



# Information on the Go - Innovative Library Services for the Mobile Internet . The Approach of the Bavarian State Library

Dr. Klaus Ceynowa



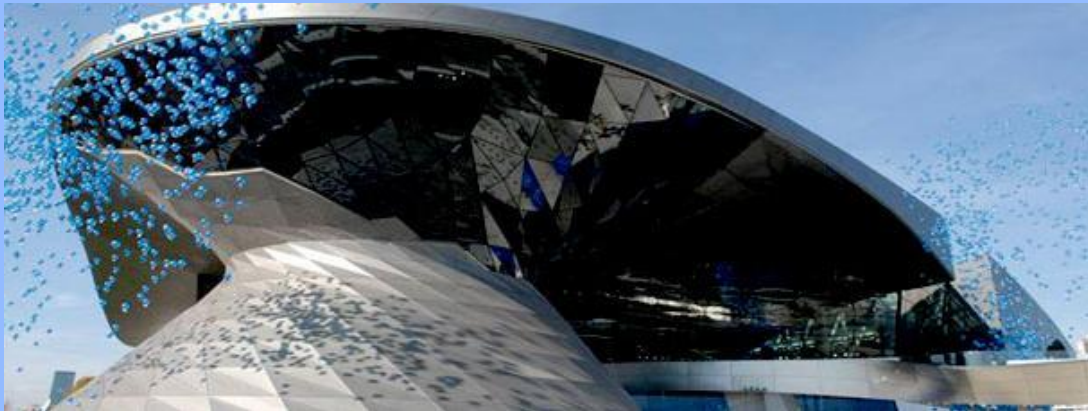


# Munich – some impressions





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# The Bavarian State Library





# The Bavarian State Library





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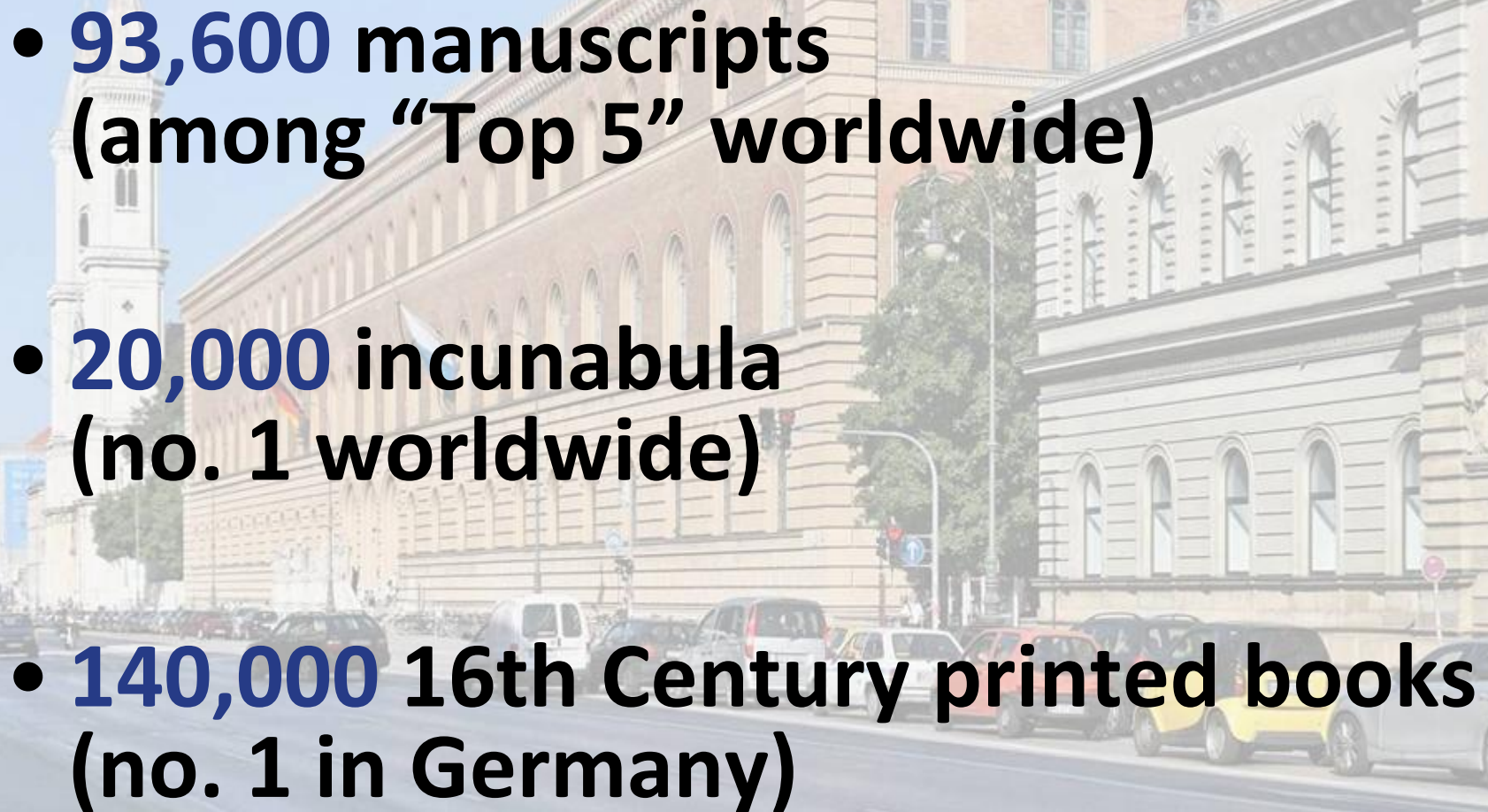


# The Bavarian State Library (1)

- **Founded 1558**
  - **European Universal Library and International Research Library** of world renown
  - **Central Regional and Archival Library of Bavaria** (Legal Deposit since 1668)
  - **Ca. 800 employees**
  - **Annual budget: 51 million €**
  - **Third-Party-Funds: 7.9 million**
  - **9.8 million volumes, 59,700 current periodicals, 1.2 million E-Books**
  - **Acquisition per year: 138,000 volumes**
- 



# The Bavarian State Library (2)

- **93,600** manuscripts  
(among “Top 5” worldwide)
  - **20,000** incunabula  
(no. 1 worldwide)
  - **140,000** 16th Century printed books  
(no. 1 in Germany)
- 



# The Bavarian State Library (3)

## Collection Profile

- **Humanities and Social Sciences** (comprehensive collection)
- **Life Sciences** (periodicals)
- **Special collection fields**
  - » Manuscripts, Incunabula and Rare Books
  - » History, Classical Antiquity, Eastern Europe, Music, Information Sciences (supported by the German Research Association)





# The Bavarian State Library (4)

- **Target Group: Researchers and students from Munich, Bavaria, Germany, Europe, the world...**
- **Open daily from 8.00 a.m. to 12 p.m. (112 hours per week)**
- **Visitors to General Reading Hall: 1.2 million (2010)**
- **Loans: 2.2 million (2010), Document Delivery: 400,000 (2010)**



# The Bavarian State Library (6)

- **Three-Pillar-Profile:** Bavarian State Library as international research library
  - Treasure trove of **written cultural heritage**
  - Multimedial **information provider** for research and teaching
  - Innovation center for **digital information technology and services**

















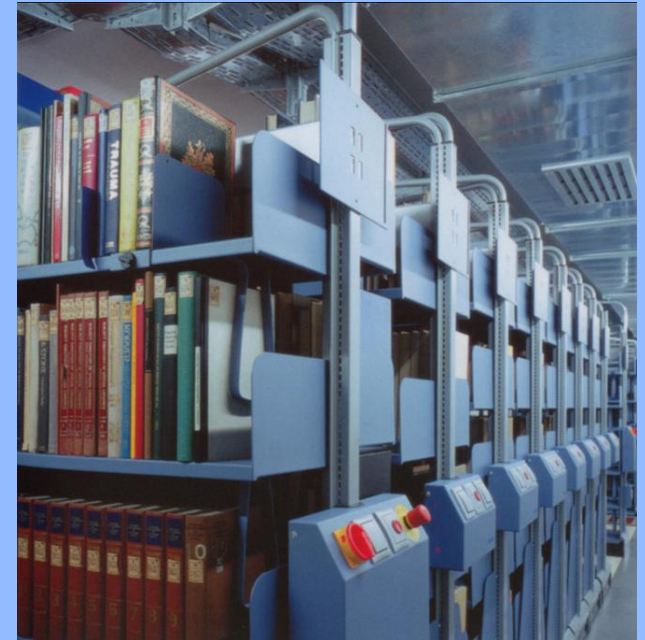
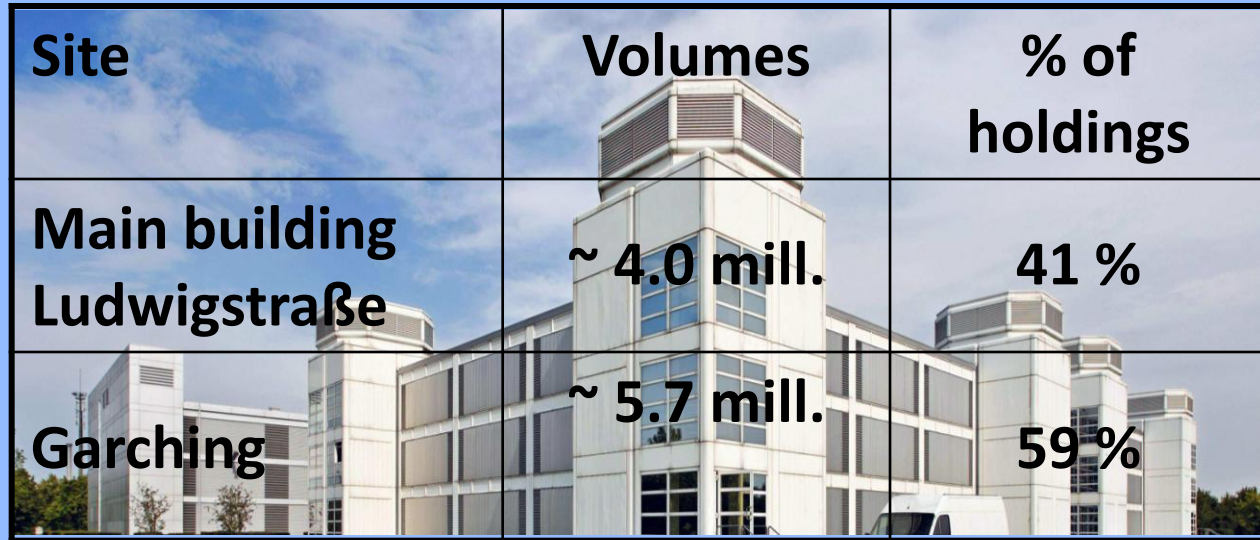






# Sites and Stacks

Site	Volumes	% of holdings
Main building Ludwigstraße	~ 4.0 mill.	41 %
Garching	~ 5.7 mill.	59 %















STUREN des MARI

STUREN des MARI



















# Digitization strategy of BSB

**Complete digitization of  
the **unique collections** of  
the Bavarian State Library!**



# Munich Digitization Center at Bavarian State Library

- **A National competence center** for Digitization Technology and Workflows
- **More than 100 projects since 1997**, third-party-funded by National and European funding bodies
- **780,000 titles** online, approx. 650 Terabyte Data
- Mass digitization with state-of-the-art technology (**Scan-Robotic**)
- Public-private-partnership with **Google** (1 million books , 17th-19th Century), contract signed in Febr. 2007
- Digital Long-Term-Preservation by **Leibniz<sup>®</sup> Supercomputing-Centre (LRZ)** with ExLibris “Rosetta DPS”





# Mass Digitization at the Bavarian State Library: 5 Examples

- EU-Project **“Europeana Regia”**: Collaborative initiative between European libraries for the digitization of royal manuscripts in Medieval and Renaissance Europe; funded by the EU
  - BSB participates with 116 manuscripts in **41,470 pages**
  - Term: 2010 – 2012
- DFG-funded-Project **“Digitization of Chinese Rare Books and Manuscripts”**
  - Ca. 700 items, **350,000 pages**
  - Term: 2011 – 2013





