Sentiments in Helsinki
Spatiotemporal Sentiment Analysis of Instagram

Qazi Firas[1,2], Iuliia Kim[3], Anton Matveev[3], Sid Rao[4], Saara Suominen[1], Tuomo Hiippala[1]

[1] University of Helsinki, [2] SRISHTI Institute, [3] ITMO University, [4] Aalto University

203k

Questions

→ How do spatial and temporal factors affect the sentiments expressed in the Instagram posts in Helsinki?

→ Is there variation between different parts of town in the sentiments expressed?

Goals

→ Our goal is to combine the location of the posts to the sentiments expressed in them.

→ We will visualize this by producing maps.

Data

→ 1,316,705 Instagram posts in total.

→ Posted between 06/2014 and 03/2016.

→ Location: Helsinki metropolitan region.

→ Out of these, 193,111 posts within Helsinki and in English.

Dominant seasons for Instagram in Helsinki

Seasons
- autumn
- spring
- summer
- winter

2.5 0 2.5 5 7.5 10 km

Dominant Sentiment in Instagram in Helsinki

Sentiments
- Negative
- Neutral
- Positive

2.5 0 2.5 5 7.5 10

Temporal distribution of polarity of Instagram posts

— Positive — Negative — Neutral

Density of Instagram Posts

Helsinki neighborhoods

Percentile Density
- 0.0 – 0.0
- 0.0 – 2.0
- 2.0 – 4.0
- 4.0 – 7.0
- 7.0 – 15.0
- 15.0 – 24.0
- 24.0 – 50.0

0 2.5 5 7.5 10 km