



# DRUPALCON VIENNA



Using Drupal for Digital  
Humanities projects

Klaus Illmayer (ACDH-OEAW)





# Using Drupal for Digital Humanities projects

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<https://events.drupal.org/vienna2017/sessions/using-drupal-digital-humanities-projects>





# My background (and already some DH projects)

Working at Austrian Centre for Digital Humanities (ACDH) at OEAW:

- <https://www.oeaw.ac.at/acdh/>





# My background (and already some DH projects)

Working at Austrian Centre for Digital Humanities at OEAW (ACDH-OEAW):

- <https://www.oeaw.ac.at/acdh/>

OEAW is German and stands for Austrian Academy of Sciences (Österreichische Akademie der Wissenschaften)

- <https://www.oeaw.ac.at>



Logo of OEAW





# My background (and already some DH projects)

ACDH-OEAW is member of dha - digital humanities austria

- <http://digital-humanities.at>
- Website gives overview on running DH projects and events in Austria
- Decoupled Drupal: Backend is Drupal 7 (Klaus Illmayer), Frontend is Angular ([Christoph Hoffmann](#))



Logo of dha





# My background (and already some DH projects)

Before I worked (and studied) at the Department of Theatre, Film, and Media Studies at the University of Vienna:

- <https://tfm.univie.ac.at>



Logo of Department of Theatre, Film, and Media Studies at University of Vienna





# My background (and already some DH projects)

Before I worked (and studied) at the Department of Theatre, Film, and Media Studies at the University of Vienna:

- <https://tfm.univie.ac.at>
- Film critics by students:  
<http://passagen.univie.ac.at/fseviennale>  
(Drupal 6)



Detail of a screenshot of the website “fse viennale” including the Logo of Viennale



# My background (and already some DH projects)

Before I worked (and studied) at the Department of Theatre, Film, and Media Studies at the University of Vienna:

- <https://tfm.univie.ac.at>
- Film critics by students (Drupal 6)
- Information portal (including videos of lectures) on activities of the professorship of Christian Schulte:  
<http://passagen.univie.ac.at> (Drupal 7)



Detail of a screenshot of the website "passagen"

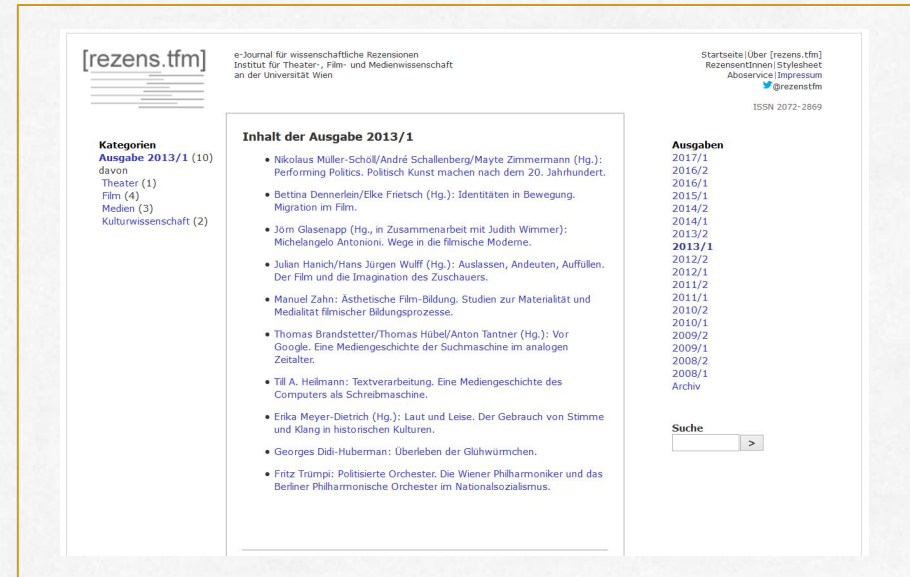




# My background (and already some DH projects)

Before I worked (and studied) at the Department of Theatre, Film, and Media Studies at the University of Vienna:

- <https://tfm.univie.ac.at>
- Film critics by students (Drupal 6)
- Information portal (Drupal 7)
- Other Non-Drupal projects: review portal (<http://rezenstfm.univie.ac.at>), internal tools for managing media collections, ...