# Mass Digitization at the Bavarian State Library: 5 Examples

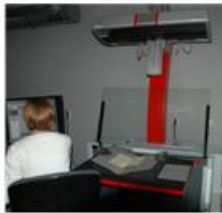
- DFG-funded-Project **“Digitization of the BSB Incunables”**
  - Ca. 9,000 titles, **1,800,000 pages**
  - Term: 2008 – 2011
- DFG-funded-Project **“VD16”**: BSB Books printed in the 16th century
  - 37,000 titles; **7,500,000 pages**
  - Term: 2007 – 2012
  - Operated with Scanrobots
- **Public-Private-Partnership with Google**
  - more than 1 million books (in less than 10 years)
  - more than **250 million pages**
  - Contract signed in February 2007



# Munich Digitization Center: Scanner Fleet (22 Systems)

**MDZ** Münchener  
Digitalisierungszentrum  
Digitale Bibliothek

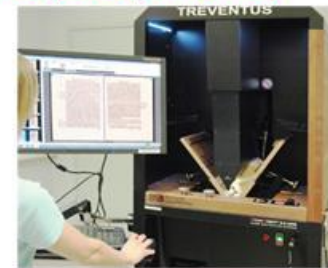
## Scannerflotte: Buch- und Spezialscanner Stand 2012 (22 Systeme)



**1 x Zeitschel  
OS 14.000**  
Formate: bis DIN A1  
Auflösung optisch  
max.600ppi



**2 x „Grazer  
Kameratisch“ mit  
Zeitschel  
OS 12.000**  
Formate: bis DIN A2  
Auflösung optisch  
max.600ppi



**4 x Treventus  
ScanRobot® (MDS 2.0)**  
Formate: bis DIN A3  
Auflösung optisch  
max.400ppi



**3 x Zeitschel  
OS 12.000**  
Formate: bis DIN A1  
Auflösung optisch  
max.600ppi



**1 x book2net „Profi“**  
Formate: bis DIN A2  
Auflösung optisch  
max.400ppi



**1 x Hasselblad H4D-  
200MS**  
Formate: bis DIN A0  
Auflösung optisch  
max.600ppi



**1 x Zeitschel  
OS 11.000**  
Formate: bis DIN A 0  
Auflösung optisch  
max.400ppi



**1 x Nikon Coolscan  
9000 Klein-/  
mittelformatscanner**  
Formate: bis DIN A3  
Auflösung optisch max.  
6000ppi



**3 x Zeitschel  
OS 12.000**  
Formate: bis DIN A2  
Auflösung optisch  
max.400ppi



**1x Traveller = kleiner  
mobiler „Grazer  
Kameratisch“ mit  
Kamera**  
Formate: bis DIN A3  
Auflösung optisch  
max.600ppi



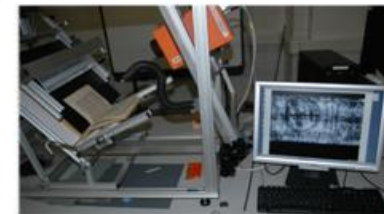
**1 x Linhof mit  
PhaseOne-Rückteil**  
Formate: bis DIN A3  
Auflösung optisch max.  
400ppi



**1 x Zeitschel  
OS 14.000**  
Formate: bis DIN A2  
Auflösung optisch  
max.600ppi



**1x Mephisto  
Extreme  
3D-Scanner**



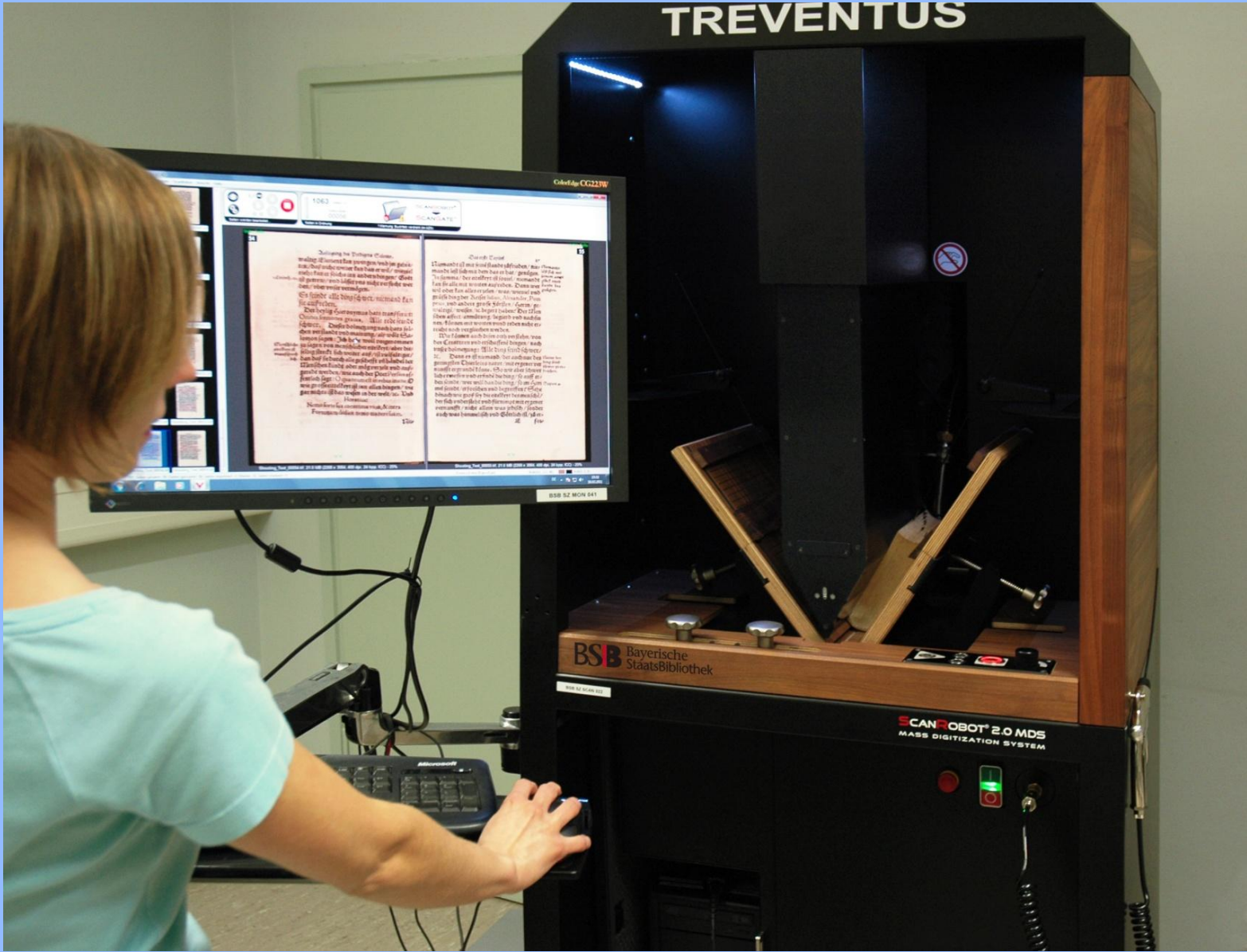
**1 x  
Thermographiekamera  
a  
Mit spezieller  
Buchwiege  
Koop. Fraunhofer-  
Institut**  
Formate: bis DIN A3

# Scanrobotics at the Bavarian State Library





# Scanrobotics at the Bavarian State Library



# Munich Digitization Center: Digital Collections



- Main Page
- Digital Collections
- Digitization
- Preservation
- Projects
- Service
- Disclaimer
- Deutsch



Wolfram von Eschenbach: Parzival

## Welcome to the Munich Digitization Center

Munich Digitization Center (MDZ) handles the digitization and online publication of the cultural heritage preserved by the Bavarian State Library and by other institutions. It provides one of the largest and fastest growing digital collections in Germany, now comprising 711,609 titles available online. Access is free of charge!

The digitization policy reflects the traditional special collection fields of the library: History, Classical Antiquity, Eastern Europe, Musicology. It comprises manuscripts, early prints, modern books, maps and photographic collections as well as journals and newspapers.

The MDZ frames the *Digital Library* department of the Bavarian State Library. It

## ■ Digital Collections

Currently **711,609 Titles** online  
[29.02.2012]

- Collection Overview
- Browsing Index



## MDZ-News

### What's new

➤ Today's additions to the Digital Collections.  
[29.02.2012]

### Turning Historical Documents into Digital Full Texts

The Munich Digitization Center (MDZ) of the Bavarian State Library invites you to Munich on Tuesday 11 October and Wednesday 12 October, 2011, for two conferences under the shared title "Turning Historical Documents into Digital Full Texts".

**Please note: both conferences are German-speaking only!** For more information about the



# Munich Digitization Center: Digital Collections

Münchener Digitalisierungszentrum  
Digitale Bibliothek

BSB Bayerische  
Staatsbibliothek

## Die Ottheinrich-Bibel (Cgm 8010)

Die Ottheinrich-Bibel wird zusätzlich als Flash-Animation angeboten. Zum Aufruf eines Bandes benötigen Sie ein Browser-Plugin (siehe <http://www.adobe.com/de/products/flashplayer/>). Durch die Konversion des Bildmaterials in das Flash-Format wird ein dreidimensionaler „Blättereffekt“ erzeugt (Klicken Sie auf den Seitenrand und halten sich gleichzeitig die Maustaste gedrückt).



Band 1 [Cgm 8010(1)]

Mt 1,1-26,30

- Flash-Präsentation
- Standardausgabe



Band 2 [Cgm 8010(2)]

Mt 26,31 - Lk 5,26

- Flash-Präsentation
- Standardausgabe



Band 3 [Cgm 8010(3)]

Lk 5,26 - Joh 5,18

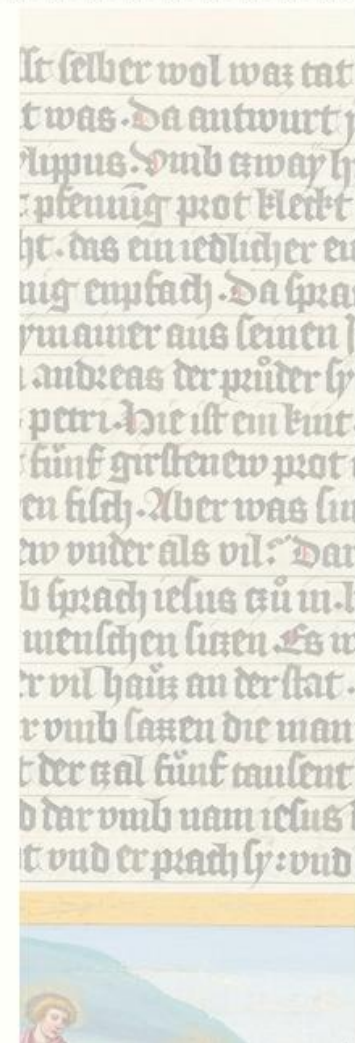
- Flash-Präsentation
- Standardausgabe



Band 4 [Cgm 8010(4)]

