

# Understanding KVK, the technical base of artlibraries.net

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KIT-BIBLIOTHEK



# KIT Library - pictures



Opened in april 2006  
24h library  
never closed since 2006  
+30.000 visitors per week



# KIT Library – more pictures



# KIT Library – first 24/7 library in europe

- Self service stations for all tasks using RFID technology
  - Book lending and book return



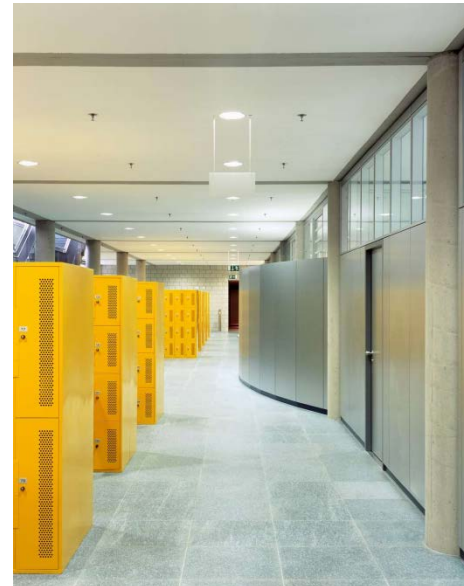
# KIT Library – first 24/7 library in europe

- Self service stations for all tasks using RFID technology
  - Book lending and book return
  - Lending of ILL books



# KIT Library – first 24/7 library in europe

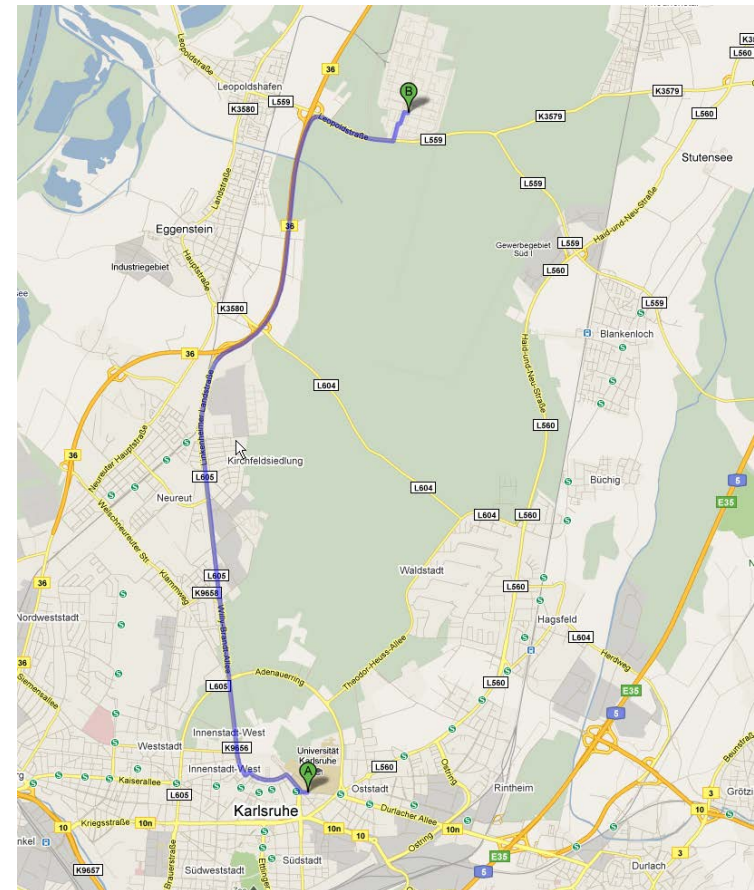
- Self service stations for all tasks using RFID technology
  - Book lending and book return
  - Lending of ILL books
  - Lending of keys (keylender)



# KIT vs. University of Karlsruhe

- University of Karlsruhe
  - 18.000 students
  - 4.000 researchers and administrative staff
- Forschungszentrum Karlsruhe
  - 4.000 researchers
- KIT = University + Forschungszentrum
- Distance 10 km