The screenshot shows the homepage of the website 'rezens.tfm'. The header includes the logo and the text 'e-Journal für wissenschaftliche Rezensionen Institut für Theater-, Film- und Medienwissenschaft an der Universität Wien'. On the right, there is contact information: 'Startseite | Über [rezens.tfm]', 'RezensentInnen | Styleguide', 'Abo-service | Impressum', and '@rezenstfm' with a Twitter icon. The ISSN is 2072-2869.

**[rezens.tfm]**

**Kategorien**  
Ausgabe 2013/1 (10)  
davon  
Theater (1)  
Film (4)  
Medien (3)  
Kulturwissenschaft (2)

**Inhalt der Ausgabe 2013/1**

- Nikolaus Müller-Schöll/André Schallenberg/Mayte Zimmermann (Hg.): Performing Politics. Politisch Kunst machen nach dem 20. Jahrhundert.
- Bettina Dennerlein/Elke Frietsch (Hg.): Identitäten in Bewegung. Migration im Film.
- Jörn Glasenapp (Hg., in Zusammenarbeit mit Judith Wimmer): Michelangelo Antonioni. Wege in die filmische Moderne.
- Julian Hanich/Hans Jürgen Wulff (Hg.): Auslassen, Andeuten, Auffüllen. Der Film und die Imagination des Zuschauers.
- Manuel Zahn: Ästhetische Film-Bildung. Studien zur Materialität und Medialität filmischer Bildungsprozesse.
- Thomas Brandstetter/Thomas Hübner/Anton Tantner (Hg.): Vor Google. Eine Mediengeschichte der Suchmaschine im analogen Zeitalter.
- Till A. Heilmann: Textverarbeitung. Eine Mediengeschichte des Computers als Schreibmaschine.
- Erika Meyer-Dietrich (Hg.): Laut und Leise. Der Gebrauch von Stimme und Klang in historischen Kulturen.
- Georges Didi-Huberman: Überleben der Glühwürmchen.
- Fritz Trümper: Politisierte Orchester. Die Wiener Philharmoniker und das Berliner Philharmonische Orchester im Nationalsozialismus.

**Ausgaben**  
2017/1  
2016/2  
2016/1  
2015/1  
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2012/2  
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Suche  >

Detail of a screenshot of the website "rezens.tfm"



## First summary on the activities in the field of Digital Humanities

- initiate and support the digital change in academics
- digitize material and create born-digital material
- create digital environments for students and lecturer
- disseminate research results and publications
- provide research material
- enable new or better research possibilities
- building up DH communities
- but also: critical analysis on the usage of digital technologies in research and society



DRUPALCON



VIENNA

What is Digital Humanities?  
One of many definitions...





# Some cornerstones of Digital Humanities

(including ongoing-discussions)

- An accompany for academic disciplines of the humanities?
  - Humanities: Disciplines that deal with humans and their expressions
  - Includes History studies, Art history, Literature studies, Language studies, Archaeology, Philosophy, Theatre studies, Film studies, Media studies, ...
  - Distinguished from Social Sciences, Natural Sciences, ...
  - But there is no general rule on this.
- A discipline by its own?

## What Is Digital Humanities?

The creation and critical application of digital technologies to develop scholarly communities and further humanistic knowledge.

*Jason M Kelly*

NB: Refresh the page to get a new definition. Quotes were pulled from participants from the Day of DH between 2009-2014. As of January 2015, the database contains 817 rows and randomly selects a quote each time the page is loaded. If you want to do something cool with the data, I am providing a download for the CSV I compiled [here](#).

Made by [Jason Heppler](#). Problems? Questions? I'm [@jaheppler](#) on Twitter.

A randomly created quote from <http://whatisdigitalhumanities.com>





# Some cornerstones of Digital Humanities

(including ongoing-discussions)

- Digital change strikes every academic discipline
- DH as an incubator for implementing computing methods and digital infrastructures in the Humanities
- DH explores new methods and views on research and research data
- DH discusses changes and challenges evolved by the digital turn especially for scholarship but also for societies, communities, humans, ...

## What Is Digital Humanities?

The Digital Humanities represents an exciting integration of technology and textual culture. There is an increasing need to recognise the culturally productive synthesis represented in the label 'Digital Humanities' and to understand the immense propensity for inclusivity which results from this union. My understanding of the area, though basic and developing, recognises the need for the universal engagement with the positive possibilities for the increased accessibility of information through the Digital Humanities, while also being mindful of the need to preserve the foundations of our humanities.