Joh 5,18 - Röm 15,13

- Flash-Präsentation
- Standardausgabe



# Munich Digitization Center: Digital Collections

150% 200% Miniaturansicht 90°r 90°l < -50 -10 -5 > +5 +10 +50 >| Bildnr.4

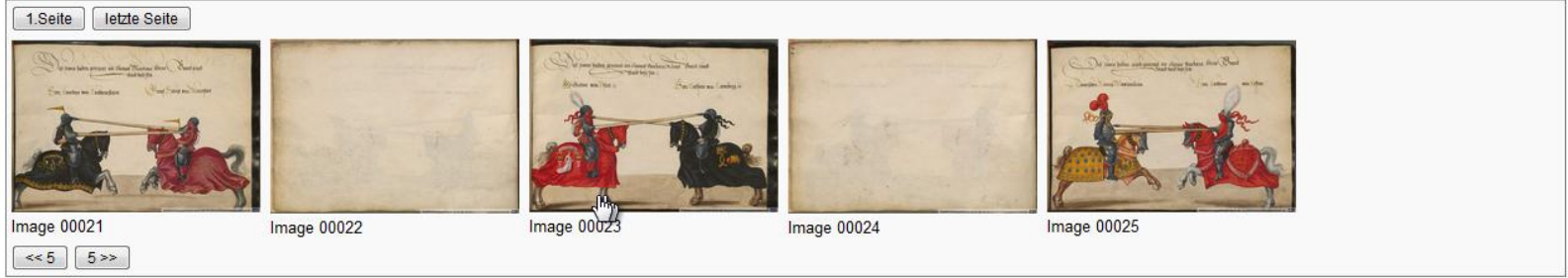




# Europeana

Turnierbuch. Ritterspiele gehalten von Kaiser Friedrich III. und Kaiser Maximilian I. in den Jahren 1489 - 1511 - BSB Cod.icon. 398, Augsburg ?, Mitte 16. Jh. [BSB-Hss Cod.icon. 398] 

urn:nbn:de:bvb:12-bsb00002178-9 [© Bayerische Staatsbibliothek](#) [Digitalisat-Bestellung](#) [BSB-Katalog -> Cod.icon. 398](#)






turnierbuch

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# Europeana

Clm 4454

Gospels of the Bamberg  
Cathedral

Reichenau monastery, early  
11th century

UNESCO Memory of the World



Matches for: clm 4454

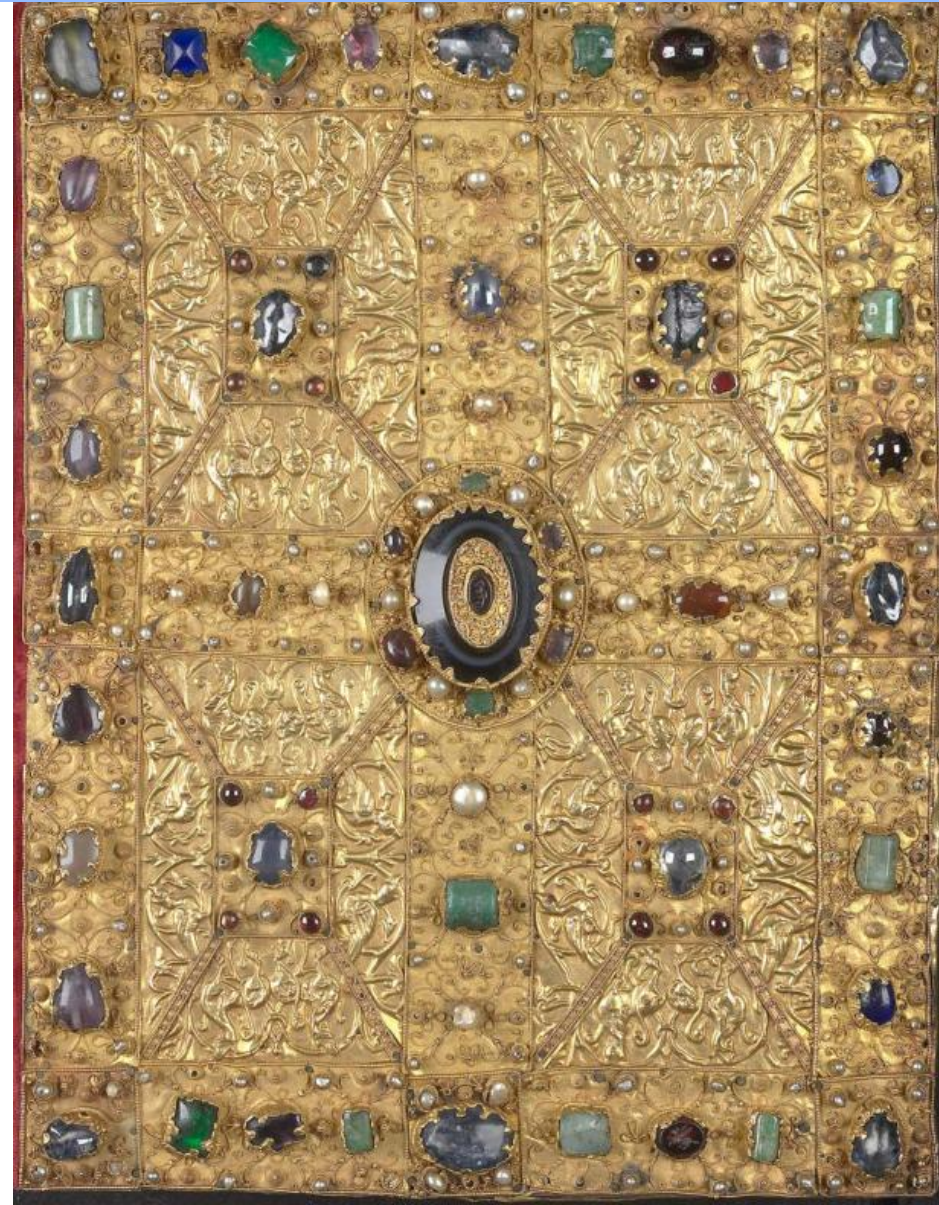
All Texts (1) Images (0)

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Evangeliar aus dem  
Bamberger Dom - BSB C...  
Bayerische Staatsbibliothek

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# Europeana

Cgm 34

Song of Nibelungs  
before 1280

UNESCO Memory of the World



matchnes for: cgm 34

Item details

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Das Nibelungenlied und die Klage (Leithandschrift A) - BSB Cgm 34

Title: Das Nibelungenlied und die Klage (Leithandschrift A) - BSB Cgm 34

Date: vor 1280

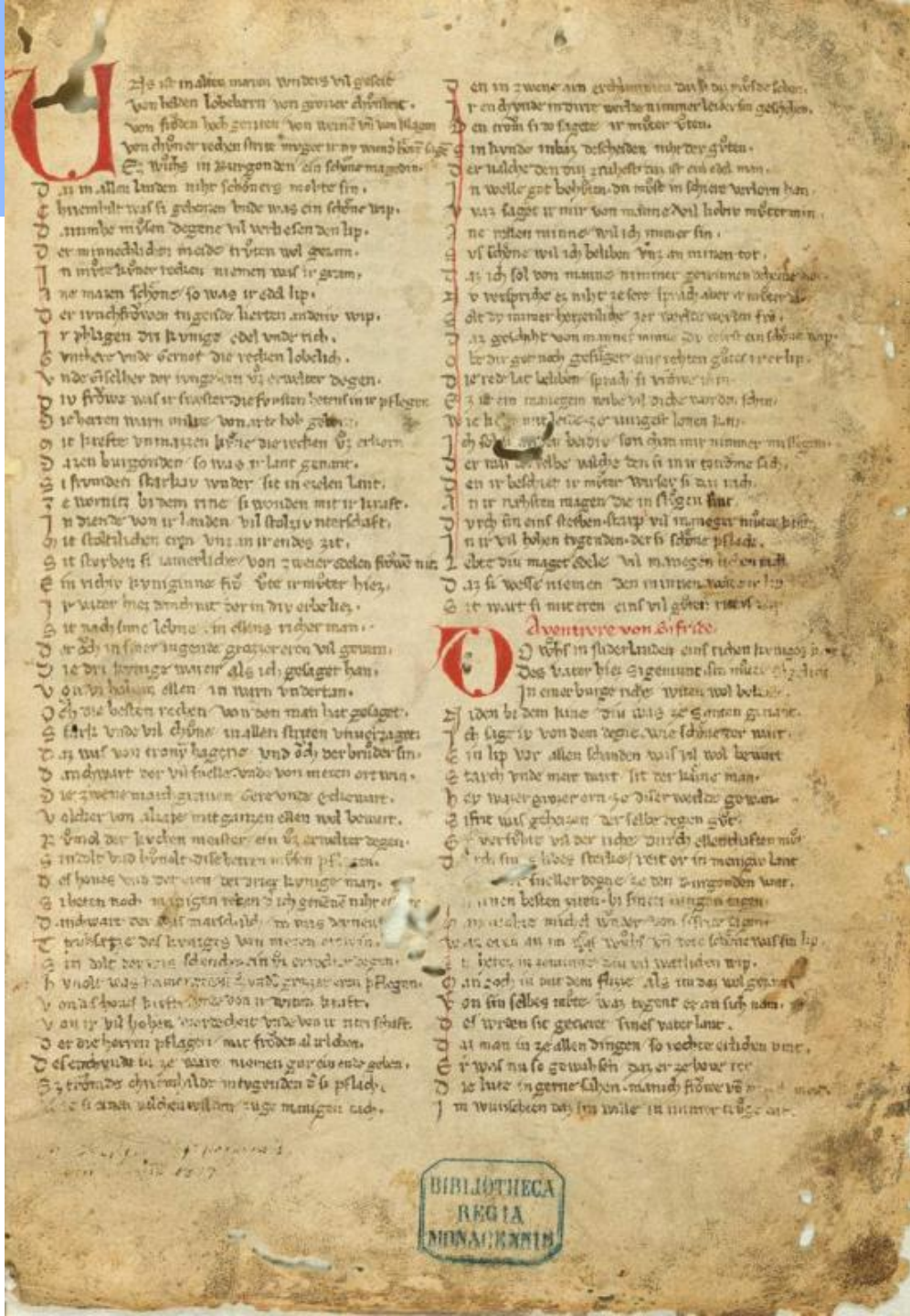
Language: ghm

Format: 119 S. - Pergament

Provider: Bayerische Staatsbibliothek ; Germany

More

View in original context  
Opens in a new window



# Europeana

4 L.sin. C 266

Da fang bian fo bao en jing

大方便佛報恩經

China, [1149-1173]



Explore Europe's cultural collections

Da fang bian fo bao en jing

[Return to search results](#)



## Da fang bian fo bao en jing

**Alternative Title:** Zhaocheng Jin zang ; Tripitaka ; 趙城金藏 ; 大藏經

**Date:** [1149] ; [1149-1173]

**Type:** [Druck](#) | ▶

**Relation:** Signatur: München, Bayerische Staatsbibliothek -- Res/4 L.sin. C 266

**Data provider:** [Bayerische Staatsbibliothek](#) | ▶

**Provider:** [Bayerische Staatsbibliothek](#) | ▶ [Germany](#) | ▶

View item at  
[Bayerische Staatsbibliothek](#)

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# World Digital Library (WDL)



LANGUAGE

English



BROWSE

[Place](#) | [Time](#) | [Topic](#) | [Type of Item](#) | [Institution](#)

SEARCH



8000 - 499    500 - 1499    1500 - 1699    1700 - 1799    1800 - 1849    1850 - 1899    1900 - 1949    1950 +

8000 BC - 2010 AD / [View all 1298](#)



# World Digital Library (WDL)



LANGUAGE

English

BROWSE

[Place](#) [Time](#) [Topic](#) [Type of Item](#) [Institution](#)

SEARCH

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## Similar Items



## Title: Ottheinrich Bible

### Description

The Ottheinrich Bible is the earliest surviving illustrated manuscript of the New Testament in the German language. The work was commissioned around 1430 by Ludwig VII, the Bearded, Duke of Bavaria-Ingolstadt. The text was written, presumably in Ingolstadt, in a monumental script consistent with the highest calligraphic standards. The text was then sent to Regensburg for illumination. Only about one-fifth of the miniatures were completed, however, before work was stopped. Sometime before 1530, the Count Palatine Ottheinrich acquired the Bible and commissioned the artist Mathis Gerung to complete the sequence of miniatures, which previously extended only as far as the Gospel of St. Mark. Gerung finished the work in 1530-31. In all, this magnificently illuminated Bible contains 146 miniatures and 294 ornamented initials on 307 parchment leaves. The manuscript was later taken as war booty from Heidelberg to Munich and then to Gotha, where in the 19th century it was split into eight volumes. The Bavarian State Library acquired three of these volumes in 1950, and the remaining five in 2007.

### Patron

[der Bärtige, duke of Bavaria-Ingolstadt, Ludwig VII \(1368-1447\)](#)

### Date Created

Around 1430-1531

### Publication Information

Regensburger, Bavaria

### Language

[Middle High German \(ca. 1050-1500\)](#)

### Title in Original Language

Ottheinrich-Bibel

### Place

[Europe](#) > [Germany](#)

### Time

[8000 BC - 499 AD](#)

### Topic



# World Digital Library (WDL)



LANGUAGE

English

BROWSE

[Place](#) [Time](#) [Topic](#) [Type of Item](#) [Institution](#)

SEARCH

< **Search Results:** [Previous](#) | [Next](#) >



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## Similar Items



## Title: Parzival

### Description

Wolfram von Eschenbach composed his medieval German epic poem *Parzival*, which consists of more than 24,000 lines, in the first decade of the 13th century. It tells the story of the juvenile fool Parzival who, having grown up in the seclusion of the forest, is ignorant of the world and causes much grief as he ventures out to become a knight. He arrives at the Castle of the Grail, but fails to pose the question to the sick King Fisher Anfortas about the source of his suffering—a question that would release Anfortas and make Parzival the new grail king. After a long odyssey and a religious catharsis, Parzival is able to return to Arthur's court and is marked as the new grail king. The tale, according to the manuscript tradition, enjoyed great popularity throughout the Middle Ages. Only a few of the manuscripts are illuminated. This manuscript from the Bavarian State Library, written in a Gothic cursive script, is one of the few illuminated manuscripts of *Parzival* that are known to exist. Unfortunately, only one of the illuminations in the codex, which were to be inserted in spaces that the writer left blank, was executed. The style of painting suggests that it most likely originated in Lower Bavaria, perhaps in Landshut. The quality and richness of this very illumination gives a hint of what a splendid work of art this would have been had it been completed.

