



The Making of Jewish Heritage in the Digital Age: The Trials and Transmissions of German Refugee Rabbis after 1933

Part II: Technology
With data Science to History –
Challenges of a data-driven approach

Christian Riepl, LMU
(March 6, 2025)

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Digital research portal: mira.geschichte.lmu.de

What's new?

How do we work with digital data?

Database design, acquisition and structuring of data

Data analytics, data visualisation, data computation

Digital Humanities / Data-driven approach

Sustainability of research software and data

Value and benefits of digital / computational methods

Webportal mira.geschichte.lmu.de

Project **Persons** Publications Events Discussion Group Share

MIRA

Name

Place of Birth

Place of Death

Aber, Felix (1895–1964)

Adler, Leo (1915–1978)

Alexander, Theodor Rolf (Theodore) (1920–2016)

Altmann, Alexander (1906–1987)

Ansbacher (Asher), Joseph (1921–1990)

Appel, Ernst (1884–1973)

Auerbach, Heimann (Hyman) (1880–1957)

Auerbach, Selig Sigmund (1906–1997)

Bach, Julius Max (1872–1946)

Baerwald, Leo (1883–1970)

Bamberger, Fritz (Siegfried) (1902–1984)

Berkovits, László (Ladislaus, Eliezer) (1908–1992)

Biberfeld (Biberfeld), Philipp Leon (1901–1982)

Bluhm, Arthur (1899–1962)

142 Ergebnisse

MIGRA Legal Notice Privacy

Community Sourcing

Discussion Group (12 members)

Digital Prosopographical Handbook of Flight and Migration of German Rabbis after 1933 (MIGRA)

MIRA Digital Collection (Cooperation with UB LMU)

UB Open Data LMU

Repositorium für die Veröffentlichung von Forschungsdaten.

UB Discover

Digitale Sammlungen der UB

Die Universitätsbibliothek der LMU München verfügt über einen umfangreichen historischen Sammlungsbestand. Die digitale Sammlung macht diesen Bestand ortsunabhängig zugänglich.

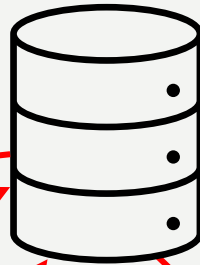
German Refugee Rabbis in the United States after 1933

