

# Reviewing rapid prototype candidates

for data-driven projects

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2019-05-14

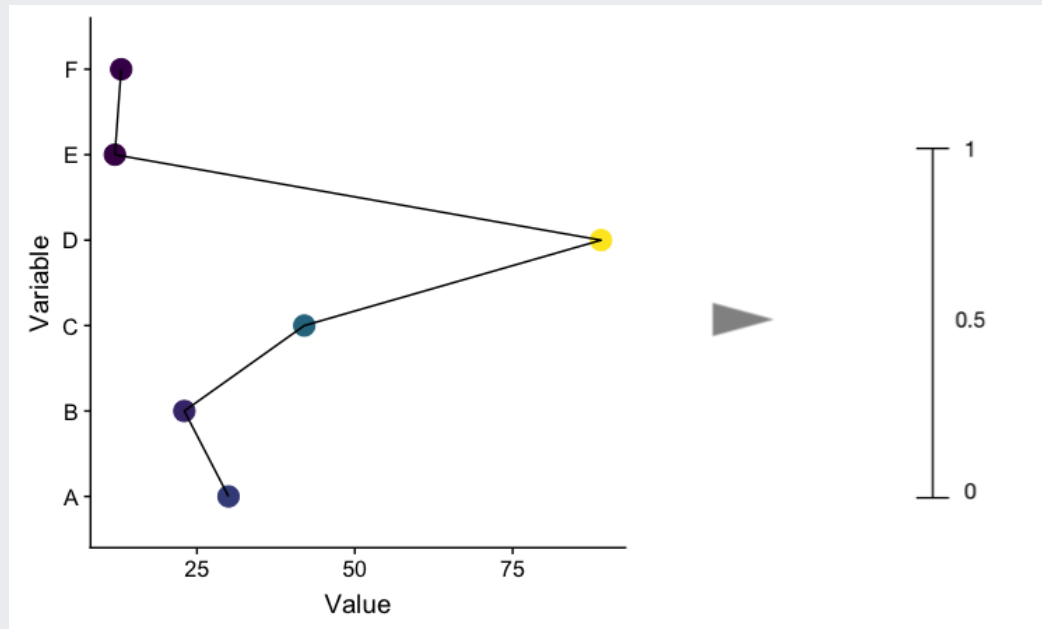
# Overview

1. **Employee retention:** Predict employee propensity to leave the company
2. **Predictive competition:** Compare the predictive performance of traditional/novel models
3. **Social Listening:** Quantify brand opinion (and related emotions)
4. **Objective organization climate:** Build text-based model for organization climate

1. Employee retention: Predict employee propensity to leave the company

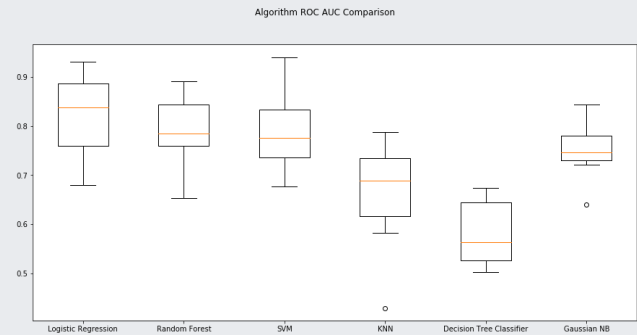
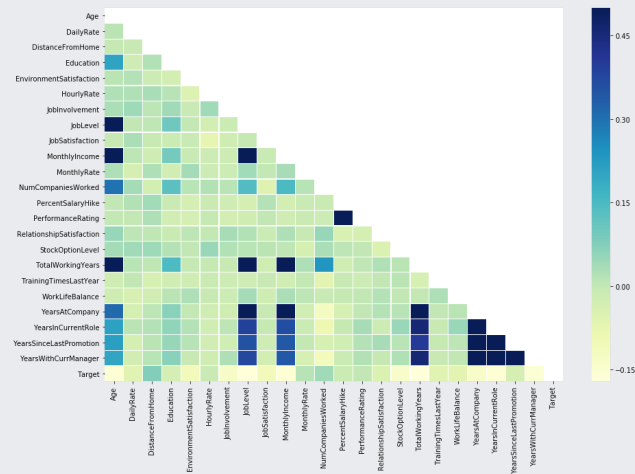
# Input: Employee's data, output: leave propensity