### Author

[Wolfram, von Eschenbach](#) (1170?-1220?)

### Date Created

Around 1270-1279

### Publication Information

Lower Bavaria

### Language

Middle High German (ca. 1050-1500)

### Title in Original Language

Parzival

### Place

[Europe](#) > [Germany](#)

[Europe](#) > [United Kingdom of Great Britain and Northern Ireland](#)

### Time

# The Mobile Internet





# Mobile only...

## Percentage of mobile Web users who never or infrequently use the desktop Web

Country	Percentage mobile-only	Country	Percentage mobile-only
Egypt	70%	Indonesia	44%
India	59%	Thailand	32%
South Africa	57%	China	30%
Ghana	55%	US	25%
Kenya	54%	UK	22%
Nigeria	50%	Russia	19%
<b>Source: On Device Research</b> (December 2010)		<b>Survey group:</b> 15,204	<b>via: mobiThinking</b>

Global mobile statistics 2011: URL: <http://mobithinking.com/mobile-marketing-tools/latest-mobile-stats>

# Gartner Top 10 Strategic Technologies for 2012

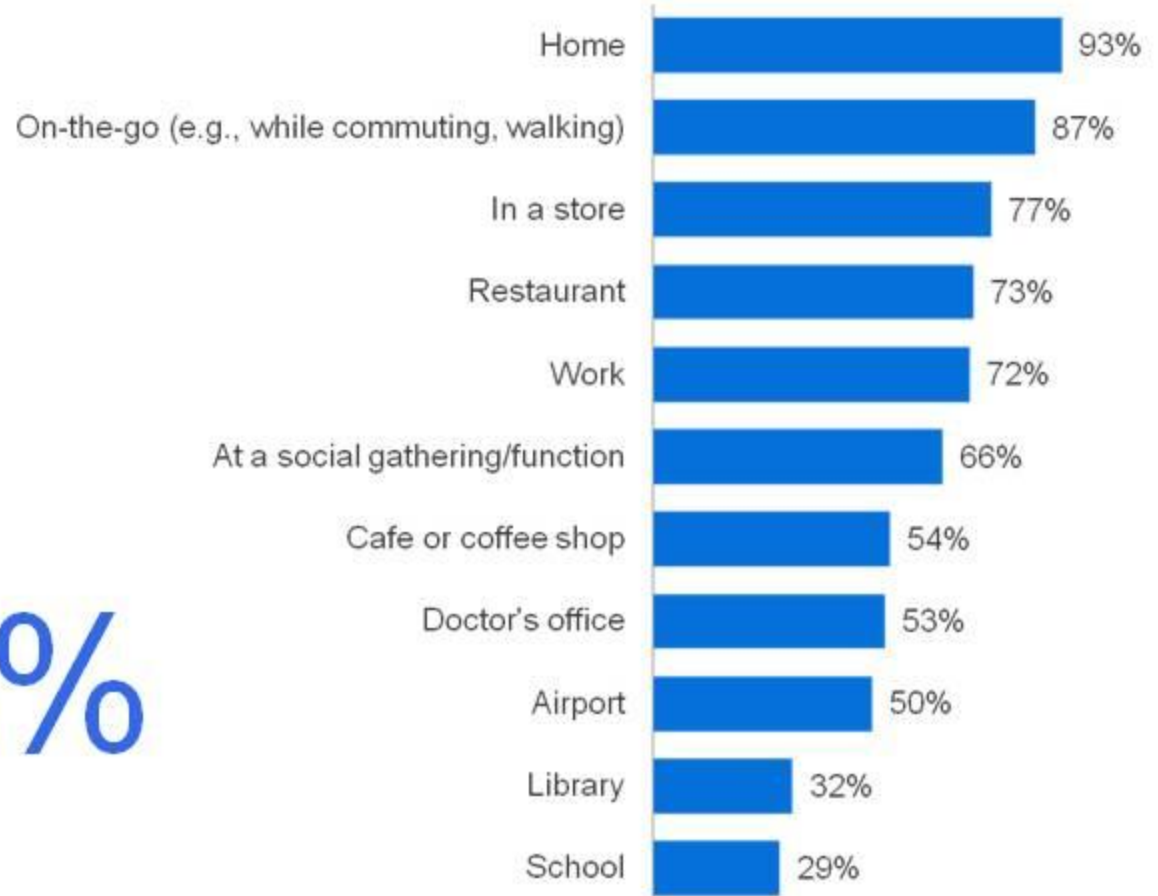
1. Media Tablets and Beyond
2. Mobile-Centric Applications and Interfaces
3. Contextual and Social User Experience
4. Internet of Things
5. App Stores and Marketplaces
6. Next-Generation Analytics
7. Big Data
8. In-Memory Computing
9. Extreme Low-Energy Servers
10. Cloud Computing





# Smartphone: “Always-on Companion”

Where Smartphone Is Used



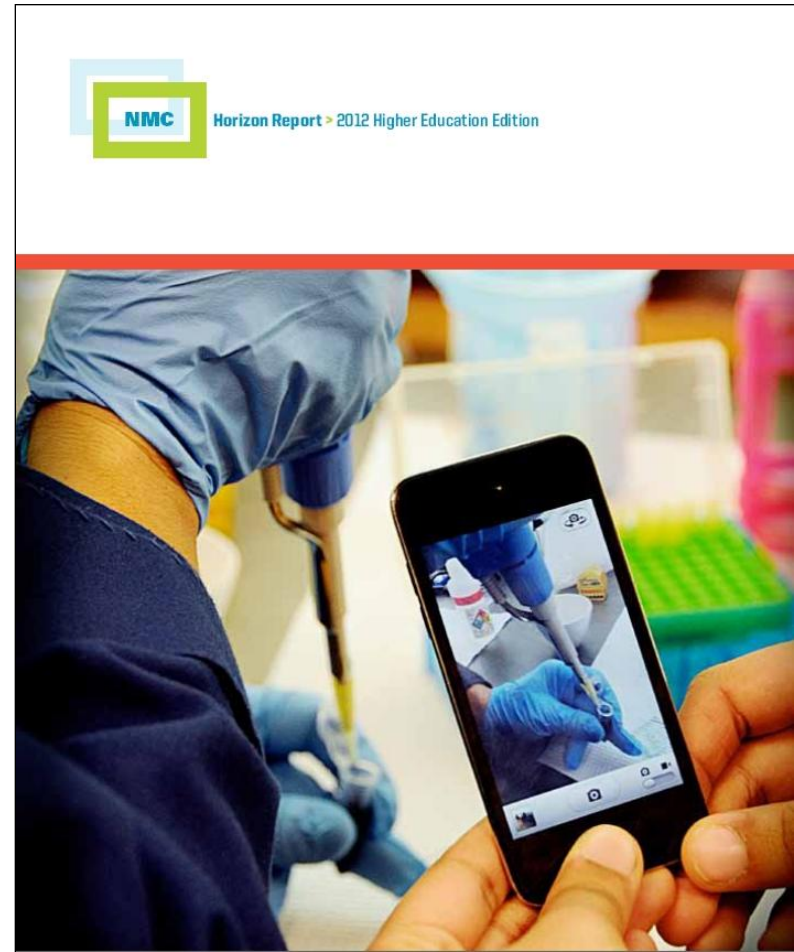
93%

Home

# Mobile Apps

**“Mobile Apps are the fastest growing dimension of the mobile space ... right now, with impacts on virtually every aspect of informal life, and increasingly, every discipline in the university.”**

(Horizon Report 2012, p. 6)

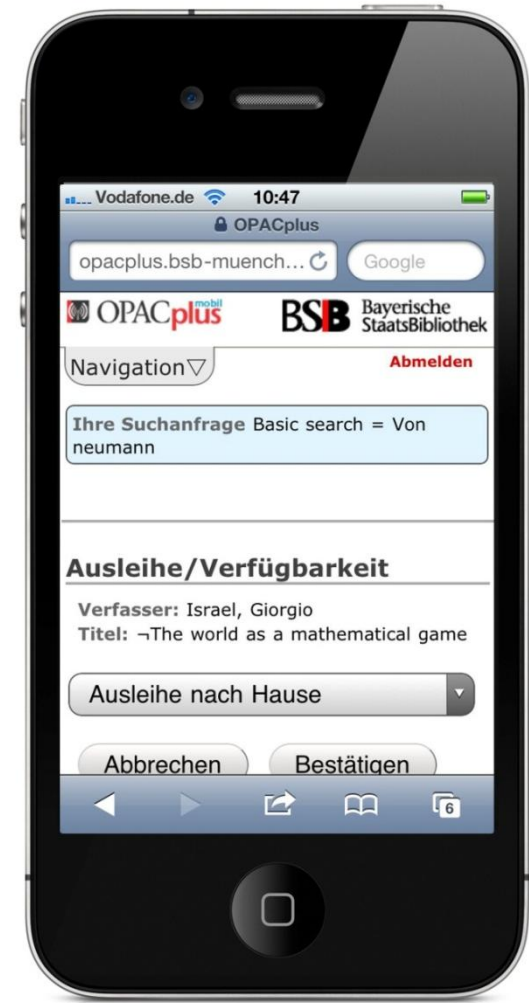
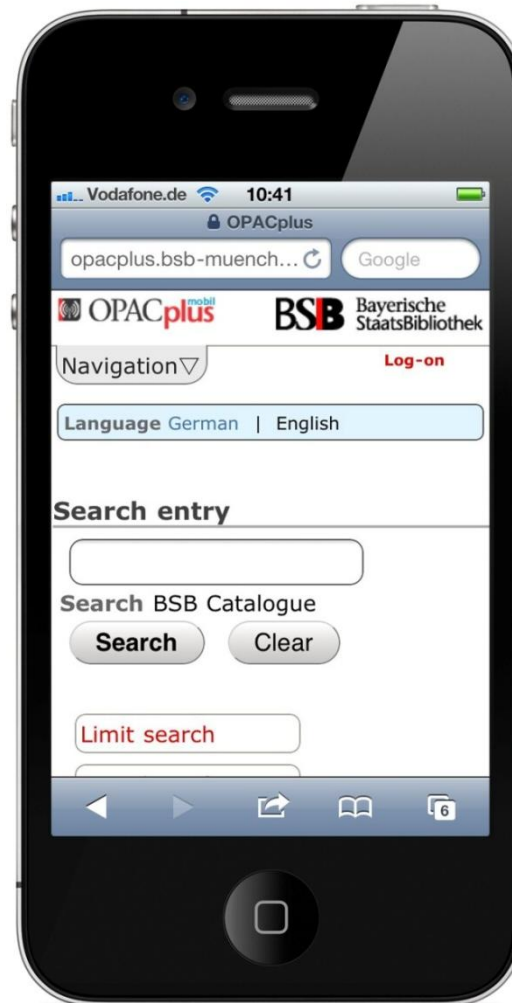
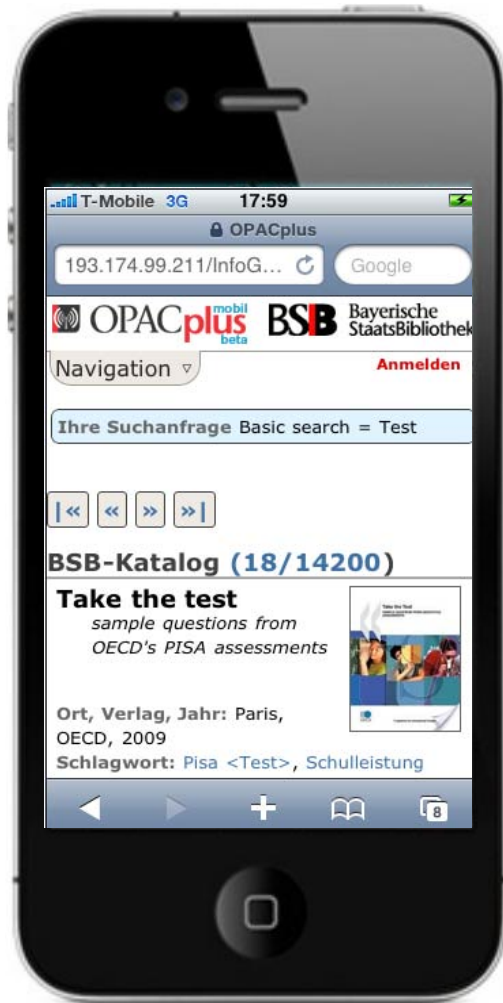


