Action Recommendation Using Situation Rules

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Time, Location, Weather, Session info,

Process 1

Reading news, Playing a game, ...

Main Goal:

Find the right situations for performing specific actions

- support autonomous decision making
- context aware services and applications
- · without user initiation.

IF morning AND home THEN do action.

Process 2

Show articles, Change profile,

RULES + User Situations

ACTION SUGGESTIONS

Action Model

Set of rules
Based on the user's performance
(explicit and implicit feedback)
Two parts

- Antecedents (situation when the rule applies)
- 2. Conclusion (action that the rule suggests)

Representation through symbols Extended Time sensitivity principle

Situation Model

Representation through symbols
Certainty values
Time sensitivity principle
Main advantages:

- Domain independence
- Elimination of privacy issues
- Allowing collaborative models

Method for Action Suggestion

1. Rule Generation

Based on:

- Current user's situation
- Action indicator

Rules for all possible situation combinations

Base certainty distributed accordingly

2. Recommendation Calculation

Using user's action and situation models

Steps:

- Computing the importance of situation classes
- 2. Modifying rule certainties
- 3. Computing the final recommendations



http://pewe.fiit.stuba.sk/results/

