

IFLA Satellite Meeting 2017: Digital Humanities, Berlin, 15–17 August 2017

Research partnerships, user participation, extended outreach – some of ETH Library's steps beyond digitization





From «boutique» to mass digitization

Small scale digital

reproductions on demand

External scanning for early online platforms

DigiCenter mass production

rare books: 0.8 mio

journals: 0.3 mio ◀

photographs: 0.1 mio

archival material: 0.5 mio

Total of ~ 1.7 mio. scans p.a.

Dual strategy «Digitale Bibliothek ETH Zürich»: e-publications and digitization

DigiCenter established as ► an internal service unit, ~ 600,000 scans p.a.

2000 2005 2010 2015

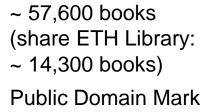




(Cooperative) online platforms for digitized content



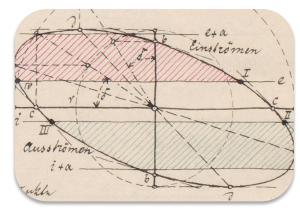
Rare books e-rara



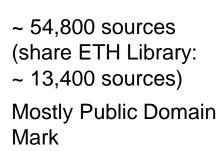


Images e-pics Image Archive

~ 385,000 images Mostly Public Domain Mark and CC BY-SA



Archival material e-manuscripta





Journals <u>e-periodica</u>

~ 300 journals (~ 600,000 articles)



How can we realise the full potential of digitized content?









Providing a machine readable corpus: Enhancement of OCRed text

- Available material: digitized journals as PDFs with OCR in e-periodica
- Additional service (aim)
 - Provide access to the texts in a machine readable format
 - Text enrichment (named entity recognition)

Test case

- Two sample journals (~ 380,000 pages)
- Tokenized text-files with OCR results
- Aim I: Automatic correction of OCR errors
- Aim II: Explore possibilities of automatic text enrichment (recognition and linking of the named entities [persons] and [place names])

Research partner

Professor Martin Volk (University of Zurich, Institute of Computational Linguistics)





Providing a machine readable corpus: Enhancement of OCRed text

TEC21 1-2/2009 MAGAZIN | 13

≡ e-per

▼ Filters

4 Results

Tec21, Volur

WETTBEWERE KNALL «CULTI GENERALSEKF 1* NR. 1-2 & 0

Tec21, Volur

Wahrheiten o

Tec21, Volur

Wahrheiten

Tec21, Volur

TEC 21 1-2/200 Planungskonz aktueller Stad

DIE VIELEN WAHRHEITEN DER STADT

«Multiple City» und «New Urbanity»: Blick auf Planungskonzepte der letzten 100 Jahre und auf die Stadtwirklichkeit von heute in München, gute Beispiele aktueller Stadtplanungspraxis in Europa in Frankfurt, so lässt sich zusammenfassen, was die Ankündigungen versprechen. Die beiden Ausstellungen scheinen sich, obwohl nicht aufeinander abgestimmt, ideal zu ergänzen.

Die Ausstellungsmacher von «Multiple City» in der Pinakothek der Moderne (Leitung: Winfried Nerdinger und Sophie Wolfrum, Kuratorin: Susanne Schaubeck) konfrontieren Paradigmen aus 100 Jahren Städtebau mit deren Relevanz, Wirken und Entsprechung in der Gegenwart. In 16 Stationen werden Leitbilder und Konzepte des 20. Jahrhunderts, darunter die Gartenstadt, die funktio-



