

# TIB

GERMAN NATIONAL LIBRARY OF  
SCIENCE AND TECHNOLOGY

## Complementing a Research Library's Knowledge Management using VIVO

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Dr. Ina Blümel  
**IATUL conference**  
July 9, 2015



# A few prerequisites for the development described in the following

- Hanover's University of Applied Sciences and Arts, Information Management, and TIB Open Science Lab (OSL)
- Open Science, Research Information, Linked Open Data & more
- Integrating OS-issues, RI + LOD into IM classes, involving students and young researchers, leading projects at HsH working as basis for TIB OSL developments

# TIB as an institution

- Wants to present own scientific activities: information on projects, papers, that is spread over many places (later)
- Needs to facilitate reporting processes about those activities, getting out statistics for evaluation and funding (research management)
- Wants to know indicators for certain topics at a glance where its stuff is involved → knowledge management & more

## ...is not the only one

- Several major universities + number of facilities belonging to the four large German scientific associations (Max Planck, Fraunhofer, Helmholtz and Leibniz) are introducing institutional research information systems
- They all have in common
  - research management as driving force: reporting tools, etc.
  - mostly proprietary CRIS implementations at institutional level, ... (Pure, Converis, et al)
  - RI paradigm more an institutional, “**closed world**”

# It's all about individuals

- **People** of the institution with any kind of research output / involvement → Identify entities like projects, journal articles, department affiliations and how they are connected
  - Vanity, own CV, own scholarly output at a glance
  - want to identify and connect with peers
- RI paradigm more an open, “**discovery world**”
- establish networks, see success of “Facebooks for Scientists”, e.g. ResearchGate
- connect and integrate with other information and person-IDs like GND-ID, ORCID, .. → researchers do NOT want to maintain several redundant profile pages

# Why not try both?

- Institutional RI system AND linkable, openly reusable research information
- and the way to tackle another problem

Do not exchange reports, but data! →

# Do not exchange reports, but data!


An: TIB/UB MailUser TIB/UB  
Cc:  
Betreff: Datenabfrage 2014 der Leibniz-Gemeinschaft: Vorträge und Publikationen

Liebe Kolleginnen und Kollegen,

es ist wieder so weit: Die Datenabfrage der Leibniz-Gemeinschaft steht an. Für die Statistik der Leibniz-Gemeinschaft müssen wir für das Jahr 2014 den wissenschaftlichen Output der TIB – Vorträge, Publikationen, Forschungsdaten und Veranstaltungen – ermitteln. Hierfür bitten wir Sie um Ihre Unterstützung!

## Meldung gehaltene Vorträge 2014

Bitte prüfen Sie auf unserer dafür angelegten Wiki-Seite (<https://intranet.tib.eu/confluence/pages/viewpage.action?pageId=19500540>), ob alle von Ihnen 2014 gehaltenen Vorträge vollständig erfasst sind. Fehlende Vorträge erhalten Sie bitte an Frau Bauer ([maria.bauer@tib.uni-leipzig.de](mailto:maria.bauer@tib.uni-leipzig.de)).

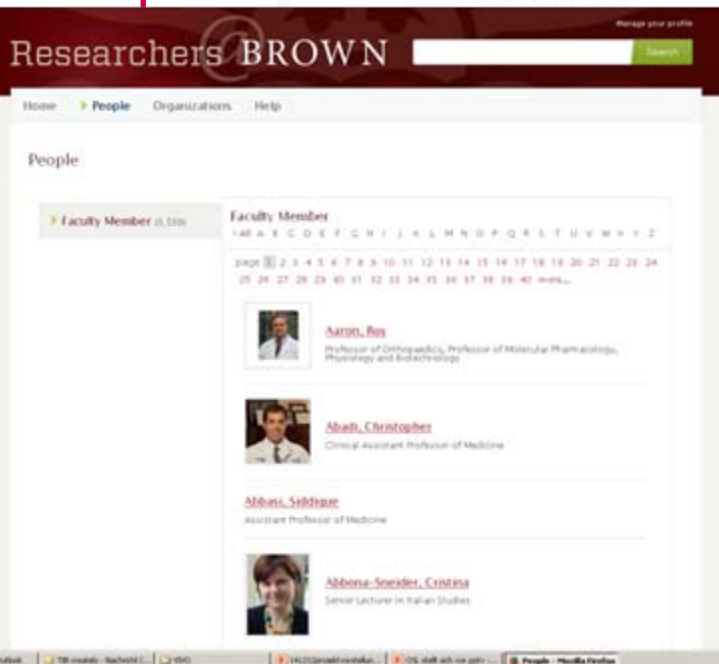
An: TIB/UB MailUser TIB/UB  
Cc:  
Betreff: Mitarbeit in Gremien für Jahresbericht 2014  
Anlagen:  Übersicht\_Mitarbeit in Gremien.pdf (24 KB)

