



# **Index Theologicus**

## **Digitisation Projects in Theology**

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**Organisation – Workflows – Tools**



## Completed digitisation projects

- DigiTheo\_1: 2010-2012:
  - Digitisation of German theology in the nineteenth century
  - 20 Journals, 58 books: 508.222 images, 46.000 metadata
  
- DigiTheo\_2: 2011-2015
  - Digitisation of two single review journals:  
Theologische Literaturzeitung (1876-1995)  
Theologisches Literaturblatt (1880-1943)
  - 61.000 images, 66.000 review articles, 109.000 metadata



## Current / future digitisation projects

- DigiTheo\_3: 2015-2017
  - Digitisation of the Theologische Quartalschrift (1901-2005)
  - 1491 articles; 996 structure data
- DigiTheo\_4: planned in 2018
  - Digitisation of the Theologische Revue
- DigiTheo\_5: planned in 2018-2022
  - Digitisation of more than 70 German theological Journals



## Future digitisation projects

- DigiTheo\_6: planned in 2018-2020
  - Secondary publication service
  - Author-driven
  - Only articles (Embargo of one year after publication)
  - Based on German copyright law
  
- Big interest among German academics  
Survey: 130 professors > 3.000 research articles, 2.000 review articles



## Different kinds of digitisation projects

- content-driven projects
  - Example: „German theology in the nineteenth century“
  - Useful in research projects
- formal projects
  - Example: review journals
  - Targeted selection
- mass digitisation projects
  - Journals not yet digitally available
  - All-around supply



## Comparison between DigiTheo\_1 and DigiTheo\_2

- DigiTheo\_1: (articles, books)
  - 508.222 images, 46.000 metadata
- DigiTheo\_2: (review articles)
  - 61.000 images, 109.000 metadata
- Relation between images and metadata  
DigiTheo\_1: 11:1 – DigiTheo\_2: 1:2
- Unit Cost  
DigiTheo\_1: 0,30 € – DigiTheo\_2: 2,08 € >>> Relation 1:7
- Conclusion: to index the metadata is expensive, to digitise the images is cheap.



## Cost

DigiTheo_1	DigiTheo_2
Digitisation / Indexing	Digitisation / Indexing
Funding: 98.000 € University library resources: 53.000 €	Funding: 81.000 € University library resources: 43.000 €
OCR unknown	OCR 1.300 €
Memory storage: 4.000 €	Memory storage: 1.800 €
SUM: 155.000 €	SUM: 127.100 €



## Main tasks

Digitisation	Indexing
Fast	Time-consuming
Low costs	High personal costs
In-house or out-sourced	In-house





# What does indexing mean?

- Vorderdeckel
- Deckblatt
  - Register
- Heft 1
  - Aufsätze
    - Waschke, Ernst-Joachim: 1 - 10 Schuld und Schuldbewältigung nach dem prophetischen Zeugnis des Alten Testaments Leipzig, 1990
  - Rezensionen
    - Allgemeines, Festschriften
      - Bräuer, Siegfried: 11-12 [Rezension] Lortz, Joseph, Erneuerung und Einheit 1990
      - Haendler, Gert: 12-13 [Rezension] Itinera domini 1990
      - Neuerscheinungen
    - Religionswissenschaft
      - Gensichen, Hans-Werner: 14-15 [Rezension] Kloster...
      - Lanczkowski, Günter: 15-16 [Rezension] Les rites d'i...
    - Altes Testament
      - Kratz, Reinhard Gregor: 16-18 [Rezension] Heßler, Ev...
      - Kaiser, Otto: 18-19 [Rezension] Zwischen Gericht und Heim...
      - Herrmann, Wolfram: 19-20 [Rezension] Schmitt, Armin, Das Buch der Weisheit 1990
      - Wächter, Ludwig: 20 [Rezension] Altes Testament 1990
      - Körner, Jutta: 21 [Rezension] Hoftijzer, Jacob, The function and use of the imperfect forms with nun paragomicum in classical Hebrew 1990
      - Neuerscheinungen

Different types of metadata:  
Type 1: bibliographic metadata  
Type 2: structural metadata



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      - Kaiser, Otto: 18-19 [Rezension] Zwischen Genent und Heim 1990
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Structural metadata

Bibliographic metadata

Different types of metadata:  
 Type 1: bibliographic metadata (SWB and DWork)  
 Type 2: structural metadata (only DWork)



# Digitisation platform for DigiTheo: DWork

**DWork** Heidelberger  
Digitalisierungsworkflow

Kopie von:

Letzte Projekte...