! data privacy



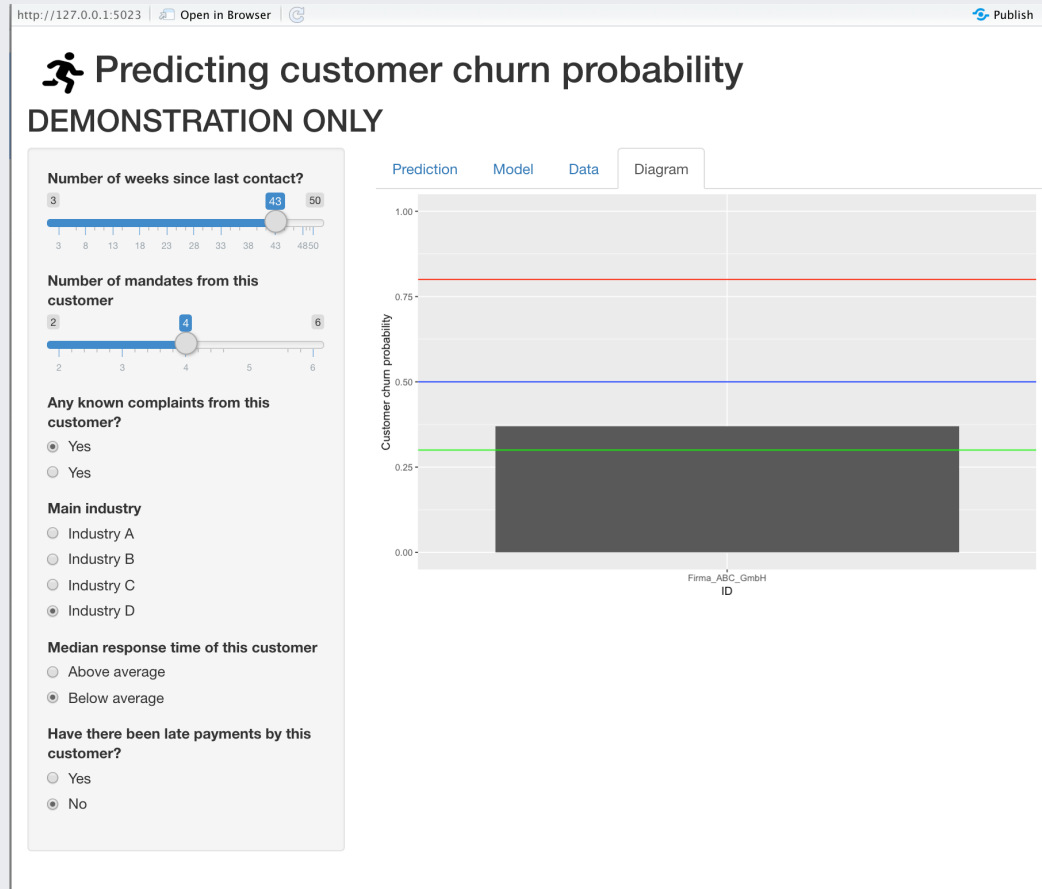
# Industry example: employee retention at IBM

IBM artificial intelligence can predict with 95% accuracy which workers are about to quit their jobs. See this [case study](#).



Source: [CNBC](#), [TowardsDataScience](#)