Liebe Kolleginnen und Kollegen,

derzeit arbeiten wir am Jahresbericht 2014. Wie schon in den vergangenen Jahren gehört auch die Auflistung „Mitarbeit in Gremien“ dazu. Anbei sende ich Ihnen die Liste aus dem Jahresbericht 2013. Bitte überprüfen Sie die Liste und teilen Sie mir Änderungen, Streichungen und Ergänzungen mit, die Sie oder Ihr Team betreffen. Relevant ist dabei nur der Zeitraum vom 1. Januar 2014 bis zum 31. Dezember 2014.

Bitte geben Sie mir hierzu bis Freitag, 10. Juli 2015, eine Rückmeldung.

Vielen Dank für Ihre Unterstützung!



- Model for linkable research information with LOD ontologies
- Open source software
- Originally developed at Cornell with NSF funding, now supported by a consortium at DuraSpace → community aspect!
- Numerous implementations, previously primarily in the English-language bio/medical area (CTSA)
- Research profiles, institutional overviews, community VIVOS, visualisations, ...



# Building-up a TIB VIVO (considering both people's and institutions's needs)

Main challenge:

- From the vast array of research information objects on institute's homepages, internal wiki pages, ...
- to *structured, well-connected, non-redundant* research information in one place (TIB VIVO), and
- that can be reused anywhere, in any other context

Project setting:

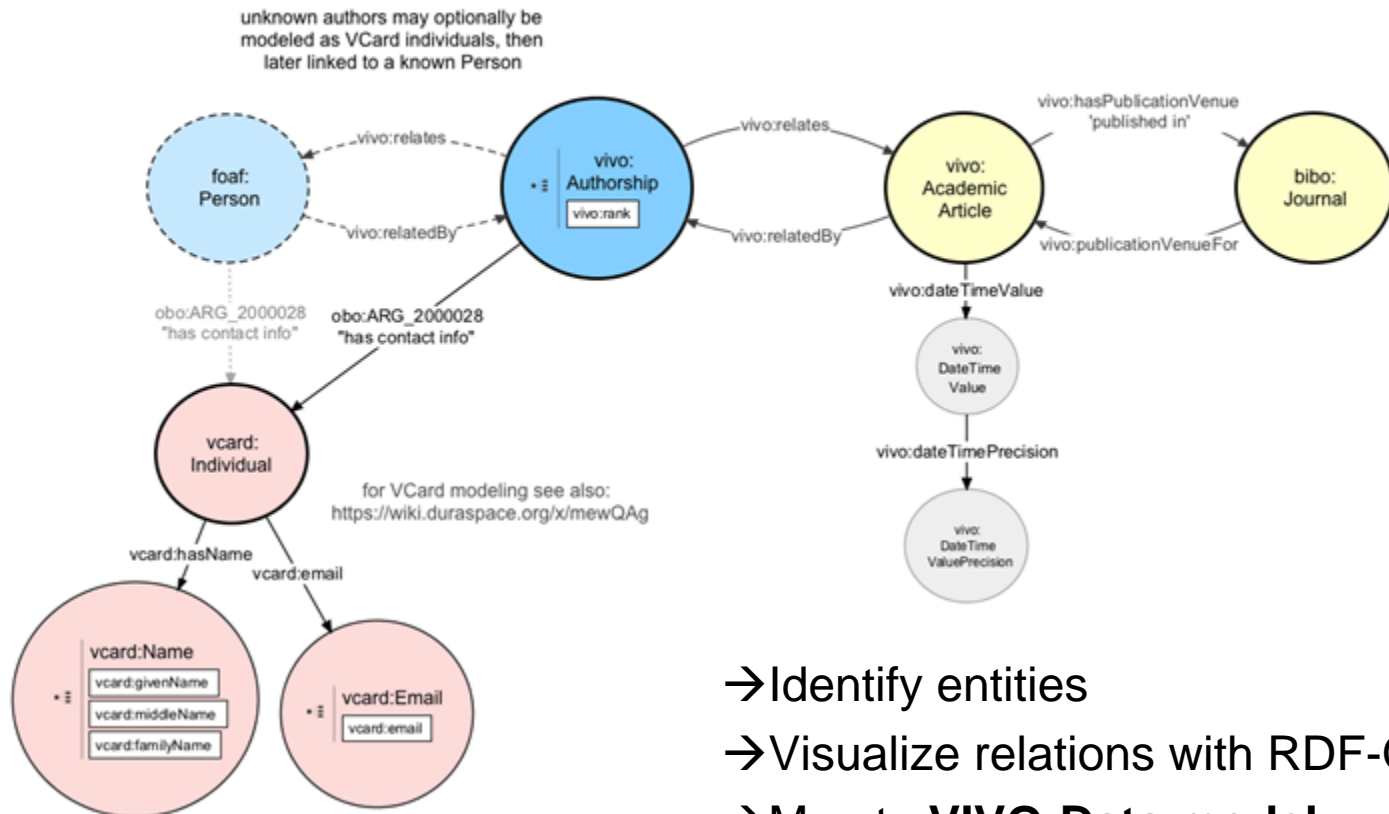
- 13 weeks (3 - 6/2015) à 5 hrs, 9 participants, few to almost no knowledge about Research Information Systems and Semantic Web



