

CloudMonster: Support Flexible Browsing and Searching with Personal Music Collections

Projektarbeit - Abschlussvortrag

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02.06.2009

LFE Medieninformatik

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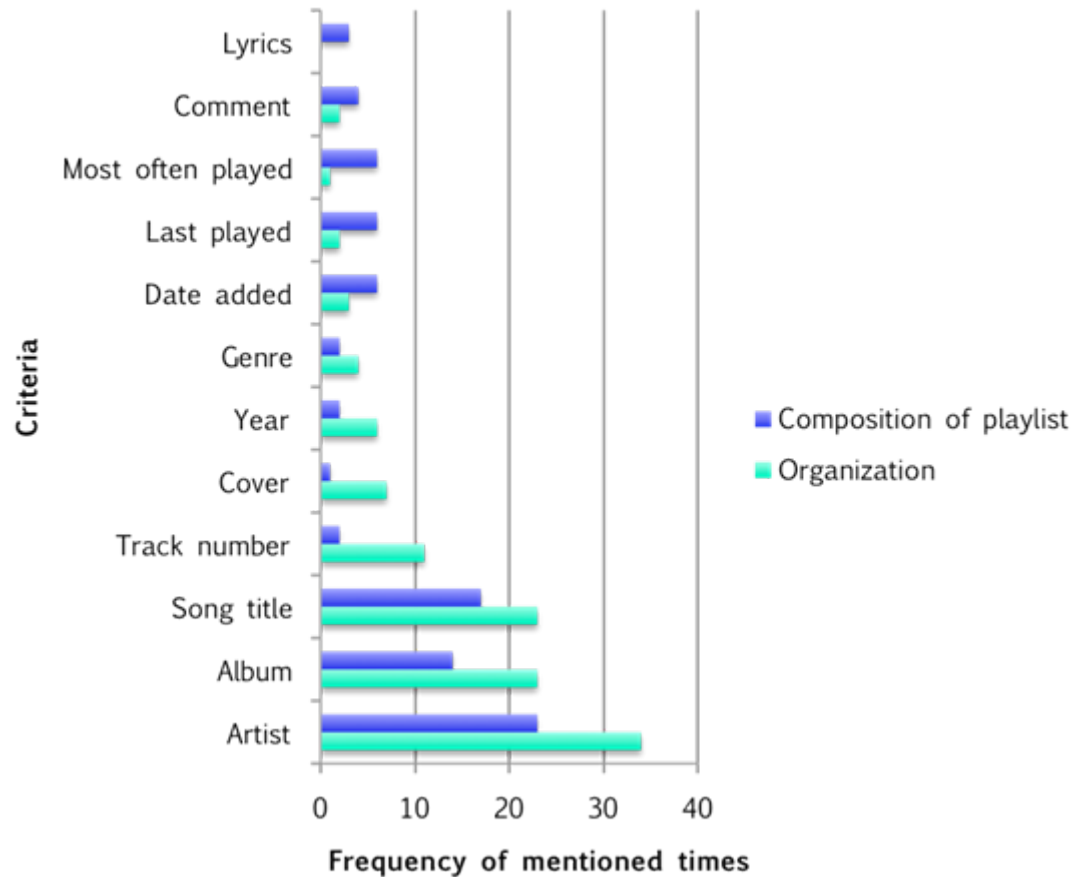
Verantw. Hochschullehrer: Prof. Dr. Andreas Butz

Outline

- ≡ Independent User Study
- ≡ Idea behind CloudMonster
- ≡ User Interface
- ≡ Initial Views
- ≡ Magnet-mode
- ≡ Color-coding schemes
- ≡ User Study

