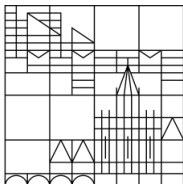


Positionierung der Bibliothek im digitalen Zeitalter

Ausgewählte Ergebnisse aus
Forschungsprojekten

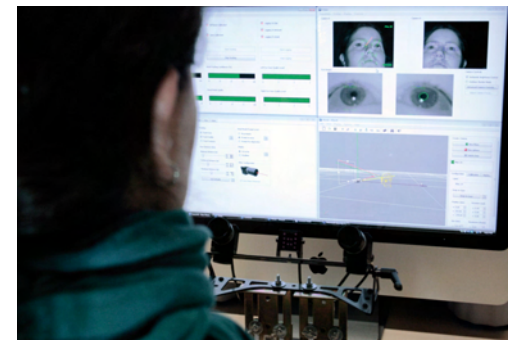
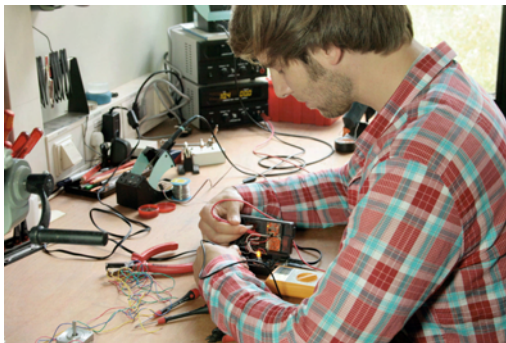
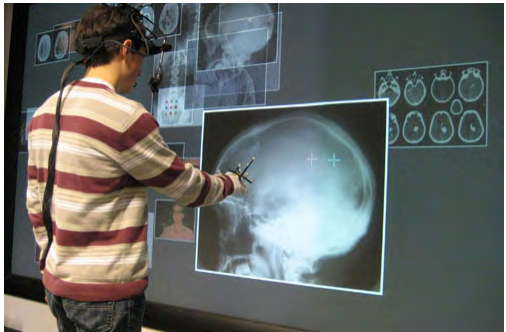
Universität
Konstanz



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University of Konstanz
Human-Computer Interaction
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hci.uni-konstanz.de



Human-Computer Interaction Lab



- Since 1997 part of the Department of Computer & Information Science
- Main Research Topics:
 - Interaction Design,
 - Usability Engineering,
 - Information Visualization
- More information:
<http://hci.uni-konstanz.de>

New Interaction Paradigms for UIs



UIs for Information Seeking Systems (ISS)

- **INSYDER** (ISS for the Web) – EU Project Eureka No. 29232 (1999-2001)
- **INVISIP** (ISS for Geo-Data) – EU Project No. IST-2000-29640 (2002-2004)
- **Mobile Information Visualization** (ISS for mobile devices) – DFG PhD Graduate Program (2005-2007)
- **MedioVis** (ISS for digital/multimedia libraries) – DFG LIS 4-54281(3) (2007-2009)
- **Blended Library** - Ministerium für Wissenschaft, Forschung und Kunst, Baden-Württemberg (2011-2013)



more information: <http://hci.uni-konstanz.de>

Motivation

Poor Usability of OPACs (2007)

The image displays three screenshots of the Koala OPAC (Online Public Access Catalog) interface, illustrating its usability issues in 2007. The interface is designed for the University of Konstanz library.

Screenshot 1 (Left): The main search page. It features a navigation bar with links: Koala-Menü, Bücher / Medien, Zeitschriften, Thema, and Bibliothek. The search criteria are set to "Person (Nachname, Vorname): Bergman, Ingrid". The search mode is "logische Verknüpfung". A "Suchen" button is visible.

Screenshot 2 (Middle): The search results page for "Lokaler Katalog (Koala)". It shows a list of search results, including "Lieben Sie Brahms?", "ängst", "Viaggio in Italia", "Stromboli", "Ich kämpfe um Dich", "Das Haus der Lady Alquist", "Humphrey Bogart, Ingrid Bergman, Paul Henreid", "Casablanca", and "Arzt und Dämon". The results are displayed in a table format with checkboxes for selection.