Projektname: thlz\_120\_1995

Scanname	Seitennummer
thlz_120_1995_00001	0
thlz_120_1995_00002	0a
thlz_120_1995_00003	0b
thlz_120_1995_00004	0c
thlz_120_1995_00005	0d
thlz_120_1995_00006	II
thlz_120_1995_00007	III
thlz_120_1995_00008	IV
thlz_120_1995_00009	V
thlz_120_1995_00010	VI
thlz_120_1995_00011	VII
thlz_120_1995_00012	VIII
thlz_120_1995_00013	1
thlz_120_1995_00014	3
thlz_120_1995_00015	5
thlz_120_1995_00016	7
thlz_120_1995_00017	9

GA-Katkey:

Blanks in Dateinamen (sollte nur bei Alt-Projekten vorkommen) durch Plus-Zeichen ersetzen!  
Anzahl der Strukturzeilen: 692

Ebene	S.nr	Titel	@type= @aut= @...=	Scanname von	Scanname bis	
		Vorderdeckel		thlz_120_1995_00001	thlz_120_1995_00004	<a href="#">bearb.</a>
		Deckblatt		thlz_120_1995_00005	thlz_120_1995_00005	<a href="#">bearb.</a>
		Register		thlz_120_1995_00006	thlz_120_1995_00012	<a href="#">bearb.</a>
		Heft 1		thlz_120_1995_00013	thlz_120_1995_00013	<a href="#">bearb.</a>
>		Aufsätze		thlz_120_1995_00014	thlz_120_1995_00014	<a href="#">bearb.</a>
>>		3 - 22 Rudolf Bultmanns Her-Kunft und Hin-Kunft	@sprache=ger @ejahr=1995 @abgleich=120034182 @type=article @autor_001=Hübner, Hans	thlz_120_1995_00014	thlz_120_1995_00023	<a href="#">bearb.</a>
>		Rezensionen		thlz_120_1995_00023	thlz_120_1995_00023	<a href="#">bearb.</a>
>>		Altes Testament		thlz_120_1995_00023	thlz_120_1995_00023	<a href="#">bearb.</a>



# Presentationplattform 1: DWork

**Schürer, Emil [Begr.]; Harnack, Adolf von [Begr.]**

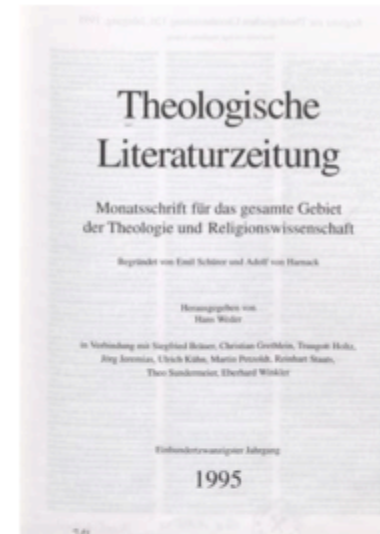
Theologische Literaturzeitung: Monatschrift für das gesamte Gebiet der Theologie und Religionswissenschaft