MIRA 2.12 vom 18. Februar 2025

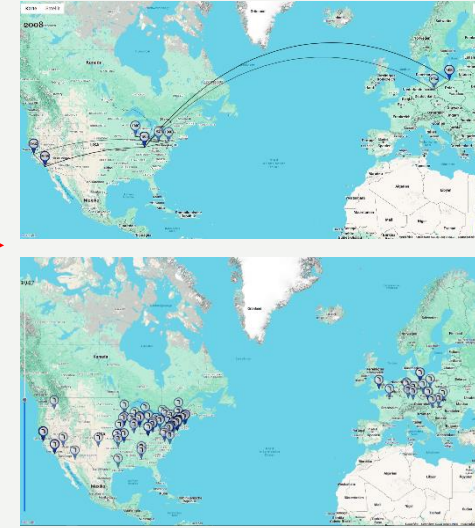
Database, visualization, computation



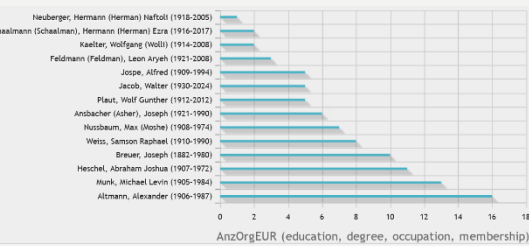
Relational database



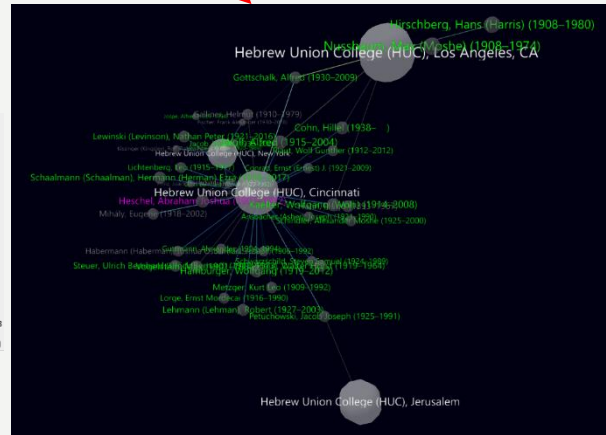
phpMyAdmin



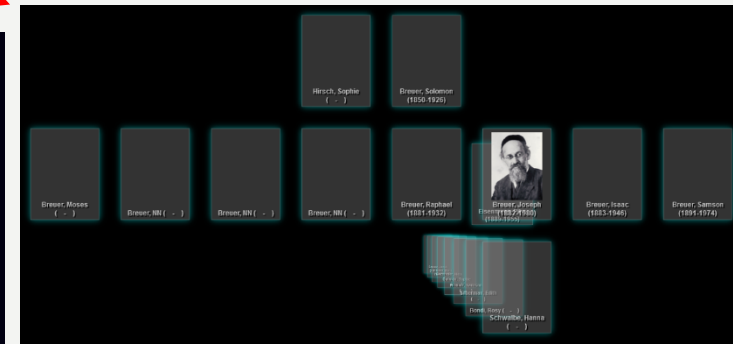
Path
↑
Maps
↓
Timeline



Computational data
(Diagrams, tables)



Graphs



Family tree



Relational Data Model (dynamic process)

Persons

mira person	
F41	: smallint(5) unsigned
ZLabel	: varchar(120)
Nachname	: varchar(60)
Vorname	: varchar(60)
F24	: enum('m','w','d')
F13	: varchar(10) Date
F15	: varchar(60) Date
F14	: varchar(10)
F16	: varchar(60)
Extern	: text
Intern	: text
Region	: varchar(9)
Kategorie	: set('Rabbi','Scholar','Functionary')
Privat	: tinyint(1) unsigned 0=public
EditNotiz	: varchar(3)
changed_on	: timestamp
changed_by	: varchar(16)

Relationships (~2600)

mira beziehung	
F41X	: smallint(5) unsigned
Art	: tinyint(1)
F41Y	: smallint(5) unsigned
Text	: varchar(10) Date

mira nachweis	
F41	: smallint(5) unsigned
Ereignis	: mediumint(8)
Literatur	: smallint(5) unsigned
Seiten	: varchar(20)
Kommentar	: varchar(255)
Publik	: tinyint(1) unsigned

mira literatur	
Literatur	: smallint(5) unsigned
Jahr	: smallint(4) unsigned
Titelaufnahme	: text
Signatur	: varchar(96)
Credits	: varchar(100)
URL	: varchar(255)
K	: char(1)

mira ereignis	
Ereignis	: mediumint(8) unsigned
F41	: smallint(5) unsigned
Kategorie	: varchar(20)
Bezeichnung	: varchar(60)
Beginn	: varchar(10)
Erwaehnung	: varchar(10)
Ende	: varchar(10)
Organisation	: varchar(120)
Ort	: varchar(80)
Destination	: varchar(80)
Extern	: text
Intern	: text

Events (~5700)

Memberships

Dates

mira organisation	
OU	: smallint(5) unsigned
Organisation	: varchar(120)
RS	: char(1)
Intern	: varchar(200)
Q	: int(10) unsigned (~1400)

mira bild	
F41	: smallint(5) unsigned
Sort	: tinyint(1) unsigned
Credits	: varchar(200)
Link	: varchar(255)
Art	: enum('S','P','F','M')
Cache	: tinyint(1) unsigned
Source	: varchar(255)

mira konkordanz	
F41	: smallint(5) unsigned
Referenz	: varchar(6)
F45	: varchar(90)
Status	: char(1)

Standard data (GND) (~2200)

Places (~1200)

mira ort	
B	: decimal(7,4)
L	: decimal(7,4)
Ort	: varchar(80)
Q	: int(10) unsigned