Screenshot 3 (Right): The detailed record for the film "Casablanca". The record includes the title "Casablanca / with Humphrey Bogart, Ingrid Bergman, Paul Henreid ... Directed by Michael Curtiz. Untertitel: Christine Kuenstler. - [S.l.], 1942. - 1 Videokassette [VHS] (97 Min.) : s/w", the director "Michael Curtiz", and the release year "1942". It also shows the call number "6 tff 710 c981/ c18" and the status "Normal-Ausleihe bis 17.01.05 garantierte Leihfrist".

MedioVis – UI for the Mediothek - Bibliothek der Universität Konstanz

Integration of Multimedia Metadata and Web Services

MedioVis 0.81m (Roger, August 2006) - a new search system for the Mediothek of the UB Konstanz

Find! Advanced spielberg 26 Hits in 64192 Items

Results Basket

Title	Description	Item	Year
<input type="checkbox"/> A. I. - Künstliche Intelligenz	Steven Spielberg, Haley Joel Osment, Jude Law, Frances O'Connor, Ian Wa...	DVD	2001
<input type="checkbox"/> Title: Amistad Original: Amistad [dt.] Subtitle: das Sklavenschiff Poster:	Steven Spielberg	Media Type: Video Status: verfügbar (Frist: 1 Woche) Section: Theater/Tanz/Film/Funk/ Fernsehen Signature: 6 tff 710:s755/a54a Format: 1 Videokassette (VHS, 141 Min.): farb. Annotation: Vorspann und Nachspann fehlen bei KNUB Location:	1998
<input type="checkbox"/> Band of brothers	Kirk Acevedo, Elon Bailey, Michael Cudlitz, Stephen E. Ambrose, Michael K...	DVD	2001
<input type="checkbox"/> Catch me if you can	Steven Spielberg, Leonardo DiCaprio, Tom Hanks, Christopher Walken, Fr...	Video	2002
<input type="checkbox"/> Das Reich der Sonne	Steven Spielberg, Christian Bale, John Malkovich, Miranda Richardson, Ja...	Video	1987
<input type="checkbox"/> Title: Der Soldat James Ryan Original: Saving private Ryan [dt.] Subtitle: der Auftrag ist ein Mensch Poster:	Steven Spielberg Name: Steven Spielberg Alternative Namen: Steve Spielberg; Steven Spielrock	Media Type: Video Status: verfügbar (Frist: 1 Woche) Section: Theater/Tanz/Film/Funk/ Fernsehen Signature: 6 tff 710:s755/s19 Format: 1 Videokassette (VHS, 164	1999

Popularity

Legend

- DVD
- Video
- Multiple Media

Zoom: left and right mouse button
Selection: click

Year



Deutsche
Forschungsgemeinschaft
DFG

Library of the Future – Blend Physical & Digital Library



digital library **Blended Library** physical library



vision
co-operation



Library of the Future – Blend Physical & Digital Library

*“The goal is to **make computer interaction more like interacting with the real, non-digital world.**”* Reality-Based Interaction (Jacob et al. 2008)



Fast flick will keep contacts scrolling after finger has been removed, as if list has mass.



User flicks screen to left or right to see next Media – all objects in the real word have spatial relationships.