Horizon Report > 2012 Higher Education Edition



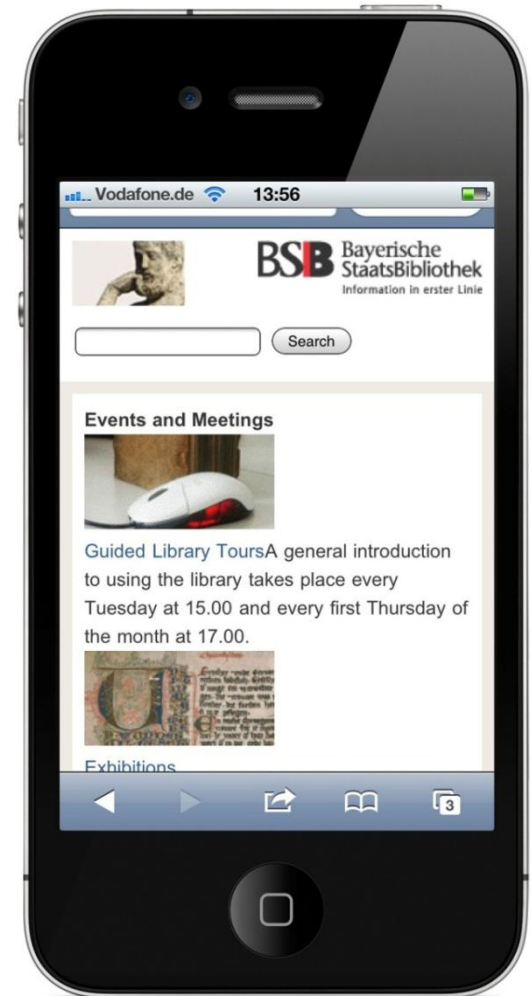
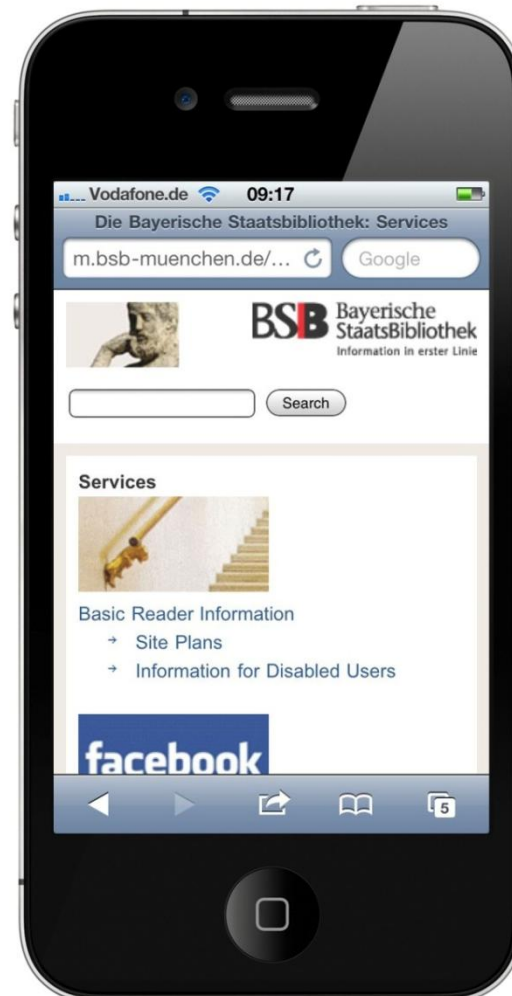
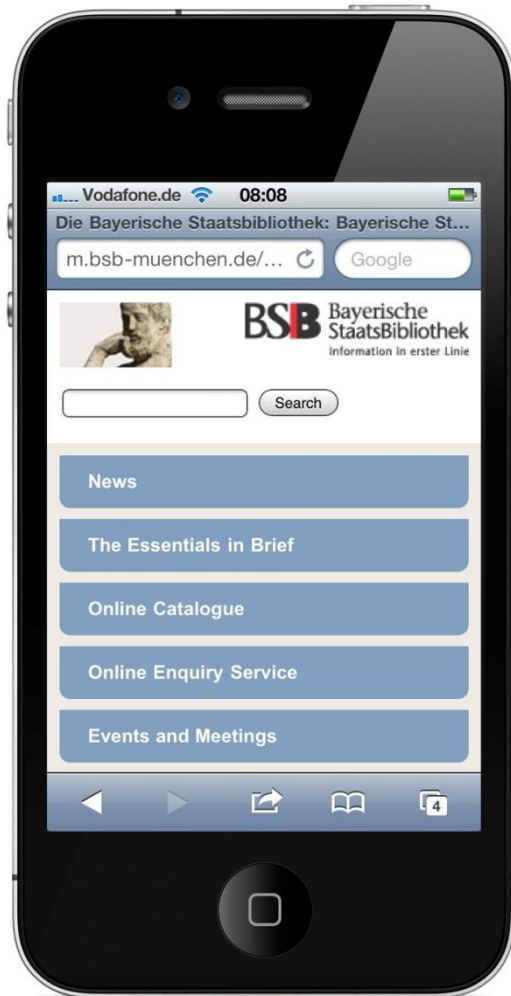
# Mobile OPAC & Website

# Mobile Online-Catalogue (OPAC) of the Bavarian State Library





# Mobile Website of the Bavarian State Library



**iPad/iPhone-Apps:  
“Famous Books” &  
“Oriental Books”**



# iPad/iPhone-Apps: “Famous Books” & “Oriental Books”

- **“Famous Books”**

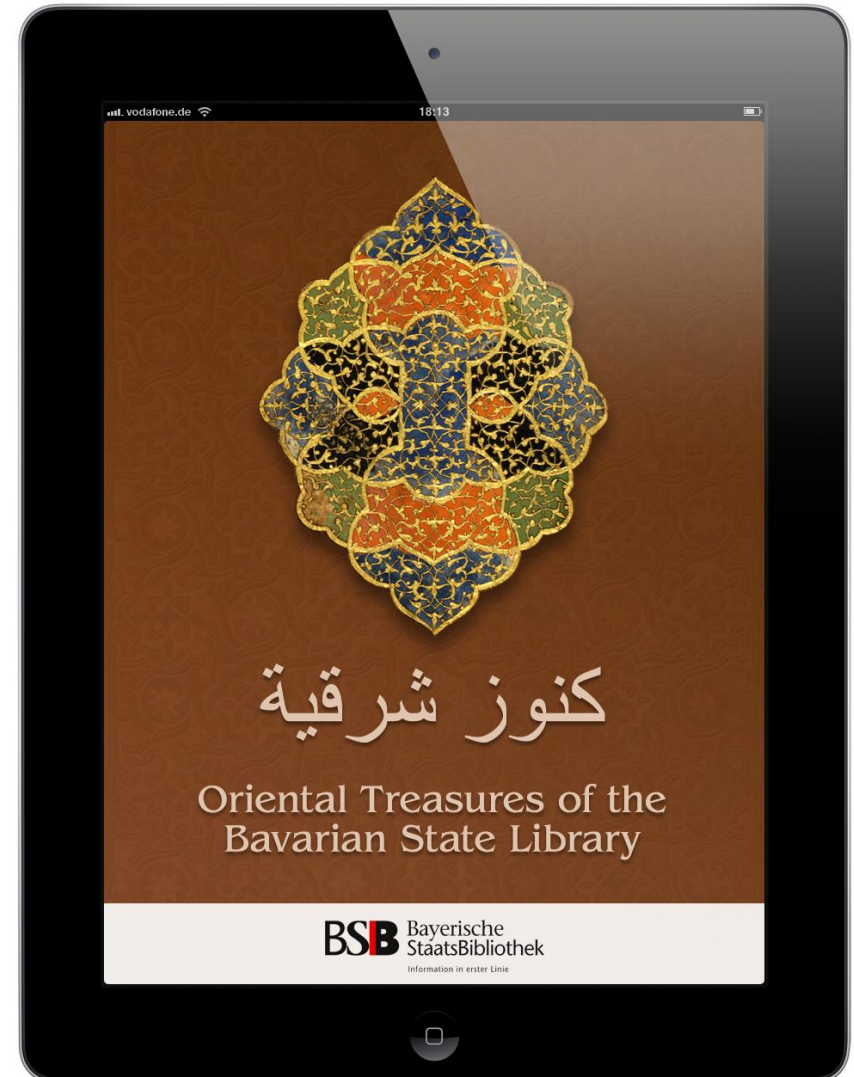
- Full Title: “Treasures of the Bavarian State Library” (released June 2010)
- 50 unique, ultra-rare manuscripts & early printed books of world renown
- Songs of the Nibelung, Gutenberg Bible, Ottheinrich Bible, Reichenau Evangeliar etc.



- **“Oriental Books”**

- Full Title: “Oriental Treasures of the Bavarian State Library” (released May 2011)
- 20 extremely precious Koran manuscripts and richly illuminated Islamic books
- Digital Books formatted for the high-res, colour-brilliant displays of iPad and iPhone
- Both Apps provide the complete books, readable from the first to the last page (!), and: it ‘s free!

