

# Using KVK as a technical base for "Virtual Catalogue of European Historical Bibliographies"

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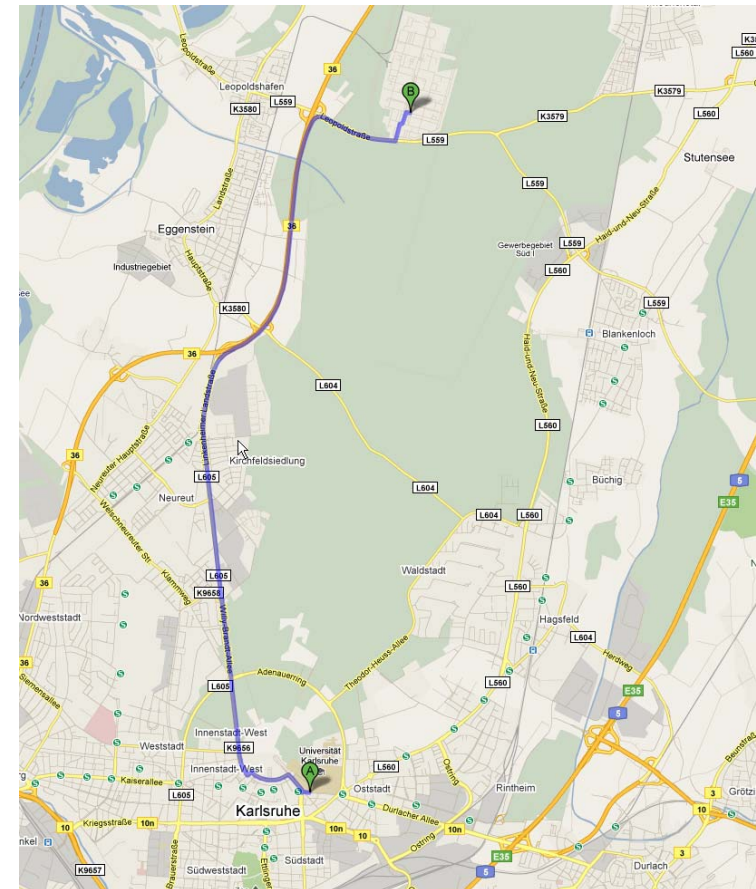
KIT-BIBLIOTHEK



# 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



# 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



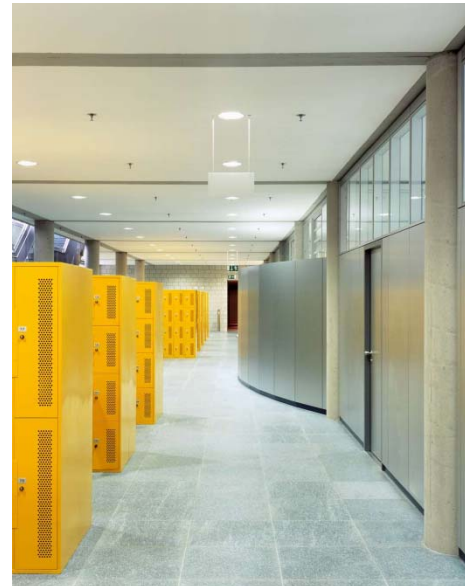
# KIT Library – first 24/7 library in europe

- 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)



## KVK – the technical base of many virtual catalogs

- Started in august 1996
- Even as old as the internet
- Nowadays 1.500.000 requests per month
- Other virtual catalogs
  - Artlibraries.net – "virtual catalogue for art history"
  - VThK – Virtueller Katalog für Theologie und Kirche
  - CHVK – Schweizer virtueller Katalog – swiss catalog
  - SZP – Schweizer Zeitschriftenportal – swiss journals catalog
  - VDL – Virtuelle Deutsche Landesbibliographie – german regional bibliographies
  - Bibliotheksportal Karlsruhe – our regional portal
  - etc.

