



Maastricht University

DARS

UPDATES

Content

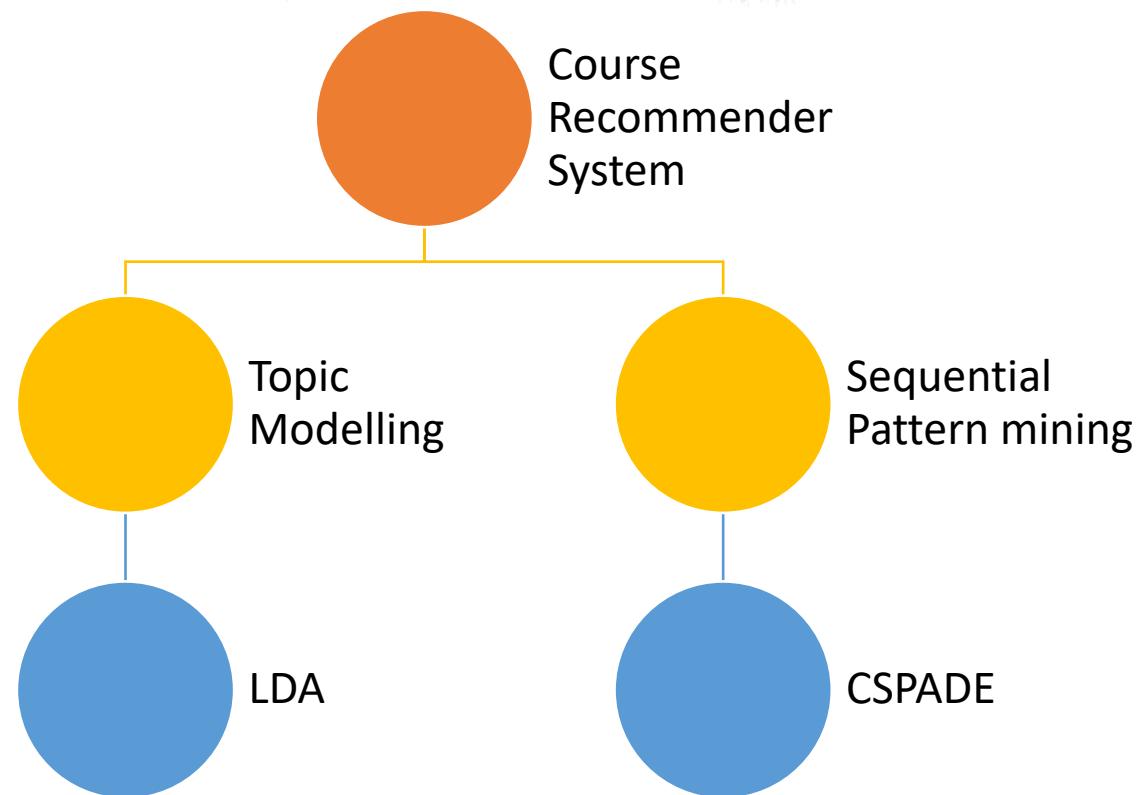
- 1. Memory Refresher**
- 2. Prototype demonstration**
- 3. Methodology**