OBERFLÄCHE IN DER SCHAU, TIEFE IM KATALOG

Wer aktuelle Planungen vermisst, der ist in Frankfurt besser bedient: Hier werden 17 Projekte europäischer Städte gezeigt, die seit dem Beginn dieses Jahrhunderts realisiert In der Ausstellung allerdings ist eine Auseinandersetzung mit dem regelrechten Kampf um eine Deutungshoheit von europäischer Stadt, eine Auseinandersetzung mit den Mechanismen der Macht, in die die Stadtplanung und die Produktion von Stadtbildern

```
_ 0 X
   sbz-2009-135-999-01-02-z-0013.txt - Editor
 Datei Bearbeiten Format Ansicht ?
2099.2970
TEC21 110,82,81,19
1-2/2009 216,80,133,23
MAGAZIN 1707,75,177,26
I 1915,75,3,26
13 1950,75,40,26
<E0P>
DIE 113,261,129,56
VIELEN 276,261,284,56
WAHRHEITEN 599,261,532,56
DER 1175,261,149,56
STADT 1360,261,252,56
«Multiple 113,384,142,29
City» 276,384,73,29
und 370,384,52,22
«New 444,384,83,22
Urbanitv»: 548,384,158,29
Blick 113,428,72,22
auf 202,428,49,22
Planungskonzepte 272,428,277,29
der 570,428,51,22
letz- 637,428,68,22
ten 110,473,47,22
100 176,473,53,22
Jahre 244,473,89,22
und 350,473,52,22
auf 417,473,49,22
die 481,472,42,23
Stadtwirk- 539,472,166,23
lichkeit 109,516,112,23
von 241,523,50,16
heute 317,517,83,22
in 421,516,25,23
München, 472,516,145,29
gute 642,517,65,29
Beispiele 113,561,138,30
aktueller 262,562,137,22
Stadtplanungspra- 411,562,294,29
xis 110,605,40,23
in 170,605,26,23
Europa 222,606,108,29
in 350,605,25,23
Frankfurt 401,606,157,28
 <del>o 502,612</del>,31,16
lässt 633,605,76,23
sich 112,650,57,23
zusammenfassen, 184,651,272,28
was 470,657,59,16
die 543,650,42,23
Ankün- 596,650,109,23
digungen 112,694,139,30
versprechen, 286,695,202,29
<EOS>
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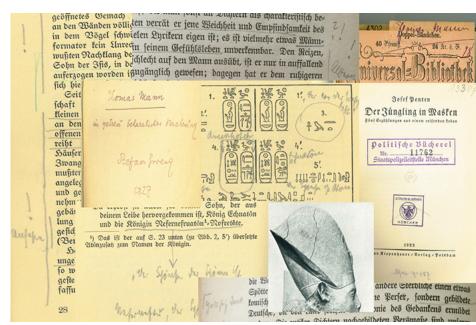
Building on existing solutions: The "Thomas Mann personal library" project

Access to Thomas Mann's markings in his personal library

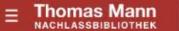
- Library is part of the Thomas Mann Archive, ETH Library
- Integral digitization of 2,650 books containing handwritten traces
- Transcription of the marginalia
- Front-end for searching an displaying markings (building on e-periodica components)
- Project duration: April 2016 to March 2019

Research partners

- Professor Andreas Kilcher (ETH Zurich, Chair of Literary and Cultural Studies)
- Funded by Swiss National Science Foundation



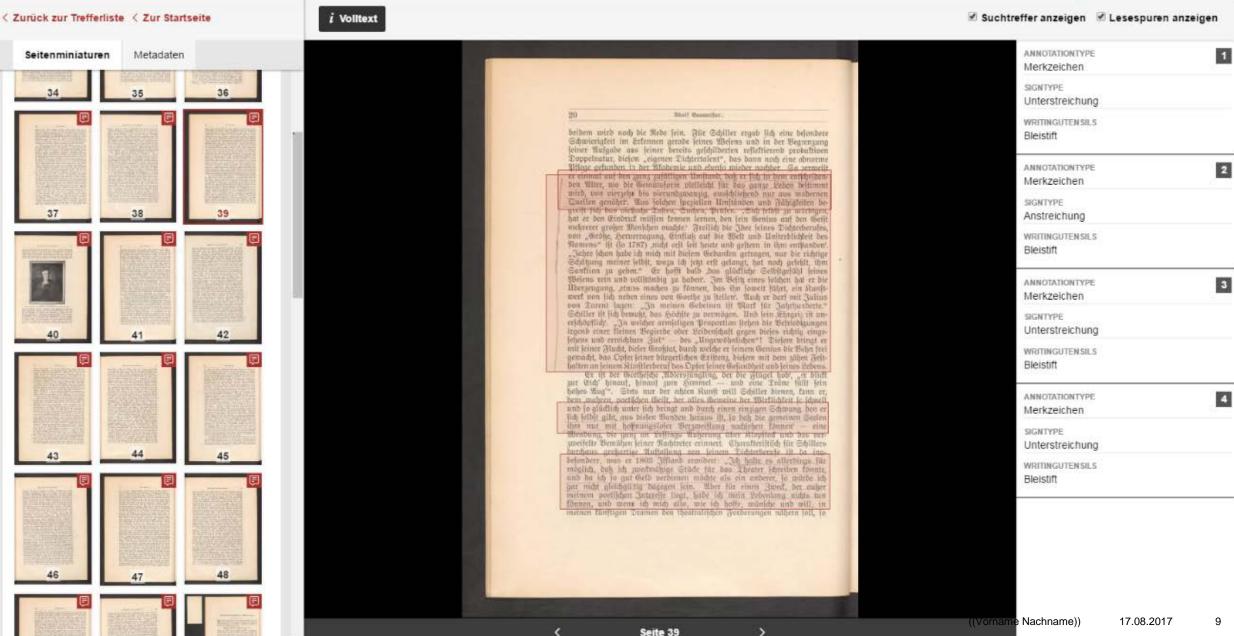
Marks and annotations by Thomas Mann, dedication, owner mark, expropriation stamp. Compilation by Thomas Mann Archive