# Cultural Heritage 'on the Go': "Famous Books" & "Oriental Books"

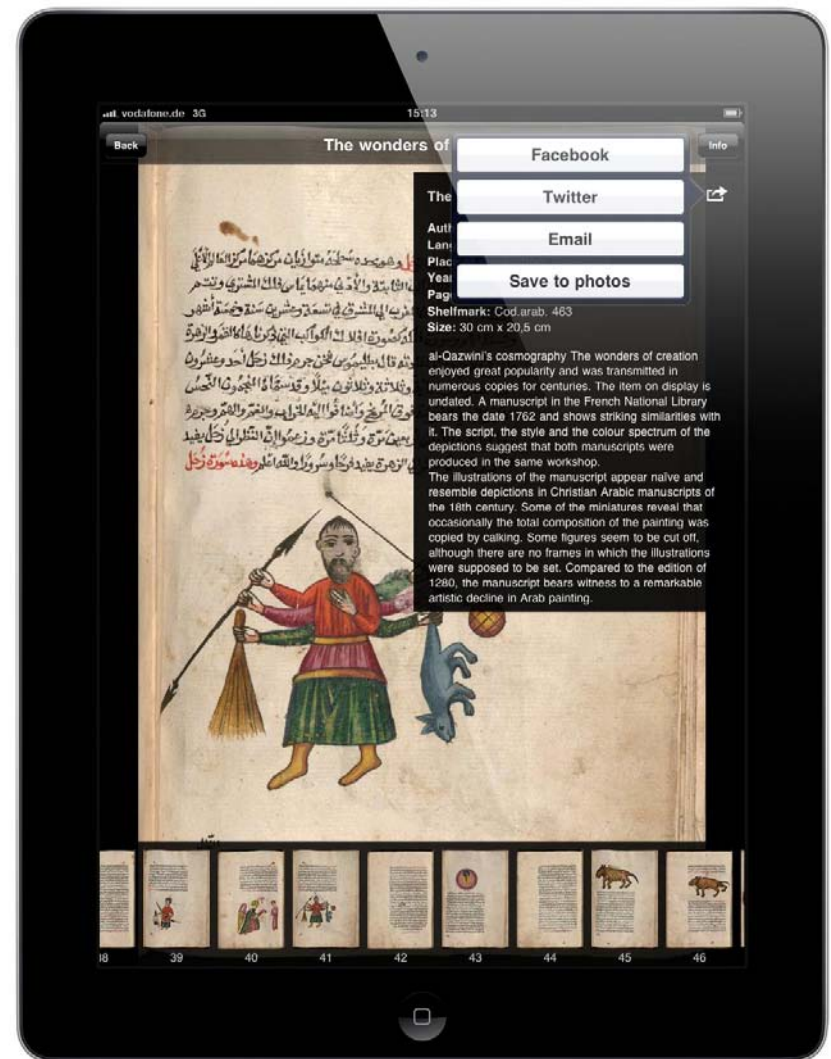
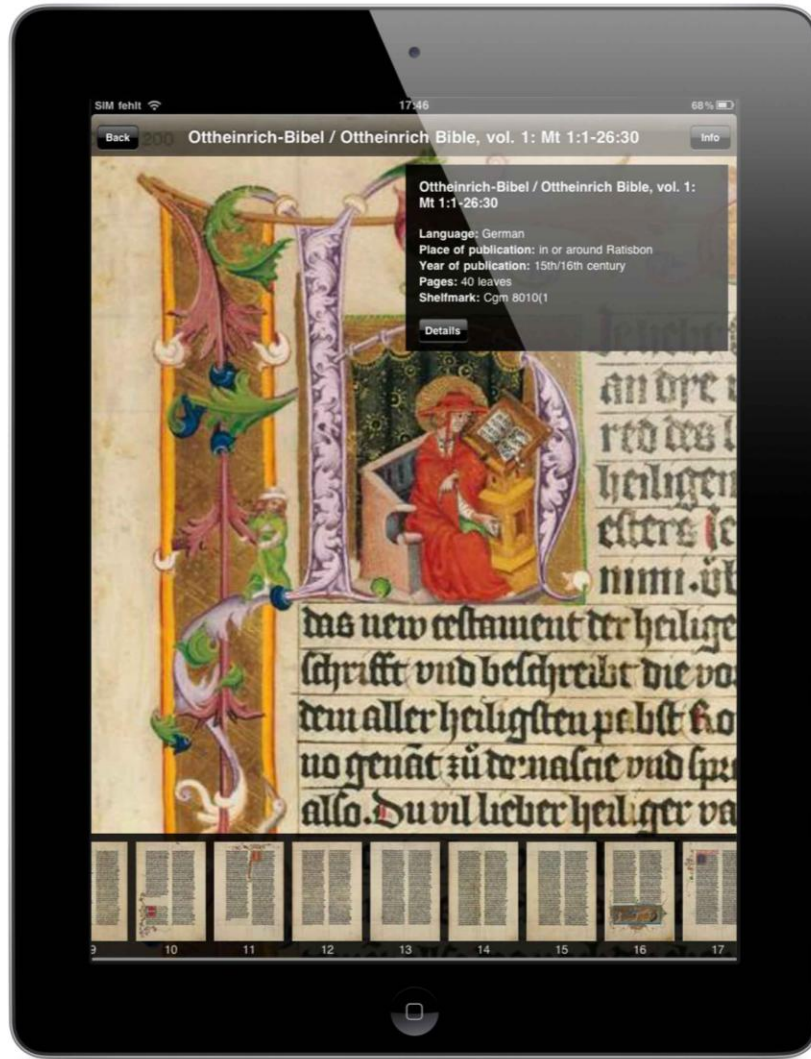




# Cultural Heritage 'on the Go'



# Cultural Heritage 'on the Go'





## Oriental Treasures of the Bavarian State Library



### The wonders of creation al-Qazwini (1203-1283)

**Language:** Arabic

**Place of Publication:** Palestine?

**Year of Publication:** ca. 1750-1770

**Pages:** 200 leaves

**Shelfmark:** Cod.arab. 463

**Size:** 30 cm x 20,5 cm

**Short Description:** al-Qazwini's cosmography The wonders of creation enjoyed great popularity and was transmitted in numerous copies for centuries.



Video



About



Social

Back

# The wonders of creation

Info















# ...also for the iPhone



SIM fehlt 00:12




Kategorien **Top-Charts** Suchen

 <p><b>18. My Kingdom for the Prin...</b> Spiele Erschienen: 18.06.2010 0,79 € ★★★★★ 38 Bewertungen</p>	 <p><b>18. Clinometer HD - bubble I...</b> Dienstprogramme Erschienen: 12.07.2010 GRATIS ★★★★★ 40 Bewertungen</p>
 <p><b>19. MaxiVista</b> Dienstprogramme Erschienen: 12.07.2010 7,99 € ★★★★★ 30 Bewertungen</p>	 <p><b>19. Famous Books - Treasur...</b> Bücher Erschienen: 12.07.2010 GRATIS ★★★★★ 30 Bewert</p>
 <p><b>20. Fruit Ninja HD</b> Spiele Erschienen: 14.07.2010 3,99 € ★★★★★ 5 Bewertungen</p>	 <p><b>20. Shazam for iPad</b> Musik Erschienen: 12.07.2010 GRATIS ★★★★★ 19 Bewert</p>
 <p><b>21. Hotel Imperium HD</b> Spiele Erschienen: 14.05.2010 5,49 € ★★★★★ 58 Bewertungen</p>	 <p><b>21. Wondershare iDraft</b> Produktivität Erschienen: 30.06.2010 GRATIS ★★★★★ 195 Bewe</p>
 <p><b>22. Flight Control HD</b> Spiele Erschienen: 01.04.2010 3,99 € ★★★★★ 64 Bewertungen</p>	 <p><b>22. AppDeals for iPad</b> Nachrichten Erschienen: 10.04.2010 GRATIS ★★★★★ 54 Bewertungen</p>
 <p><b>23. Zeichen Pad</b> Unterhaltung Erschienen: 01.04.2010 1,59 € ★★★★★ 25 Bewertungen</p>	 <p><b>23. Touch Hockey Extreme: ...</b> Spiele Erschienen: 20.05.2010 GRATIS ★★★★★ 346 Bewertunge</p>
 <p><b>24. Real Football 2010 HD</b> Spiele Erschienen: 27.05.2010 3,99 € ★★★★★ 56 Bewertungen</p>	 <p><b>24. Drag Racer : Pro Tuner HD</b> Spiele Erschienen: 17.05.2010 GRATIS ★★★★★ 56 Bewertungen</p>
 <p><b>25. Todo für iPad</b> Produktivität Erschienen: 11.05.2010 3,99 € ★★★★★ 49 Bewertungen</p>	 <p><b>25. Google Earth</b> Reisen Erschienen: 27.10.2010 GRATIS ★★★★★ 1359 Bew</p>
 <p><b>26. Star Walk for iPad - inter...</b> Bildung Erschienen: 12.07.2010 GRATIS ★★★★★ 1359 Bew</p>	 <p><b>26. MeinProspekt HD</b> Nachrichten Erschienen: 12.07.2010 GRATIS ★★★★★ 1359 Bew</p>

Highlights **Top-Charts** Kategorien Updates

IPAD 23:10 97%

Kategorien: Bücher **Top-Charts** Suchen

<p><b>TOP iPad APPS (GEKAUFT)</b></p>  <p><b>1. Die Elemente: Bausteine u...</b> Bücher Erschienen: 21.05.2010 10,99 € ★★★★★ 83 Bewertungen</p>	<p><b>TOP iPad APPS (GRATIS)</b></p>  <p><b>1. iBooks</b> Bücher Erschienen: 12.07.2010 GRATIS ★★★★★ 686 Bewe</p>
 <p><b>2. The Elements: A Visual E...</b> Bücher Erschienen: 01.04.2010 10,99 € ★★★★★ 18 Bewertungen</p>	 <p><b>2. Famous Books - Treasur...</b> Bücher Erschienen: 12.07.2010 GRATIS ★★★★★ 18 Bewert</p>
 <p><b>3. Knigge - Das Original - Ü...</b> Bücher Erschienen: 12.07.2010 1,59 € ★★★★★ 18 Bewertungen</p>	 <p><b>3. Kindle</b> Bücher Erschienen: 12.07.2010 GRATIS ★★★★★ 187 Bewertunge</p>
 <p><b>4. Alice for the iPad</b> Bücher Erschienen: 01.04.2010 6,99 € ★★★★★ 154 Bewertunge</p>	 <p><b>4. Globetrotter</b> Bücher Erschienen: 24.06.2010 GRATIS ★★★★★ 154 Bewertunge</p>
 <p><b>5. Enzyklopädie für iPad</b> Bücher Erschienen: 30.04.2010 7,99 € ★★★★★ 154 Bewertunge</p>	 <p><b>5. Marvel Comics</b> Bücher Erschienen: 01.04.2010 GRATIS ★★★★★ 2669 Bewertung</p>
 <p><b>6. The Cat in the Hat - Dr. Se...</b> Bücher Erschienen: 11.02.2010 2,99 € ★★★★★ 80 Bewertungen</p>	 <p><b>6. DC Comics</b> Bücher Erschienen: 23.06.2010 GRATIS ★★★★★ 80 Bewertungen</p>
 <p><b>7. Bis(s) zum ersten Sonnen...</b> Bücher Erschienen: 12.07.2010 12,99 € ★★★★★ 81 Bewertungen</p>	 <p><b>7. Free Books - 23,469 class...</b> Bücher Erschienen: 01.04.2010 GRATIS ★★★★★ 81 Bewertungen</p>
 <p><b>8. Das Ende der Weltwirtsch...</b> Bücher Erschienen: 09.07.2010 16,99 € ★★★★★ 252 Bewertunge</p>	 <p><b>8. BMW Magazine</b> Bücher Erschienen: 18.05.2010 GRATIS ★★★★★ 252 Bewertunge</p>

Highlights **Top-Charts** Kategorien Updates



iTunes

Store durchsuch...

Musik Filme TV Sendungen **App Store** Podcasts Hörbücher iTunes U Ping Anmelden

iPhone iPad

# Famous Books

Treasures of the Bavarian State Library

## SPIELE MIT FREUNDEN

### Die Siedler

Apps fürs neue Schuljahr

### iPad

APP STORE AUF EINEN KLICK

App der Woche  
iWork  
Apps für Kinder  
Musik machen  
Business Class  
Bildbearbeitungs-Kit  
Apps aus den iPad Werbe-S...

### TOP-CHARTS

Apps (gekauft)  
Alle anzeigen >

### Neu und beachtenswert

Alle anzeigen >

 <b>Sudoku 2 HD Pro</b> Spiele	 <b>Funcard</b> Lifestyle	 <b>Venice Mystery</b> Spiele	 <b>Mooncake HD</b> Spiele	 <b>kaufDA Navigato...</b> Nachrichten	 <b>Intro to Letters, ...</b> Bildung
 <b>Blue Block for iPad</b> Spiele	 <b>Secret Writer</b> Lifestyle	 <b>Fish Eat Fish™ HD</b> Spiele	 <b>Manuscript for i...</b> Produktivität	 <b>SPORT1</b> Sport	 <b>Fotopedia Herita...</b> Reisen