1. Updates



Memory Refresher



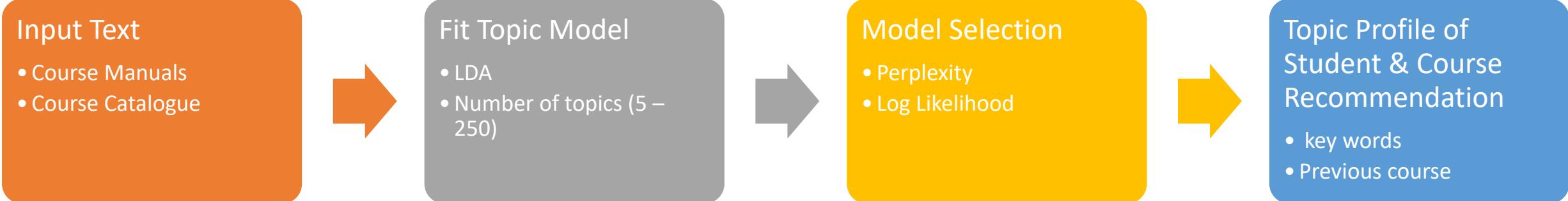
2. Prototype



3. Explanation



Topic Modelling



Input Text

Fit Topic Model

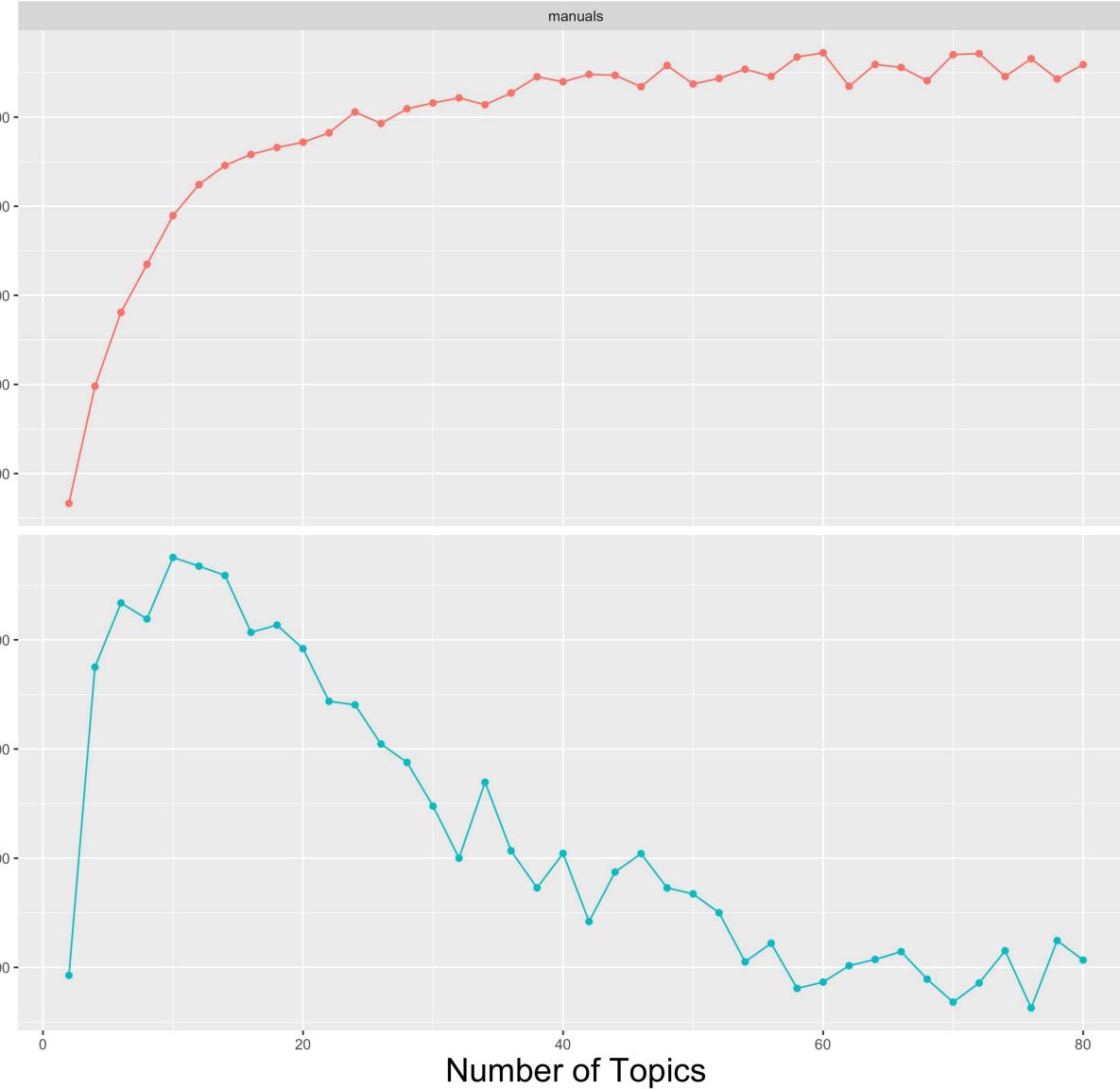
Model Selection

- Perplexity
- Log Likelihood

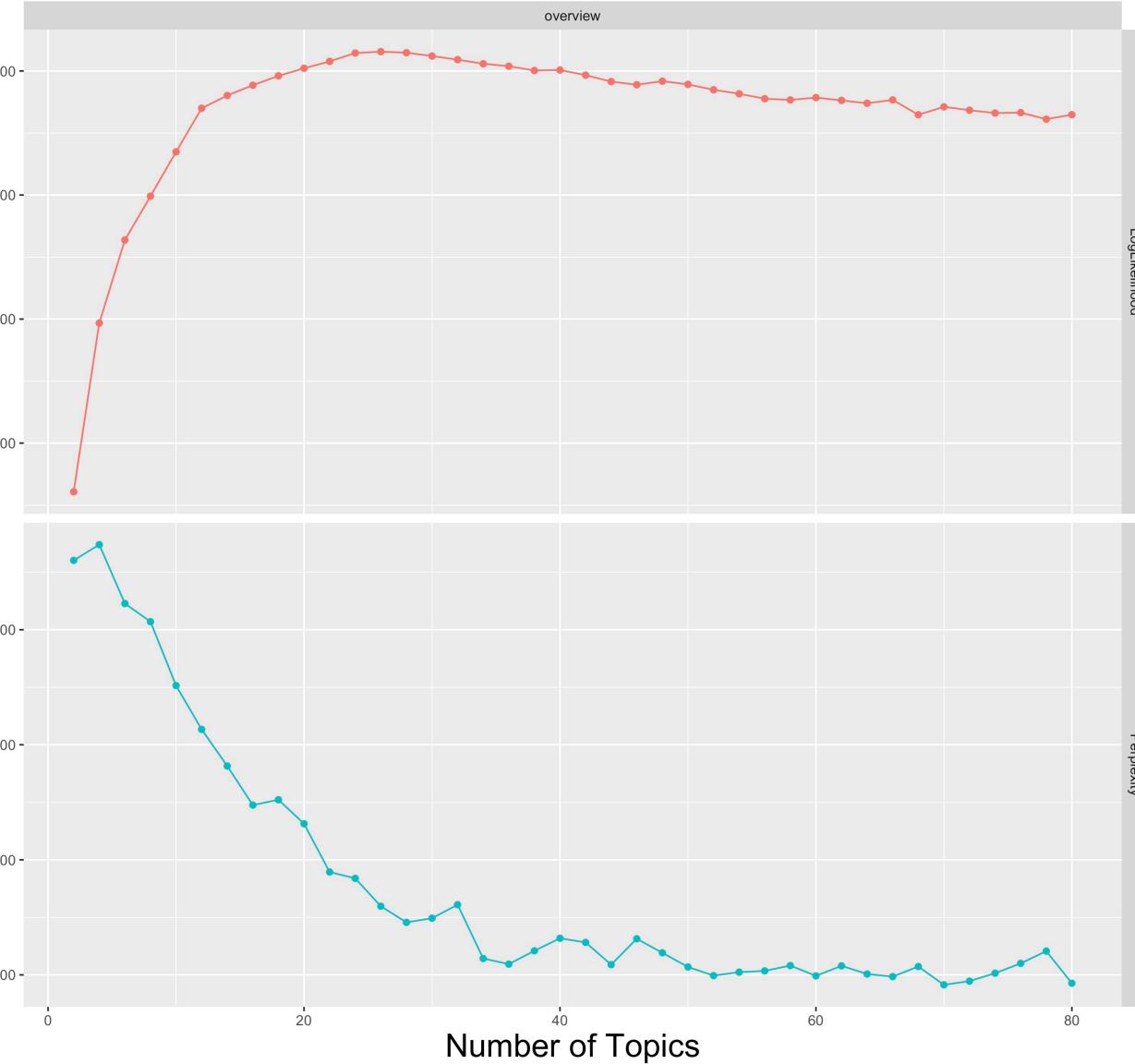
Topic Profile of Student & Course Recommendation

- key words
- Previous course

Perplexity and Log likelihood of Models on manuals



Perplexity and Log likelihood of Models on overview

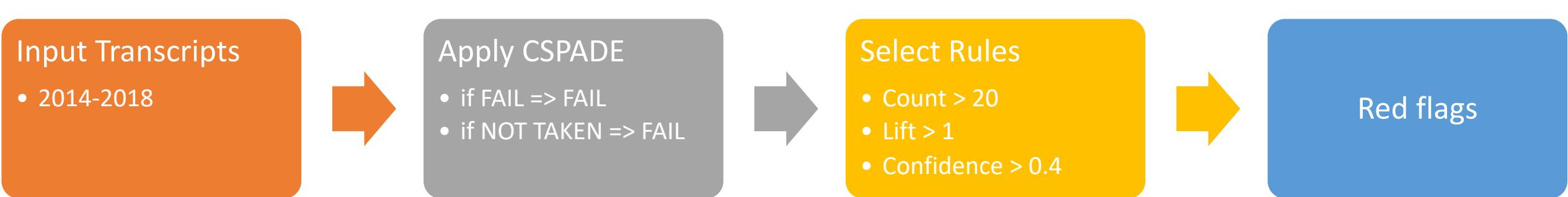




- Cross-validation for perplexity is computationally unfeasible.
 - Perplexity currently computed on training set
- Alternative metrics?



Sequence Mining



Input Transcripts

- 2014-2018

Apply CSPADE

- if FAIL => FAIL
- if NOT TAKEN => FAIL

Select Rules

- Count > 20
- Lift > 1
- Confidence > 0.4

Red flags

- Small sample (150 courses, n = 2,500)
 - Rules have little support
- Cold Start Problem
 - New courses?
- Alternative approach?



Thank you!

• **Sofia Vazquez Alferez**
sofia.vazquezalferez@maastrichtuniversity.nl

Raphaël Morsomme
raphael.morsomme@maastrichtuniversity.nl