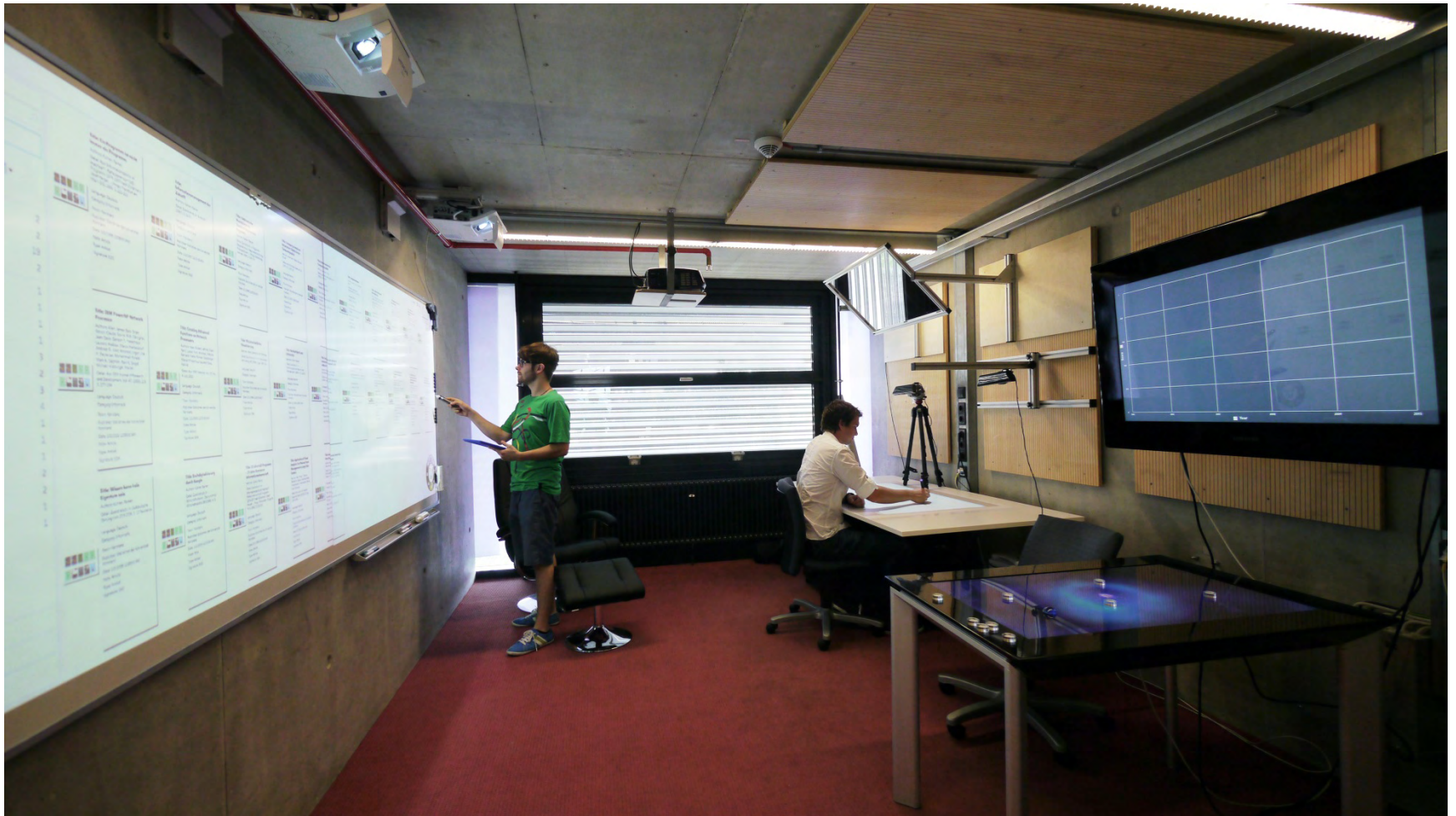
Natural gestures control the applications.