~2100 persons: ~250 rabbis with parents, spouses, children and siblings



Data sets in table person

F41	ZLabel	Nachname	Vorname	F24	F13	F15	F14	F16	Kategorie
person ID, where >10000=Rabbis; >11000=Parents; >13000=Spouse; >15000=Children; >17000=Siblings; >25000=Others.	automatically generated from last name, first name, F13, F14	last name	first name	gender	date of birth	place of birth	date of death	place of death	values: Rabbi, Scholar, Functionary
10015	Weiss, Samson Raphael (1910– 1990)	Weiss	Samson Raphael	m	1910-03-09	Emden	1990-02-06	Manhattan, New York City, NY	Rabbi, Scholar
10024	Kaelter, Wolfgang (Wolli) (1914–2008)	Kaelter	Wolfgang (Wolli)	m	1914-02-12	Gdańsk	2008-01-09	Long Beach, CA	Rabbi



Data sets in table beziehung and SQL query

F41X	Art	F41Y	Text
1 (is parent of), 2 (is husband of)			date of marriage
10015	2	13015	1936
10015	1	15032	
10015	1	15033	
10015	1	15034	
10015	1	15035	
10015	1	15539	
10024	2	13024	1938-07-14
10024	1	15053	
10024	1	15054	

```
SELECT
concat(p1.Nachname, ', ', p1.Vorname) as Husband,
'⊗',
concat(p2.Nachname, ', ', p2.Vorname) as Wife,
Text as Marriage
FROM beziehung b join person p1 on (b.F41X = p1.F41) join person p2 on (b.F41Y = p2.F41)
where b.Art = 2 and p1.F41 IN ( 10024, 10015 );
```



Result of SQL query

Husband	⊗	Wife	Marriage
Weiss, Samson Raphael	⊗	Carlebach (Weiss), Helene (Leni) (Leah)	1936
Kaelter, Wolfgang (Wolli)	⊗	Shapiro (Kaelter), Sarah R.	1938-07-14

Webbased database user interface phpMyAdmin: Table ereignis

Server: gwi-sql/3315 (mysql, replication master):3315 » Datenbank: mira » Tabelle: ereignis

Anzeigen Struktur SQL Suche Einfügen Exportieren Importieren Operationen Nachverfolgung Trigger

Tabellensuche Suche zoomen Suchen und Ersetzen

Suchkriterien anzeigen

Zeige Datensätze 0 - 27 (28 insgesamt, Die Abfrage dauerte 0.0030 Sekunden.)

select query: show all events

```
SELECT * FROM `ereignis` WHERE `F41` = 10024
```

Messen [Inline bearbeiten] [Bearbeiten] [SQL erklären] [PHP-Code erzeugen] [Aktualisieren]

Alles anzeigen | Anzahl der Datensätze: 100 | Zeilen filtern: Diese Tabelle durchsuchen | Nach Schlüssel sortieren: keine

Zusätzliche Optionen

event classification (points to F41 column)

time point (points to Beginn and Ende columns)

organisation place (points to Organisation and Ort columns)

time intervals (points to the range between Beginn and Ende)

Ereignis ID	F41	Kategorie <small>appearance, naming, education, degree, membership,...</small>	Bezeichnung	Beginn <small>Format 1975-05-25</small>	Erwaehung <small>Format 1975-05-25</small>	Ende <small>Format 1975-05-25</small>	Organisation	Ort	Destination	Extern	Intern
290	10024	education		1924		1934	Städtisches Gymnasium, Danzig	Gdańsk			
291	10024	education		1934		1935	Hochschule für die Wissenschaft des Judentums (HWJ)	Berlin			
292	10024	education		1935		1940	Hebrew Union College (HUC), Cincinnati	Cincinnati, OH			nine months of parallel study at the Conservatory ...
293	10024	persecution			1933		NULL	NULL			could not attend university after 1933
294	10024	degree	Matura		1934-01		NULL	NULL			
295	10024	degree	Bachelor of Arts		1937		University of Cincinnati	Cincinnati, OH			
296	10024	education		1935		1937	University of Cincinnati	Cincinnati, OH			