*Bairbre Walsh*

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Made by [Jason Heppler](#). Problems? Questions? I'm [@jaheppler](#) on Twitter.

A randomly created quote from <http://whatisdigitalhumanities.com>





# Some cornerstones of Digital Humanities

(including ongoing-discussions)

- DH is an open field
- DH relies on a pulsing, steadily growing community, including scholars, librarians, students, developers, teachers, citizen scientists, ...
- There are so many definitions of DH,
- hence mine is showing only one of many possible paths in this wide field

## What Is Digital Humanities?

To borrow someone else's words, it's an intersection of technology and Humanities and uses the brains of people across disciplines. DH subsets (text mining, data mining, mashups) can allow scholarship to flourish in ways we never thought possible by adding quantitative value and allowing traditional scholars to find new patterns in their work which they may have otherwise missed.

*Debbie Maron*

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# Going into more details: Projects in Digital Humanities How they can look like

- DH projects rather small
  - depend on funding
  - therefore limited running time
- Such DH projects are not covered by the Higher Education industries distributions
- Usually specialized data models derived from individual research questions
- “Classic” research and digital “translations” should work hand-in-hand > not always the case
- There are also more and more integrated approaches, doing digital research

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Tailor your higher education solution with the power of Drupal

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**Scalable** - Multi-site functionality allows you to centrally manage and control the brand while giving content independence to each department.

**Secure** - Protect student and faculty data with a platform built on security best-practices.

71% of the top **100** universities use Drupal, including MIT, University of Oxford, Stanford, and every Ivy League School.

Stanford University UNIVERSITY OF OXFORD MIT Massachusetts Institute of Technology



Detail of a screenshot from the Drupal.org-website  
(<https://www.drupal.org/industries/education>)



# Going into more details: Projects in Digital Humanities

## Problems and requests

### Problems of DH projects

- Maintenance is a big issue
- Sustainability is becoming important (especially when a project ends)
- Funding structure and limited contracts endanger stability of running websites
- ...

### Requests by researchers

- More digitized data
- Reuse of research data
- More and more complex queries
- Enabling a seamless digital research workflow
- ...







# Going into more details: Projects in Digital Humanities

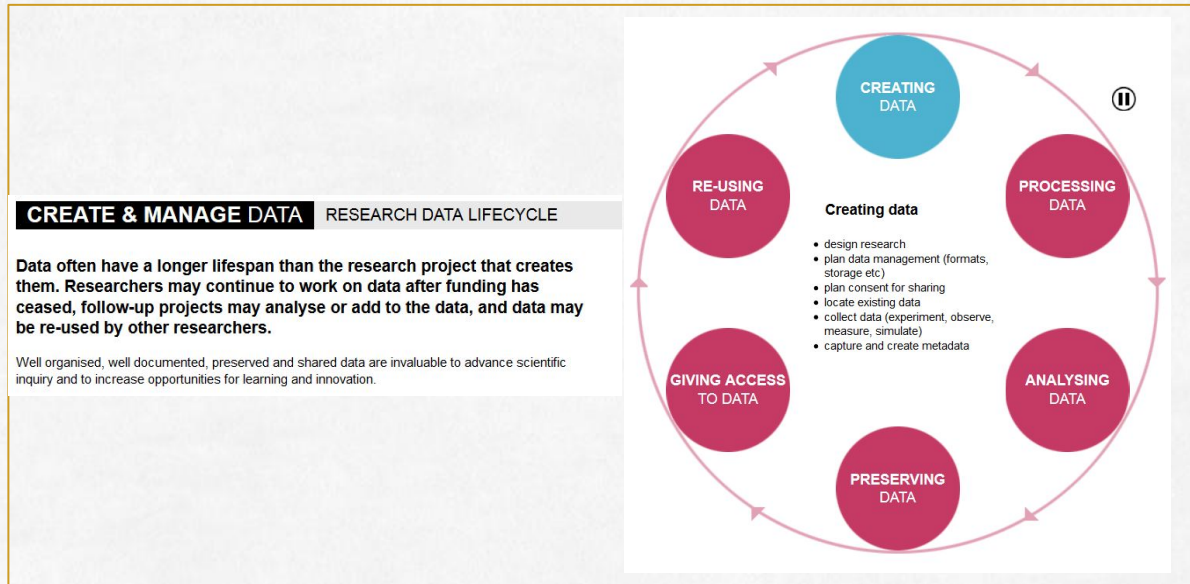
Things are changing

- More professional training is available
- Sustainability of research data is addressed as a key issue
- Platforms for community exchange arise
- More documentation of DH workflows
- New tools
- In general: a stronger self-confidence of DH supporters, pushing forward issues that need to be handled in the future
- Agreement on common guidelines / concepts, e.g. support of a research data lifecycle model



