## Decision Trees vs Neural Networks for Classification of Emotions from Text

## **Emotion classification**

- The goal is to classify the core emotion in short text snippets.
- This problem is too complex to solve with classic programming and there is a lot of data available thanks to social networks. This makes DMML techniques the most appropriate solution.
- In this project I will compare the effectiveness of Decision Trees and Random Forests against Neural Networks.

## Crowdflower dataset

- CrowdFlower Dataset
- 40k Tweets with respective emotion
- Possible emotions are:
  - 'sadness','empty','relief','hate','worry','enthusiasm','happiness','neutral','love',' fun','anger','surprise','boredom'
- Both tweets and emotion labels are in plain text

## References

- Dataset paper
- C. Van Pelt and A. Sorokin, "Designing a scalable crowdsourcing platform," in Proceedings of the 2012 ACM SIGMOD International Conference on Management of Data, pp. 765–766, 2012.
- The work I will compare against
- E. Batbaatar, M. Li, and K. H. Ryu, <u>"Semantic-emotion neural network for emotion recognition from text,"</u> IEEE Access, vol. 7, pp. 111866–111878,2019.1