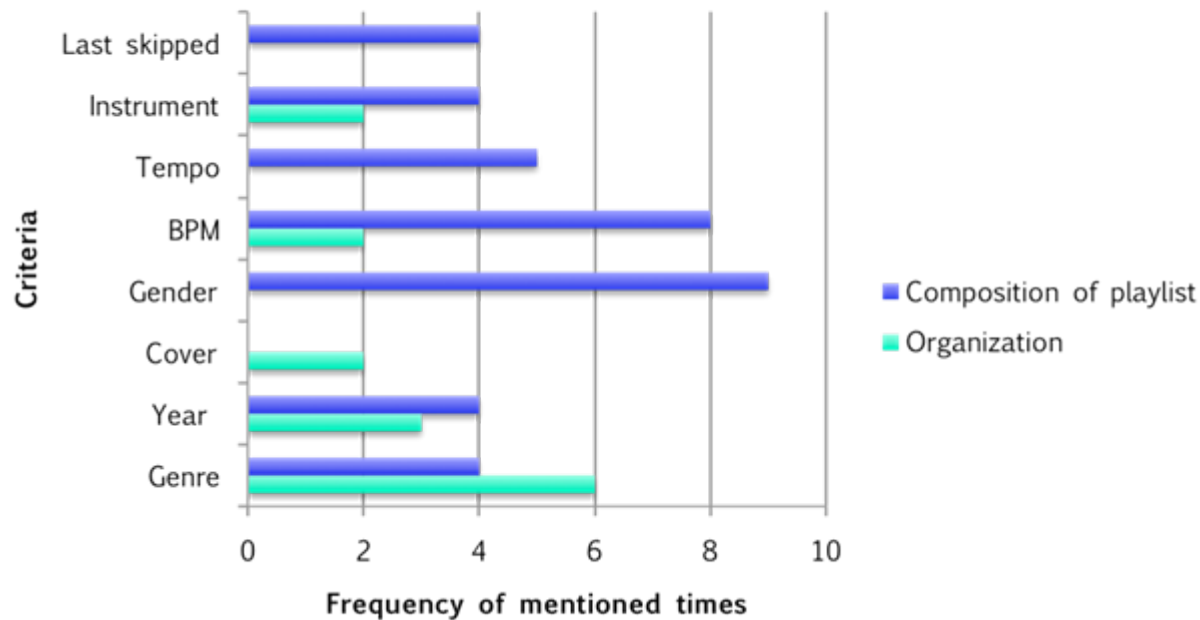
Independent User Survey

Criteria actually used



Independent User Study

Criteria wished to use



Idea behind CloudMonster

- ≡ Visualization of an entire music collection
- ≡ Similarity-based searching
- ≡ Simple playlist generation
- ≡ Basic functionalities for browsing and searching/filtering
- ≡ New searching functionality based on selectable attributes

User Interface

The screenshot shows the CloudMonster application window. The interface is divided into several sections:

- Left Panel:** Contains a search bar (B), playlist controls (C), criteria selection (D), and genre coloring options (E). A 'Cover' button (F) is located at the bottom left.
- Center:** A large visualization area (A) displaying a scatter plot of data points colored by genre. Below it is a table listing songs and their details.
- Right Panel:** Contains view and color selection options (G, I), a criteria list (J), and a 'Save' button (K).

Nr	Title	Artist	Album	Genre
1	americana	offspring	americana	Punk
2	another round	foo fighters	skin and bones	Rock
3	anywhere but here	rise against	siren song of the count...	Hard Rock
4	are we the waiting	green day	american idiot	Alternative
5	bad habit	offspring	smash	Punk
6	behing closed doors	rise against	the sufferer and the wi...	Hard Rock
7	best of you	foo fighters	skin and bones	Rock
8	between angels and i...	papa roach	infest	Hard Rock
9	big me	foo fighters	skin and bones	Rock
10	binge	papa roach	infest	Hard Rock
11	black clouds	papa roach	lovehatetragedy	Hard Rock
12	blood brothers	papa roach	infest	Hard Rock

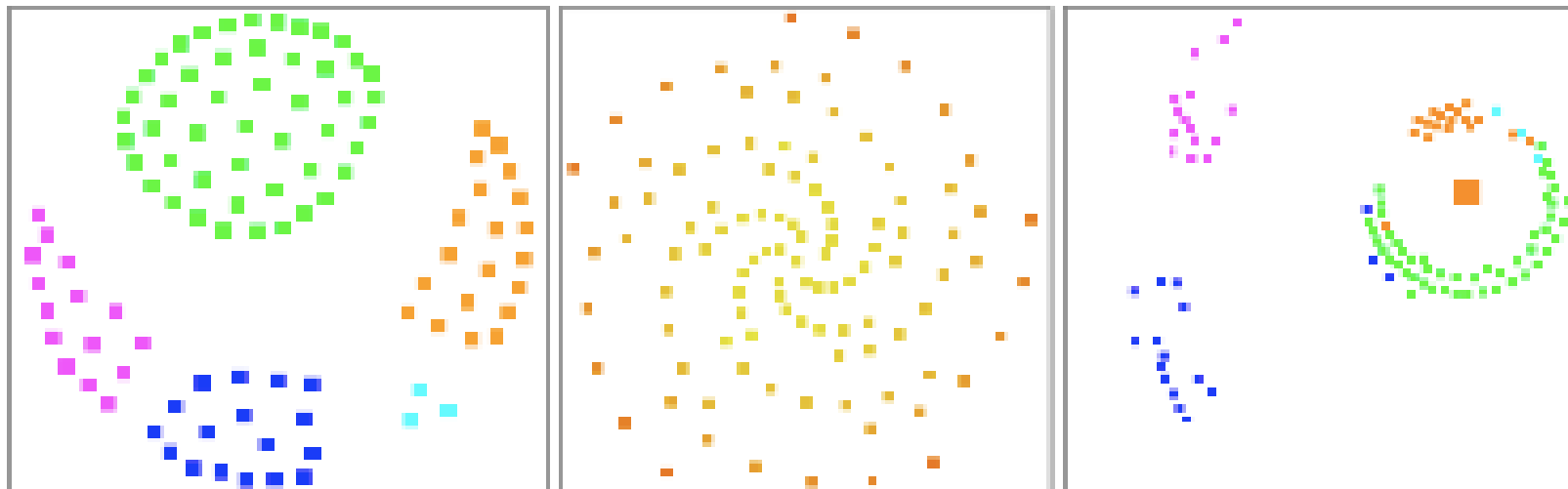
- A Overview
- B Text searching
- C Saved playlist
- D Saved criteria
- E Genre histogram
- F "Cover"-button
- G Initial views
- H Reset button
- I Color schemes
- J Criteria list
- K Standard song list