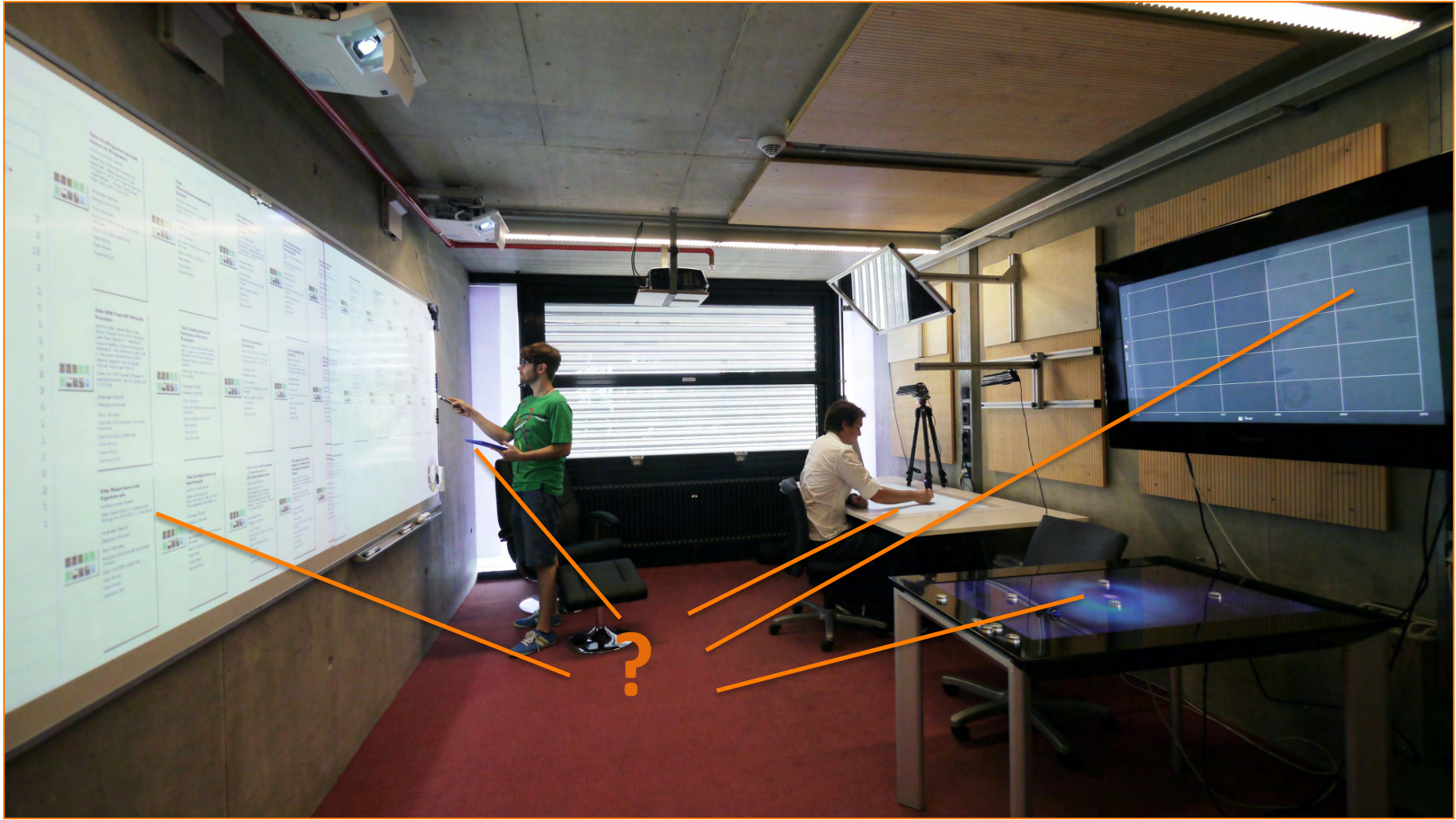
User do not share one single input device – Tabletop allows to draw more directly on existing social interaction skills.

Library of the Future – Blend Physical & Digital Library

Living Lab – Library of the University of Konstanz



Appropriate, usable, and consistent user interface concept for the Blended Library?