# Target: RDF (main „challenge“ for IM students, but many librarians too)

3/17/14

## VIVO Authorship: Connecting an Author with a Publication



→ Identify entities

→ Visualize relations with RDF-Graphs

→ Map to **VIVO-Data** model



# Step 3: make it machine-readable

- Adding LOD ontologies (VIVO uses the most common namespaces, such as FOAF, BIBO, DCterms, ...)

The screenshot displays the VIVO interface for RDF Schema Alignment. At the top, it shows '33 records' and a table of data with columns like 'KurzName', 'Untertitel', 'Jahr Start', 'Jahr Abschluss', 'Link', 'Projektleitung', 'Projektbearbeit', and 'Förderer'. A modal window titled 'RDF Schema Alignment' is open, showing an 'RDF Skeleton' with a grid of cells. A search box for 'foaf:Organisation' is active, with a dropdown menu showing 'foaf:Organisation' as a selected item. The interface includes various controls like 'add property', 'add rdf type', and 'Save'.

# Step 4+5: Adapt VIVO templates to TIB design and add german localisation, import RDF data

The screenshot displays the TIB VIVO portal interface. At the top left is the TIB logo and the VIVO logo with the tagline "connect share discover". On the top right, there are flags for the USA and Germany, and the text "HDS" and "Anmelden". Below the logo is a navigation bar with links: Home, Personen, Organisationen, Projekte, Forschungsbereiche, and Veranstaltungen. The main content area features a "Willkommen bei VIVO" section with a description of the portal's purpose and a search bar labeled "VIVO durchsuchen" with a "Suche einschränken" dropdown and a "Search" button. To the right is a "Log in" section with input fields for "Email" and "Password" and a "Log in" button. Below the main content are three columns: "Forschung" with counts for "Academic Articles" (86) and "Grants" (33); "Personen" listing individuals like Lemke, Gundela Dr., Wilhelm, Christine Dr., and Schnelzer, Irka Librarian; and "Abteilungen" listing departments such as "Bestandserhaltung und ILL", "Forschung", "Entwicklung", "Volltextversorgung", "Innovationsmanagement", and "Erwerbung und Katalogisierung".