Webportal mira.geschichte.lmu.de: Biographies

LMU LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

FAKULTÄT FÜR GESCHICHTS- UND KUNSTWISSENSCHAFTEN
JÜDISCHE GESCHICHTE UND KULTUR

MIRA
GERMAN REFUGEE RABBIS IN THE UNITED STATES AFTER 1933

Project **Persons** Publications Events Discussion Group Share

MIGRA Legal Notice Privacy

MIRA

Name

Place of Birth

Place of Death

- Jospe, Alfred (1909–1994)
- Kaelter, Wolfgang (Wolli) (1914–2008)**
- Kahn, Shlomo (1926–2000)
- Kisch, Guido (1889–1985)
- Kissinger (Kingsley), Rolf (Ralph) Peter (1933–)
- Klappholz, Kurt (1913–1975)
- Kliersfeld (Kalir), Joseph (1908–1988)
- Kober, Adolf (1879–1958)
- Koppel, Max (1905–1974)
- Kronheim, Hans Enoch (1885–1958)
- Landau, Ezekiel (1888–1965)
- Landau, Moses M. (1906–1999)
- Landau, Sol (1920–2004)

Kaelter, Wolfgang (Wolli)

12 February 1914 Gdańsk, 9 January 2008 Long Beach, CA

Curriculum Vitae

- Education
 - 1924–1934 Städtisches Gymnasium, Danzig, Gdańsk
 - 1934–1935 Hochschule für die Wissenschaft des Judentums (HWJ) (1872–1942), Berlin
 - 1935–1937 , Cincinnati, OH
 - 1935–1940 Hebrew Union College (HUC), Cincinnati, OH
- Degrees
 - 1934-01 Matura
 - 1937 Bachelor of Arts, Cincinnati, OH
 - 1940 rabbinical ordination, Hebrew Union College (HUC), Cincinnati, OH
 - 1940 Master of Arts, Hebrew Union College (HUC), Cincinnati, OH
 - 1965 Doctor of Divinity honoris causa (DDhc), Hebrew Union College (HUC), Cincinnati, OH
- Migration Path
 - c. 1935-09 emigration date
 - c. 1936-06 , Cincinnati, OH
 - c. 1936-09 , Gdańsk
- Occupation
 - membership, Conference on Religion and Social Work
 - teacher, Hebrew Union College (HUC), Los Angeles, CA
 - c. 1953 director, Union of American Hebrew Congregations (UAHC) Swig Camp Institute for Living Judaism, Saratoga, CA
 - c. 1953 founder, Union of American Hebrew Congregations (UAHC) Swig Camp Institute for Living Judaism, Saratoga, CA
 - 1955–1979 rabbi, Temple Israel, Long Beach, CA
- Membership
 - Central Conference of American Rabbis (CCAR)
 - leader, Conference on Religion and Social Work
 - Jewish Chautauqua Society

Biographies

- Kaelter, Wolli. From Danzig: An American Rabbis Journey. Long Beach, CA: Temple Israel, 1997. (*Autobiography*)

Archival Material

- Bycel, Lee, "Rabbi Wolli Kaelter, 'A Rabbi's Rabbi, a Mensch's Mensch,' Dies at 93." Jewish Journal, January 25, 2008. [Jewish Journal](#)
- Fogelson, George. "Interview of Rabbi Wolli Kaelter z"l." JewishGen Danzig/Gdańsk Research Division, May 20, 2006. [jewishgen.org](#)
- Sammlung Wolfgang Kaelter, in: Biographische Dokumentation der deutschsprachigen Emigration: MA 1500/96B

Editorial content

- Biographies and Portraits**
 - Ancestry Gravestage
- Bibliographies**
 - Literaturdokumentation zur Geschichte Ostmitteleuropas
 - Open Library
- Library Holdings**

Automatically aggregated content

data sets from table person

data sets from table ereignis

data sets from table literature

Webportal mira.geschichte.lmu.de: Automatically generated content

LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

FAKULTÄT FÜR GESCHICHTS- UND KUNSTWISSENSCHAFTEN
JÜDISCHE GESCHICHTE UND KULTUR

MIRA
GERMAN REFUGEE RABBIS IN THE UNITED STATES AFTER 1933

MIGRA Legal Notice Privacy

Project **Persons** Publications Events Discussion Group Share

MIRA

Name

Place of Birth

Place of Death

Kaelter, Wolfgang (Wolli)