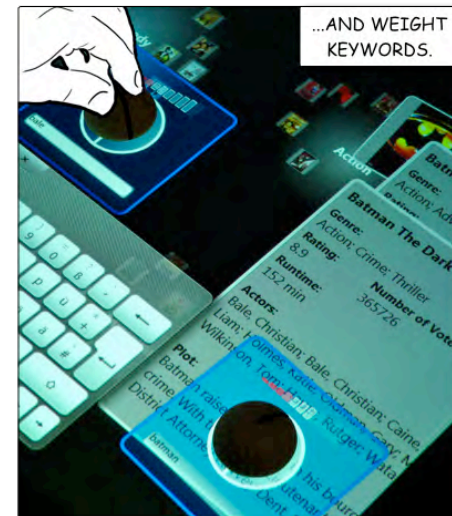
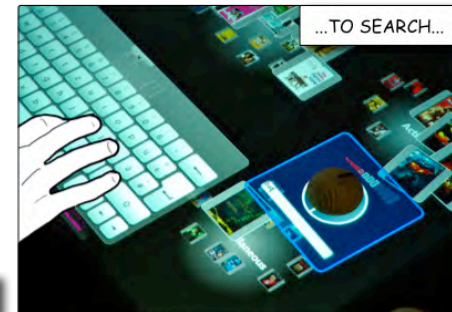
Blended Library - Query by Real World Objects



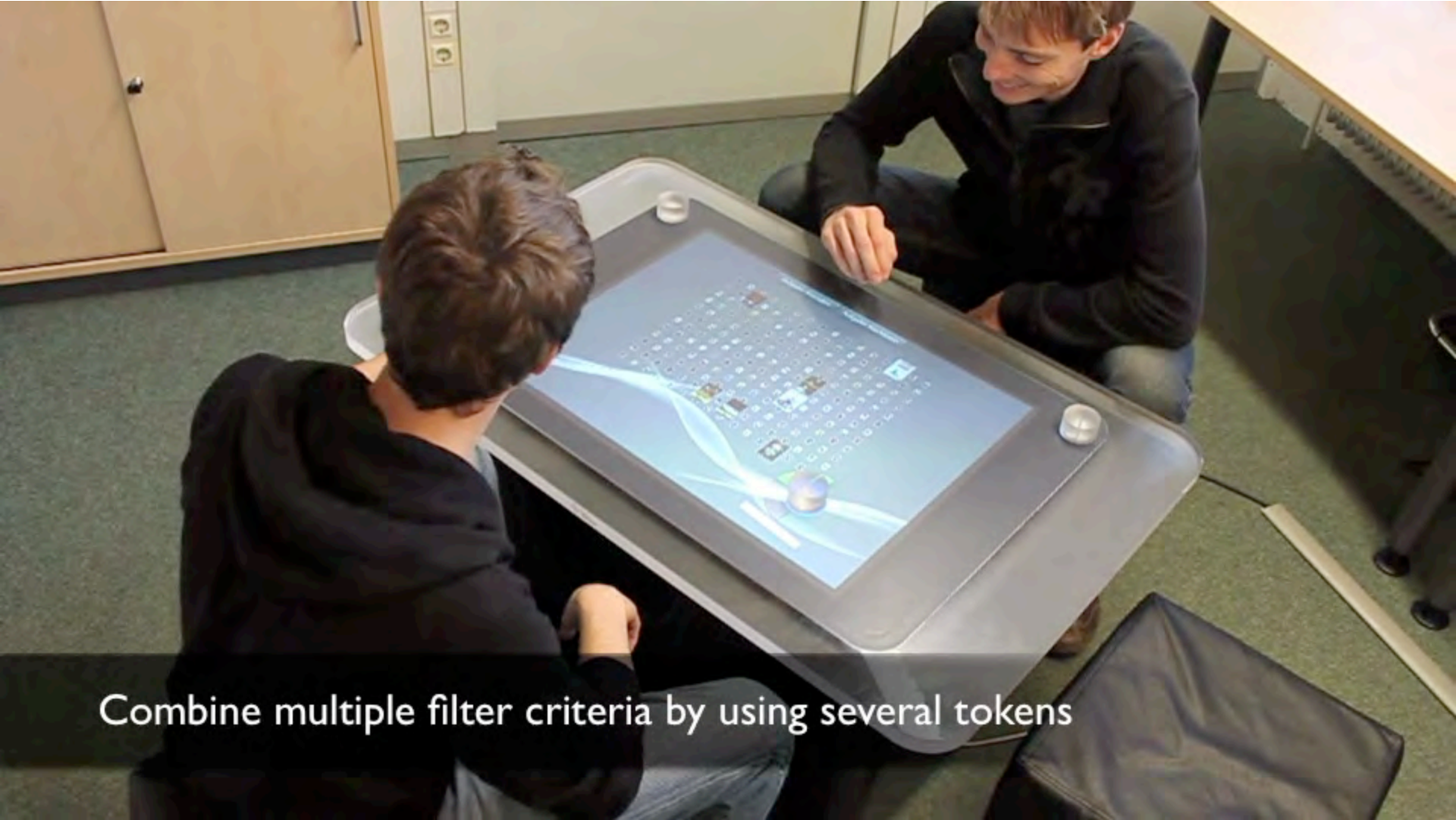
Blended Library - Query by Real World Objects