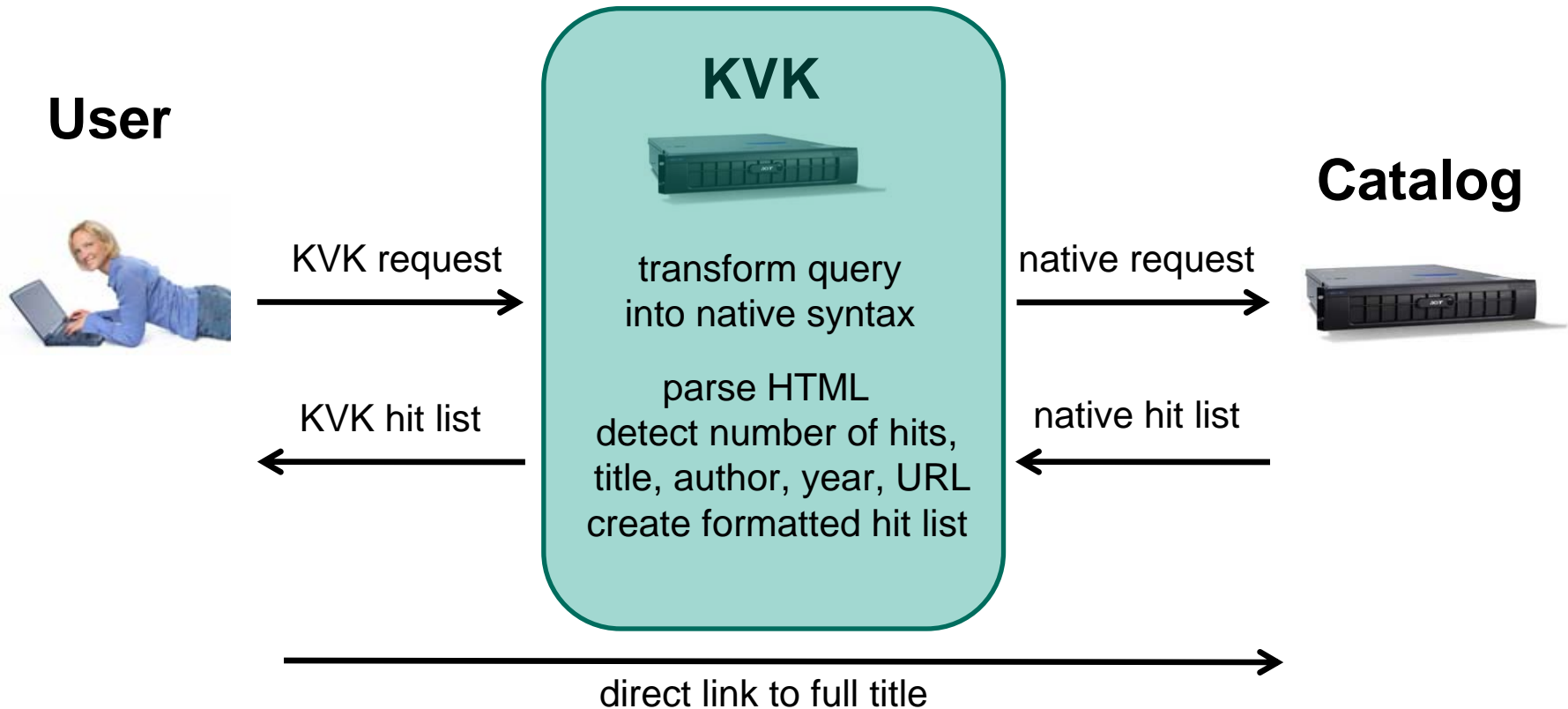




## KVK – a simple idea

- KISS = keep it simple stupid
- In 1996 only few library catalogs had a Z39.50 interface
- Problem: How to develop a simple user friendly search service?
- Solution: Pattern matching using regular expressions
  - Send search requests to a catalog using HTTP requests
    - KVK emulates the user at his browser
  - Take a look on the HTML of the result page (read & parse)
    - 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

# Workflow of a KVK search



# Pattern matching

## ■ Result HTML – example taken from our KIT catalog

```
<UL>
<LI><A HREF=/hylib-bin/suche.cgi?opacdb=UB+Karlsruhe&nd=4141992>
Mastering MAKE / Clovis L. Tondo ; Andrew Nathanson ; Eden Yount , 1994</A>
<LI><A HREF=/hylib-bin/suche.cgi?opacdb=UB+Karlsruhe&nd=3630188>
Make und nmake : software management unter UNIX und MS-DOS. - 1. Aufl. -, 1994</A>
</UL>
```

## ■ Line by line

- For every line of the result HTML check if all regular expressions match

```
set TrefferExp {
  {{^<LI><A HREF=(.*)>} {url} }   the part in (..) is the url to the full title
  {{^ (.*)</A>} {titel} }       the part in (..) is the title
}
```

