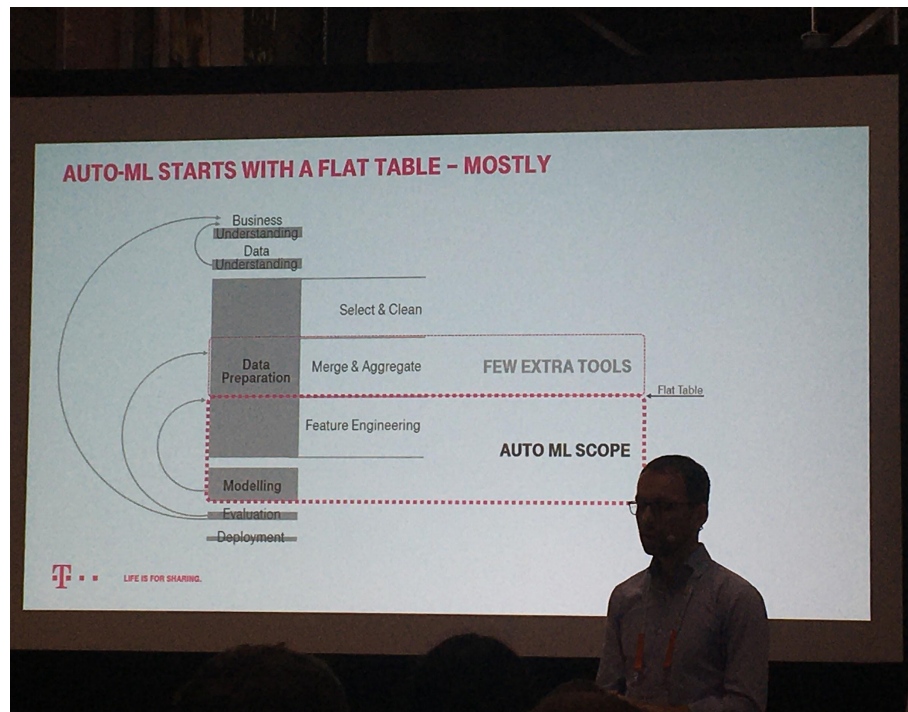


# AutoML + automated FE

Bar Camp

# Preface

- I organized this bar camp as a reaction to Mathias Kirsten's talk about AutoML
- He presented different ML tools and said that the next step for AutoML would be to also include data preparation
- getML offers such a solution
- It does *not* start at the flat table, but on raw, relational data
- In the bar camp I presented our approach and discussed use cases with the participants



# Das getML Team

- Gründung **2017 in Leipzig**
- Algorithmus zu **Full-Service Digital-Produkt** in **18 Monaten**
- **7 Team-Mitglieder**

## Die Wahrsager aus Leipzig

An der Automatisierung von Prognosen arbeiten Weltkonzerne. SQLNet Company, ein 2017 gegründetes Start-up aus Leipzig, hat eine solche Software auf den Markt gebracht.

Frankfurter Allgemeine  
ZEITUNG FÜR DEUTSCHLAND



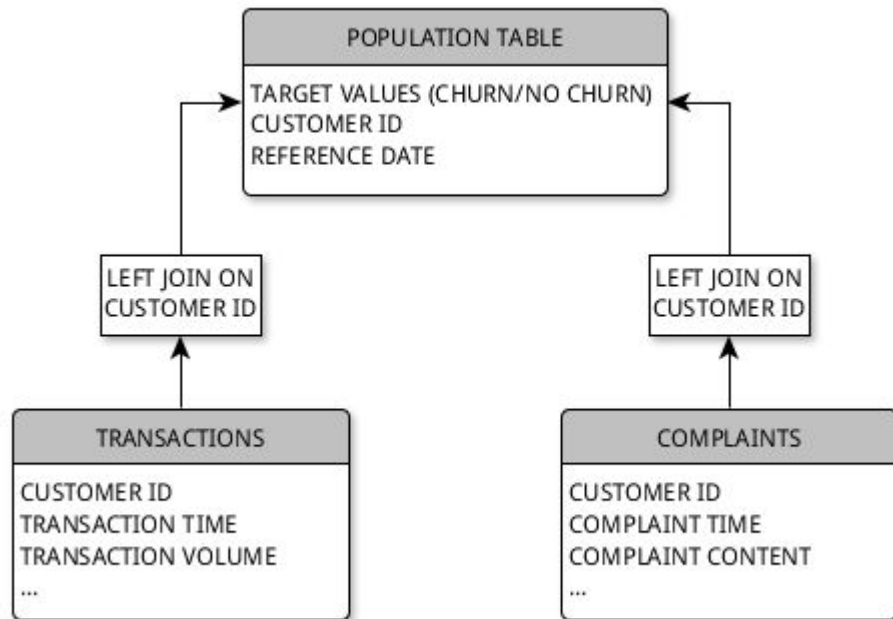
Supporter & Partner



# Feature engineering

How to get to the flat table?

```
SELECT some_aggregation(some_column)
FROM some_table
JOIN some_other_table
WHERE some_other_column = some_value
AND/OR more_conditions;
```



For more info visit: <https://get.ml>

# Our approach

1. Define some sort of objective function that evaluates the quality of your feature as it relates to the target variable(s).
2. Pick an aggregation and some column to be aggregated.
3. Try out different conditions. Keep the one that generates the greatest improvement of your objective. Repeat until no improvement can be found or some sort of stopping criterion is reached.

**Secret ingredient: incremental updates**



# Contact me if you have questions

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