Initial Views

≡ Genre-based view

≡ Popularity-based view

≡ Similarity-based view



Magnet-mode

- ≡ BPM
- ≡ Duration
- ≡ Gender
- ≡ Genre
- ≡ Instrument
- ≡ Year

Nr	Title	Artist	Album	Genre
1	accidents	alexisonfire	watch out	hardcore
2	against all odd	the postal service	remixes	independent
3	all mine	portugal. the man	censored colors	independent
4	all the things i hate	bullet for my valentine	unknown album	unknown
5	amsterdam	guster	keep it together	alternative
6	an end has a start	editors	an end has a start	alternative
7	and i	portugal. the man	censored colors	independent
8	as i please	beatsteaks	limbo messiah	alternative
9	backyard	guster	keep it together	alternative
10	better than heaven	bloc party	intimacy	independent
11	breathe	pink floyd	dark side of the moon	rock
12	can't stop	monobrother	blood panic	alternative

Visual assistance

Color-coding schemes

≡ Artist

≡ Gender

≡ Genre

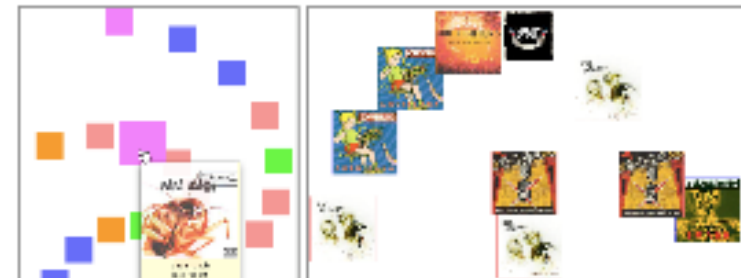
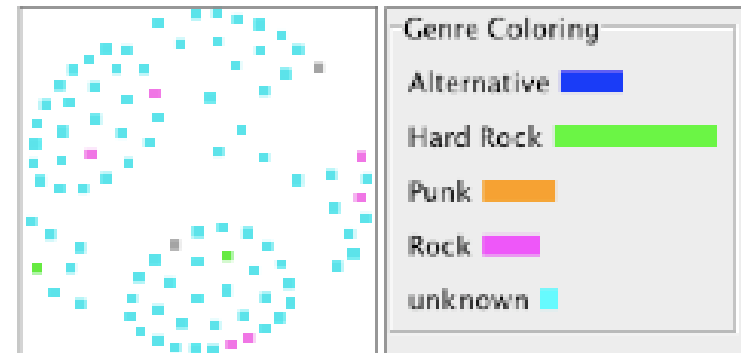
≡ Popularity