# Going into more details: Projects in Digital Humanities

## Model of a research data lifecycle



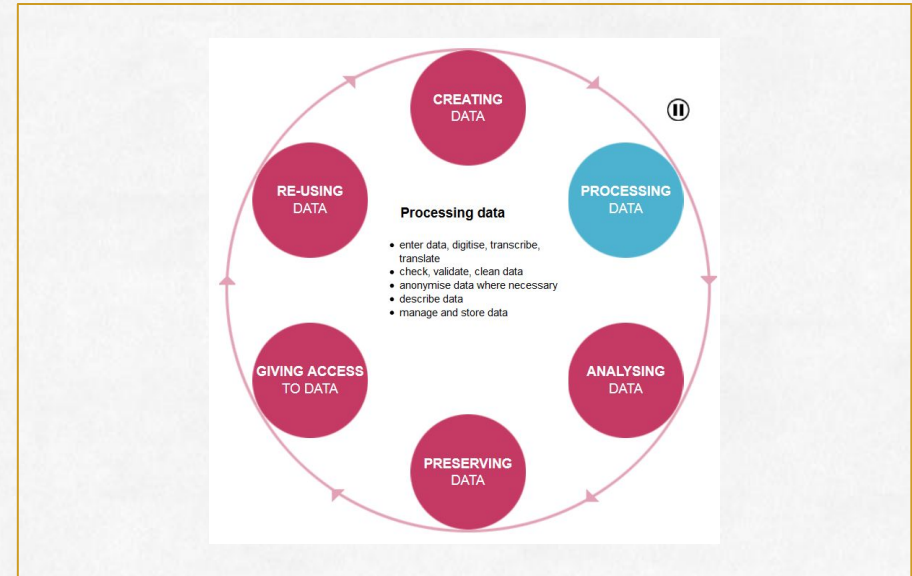
UK Data Archive Research Data Lifecycle, <http://www.data-archive.ac.uk/create-manage/life-cycle>

Copyright: University of Essex



# Going into more details: Projects in Digital Humanities An example

- Digital edition of a book from an author
  - Digitize source (OCR, corrections)
  - Encode with TEI (Text Encoding Initiative: <http://www.tei-c.org>, based on XML)
  - Add references to “entities”, e.g. persons, places, events, using authority files like <http://www.geonames.org> and <https://viaf.org/>
  - Create a presentation view
- There can be way more steps



# Going into more details: Projects in Digital Humanities


## How to reuse data

- Difference between presentation of data and data itself
- For re-using research data it is necessary to give access to the raw data
- Websites may vanish, therefore depositing data into trusted data repositories
- These are fundamentals for a successful iteration of the research data lifecycle
- In reality: different data formats, missing (meta)data, unclear derivations, etc.
- It needs also agreed standards, commitment to (meta)data quality, tools



UK Data Archive Research Data Lifecycle,  
<http://www.data-archive.ac.uk/create-manage/life-cycle>