Im Volltext suchen









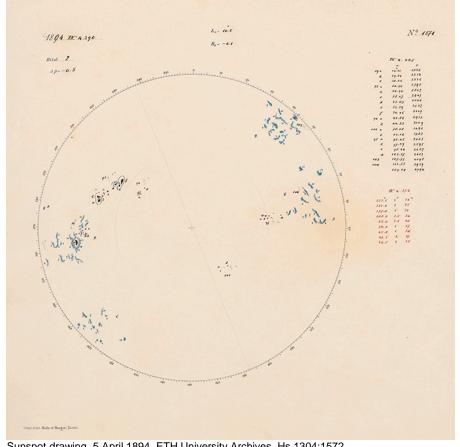
Providing primary data on demand: Data extraction from analogue long-term measurement series

Seismograms for seismological research

- Series of paper seismograms from 1927 to 1955
- Archival description, partial digitization and publication on e-manuscripa.ch
- Partial data extraction by the Swiss Seismological Service at ETH Zurich

Sunspot drawings for solar research

- Sun observation at ETH Zurich from 1884 to 1995
- Large series of sunspot drawings, data sheets, and sunspot statiscs at ETH Zurich University Archives
- Archival description, digitization and publication on e-manuscripa.ch
- Data extraction (years 1884–1949) by international solar researchers



Sunspot drawing, 5 April 1894, ETH University Archives, Hs 1304:1572





Image Archive: Crowdsourcing to fill patchy image descriptions



Original title: Uniform FA 1960 to 1970

New: Swissair hostesses in the uniform worn from 1970 to 1977

- Online crowdsourcing via **E-pics Image Archive Online**
- Aim: fill the gaps in contemporary descriptions
- **Step 1: Cooperation with Swissair retirees**
 - Project duration: end of 2009 until end of 2013
 - Closed group of experts
 - 135 interested volunteers, including: 44 regular users and ½ dozen experts
 - 40,000 images processed

Lessons learned

- Importance of personal contacts
- Effort involved heavily underestimated
- Added value gained: priceless!





Image Archive: Crowdsourcing to fill patchy image descriptions



Original title: Untitled, 17.8.1932

New: Flawil-Gossau, reservoir in Glatt-Tobel near the ruins of Helfenberg Castle, 17.8.1932

ETH zürich

Step 2: All volunteers welcome

- New comment function online since 9 Dec 2015
- Huge reader and media response (newspapers, radio, TV)
- Statistics (1 July 2017)
 - 22,600 pointers received
 - 20,543 description of images improved
 - 798 volunteers (90% men), very active top ten

Ongoing community management

- Weblog <u>ETH Bibliothek Crowdsourcing</u>
- Videos and events



Archival sources: Crowdsourcing to transcribe manuscripts



- Project "e-manuscripta full text"
 - Add transcription module to <u>e-manuscripta.ch</u>
 - Project duration: September 2016 to November 2017
 - Cooperative project, lead: Zentralbibliothek Zürich
 - Funded by swissuniversities

Functionalities

- Extension of existing Visual Library online editor used by Franckesche Stiftungen