Blended Library – Cooperative Search with Search Tokens



Co-located Cooperative Keyword Search with Search Tokens



Combine multiple filter criteria by using several tokens

Co-Located Collaborative Faceted Search with Tokens



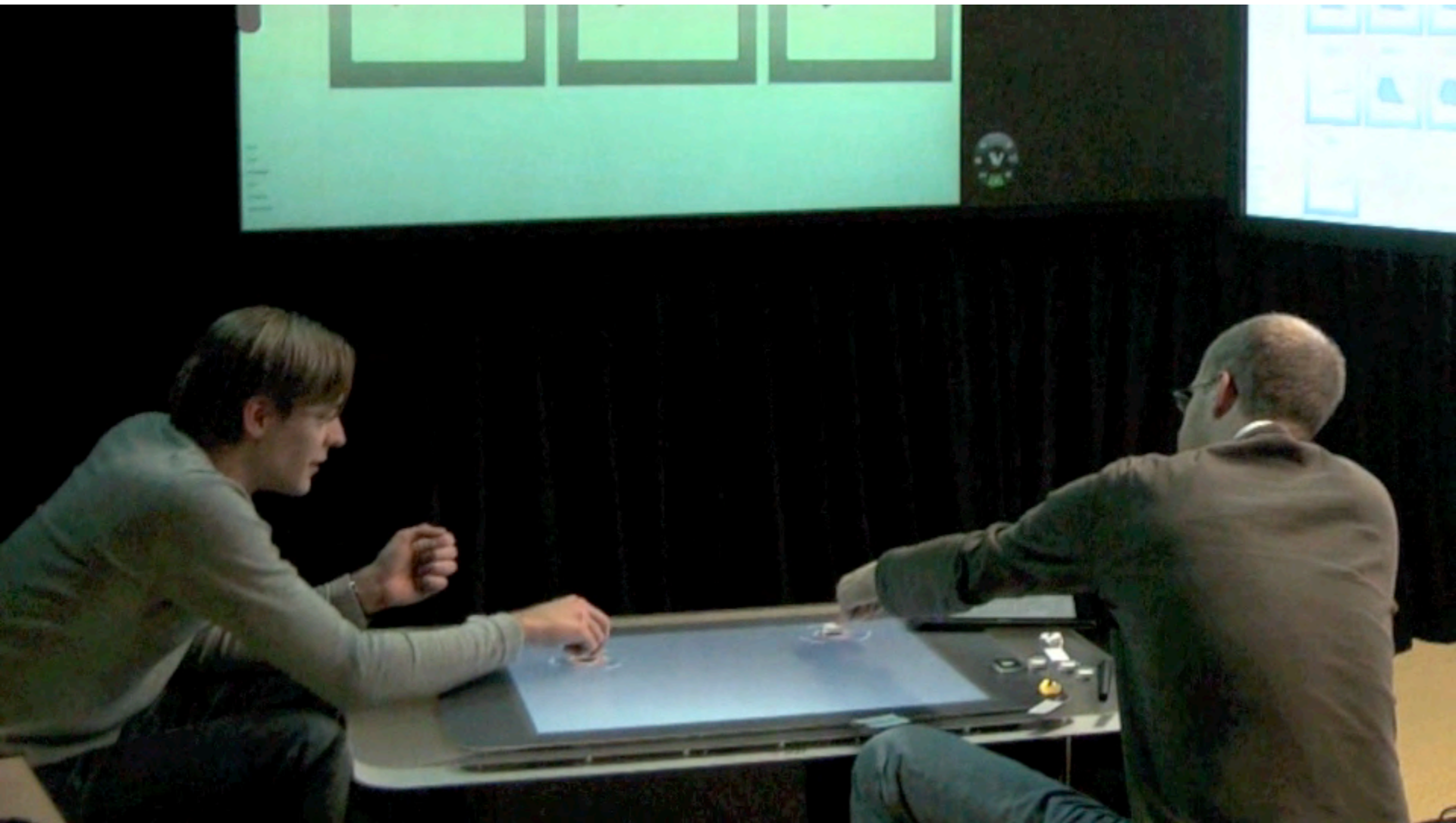
Facet-Streams Approach



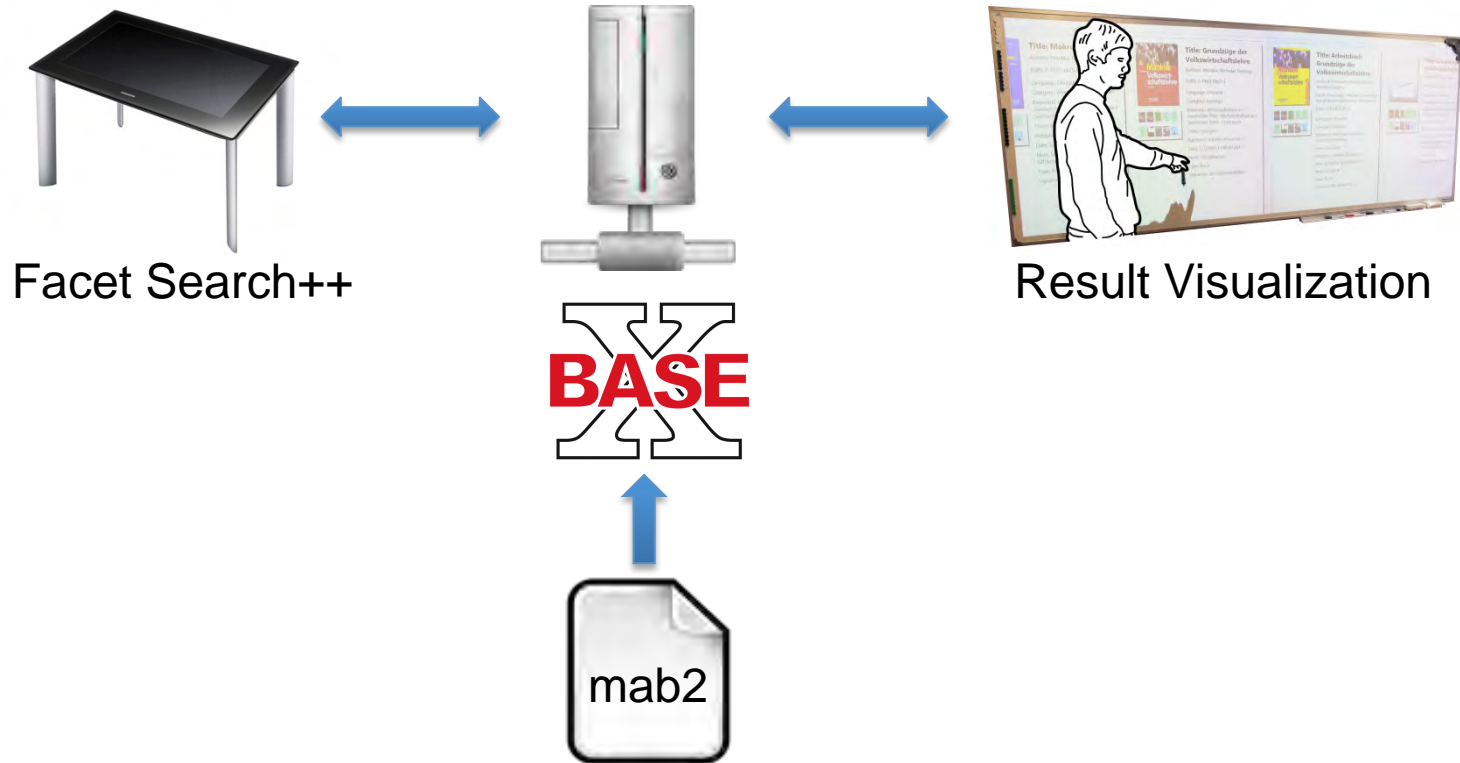
Visual & tangible filter/flow metaphor for Boolean logic