≡ View

Cover artwork

≡ Mouse-hovering

≡ „Always show cover“-Button



User Study

General information

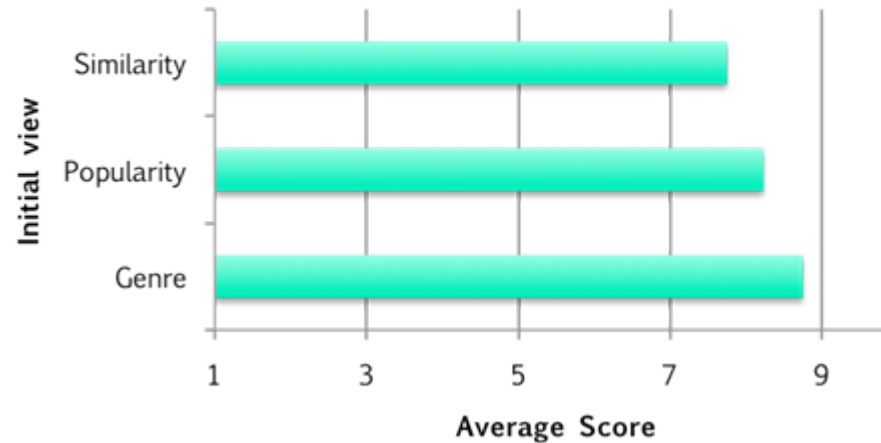
- ≡ 12 participants
- ≡ Gender: 5 male - 7 female
- ≡ Average age: 24
- ≡ 58% own more than 5000 songs

Settings and procedure

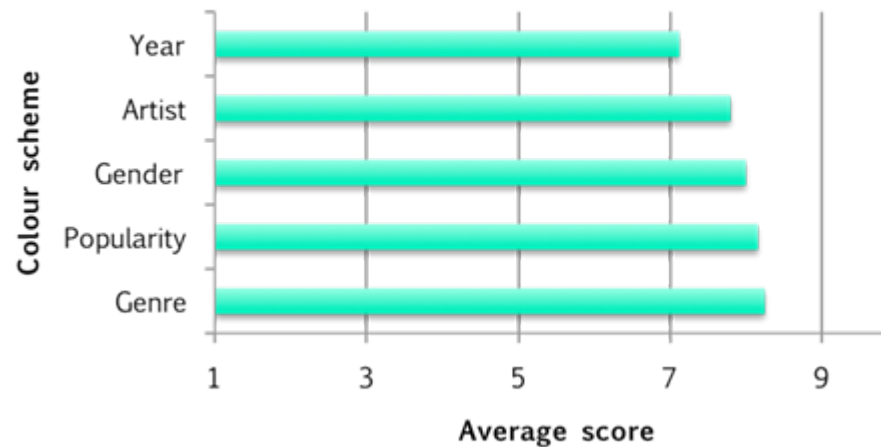
- ≡ Pre-questionnaire
- ≡ Free play around
- ≡ Conduct 8 tasks
- ≡ Post-questionnaire

User Study

Usefulness of initial views



Usefulness of colour schemes

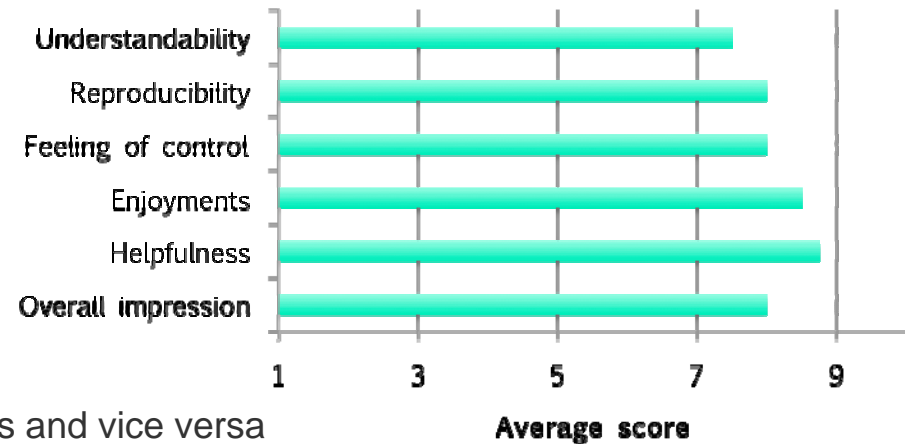


User Study

Implications

- ☰ Positive feedback
- ☰ All participants completed the tasks successfully
- ☰ Additional criteria: mood, language
- ☰ Magnet mode: interesting, intuitive
- ☰ Interaction consistency:
 - Integrate all criteria attributes as colour schemes and vice versa

Post-questionnaire



Paper was accepted as a short paper in INTERACT2009.

Ya-Xi Chen, Matthias Hoyer, Andreas Butz . CloudMonster: Support Flexible Browsing and Searching within Music Collections. 12th IFIP TC13 Conference in Human-Computer Interaction, INTERACT 2009 (August 24-28, 2009, Uppsala, Sweden).

Thank you for your attention!
Any questions?