B 12 February 1914 Gdańsk, **d** 9 January 2008 Long Beach, CA

- ▼ **Curriculum Vitae**
 - ▶ Education
 - ▶ Degrees
 - ▶ Migration Path
 - ▶ Occupation
 - ▶ Membership
- ▼ **Biographies**
 - ▶ Kaelter, Wolli. From Danzig: An American Rabbis Journey. Long Beach, CA: Temple Israel, 1997. *(Autobiography)*
- ▼ **Archival Material**
 - ▶ Bycel, Lee. "Rabbi Wolli Kaelter, 'A Rabbi's Rabbi, a Mensch's Mensch,' Dies at 93." Jewish Journal, January 25, 2008. [Jewish Journal](#)
 - ▶ Fogelson, George. "Interview of Rabbi Wolli Kaelter z"l." JewishGen Danzig/Gdańsk Research Division, May 20, 2006. [jewishgen.org](#)
 - ▶ Sammlung Wolfgang Kaelter, in: Biographische Dokumentation der deutschsprachigen Emigration: MA 1500/96B

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 - ▶ Open Library
- ▼ **Library Holdings**
 - ▶ Gemeinsamer Bibliotheksverbund
- ▼ **Archival Resources**
 - ▶ American Jewish Archives
- ▼ **Authority Files**
 - ▶ Beacon Aggregator
 - ▶ Gemeinsame Normdatei der Deutschen Nationalbibliothek
 - ▶ International Standard Name Identifier (2)
 - ▶ Library of Congress Name Authority File
 - ▶ Normdatei der Israelischen Nationalbibliothek
 - ▶ Virtual International Authority File
 - ▶ Wikimedia Personensuche
 - ▶ World Cat Identities

MIRA 10024 [PERMALINK](#) **GND** 119539969 [GND PERMALINK](#) **VIAF** 5743482 **ISNI** 034706715 402907781

▼ **Source Citation**

German Refugee Rabbis in the United States after 1933, by Cornelia Wilhelm, <https://mira.geschichte.lmu.de/10024>

German Refugee Rabbis in the United States after 1933 (MIRA)

Jospe, Alfred (1909–1994)

Kaelter, Wolfgang (Wolli) (1914–2008)

Kahn, Shlomo (1926–2000)

Kisch, Guido (1889–1985)

Kissingner (Kingsley), Rolf (Ralph) Peter (1933–)

Klappholz, Kurt (1913–1975)

Kliersfeld (Kalir), Joseph (1908–1988)

Kober, Adolf (1879–1958)

Koppel, Max (1905–1974)

Kronheim, Hans Enoch (1885–1958)

Landau, Ezekiel (1888–1965)

Landau, Moses M. (1906–1999)

Landau, Sol (1920–2004)

Landman, Leo (1928–2001)

142 Ergebnisse MIRA 2.12 vom 18. Februar 2025

automatically aggregated content (authority files / standard data)

Reference data (GND)

Citation (PID)

Webportal mira.geschichte.lmu.de: Family tree

The screenshot shows the web portal interface for the MIRA project. The main content area displays the profile of **Kaelter, Wolfgang (Wolli)**, born 12 February 1914 in Gdańsk and died 9 January 2008 in Long Beach, CA. The profile includes sections for Relationships (Parents, Spouses, Children), Curriculum, Biography, Archival Materials, and Authority Files. A 3D visualization of the family tree is shown in a browser window, displaying nodes for Kaelter, Robert (1875-1926), Cohn, Feodora (1880-1964), Kaelter, Wolfgang Shapiro (Wolli) (1914-2008), Baruch, Robert (1942-), and Nakelsky, Judith Ann (1943-).

Annotations on the screenshot include:

- relationships**: Red arrows pointing to the Relationships section in the profile.
- visualization button**: Red arrow pointing to the visualization icon in the top right corner.
- family tree (only logged in)**: Green text indicating the visualization is available to logged-in users.
- 3 dimensional visualization**: Green text pointing to the 3D family tree visualization in the browser window.

At the bottom of the page, it shows "142 Ergebnisse" and "MIRA 2.12 vom 18. Februar 2025". The DFG logo is visible in the bottom right corner.