ANGESAGTE NEUE SPIELE

iFitness HD

DIGITALE NOMADEN  
Apps für mobile Kreativität

ZEITUNGSKIOSK

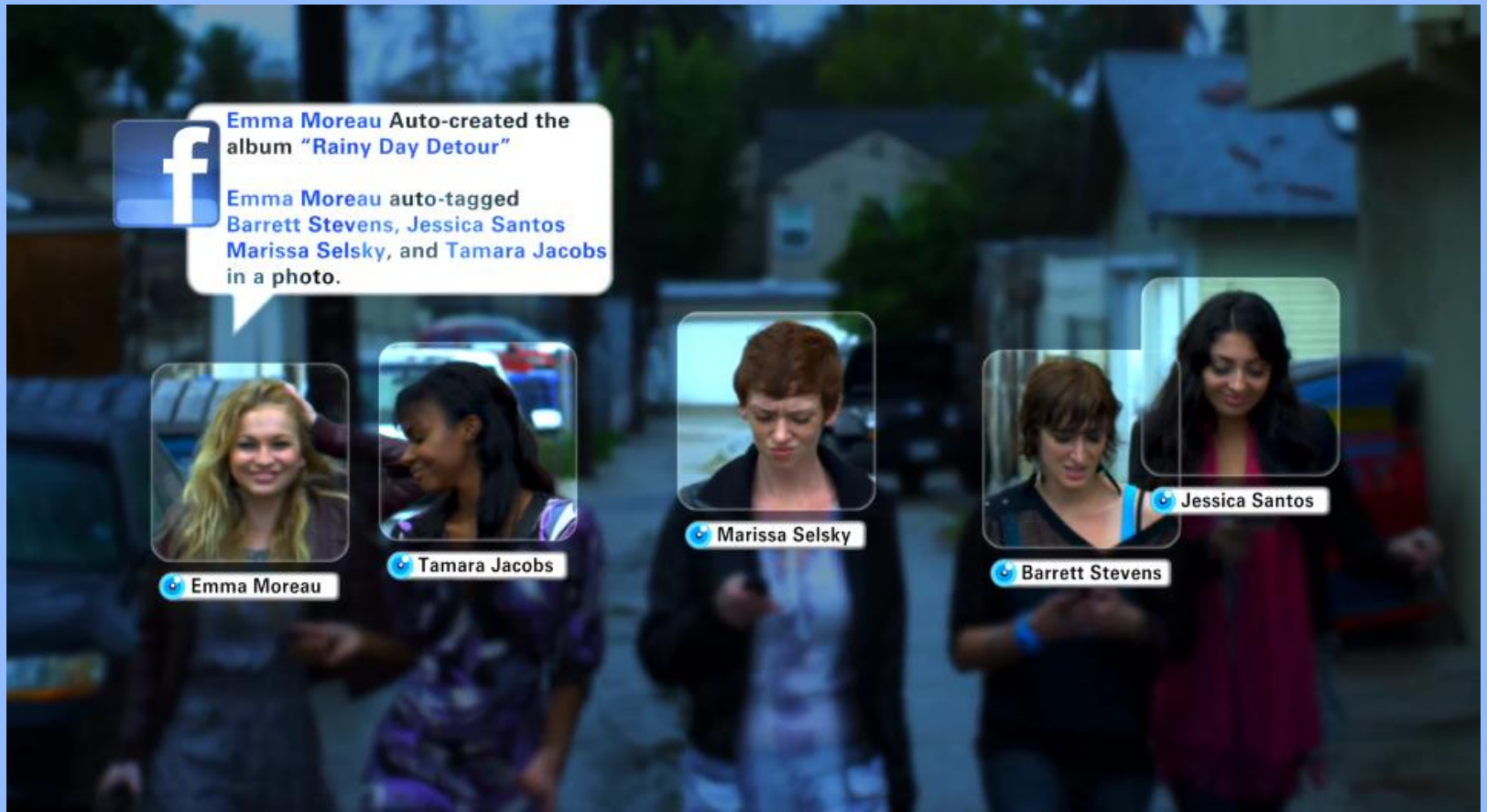
- Zombie Infection HD**  
Spiele
- Die Siedler HD**  
Spiele
- GoodReader for iPad**  
Produktivität
- Pages**  
Produktivität
- Pinball HD**  
Spiele
- Humbers**  
Produktivität
- Keynote**  
Produktivität
- Weather Pro for iPad**  
Wetter
- AirAttack HD**  
Spiele
- Sudoku 2 HD Pro**  
Spiele

# Augmented Reality: Digital Content in Real Life



# Augmented Reality (AR)

Overlaying multimedial digital information over a visual representation of the real world, usually captured by a smartphone camera



# Location- Based App



Erhältlich im  
**App Store**



# Cooperating Partners

**BSB** Bayerische  
StaatsBibliothek

Information in erster Linie



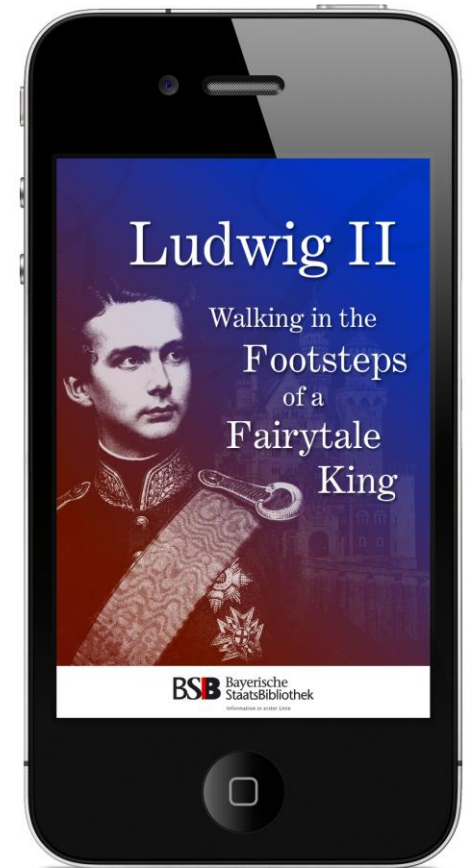
Bayerische Verwaltung der  
staatlichen Schlösser, Gärten und Seen

3 O K O W S K Y + L ^ Y M ^ N N

Marketing in Computer-Mediated Environments

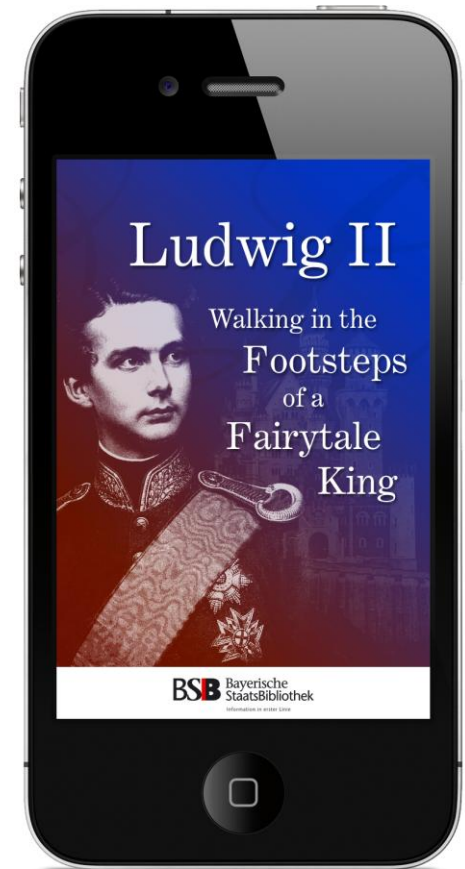


Unifeye Mobile SDK



# Features

- Information about 140 locations, which appear **live in the iPhone camera view.**
- Multimedia descriptions of the 80 places which were most important in the king 's life, **optimized for iPhone reading habits.**

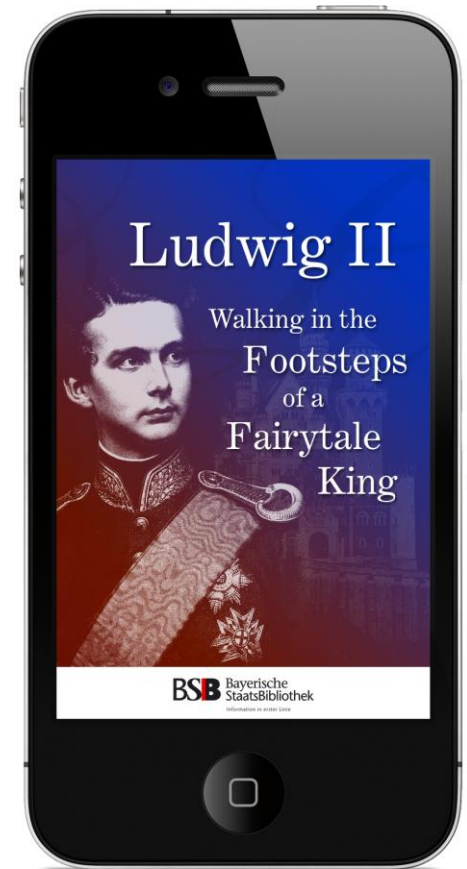






# Features

- **Picture galleries** with 600 photographs, many of them historic
- 25 **portraits** & 5 **special topics**
- 50 **video interviews with experts**
- 6 **audio features** & 47 audio quotes of **witnesses of the period**



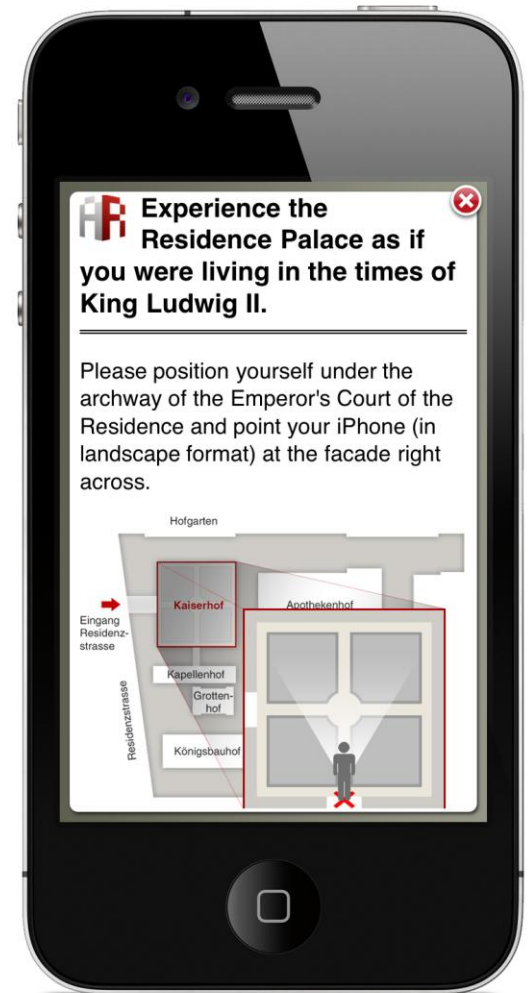




# Augmented Reality-Simulation

**A world first: Winter Garden in 3D optical recognition**

**Augmented Reality (AR) simulation** of Ludwig II 's famous Winter Garden (which no longer exists) in the Munich residence, appearing **in real time in the iPhone camera view**











11. K. Residenz München. 1891.  
Festsaalbau.

Photograph. Kunstverlag von Otto Wehrauch, München.

*Gesetzlich geschützt.*







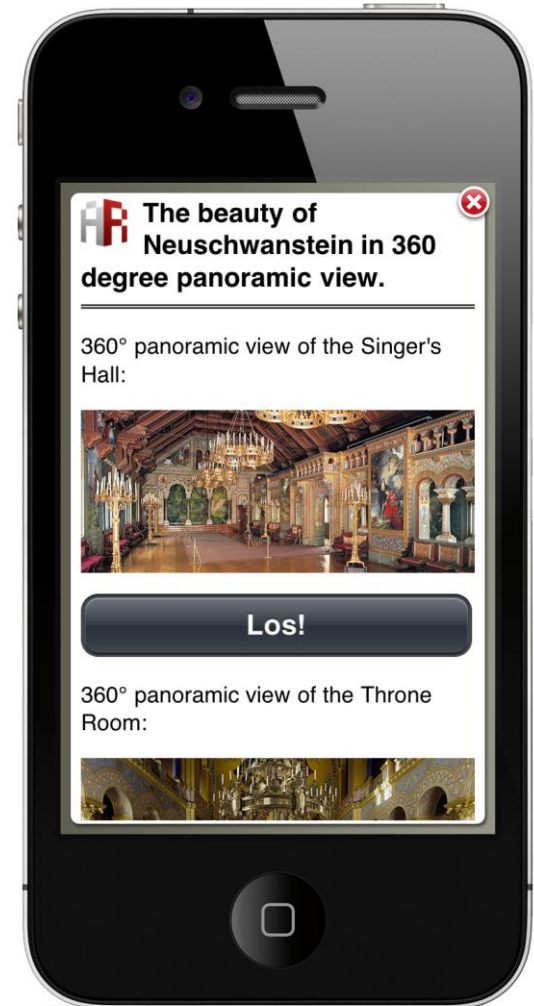
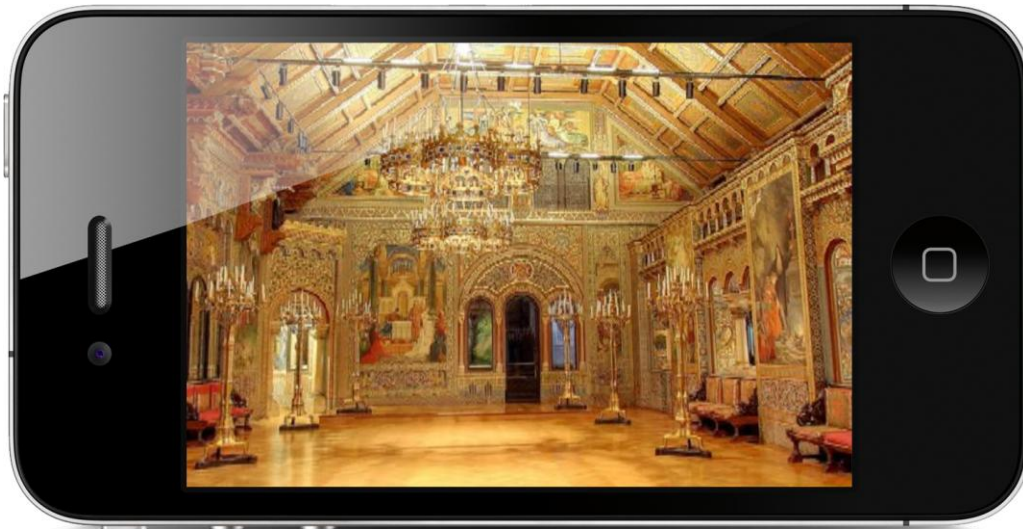