# Departments – People – Research Areas

The screenshot shows the TIB VIVO website interface. At the top, there is a navigation bar with the TIB logo, the VIVO logo, and the tagline "connect share discover". There are also language selection options (USA, Germany) and a search button. Below the navigation bar, there is a main menu with links for Home, Personen, Organisationen, Projekte, Forschungsbereiche, and Veranstaltungen. The main content area is titled "Entwicklung | Department" and features a "Zentraler Graph" and a "Wissenschaftslandschaft" icon. A section titled "verwandte Forschungsgebiete" lists various research areas such as retrieval, 3D-Druck, 4D-Medien, OO, DataScience, DataLite, Forschungsdaten, Gefüge, Mathematik, Metadaten automatisch, Open Science, Video, audiovisuelle Medien, automatisiertes Indexing, digitale Bibliothek, discovery system, metadata schema, multimedia retrieval, publication, and research. Below this, there is an "Affiliation" section with a "people" sub-section listing several individuals: Brase, Jan; Hohfeld, Michael; Koehler, Oliver; Lohs, Peter; and Plank, Margret. There is also a "has sub-organization" section listing various sub-organizations like DOI-Service, Drittmittel und Transfer, Nichttextuelle Materialien, and Open Science Lab.

# Profile Page (research areas derived from publications and projects)

The screenshot displays a VIVO profile page for Lambert Heller, Librarian. The page layout includes a header with the TIB and VIVO logos, a search bar, and a navigation menu. The profile section features a silhouette placeholder for a photo, contact details (email: Lambert.Heller@tib.uni-hannover.de, phone: 0011 762-5348), and a list of research areas. A 'selected publications' section is visible at the bottom, listing several academic articles.

**TIB** **VIVO** connect share discover

Home | Personen | Organisationen | Projekte | Forschungsbereiche | Veranstaltungen

**Heller, Lambert** | Librarian

Publikationen in VIVO  
13 total

**Positions**

- Leitung, [Open Science Lab, Entwicklung](#)

**Research Areas**

[retrieval](#) | [Dezentralität](#) | [Dynamic Publication Format](#) | [Forschungsinformation](#) | [Forschungsinformationssystem](#) | [Linked Open Data](#) | [Literaturverwaltung](#) | [Metadaten](#) | [Nutzungsrechte](#) | [Open Science](#) | [Peer Review](#) | [Publizieren](#) | [Science 2.0](#) | [digitales Publizieren](#) | [Information extraction](#)

**Kontaktdaten**

[Lambert.Heller@tib.uni-hannover.de](mailto:Lambert.Heller@tib.uni-hannover.de)