120.1995

▶ Alle zugehörigen Bände  
▶ Zurück

Zitierlink: [http://fdb.ub.uni-tuebingen.de/diglit/thlz\\_120\\_1995](http://fdb.ub.uni-tuebingen.de/diglit/thlz_120_1995)  
 URN: <urn:nbn:de:bsz:21-dt-21390>  
 METS: [http://fdb.ub.uni-tuebingen.de/diglit/thlz\\_120\\_1995/mets](http://fdb.ub.uni-tuebingen.de/diglit/thlz_120_1995/mets)  
 IIIF Manifest: [http://fdb.ub.uni-tuebingen.de/diglit/iiif/thlz\\_120\\_1995/manifest.json](http://fdb.ub.uni-tuebingen.de/diglit/iiif/thlz_120_1995/manifest.json)  
 Lizenz: Creative Commons: Namensnennung, Weitergabe unter gleichen Bedingungen

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## Inhalt

- Vorderdeckel
- Deckblatt
- Register
- Heft 1
  - Aufsätze
    - Hübner, Hans: 3 - 22 Rudolf Bultmanns Her-Kunft und Hin-Kunft1995
  - Rezensionen
    - Altes Testament
      - Körner, Jutta: 21-24 [Rezension] Aleph1995
      - Naumann, Thomas: 24-27 [Rezension] Eslinger, Lyle M., House of God or house of David1995
      - Wagner, Siegfried: 27-29 [Rezension] Fuchs, Gisela, Mythos und Hiobdichtung1995
      - Särkiö, Pekka: 29-30 [Rezension] Knoppers, Gary N., Two nations under God1995



# Presentationplattform 2: IxTheo

Select Page | with selected: Email Export Print Save

- 1

**Rudolf Bultmanns Her-Kunft und Hin-Kunft : zur neuen Bultmann-Literatur** ★

by Hübner, Hans

in: Theologische Literaturzeitung, 120 (1995), 1, S. 3 - 22

"(DE-576) 094449406"

[Kostenfrei](#)

Electronic Article
- 2

**Clines, David J. A., The dictionary of classical Hebrew, Vol. 1 : Rezension** ★

by Körner, Jutta

in: Theologische Literaturzeitung, 120 (1995), 1, S. 21-24

"(DE-576) 094449406"

[Kostenfrei](#)

Electronic Review
- 3

**Eslinger, Lyle M., House of God or house of David : Rezension** ★

by Naumann, Thomas 1958-

in: Theologische Literaturzeitung, 120 (1995), 1, S. 24-27

"(DE-576) 094449406"

[Kostenfrei](#)

Electronic Review
- 4

**Fuchs, Gisela, Mythos und Hiobdichtung : Rezension** ★

by Wagner, Siegfried 1930-2000

in: Theologische Literaturzeitung, 120 (1995), 1, S. 27-29

"(DE-576) 094449406"

**Remove Filters**

Format: Article ✕

OR Format: Review ✕

Year of Publication: 1995-1995 ✕

**Year of Publication** ▲

From:  To:

**Open Access** ▲

open access (449)

**Media type** ▲

Electronic (449)

**Format** ▲

Review (449)



## Working and presentation tool

- Software DWork by UB Heidelberg
  - Back-end system to index the metadata and merge the digital reproduction with the bibliographic records
  - Front-end system to search, browse and present the digital collection
- Advantages
  - Flexible, integrated and easy to handle
- Disadvantage
  - Stand-alone database



## Overcoming the disadvantage

- Scope: nobody should have to be familiar with our presentation tool in order to find the digital collection
- Integration of the bibliographic metadata into the IxTheo
- Workflow:
  - Indexing in the standard cataloging system of UB Tübingen (database of the Southwestern German Library Network, SWB)
  - Import of the bibliographic metadata into DWork
  - Merger of the metadata with the digital reproduction
  - Generation of persistent URLs for each digital reproduction
  - Insertion of the URLs of the digital reproductions into the bibliographic records of the SWB database
  - Import of enriched bibliographic records into IxTheo



## Technical Procedure

- Format: Tiff >>> JPG
- All images will be converted with OCR into editable text
  - except texts in Blackletter / Gothic script
  - The OCR text will not be checked for errors
- All files will be checked for errors (Omission, quality)
- All Files are stored on our institutional servers
- All files are archived twice: different servers in different locations in Tübingen
- Copy of all files on other websites (like DigiZeitschriften)
- Evaluation project to find the best back-up strategy in Baden-Wuerttemberg