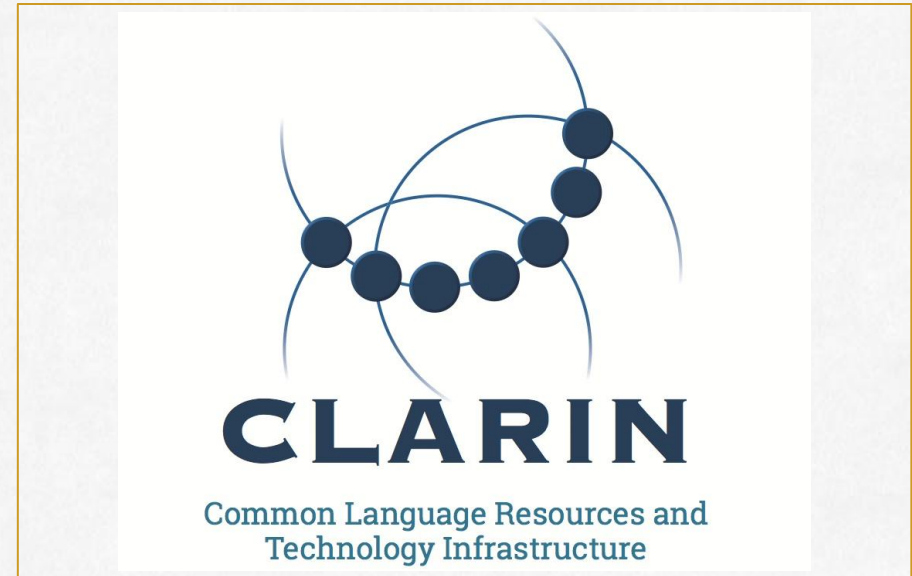
Copyright: University of Essex



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## Going into more details: Research infrastructures and community building

- Growing awareness in DH community
  - Guidelines, discussions, recommendations, training
- Establishing digital research infrastructures
  - ERIC: European Research Infrastructure Consortium
  - CLARIN: European Research Infrastructure for Language Resources and Technology (<https://www.clarin.eu/> > Website operates on Drupal 7)






## Going into more details: Research infrastructures and community building

- Growing awareness in DH community
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- Establishing digital research infrastructures
  - CLARIN (<https://www.clarin.eu/>)
  - DARIAH: Digital Research Infrastructure for the Arts and Humanities (<http://dariah.eu/>)

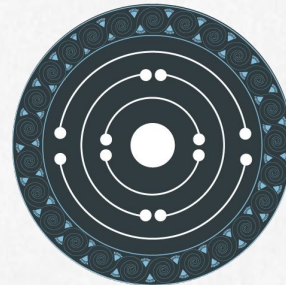




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## Going into more details: Research infrastructures and community building

- Growing awareness in DH community
  - Guidelines, discussions, recommendations, training
- Establishing digital research infrastructures
  - CLARIN (<https://www.clarin.eu/>)
  - DARIAH (<http://dariah.eu/>)
  - PARTHENOS: Pooling Activities, Resources and Tools for Heritage E-research Networking, Optimization and Synergies (<http://www.parthenos-project.eu/>)



# PARTHENOS

Pooling Activities, Resources and Tools  
for Heritage E-research Networking,  
Optimization and Synergies

Logo of PARTHENOS





## Going into more details: Research infrastructures and community building

- Growing awareness in DH community
  - Guidelines, discussions, recommendations, training
- Establishing digital research infrastructures
  - CLARIN
  - DARIAH
  - PARTHENOS
- Community building
  - FORCE11. The future of Research Communications and e-Scholarship (<https://www.force11.org/>)





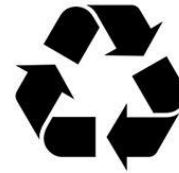
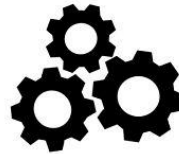
# The FAIR data principles





# The FAIR Data Principles Introduction

F<sub>indable</sub> A<sub>ccessible</sub> I<sub>nteroperable</sub> R<sub>eusable</sub>



By SangyaPundir (Own work) [CC BY-SA 4.0 (<https://creativecommons.org/licenses/by-sa/4.0/>)], via  
Wikimedia Commons: [https://commons.wikimedia.org/wiki/File%3FAIR\\_data\\_principles.jpg](https://commons.wikimedia.org/wiki/File%3FAIR_data_principles.jpg)





# The FAIR Data Principles

## Findable

- FAIR Data Principles:  
<https://www.force11.org/group/fairgroup/fairprinciples>
- FAIR is about knowledge discovery
- UUID (Universally Unique Identifier) in D8 core is a great step forward > missing possibility to link to content with the UUID (is in work - [#2353611](#))
- Not so much about SEO, but more about registering in domain specific resources
- Also <http://schema.org/> support in D8 core is a good step forward

### TO BE FINDABLE:

- F1. (meta)data are assigned a globally unique and eternally persistent identifier.
- F2. data are described with rich metadata.
- F3. (meta)data are registered or indexed in a searchable resource.
- F4. metadata specify the data identifier.