## ■ Conclusion: KVK depends on the layout / design !

# 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.
  - VThK is a good counter-example

# Cookie or session 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" for KVK catalogs

# Workflow of a KVK request

User



KVK



Catalog  
using  
cookies



KVK-Search



native search



result only



result + cookie



get full title



invalid session or session timed out



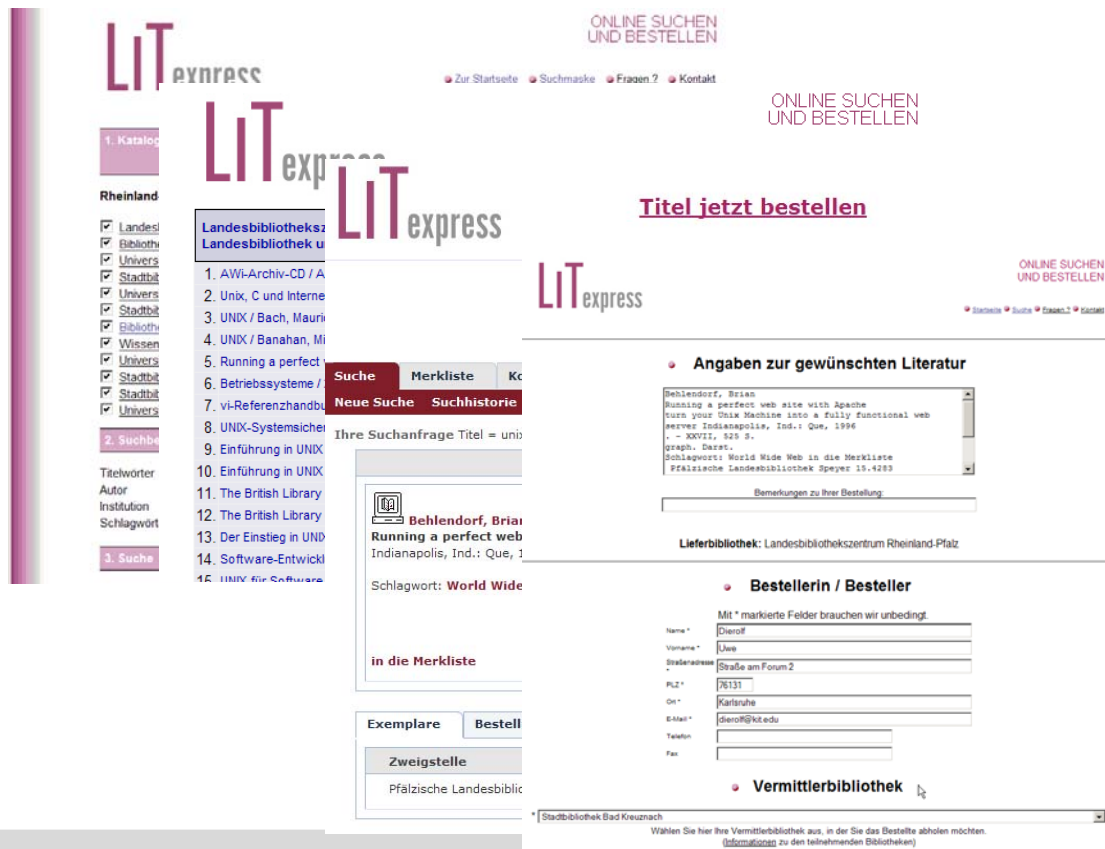
# Solutions to circumvent the cookie problem

- KVK uses internal search interface of the target catalog
  - 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

# Virtual catalog + delivery service

## ■ Lit-Express

- Simple form of inter library loan (ILL )
- KVK extracts the title data and fills an order form



The screenshot displays the LITexpress web interface. On the left, there is a navigation menu with sections for '1. Katalog', '2. Suchbfe', and '3. Suche'. The 'Suche' section is active, showing search options like 'Suche', 'Merkliste', and 'Kc'. The main content area features a search bar with the text 'Ihre Suchanfrage Titel = unid' and a list of search results. One result is highlighted: 'Behlendorf, Brian Running a perfect web Indianapolis, Ind.: Que, 1996'. Below the search results, there are buttons for 'Exemplare' and 'Bestell'. The 'Bestell' button leads to an order form titled 'Angaben zur gewünschten Literatur'. This form includes fields for 'Name \*', 'Vorname \*', 'Strassenadresse', 'PLZ \*', 'Ort \*', 'E-Mail \*', and 'Telefon'. The 'Lieferbibliothek' is set to 'Landesbibliothekszentrum Rheinland-Pfalz'. The 'Bestellerin / Besteller' section is also visible, with a note that marked fields are required. At the bottom, there is a section for 'Vermittlerbibliothek' with a dropdown menu and a note: 'Wählen Sie hier Ihre Vermittlerbibliothek aus, in der Sie das Bestellte abholen möchten.' The page also features a 'Titel jetzt bestellen' button and a 'LITexpress' logo.



# New features in KVK search

## ■ My catalogs

- Saving and restoring selections of catalogs
- Based on Javascript Library jQuery

Freitext	<input type="text"/>			
Titel	<input type="text"/>	Jahr	<input type="text"/>	
Autor	<input type="text"/>	ISBN	<input type="text"/>	
Körperschaft	<input type="text"/>	ISSN	<input type="text"/>	
Schlagwort	<input type="text"/>	Verlag	<input type="text"/>	

**Meine Kataloge**

- digital
- alles
- neu

[Weitere Optionen ...](#)

## ■ "Did you mean ..."

- idea: using Google to prevent typing mistakes
- ... under construction

# Workflow of KVK projects

- KISS principle again - "send me your URLs"
  - We will check the catalog type
  - We will check if catalog works without cookie and javascript
- helpful
  - internal search interface (web services etc.)
  - independence from HTML layout
  - technical contact person for each catalog
  - mapping of catalog search fields to KVK search fields (TI, AU ...)
- name your "Mr. SPOC"
  - SPOC = single point of contact
  - responsible for all questions concerning your KVK project
- one invoice per year

# KVK project – division of works

- You are the managers - we do most of the hard work ;-)



# Thanks for your attention



Are there any questions ?