

# CONTINUOUS ADAPTATION OF BUSINESS MODELS

## BASED ON FEATURE MODELS

PROF. DR. GREGOR ENGELS, DATENBANK-UND INFORMATIONSSYSTEME

### Motivation

The continuous innovation of its business models is an important task for a company to stay competitive. During this process, the company has to validate various hypotheses about its business models by adapting to uncertain and changing customer needs. To represent business models for idea generation, the Business Model Canvas [1] is mostly used. In the past, we have used the concept of feature models to represent the variability of a business model [2]. The goal of this thesis is to conceptualize and implement a tool in Angular, which can (1) mine a feature model out of a set of existing business models, (2) derive new business models from the feature model, (3) learn validated and disapproved business decisions (see Figure 1). To do this standard-techniques like Feature Model Mining [3] or Questionnaire-based Variability Modeling [4] can be applied to the new context of business models.

### Tasks

- Literature Review on Business Models & Feature Models
- Conception and Design of the Algorithms and the Tool
- Implementation of the Algorithms and the Tool in Angular
- Evaluation in a Case Study

### Sources

- [1] Osterwalder et al.: Business Model Generation (2010)
- [2] Gottschalk et al.: Intertwined Development of Business Model and Product Functions: A Twin Peak Feature Modeling Approach (2019)
- [3] She: Feature Model Mining (2008)
- [4] La Rosa et al.: Questionnaire-based Variability Modeling for System Configuration (2008)

### Further Information

The topic can be taken as a bachelor- or master thesis. It is possible to write this thesis in German or English. The requirements for the topic are passed courses of Data Mining (bachelor) or Machine Learning I (master). Please write in your application shortly why you are interested in the topic and what further experience you have in the field. Before the proposal process, there will be a short test (consisting of general questions, your understanding of the topic and a small programming task) to see if you are the right person for the topic.

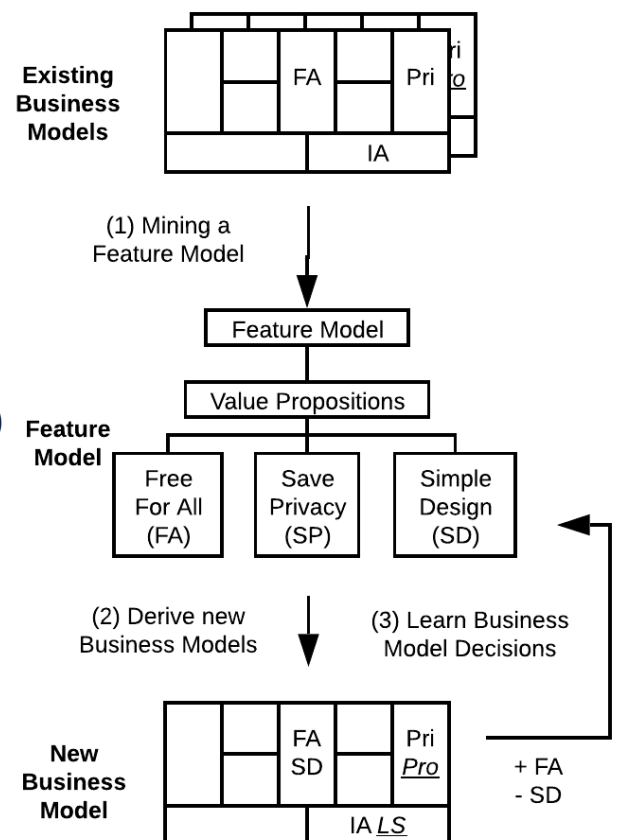


Figure 1: Steps for continuous adaptation of business models