

2 Minutes Madness?!

Data

Behavioral Data

Behavioral Data



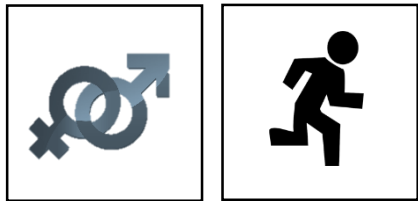
Behavioral Data



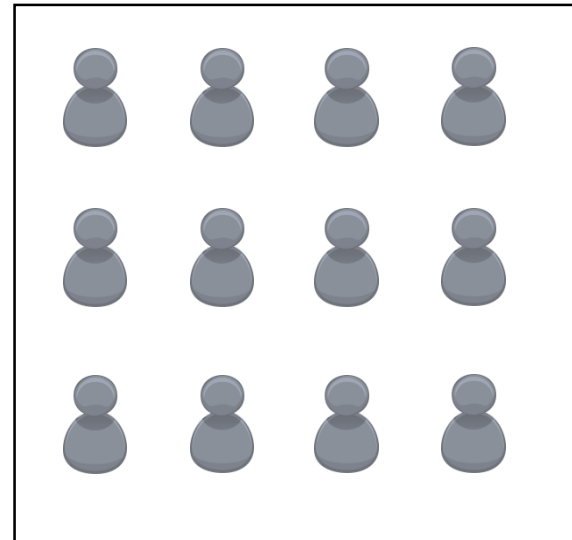
Analysis of Behavioral Data



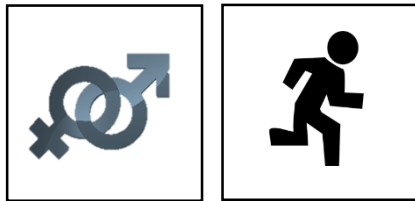
Analysis of Behavioral Data



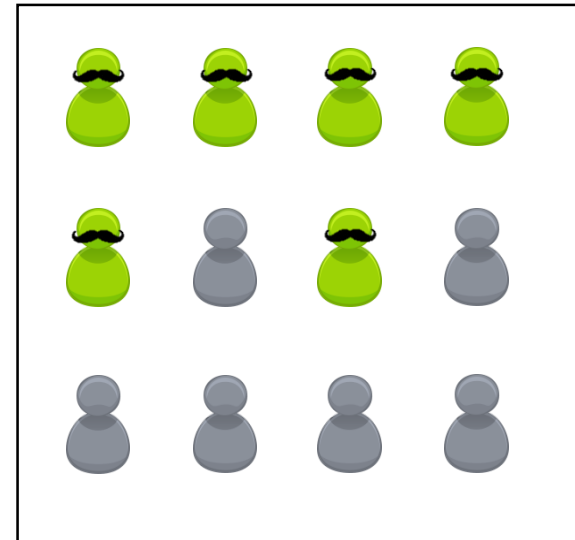
Approach
Grouping Users



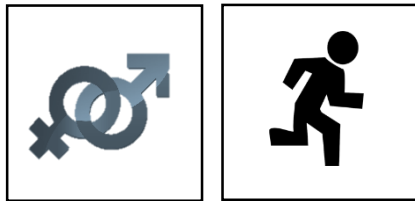
Analysis of Behavioral Data



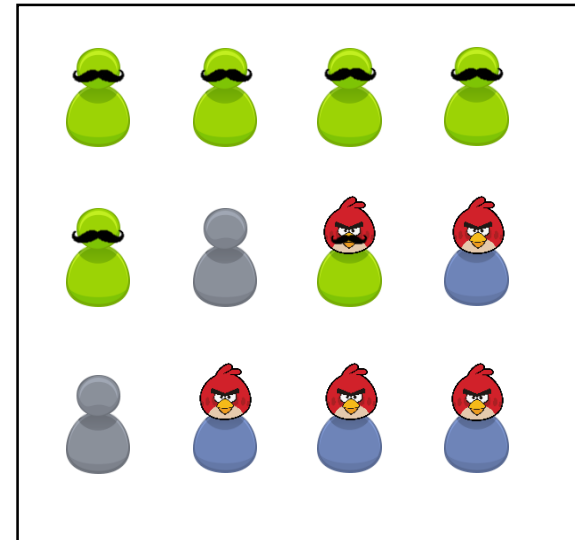
Approach
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Analysis of Behavioral Data



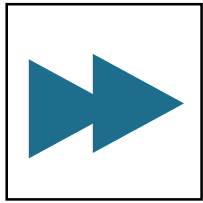
Approach
Grouping Users





Too much Groups!

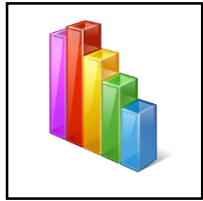
Giscover Method



Interactive Process



Limited number of options



Quality Measure Maximization

Interactive Exploration of User Groups

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Advisors: Sihem Amer-Yahia, Alexandre Termier
H.A.D.A.S | PhD funded by French Ministry of Education (MENRT)

MOTIVATION. Availability of Behavioral Data

User Demographics

User Activities

▶

Large Size

Agnostic Analyst

CHALLENGES

Giscover 200 milliseconds 3 Groups

The Matrix

Step 1

Female (8%)

Grad Student (72%)

Male, Young (65%)

Step 2

Jurassic Park (47%)

Terminator II, American Beauty (34%)

Toy Story, Star Wars IV (32%)

Step 3

PhD Student (6%)

Engineer, NY (67%)

Doctor, San Jose (9%)

GOAL. Analysis of Behavioral Data

Only 2% of such data has been analyzed to date!

WHY

▶

HOW

APPROACH. Grouping Users

1

Clustering and Community Detection for demographic groups

! Above approaches lead to result-space explosion!

2

Frequent Pattern Mining for activity groups

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Interactive Process

Limited Number of Options
function of previous group selections

Quality Measure Maximization
time-bounded Greedy algorithm

Experiments: Target Arrival, Valid Paths, Execution Time

TECHNIQUE. Giscover Method

Publications

- Towards a Framework for Semantic Exploration of Frequent Patterns, IMMOA 2013
- Interactive Exploration of Users and Activities, BDA 2013
- Uniform Exploration of User Communities and Activities in UECA, Technical Report 2013

Laboratoire d'Informatique de Grenoble

2014

+2 Minutes

Madness

Sanity

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