Google maps  
Deutschland



# KVK – the technical base of artlibraries.net

- Started in august 1996
- Even as old as the internet
- 1.500.000 search requests per month
- Idea
  - In 1996 only few library catalogs had a Z39.50 interface
  - Problem: How to develop a simple user friendly search service?
  - Solution: Pattern matching
    - Send search requests to a catalog using HTTP requests
      - KVK emulates the user with his browser
    - Take a look on (read / parse) the HTML of the result page
      - Get short title, URL to full title, number of hits, "more hits"-link
    - Create a unique formatted hit list
      - with links leading to the destination catalog



# Pros and cons of cross search vs. general index

- Cross search could be slow
  - Users have to wait for slow catalogs if they want to see all results
  - But the felt speed is fast cause results of fast catalogs are presented immediately
- Duplicate titles can't be eliminated
  - It's not a problem for the users
  - They are primarily interested in the result
- General index needs the metadata
  - Cross update problem
- KVK can integrate even any web based catalog
  - Cookie problem
- Cross search limits the number of catalogs in a virtual cat.

# Cookie problem

- KVK acts like a "man in the middle"
  - KVK starts the search session
  - Some catalogs manage all their session information using cookies
  - To get the full title you need session ID stored in the cookie
  - KVK is not allowed to store cookies for other domains cause of security reasons
  - Workaround
    - Relay-mode of the KVK
    - Even requests to get a full title are handled by the KVK server
      - KVK acts like a proxy server for full title requests
    - All links on the full title page which need the session are not working
- Conclusion: in most cases cookies are a "no go"

# Workflow of a KVK request

User



KVK-Search



KVK



native search



Catalog  
using  
cookies



result only



result + cookie



get full title



invalid session or session timed out



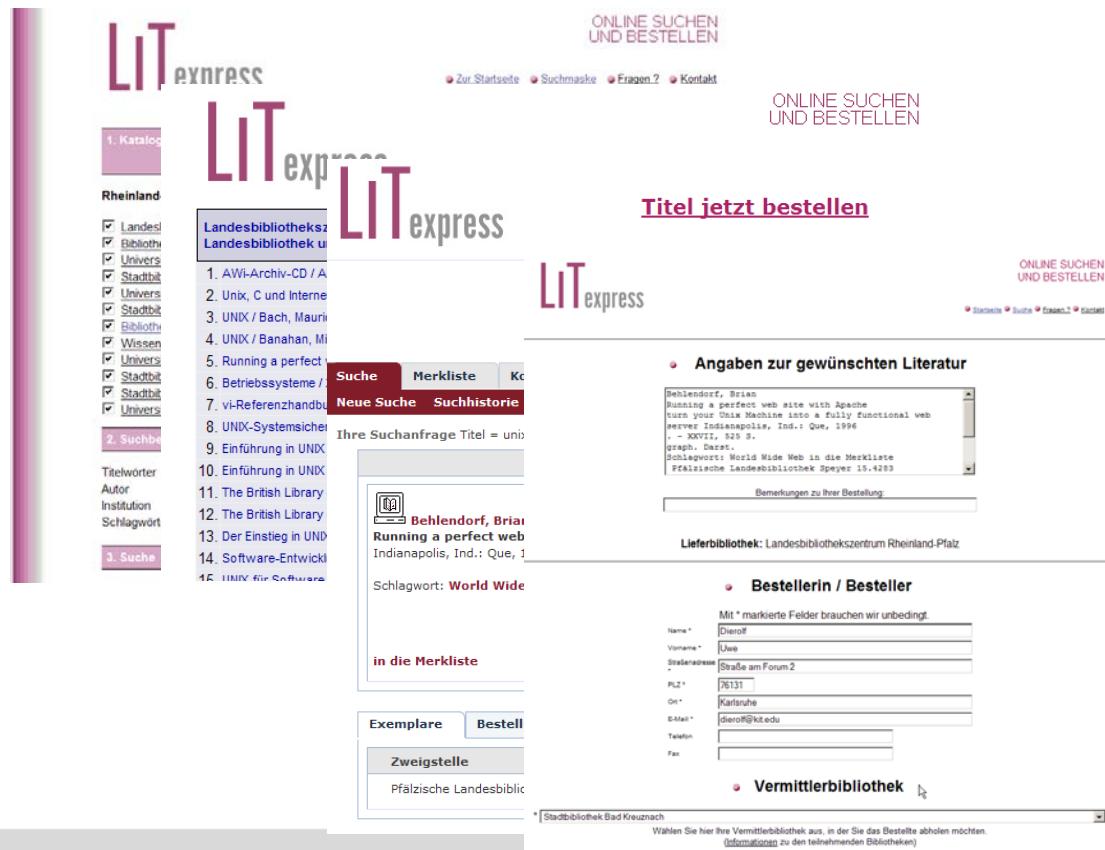
# Solutions to circumvent the cookie problem

