Bachelor Thesis Artificial Intelligence

EFFICIENT GENERATION FOR COLLECTIVE DECISION MAKING

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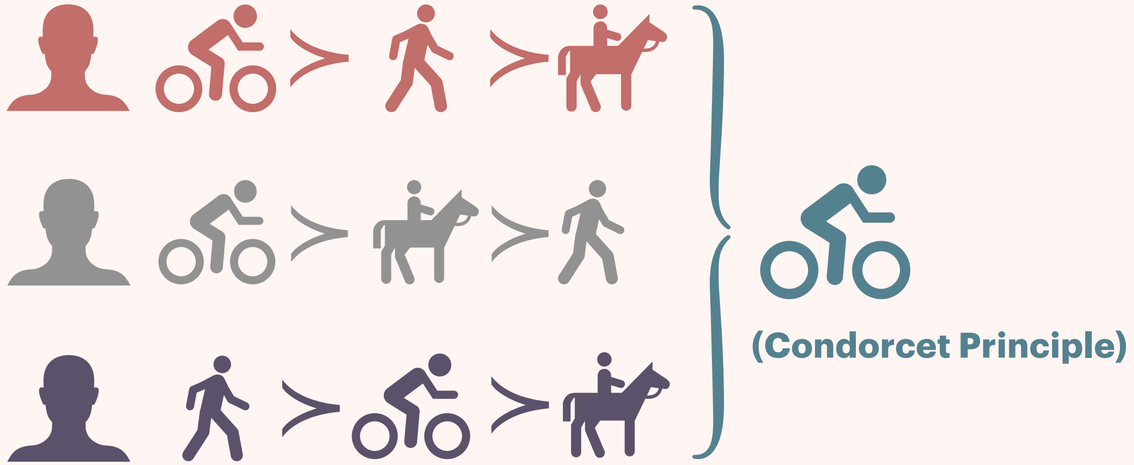
Nienke Reints, May 15th

AMSTERDAM

PROBLEM DESCRIPTION

- Group Decision
- Voting Rules & Axioms
- Justification
- Efficient



RESEARCH QUESTION

- **A. Boixel, U. Endriss**
  - **Justification = Explanation + Normative Basis**
- **Efficiency**

METHOD

- Literature research
- Designing the algorithms
- Evaluating the efficiency

MODEL

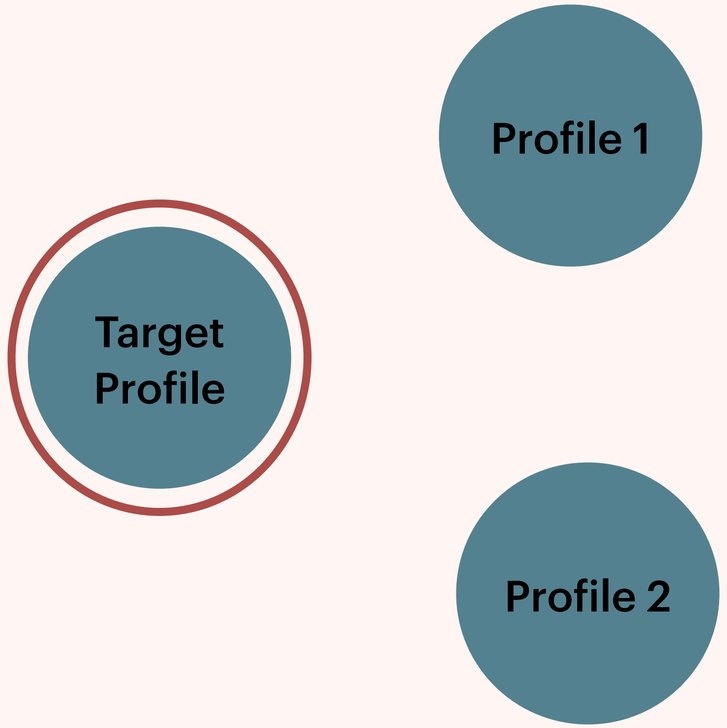
- **Agents** $N^* = \{$ $\}$
- **Alternatives** $X = \{$ $\}$
- **Preferences** $\mathscr{L}(X) = \{$ $\}$
- **Instances of axioms** $Inst(A)$ A **is an axiom**

ALGORITHMS

- Limit number of instances
- 1 profile axioms
- 2 profile axioms

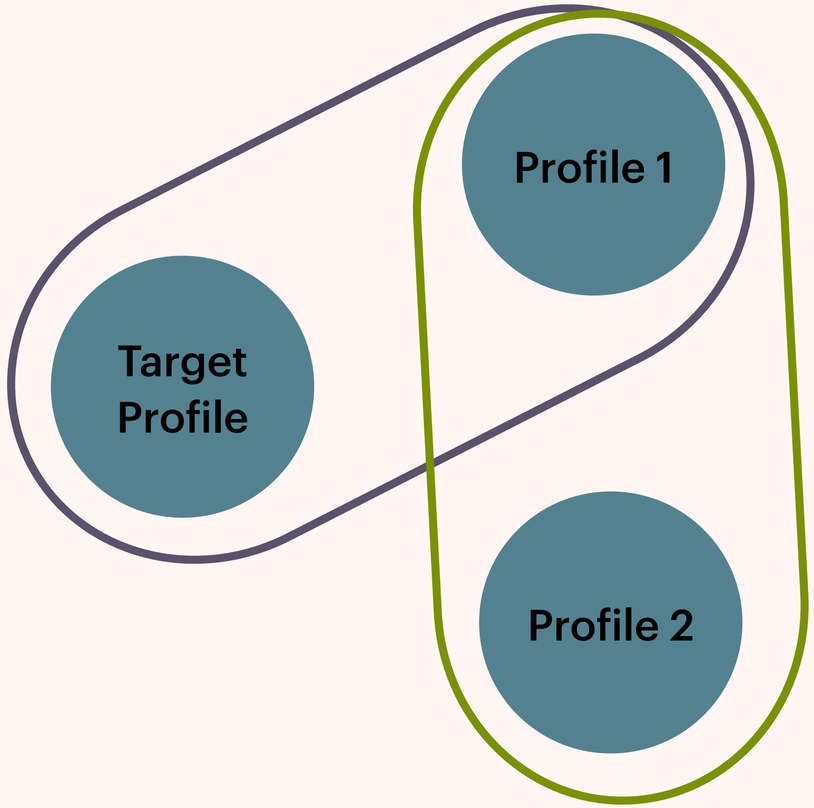
ALGORITHM 1

- **Target Profile**
- **Instances**



ALGORITHM 2

- **Breath-first approach**



NEXT MONTH

- **Implementation**
- **Evaluation**