- Workflow: registration, transcription, publication
- Open to the public simple transcription







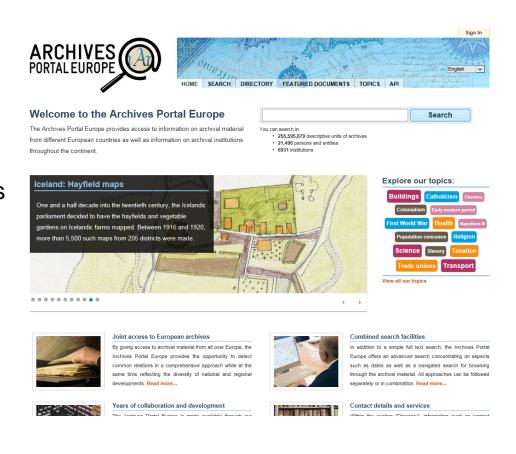
Multichannel distribution of metadata and content: Go where the users are

Spreading metadata

- locally: ETH Library's Knowledge Portal also includes data from archival information systems (e.g. Image Archive, ETH Zurich Archives) and other sources
- internationally: Finding aids of ETH Zurich Archives harvested by Archives Portal Europe (250 mio. archival units from serveral hundred archives)

Spreading content

- Ongoing upload of digitized images to Wikimedia Commons (~ 40,000 images so far)
- Images used to illustrate Wikipedia articles (e.g. «Mount Kilimanjaro» article with ~ 100,000 visits per month)
- Specialized metrics tool in development (Wikimedia CH)









Presenting content in a new way: Explora – the new storytelling platform

- **Presenting content in story form**
 - Research combined with storytelling
 - Visually attractive, using multimedia content
 - Change of perspective
- E.g. scientific plant images in "Mallow, Iris, Orchid"
 - Link the past (historical holidings) and the present (modern research, teaching, scientific visualization)
 - From Renaissance herbal books to 3D-modelling
 - Combining material from several collections and archives and
 - existing scans with new video testimonials
- New stories are published regularly







Summary and outlook

Potential	Summary	Outlook
Research partnerships	 Solid basis: Existing platforms with their underlying processes (indexing, scanning, presentation, archiving) Open data policy with clearly labelled rights statements 	 Further standardization regarding bulk access (e.g. RDF, IIIF) Growing demand for data driven research Individual projects demand individual know-how More active role of the library
User participation	Crowdsourcing works, but ongoing community management is key	Use «collective intelligence» for further and more complex tasks (e.g. to georeference images)
Outreach	 Targeted spreading of metadata and content increases visability Visually attractive platforms reach out to new users 	 Integration of data into link hubs (e.g. Wikidata) Intensify cooperation with experts to produce content

BIBLIOTHEK



Thank you very much for your attention!

Michael Gasser
Head Archives, ETH Library
Rämistrasse 101, CH-8092 Zürich
Tel. +41 44 632 21 82
michael.gasser@library.ethz.ch

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