A Flexible Image Browsing Interface tester

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ASIST ’04
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Warning
General communication
Wayfinding
living
Finding the image

- Keyword searching
- CBIR
keyword queries
Browsing final candidates
Thank you for trying CD View.

CDView is a picture browser to look at a large number of pictures very convenient.

The first picture is 'Demo1.gif' - you're looking at it.

If you click on ➡️ you will see the next picture 'Demo2.gif'.

Or press the right cursor button ‘->’. 

<table>
<thead>
<tr>
<th>Picture</th>
<th>Name</th>
<th>Rating</th>
<th>Tag(s)</th>
<th>Path</th>
<th>Type</th>
<th>Filesize</th>
<th>Date</th>
<th>Pic Size</th>
<th>Lenght</th>
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<td>GIF</td>
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<td>150.000</td>
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<td>Alan Jabbour Provides an Introduction at the Library of Congress Neptune Plaza Concert [black-and-white]</td>
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<td>Alan Jabbour Provides an Introduction at the Library of Congress Neptune Plaza Concert [color]</td>
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<td>Alice Cunningham Fletcher at her Writing Desk</td>
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<td>6</td>
<td>Apartment Block in Macy [color]</td>
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<td>7</td>
<td>Area to South of Small Arena [black-and-white]</td>
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<td>Arena at Night from West [color]</td>
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<td>At Main Gate [black-and-white]</td>
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<td>At Main Gate [color]</td>
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<td>Baseball Game in Macy [black-and-white]</td>
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</tbody>
</table>
Slide Show
Story Board
Omaha Indian Music

Items 1 through 20 of 378

Display: List View | Gallery View

153rd Annual Omaha Tribal Pow-Wow Poster

Mop-ya-soo - Sketch by George Miller

Alan Jabbour Provides an Introduction at the Library of Congress Neptune Plaza Concert [color]

Alice Cunningham Fletcher at her Writing Desk

Alan Jabbour Provides an Introduction at the Library of Congress...

Area to South of Small Arena [black-and-white]

Area to South of Small Arena [color]

Apartment Block in Macy [color]

Arena at Night from West [color]
Browsing limitations

- System speeds
- Bandwidth
- Refresh rate
- Compression
- Human factors
Previous Research

- Video surrogates
  - Cinque et al 1998
- Video keyframes
  - Komlodi & Marchionini, 1998
  - Tse et al 1998
  - Lee et al 2000
  - Geisler, 2003
Potter & Levy (1969)

A third approach

- Slide Show
- Storyboard
- Multiple Scrolling Thumbnails
Multiple Scrolling Thumbnails

☐ Storyboard layout
☐ Slide show animation
Instrument development

☐ ibi

☐ Image Browsing Interface

☐ AppleScript Studio under Xtools (now Xcode)

☐ 800 MHz iMac running OS X
ibi specifications

- Three Modes
  - Single image
  - Slide Show
  - Multiple Scrolling Images
ibi - parameters

- Single images
- Frames per second
- Image size
- Image set source movie
ibi – parameters

- Multiple Images
- Number of columns
- Number of rows
- Max. 12 images
ibi – data log

- Text file, tab delimited
- Date and time
- Mode & frame rate
- # rows and columns
- Image set movie file
- Number of images viewed
Subjects

- 26 volunteers from School
- students
- faculty
Tasks

- 2 face recognition
- 2 subject recognition
Images used

- Face Set
  - AR Faces Database (Martínez & Benavente, 1998)
- General Set
  - Jørgensen & Jørgensen, 2002
Target Images
Alternate Targets
Results

- Hits
  - < 3 seconds after target presentation
- Near hit
  - < 3 seconds after alternate target presentation
Data

- combined faces data
- similarity
- threw out arches data
- too many similar
- two identical
Results

Success Rate vs Frame Rate

![Graph showing the relationship between success rate and frame rate. The graph includes two lines: one for 'Hits' and another for 'Total Hits'. Frames per second are plotted on the x-axis, while success rate is plotted on the y-axis. The graph indicates a decrease in success rate as the frame rate increases.]
Conclusion

- Supports Potter & Levy (8 fps is practical maximum for untrained browsers.)

- Much more testing needs to be done
  - Size
  - color vs grayscale
  - Modes
Questions?

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http://faculty35.lis.fsu.edu/~peter/asist04_pej.pdf