# 360 Degree Panorama View

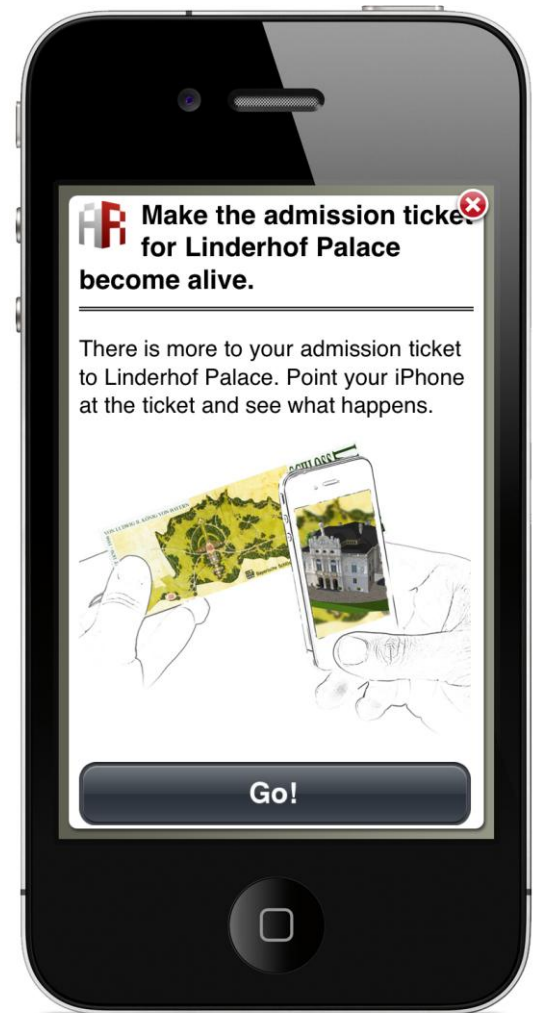
**360 Degree Panorama View** of the Throne Room and Singers ' Hall at Neuschwanstein Castle as an Augmented Reality feature





# 3D Simulation

An admission ticket becomes alive – **digital thumbnails** of the royal palaces of Linderhof, Herrenchiemsee and Neuschwanstein as **3D simulation**.





HOF

SCHLOSS

HOF  
SCHLOSS



# „Gamification“

**Virtual „gifts“** from many of the places related to the life of Ludwig II, which can be stored in the **digital scrapbook of the App**, e.g. the hourly chime of the planetary clock at Herrenchiemsee Palace as a ringtone



# Push Messages

Enhancing user loyalty  
via push messages for  
the iPhone:

**„Join the king day by  
day“** – historical  
events on 147 days of  
the year





# Unique Content in Innovative Context

- In **English** and **German**
- Fully available **offline**, ideal for tourist applications
- All content compiled by **qualified experts**
- **Free of charge!**



# Not only for the iPhone...

In a slightly reduced version also available for the Augmented Reality browsers **Junaio**, **Layar** and **Wikitude** for the platforms **iOS**, **Android**, **Symbian OS**, **BlackBerry7** and **Bada!**



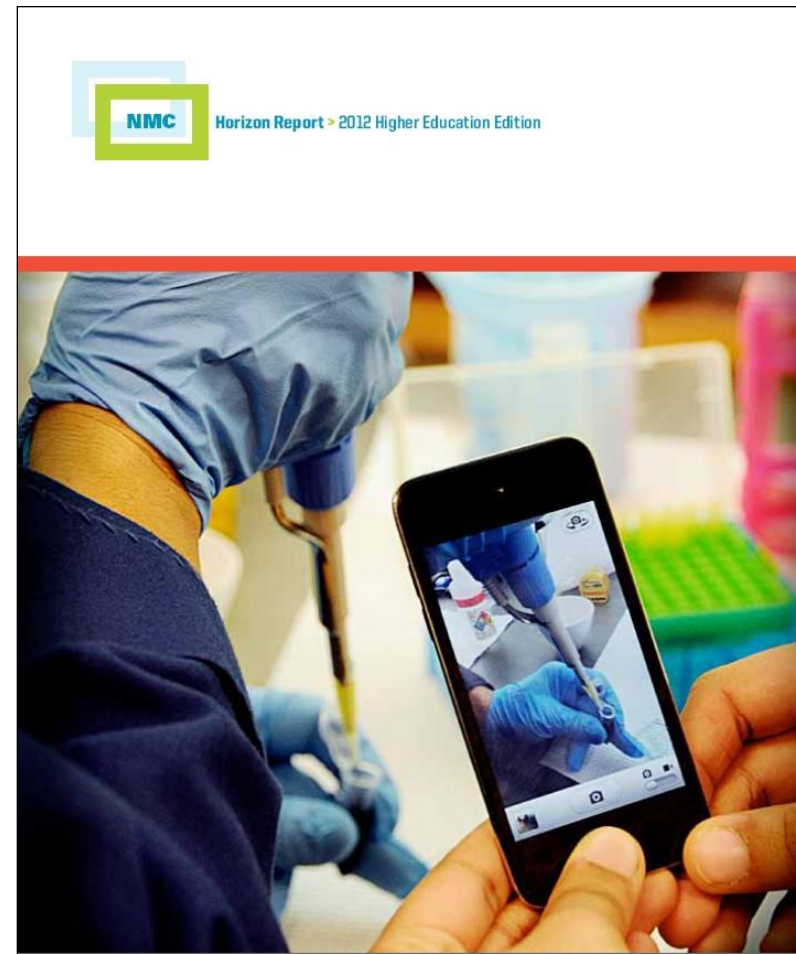


# Gesture-Based Computing

# Gesture-Based computing

**“Gesture-based computing allows users to engage in virtual activities with motions and movements similar to what they would use in the real world, manipulating content intuitively.”**

(Horizon Report 2012, p. 26)



Horizon Report > 2012 Higher Education Edition



# 3D – Digital Books

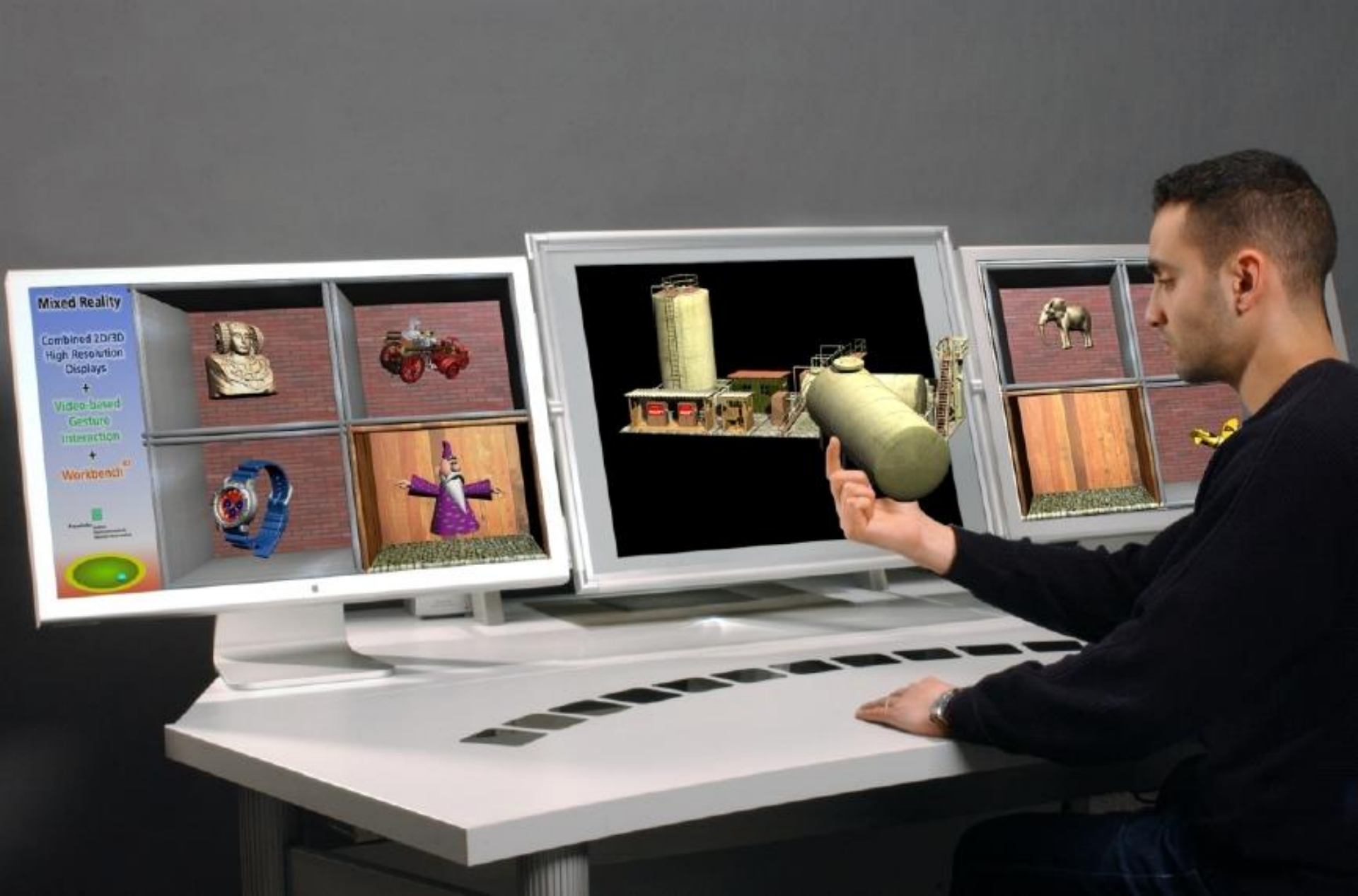


Seite: 7 - 10

# Gesture-Based Computing







### Mixed Reality

Combined 2D/3D  
High Resolution  
Displays

+  
Video-based  
Gesture  
Interaction

+  
Workbench

Microsoft  
HoloLens



**Conclusion**



# „All-Pervasive Internet“



# Complete Integration of Digital Information into Daily Life





# Context-Aware Computing



- Connect information to real-world locations: **WHERE** people need it most!
- Connect information to individual activities and needs „on the spot“: **WHEN** people need it most!

“The library becomes not a centrist organisation but a highly distributed conceptual space for a nation’s cultural memory.”

National Library of Scotland (2010): Thriving or Surviving? National Library of Scotland in 2030, p. 47



## **THRIVING or SURVIVING?**

National Library of Scotland in 2030



# Library Everywhere/ Anytime

Wired US, Aug 2009



**Relax!**  
**Future is bright for Libraries!**





# Thank you very much for your kind attention!



## **Website Bavarian State Library**

<http://www.bsb-muenchen.de>

## **Mobile Website Bavarian State Library**

<http://m.bsb-muenchen.de>

## **(mobile) Online Catalogue Bavarian State Library**

<https://opacplus.bsb-muenchen.de>

## **(mobile) Bavarian Union Catalogue**

<https://opacplus.bib-bvb.de>

## **Munich Digitization Center**

<http://www.digital-collections.de>

## **Facebook**

<http://www.facebook.com/BayerischeStaatsbibliothek>

## **Twitter**

[http://twitter.com/bsb\\_oea](http://twitter.com/bsb_oea)

## **Apple 's App Store:**

” Famous Books “

” Oriental Books “

” Ludwig II “