- KVK uses internal search interface for search engines
  - In most cases the result is machine readable, e.g. XML
- Examples
  - Infoguide from OCLC
    - KVK sends search requests to the Infoguide Web service
  - DNB catalog
    - KVK sends SRU requests to the DNB server
  - Union catalogs KOBV and BVB
    - KVK uses the internal search interface to Lucene / Fast
- Why does this help?
  - KVK doesn't need the session ID and the cookie any more
  - KVK creates "deep links" as links to the full title
    - Use the ID of the title in the URL

# Delivery service based on KVK

## ■ Lit-Express

- Simple form of ILL
- KVK extracts the title data and fills an order form



The screenshot shows the LITexpress website interface. On the left, there is a navigation menu with categories like '1. Katalog', '2. Suche', and '3. Suche'. The main content area displays a search result for the book 'Running a perfect web' by Brian Behlendorf. The book details include the title, author, and a brief description. Below the book details, there is a section for 'Angaben zur gewünschten Literatur' (Details of the desired literature) and a form for 'Bestellerin / Besteller' (Orderer) with fields for name, address, and contact information. The order form is partially filled out with the user's details. At the bottom, there is a section for 'Vermittlerbibliothek' (Intermediary library) with a dropdown menu showing 'Stadtbibliothek Bad Kreuznach' selected.

# New features in KVK search

- My catalogs
  - Saving and restoring selections of catalogs
  - Based on Javascript Library jQuery
- "Did you mean ..."
  - Using Google to prevent typing mistakes
  - ... under construction

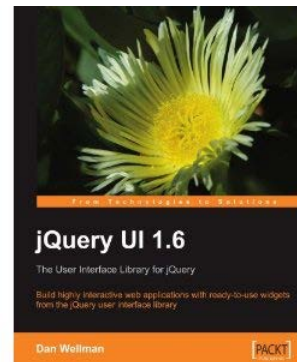
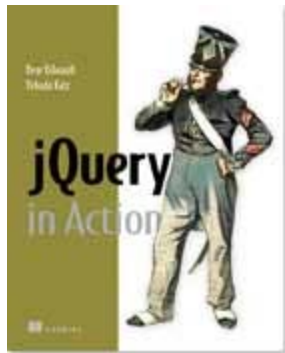
# Thanks for your attention



Are there any questions ?

# Literatur

- *jQuery in Action*, Bear Bibeault und Yehuda Katz, engl.
- *jQuery*, Ralph Steyer), dt.,
- *Learning jQuery 1.3*, PACKT Publishing, engl.
- *jQuery Reference Guide*, PACKT Publishing, engl.
- *jQuery UI 1.6*, PACKT Publishing, engl. (neu 1.7)





# Links

- [http://docs.jquery.com/Main\\_Page](http://docs.jquery.com/Main_Page)
- <http://www.ubka.uni-karlsruhe.de/jquery/jquery-in-action-DEMO/>
- [http://en.wikipedia.org/wiki/Unobtrusive\\_JavaScript](http://en.wikipedia.org/wiki/Unobtrusive_JavaScript)
- <http://westhoffswelt.de/blog.html>
- [http://westhoffswelt.de/data/portfolio/webtechcon\\_2009\\_bubbles\\_and\\_trees\\_with\\_jquery.pdf](http://westhoffswelt.de/data/portfolio/webtechcon_2009_bubbles_and_trees_with_jquery.pdf)

# Bilder

