Feedback Acquisition from Web-based Learning

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personalized web group

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Overview

- we use **explicit** feedback
  - information **directly** from user
  - **high** accuracy
  - **lack** of it

students

- we use feedback by **rating** of
  - quality
  - difficulty
  - intelligibility

  of **content**

ratings

- we use comparinson of objects
  - to express user's opinions more easily

learning texts

- we find out user's
  - **interests** and **opinions**, to
  - review, improve, personalize

  webpage **content**

AleF

Influences

- different users prefer using **different rating scales**
- personality of user
  - higher ratings on binary scales
  - lower ratings on scales with neutral point

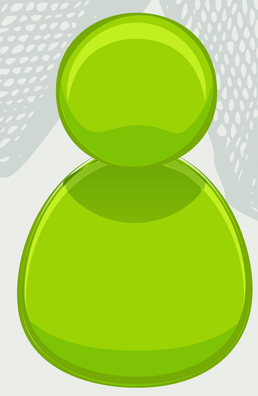
→ Need of multiple rating types for various users and objects.

Problems

- **absence** of ratings
- **distraction** of user
- lack of motivation
- J-shaped distribution of ratings
- **inaccuracy** of ratings
- **inconsistency** of user

One system uses one rating type, it does not take user preferences into account.

Solution



selection of scale

- rating scale
  - **range** - number of values
  - **visualisation** - presentation of values

- selection is influenced by
  - object - its range
  - user - his previous ratings
  - type of system - educational, social network...
  - type of rating - quality, difficulty...

user rating

- user
  - selects his choice from rating scale
  - compares objects if its offered by system
- system
  - loggs his ratings
  - shows others' rating of object
  - computes user preferences for further ratings

object evaluation

- **normalization** depending on scale
- transformation depending on user
- include **comparing** of items

- different methods of evaluation - depends on count of results

Experiments

First experiment

11 users + ***5*** scales + ***14*** pictures = ***770*** ratings

- results from stars and percents correlate the most

- **most favourite scale** - stars
  - it can best depict their needs in rating
- **least favourite scale** - like it/like it not
  - they did not like its limitation

- what can **motivate** users:
  - extra points for school
  - competition
  - improvement of system

- lowest ratings - scale Like
- higher results - scale emoticons

Scale affects user's ratings,
they have different opinions about preferred rating scale.

Second experiment

70 users + ***1*** scale + ***50*** beverages = ***837*** ratings + ***550*** comparings

- users could :
  - change the default range
  - compare two objects

- order of objects was different when using different evaluating methods
- **transformed results** correspond with comparison better

- highest results were on scale with **binary range**

- when comparing equally rated objects
  - only a half of users say they are equally good
  - comparison provides us additional information about user's preferences

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