# The FAIR Data Principles Accessible

- FAIR Data Principles:  
<https://www.force11.org/group/fairgroup/fairprinciples>
- Drupal 8 API in core is a great benefit
- Decoupled approaches will have a great impact on DH projects
- Important: Sharing license informations
- One big issue is machine to machine communication, meaning a semantic discovery of an API and the data models behind it (Hydra could be a way to go:  
<http://www.hydra-cg.com/>)

## TO BE ACCESSIBLE:

A1 (meta)data are retrievable by their identifier using a standardized communications protocol.

A1.1 the protocol is open, free, and universally implementable.

A1.2 the protocol allows for an authentication and authorization procedure, where necessary.

A2 metadata are accessible, even when the data are no longer available.





# The FAIR Data Principles

## Interoperable

- FAIR Data Principles:  
<https://www.force11.org/group/fairgroup/fairprinciples>
- How to share a common language? “FAIR for machines as well as people”
- Ontologies and vocabularies help to describe relations between data from different sources/domains
- WissKI (<http://www.wiss-ki.eu/>) enables Virtual Research Environments (VRE) based on Drupal 8 + a Triple Store
- Semantic Web via Linked open data (LOD)

### TO BE INTEROPERABLE:

- I1. (meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation.
- I2. (meta)data use vocabularies that follow FAIR principles.
- I3. (meta)data include qualified references to other (meta)data.





# The FAIR Data Principles

## Re-usable

- FAIR Data Principles:  
<https://www.force11.org/group/fairgroup/fairprinciples>
- (Meta)data quality is important
- Supporting this with UX strategies
- Bidirectional APIs: Not only exposing data but also easily integrating data from other sources (especially authority files)

### TO BE RE-USABLE:

- R1. meta(data) have a plurality of accurate and relevant attributes.
- R1.1. (meta)data are released with a clear and accessible data usage license.
- R1.2. (meta)data are associated with their provenance.
- R1.3. (meta)data meet domain-relevant community standards.



DRUPALCON  VIENNA

Drupal and DH projects  
Roundup





# Drupal as platform for DH projects: Challenges

- Complex data models
- Sustainable workflow connecting websites, tools, methods
- Support for community standards and best practices
- It is more than content: it is about data and further usages
- Out-of-box experience important: DH community needs to invest into tailored Drupal modules
- As Dries said: it is about “ambitious digital experiences” that in the case of DH is based on complex and rich research data
- Drupal is a great tool for DH! But we need to find out, where it suits best in the DH workflow.







# Drupal as platform for DH projects: Theadok: Collecting data on theatre performances

**theadok** Theadok Startseite Anmelden

[Node](#) / [Lehár, Franz](#)

## Lehár, Franz

<b>Vorname</b> Franz	<b>Fulltext search</b> <input type="text"/> <input type="button" value="SEARCH"/>
<b>Nachname</b> Lehár	
<b>Import score</b> 18	
<b>GND Referenz</b> <a href="http://d-nb.info/gnd/118571036">http://d-nb.info/gnd/118571036</a>	
<b>VIAF Referenz</b> <a href="http://viaf.org/viaf/61732356">http://viaf.org/viaf/61732356</a>	
<b>DBpedia Referenz</b> <a href="http://dbpedia.org/resource/Franz_Leh%C3%A1r">http://dbpedia.org/resource/Franz_Leh%C3%A1r</a>	
<b>Berufsordnungen (Auszug von GND)</b> Komponist / Musiker	
<b>Themenzuordnung (Auszug von GND)</b> Personen zu Musik	
<b>Wirkungsorte (Länder)</b> <a href="#">Deutschland</a> <a href="#">Österreich</a> <a href="#">Ungarn</a>	
<b>Geboren</b> Sa, 04/30/1870 - 12:00	
<b>Gestorben</b> So, 10/24/1948 - 12:00	
<b>Gender</b> male	

### Beteiligt bei folgenden Vorlagen

[Der Zarewitsch](#)  
Komposition



## WHAT DID YOU THINK?

Locate this session at the DrupalCon Vienna website:

<http://vienna2017.drupal.org/schedule>

<https://events.drupal.org/vienna2017/sessions/using-drupal-digital-humanities-projects>

Take the survey!

<https://www.surveymonkey.com/r/drupalconvienna>