# See app




2. Predictive competition:  
Compare the predictive  
performance of traditional/novel  
models

# Case study -- Predicting therapy success (1/2)

## ORIGINAL ARTICLE

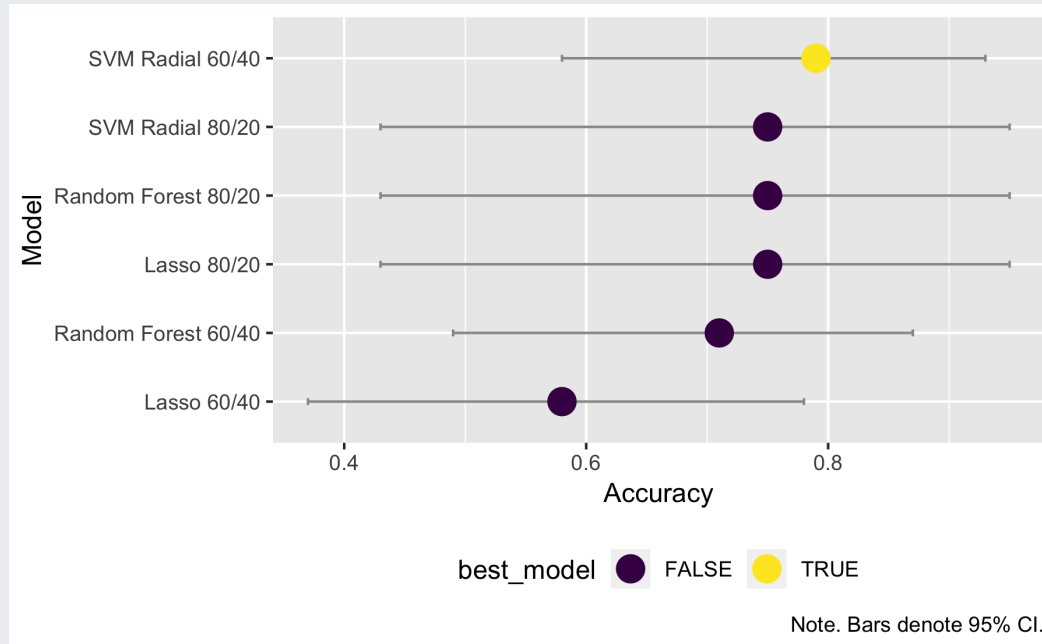
### **Prediction of outcome in internet-delivered cognitive behaviour therapy for paediatric obsessive-compulsive disorder: A machine learning approach**

Fabian Lenhard<sup>1,2</sup>  | Sebastian Sauer<sup>3</sup> | Erik Andersson<sup>1</sup> | Kristoffer NT Månsson<sup>4,5</sup> | David Mataix-Cols<sup>1,2</sup> | Christian Rück<sup>1,2</sup> | Eva Serlachius<sup>1,2</sup>

Lenhard, F., Sauer, S., Andersson, E., Månsson, K. N., Mataix-Cols, D., Rück, C., & Serlachius, E. (2018). Prediction of outcome in internet-delivered cognitive behaviour therapy for paediatric obsessive-compulsive disorder: A machine learning approach. *International Journal of Methods in Psychiatric Research*, 27(1), e1576.  
<https://doi.org/10.1002/mpr.1576>

