words

Documents: parts of the text

Visulization

Thank You for Listening