Redesign of [Young & Shneiderman 1993, Hansaki et al. 2006] for tabletops

Blended Library: Co-located Collaborative Faceted & Keyword Search

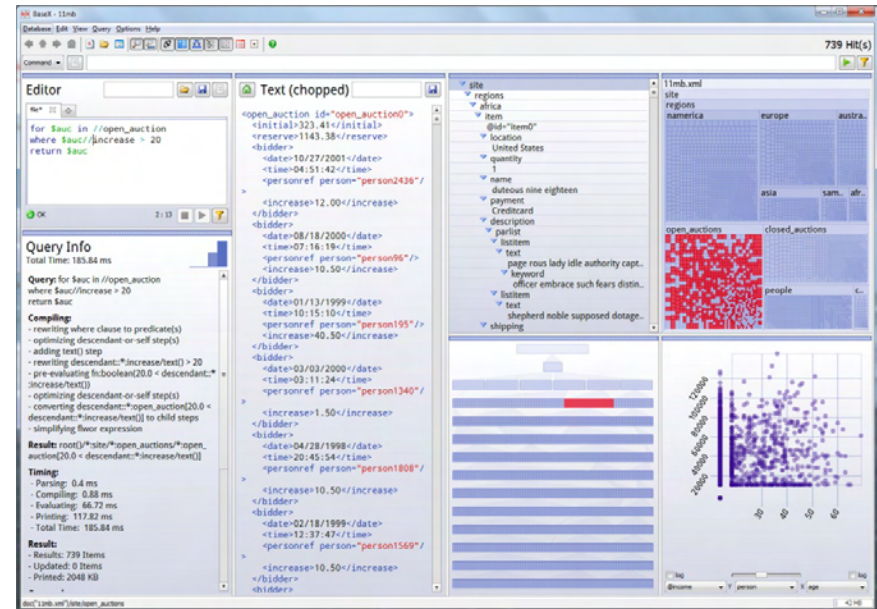


Blended Library: Co-located Collaborative Faceted & Keyword Search



What is BaseX?

- XML Database
 - high-performance, compact
 - client-/server architecture
- Query Processor
 - XQuery support: powerful W3C language for handling XML
- GUI (Visual Frontend)
 - get to know, explore, and analyze your data
- Developed at the DBIS Group of the University of Konstanz
 - <http://basex.org>



Blended Library: Co-located Collaborative Keyword Search



Strategic Planning and Coordination



Amplify Collaboration



Intensify Discussion & Simplify User Input



Traceability

Blended Library: Co-located Collaborative Keyword Search



Blended Library: Co-located Collaborative Keyword Search



Augmented Shelf



eScience – Advisor meets PhD Students



eScience – Advisor meets PhD Students

- University of Cambridge, NanoPhotonics Centre



Microsoft
Research

<http://research.microsoft.com/en-us/projects/deskpile/>

Conclusion

- Blended Library draw strength by building on users' **pre-existing knowledge of the everyday, non-digital library world.**
- It employ **experiences of reality** and makes the interaction with the computer much more **natural.**
- It blends the benefits of digital libraries with the benefits of physical libraries to **make visiting and using a library a new experience.**
- It **supports group work** of students and **tutoring** of students.