## Findability – Distribution

- Google
- Deutsche Digitale Bibliothek (DDB)
- Europeana (planned via DDB)
- Zentrales Verzeichnis Digitalisierter Drucke (ZVDD)
- Leo-BW (regional information system for Baden-Wuerttemberg)



## Where is the most important hub for finding?

- Problem
  - Thousands of local repositories (smaller or bigger)
  - Big search engines (like google)
  - Big content portals (like DDB, Europeana)
  - Specialised bibliographic databases (like ATLA, IxTheo)
  - Different kind of relevant metadata
    - Metadata of digitised material
    - Bibliographic Metadata of printed or electronic literature



## Findability – New use case

- Solution
  - No single access point for digitised materials
  - Manifold Distribution of the metadata
  - National search databases
  - International databases
  - Specialised bibliographic databases
- Use case: data mining
  - Automatic analysis of big text collections
  - Searchable full text on one local server



# Findability of Digitisation projects in IxTheo

## IxTheo service for all Beth member digitisation projects

- To bring your digitisation projects into the IxTheo
  - We will spread a form
  - You give us some information about the project
    - E.g. titel, description, URL of the project etc.
  - We index the project in the worldwide biggest database for serials and scientific websites: Zeitschriftendatenbank ([ZDB](#))
  - We import the metadata from the ZDB into IxTheo



# Example of a catalog record

[link](#)

Search / Theologie digital / Description

[\\* Cite this](#)
[✉ Email this](#)
[📄 Export Record](#)
[★ Save to List](#)
[🔔 Subscribe](#)

## Theologie digital : DigiTheo

Neben den Drucken des 15. Jahrhunderts (Inkunabeln) besitzt die Universitätsbibliothek Tübingen einen umfangreichen Bestand an Drucken des 16. bis 18. Jahrhunderts. Allein für die Zeit des 16. und 17. Jahrhunderts ist von einem Bestand von etwa 50.000 Drucken auszugehen. Insgesamt umfaßt unser Besta...

Full description

<b>Subtitle:</b>	DigiTheo
<b>Format:</b>	Electronic   Series/Journal   Database
<b>Language:</b>	German
<b>Check Availability:</b>	HBZ Gateway
<b>Subito Delivery Service:</b>	Order now.
<b>Published:</b>	Tübingen : Universitätsbibliothek Tübingen [2015?]-
<b>Further Subjects:</b>	Databases
<b>Online Access:</b>	<a href="#">🔗 DBIS</a> <a href="#">🔗 Kostenfrei</a>

[Description](#)
[Staff View](#)

### Similar Items

- HANS : Handschriften, Autographen, Nachlässe, Sonderbestände der Forschungsbibliothek Gotha  
Published: (2015)
- WiReLex - das wissenschaftlich-religionspädagogische Lexikon im Internet  
Published: (2015)
- Cambridge digital library  
Published: (2015)
- BiblIndex : Index of Biblical quotations in early Christian literature  
Published: (2015)
- Bio-bibliographisches Register zum Archiv der Franckeschen Stiftungen  
Published: (2009)

[Feedback](#)



## Links

- Theology
  - Digital Theology in Tübingen: DigiTheo  
<http://idb.ub.uni-tuebingen.de/digitue/theo/>
  - Index Theologicus:  
<https://ixtheo.de>
- University Library Tübingen digitisation projects
  - <http://idb.ub.uni-tuebingen.de/digitue/tue/>
- German national digitisation projects
  - VD 17 (Verzeichnis der im deutschen Sprachraum erschienenen Drucke des 17. Jahrhunderts)  
<http://www.vd17.de/>
  - VD 18 (Verzeichnis der im deutschen Sprachraum erschienenen Drucke des 18. Jahrhunderts)  
<http://gso.gbv.de/DB=1.65/SET=1/TTL=1/>



# Many thanks for listening

## Contact:

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