0011 762-5348

Publications | Contact | View All

**selected publications**

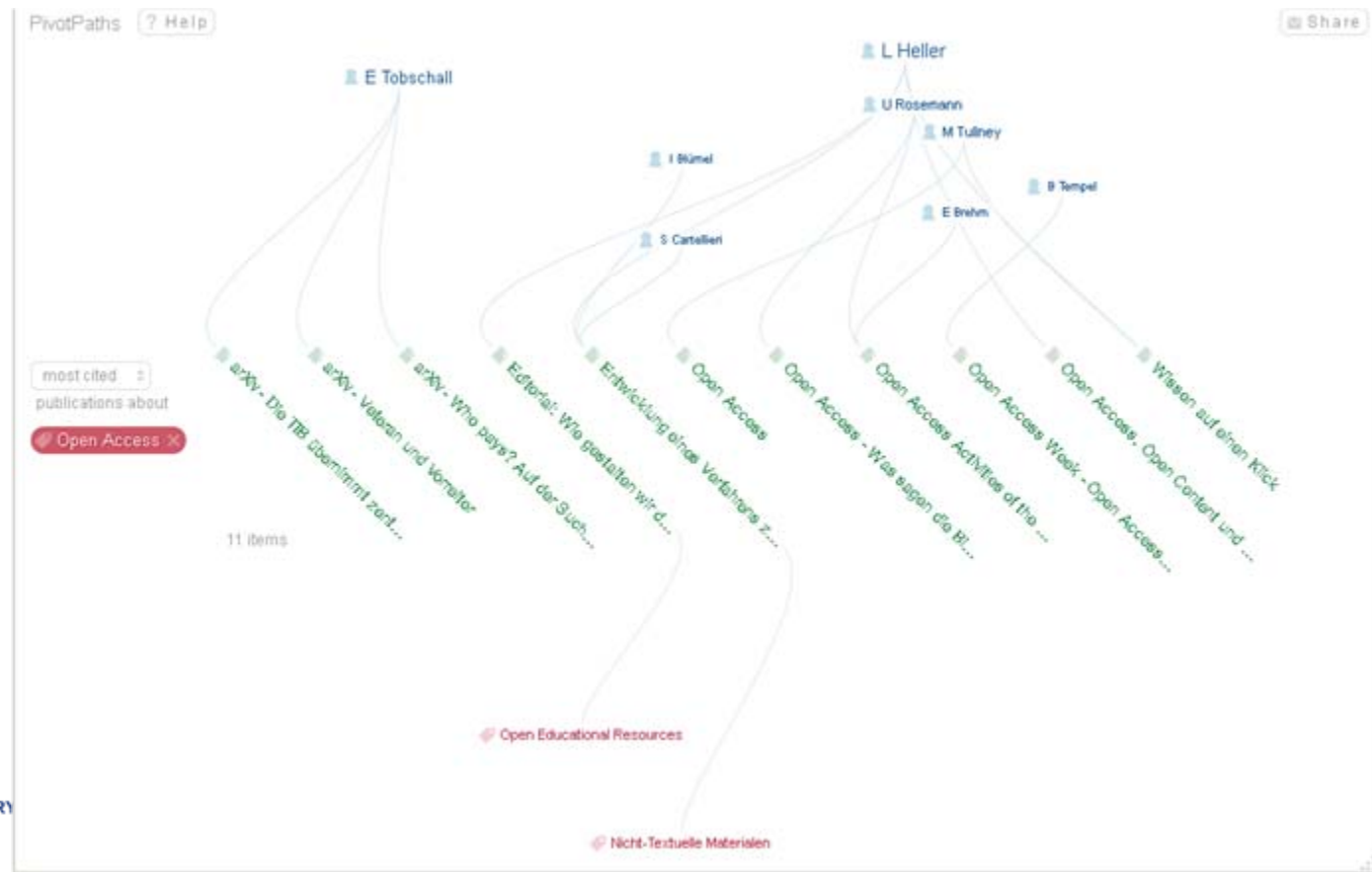
academic article

- ["Now, someone wants to publish me!" — Revisited](#)
- [1.000 Antworten auf die Frage: Literaturverwaltung — Was benutzen Sie, was brauchen Sie?](#)
- [Aspekte der Kommunikation mit Wissenschaftsblogs](#)
- [Das Netzwerk und die Institution](#)



# Enhancing VIVO visualisations – just started project

- obtain deeper insights into [TIB's People – Publications – Research Areas](#) → basis for e.g. strategy decisions (remember 😊: do not exchange reports, but data )



# Some final thoughts

- Research information and networking systems – upcoming default activities for modern research libraries
- New topics arise, e.g.
  - rapidly evolving nature of scholarly objects
  - information discovery in a linked open data world
  - new impact measures and visualisations
- VIVO and its consistently open research information paradigm works well for practical projects to convey some of the key skills for future librarians

# ...and finally some of our OSL activities in VIVO context

- Community building: Co-organisation of VIVOcamp13 (at SWIB conf.) and 14 (at ELAG conf.); VIVOcamp15: First workshop for growing German speaking VIVO community (developers and decision makers) on 09/09/2015 at TIB, participation in euroCRIS LD taskgroup, DINI's CRIS working group, „ Research core data-set“ project (advisory)
- Policy & Standards Making: [german localisation of VIVO vocab./templates](#), adopting VIVO ontology to national organisational req. (supervised bachelor thesis), VIVO manual – collaborative documentation for developers and data libs.
- And more: „Leibniz-Discovery“ with VIVO – Grant Application in Leibniz Competition 2016, [invited talk at VIVO conference, Boston, 8/2015](#)

Thank you for your attention!

Meet Lambert Heller and me at TIB  
exhibition stand right after this session!