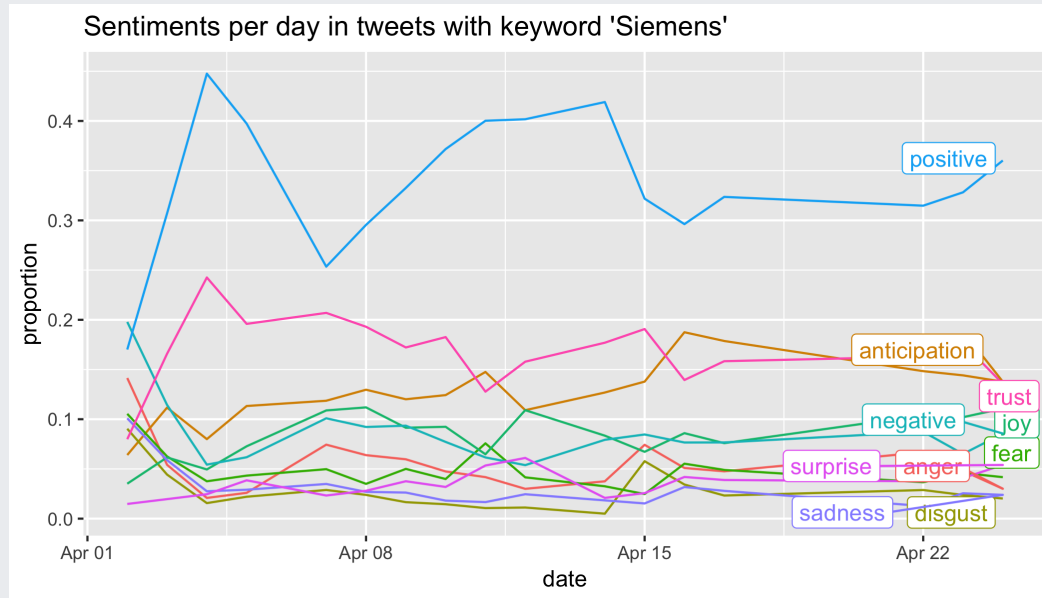


# Case study -- Predicting therapy success (2/2)

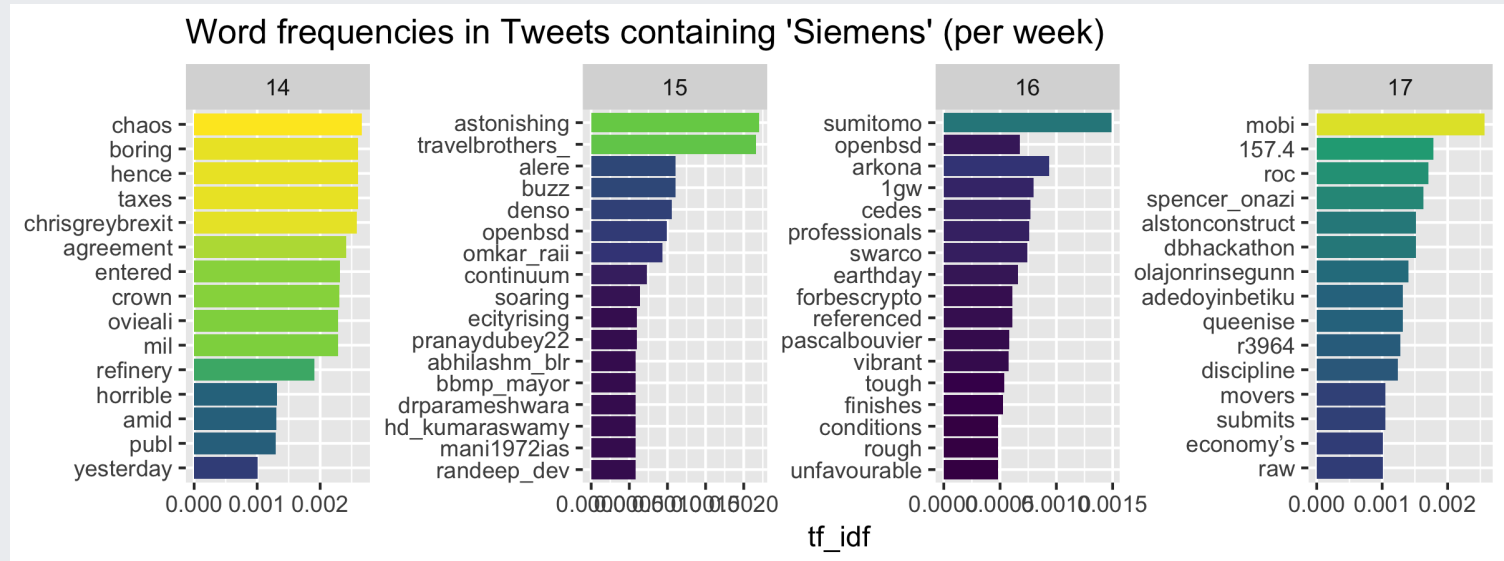


Social Listening: Quantify brand opinion (and related emotions)

# Emotions in tweets with keyword 'Siemens'

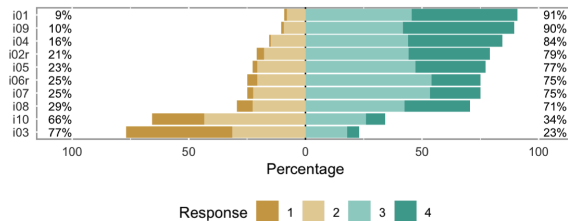


# Word frequencies in tweets containing 'Siemens'




4. Objective organization  
climate: Build text-based model  
for organization climate

# Calibrate words to measure organizational climate



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