Webportal mira.geschichte.lmu.de: Visualization buttons

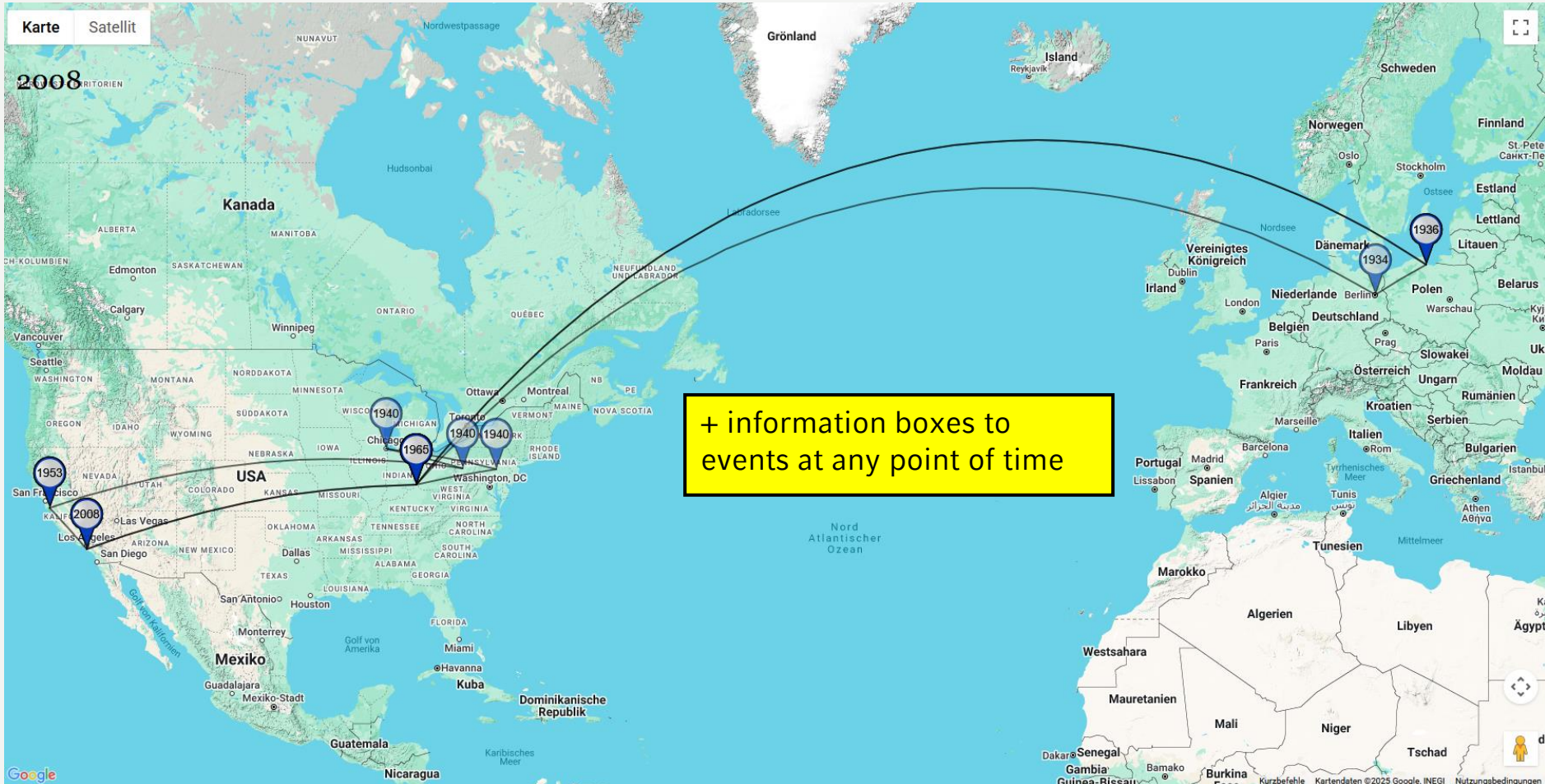
The screenshot shows the profile page for Wolfgang Kaelter (Wolli) on the mira.geschichte.lmu.de web portal. The profile includes a list of tabs (Project, Persons, Publications, Events, Discussion Group, Share) and a list of filters (MIRA, Name, Place of Birth, Place of Death). The main content area displays a detailed biography with sections for Relationships, Curriculum Vitae (Education, Degrees, Migration Path, Occupation), Membership, Biographies, Archival Material, and Bibliographies. A red arrow points to the 'visualization buttons' (envelope, location pin, and graph icons) in the top right corner. Three green arrows point to the 'map with timeline graph representations' (graph icon), 'map with individual life path, time line and information boxes' (location pin icon), and 'map with timeline graph representations' (envelope icon).

visualization buttons

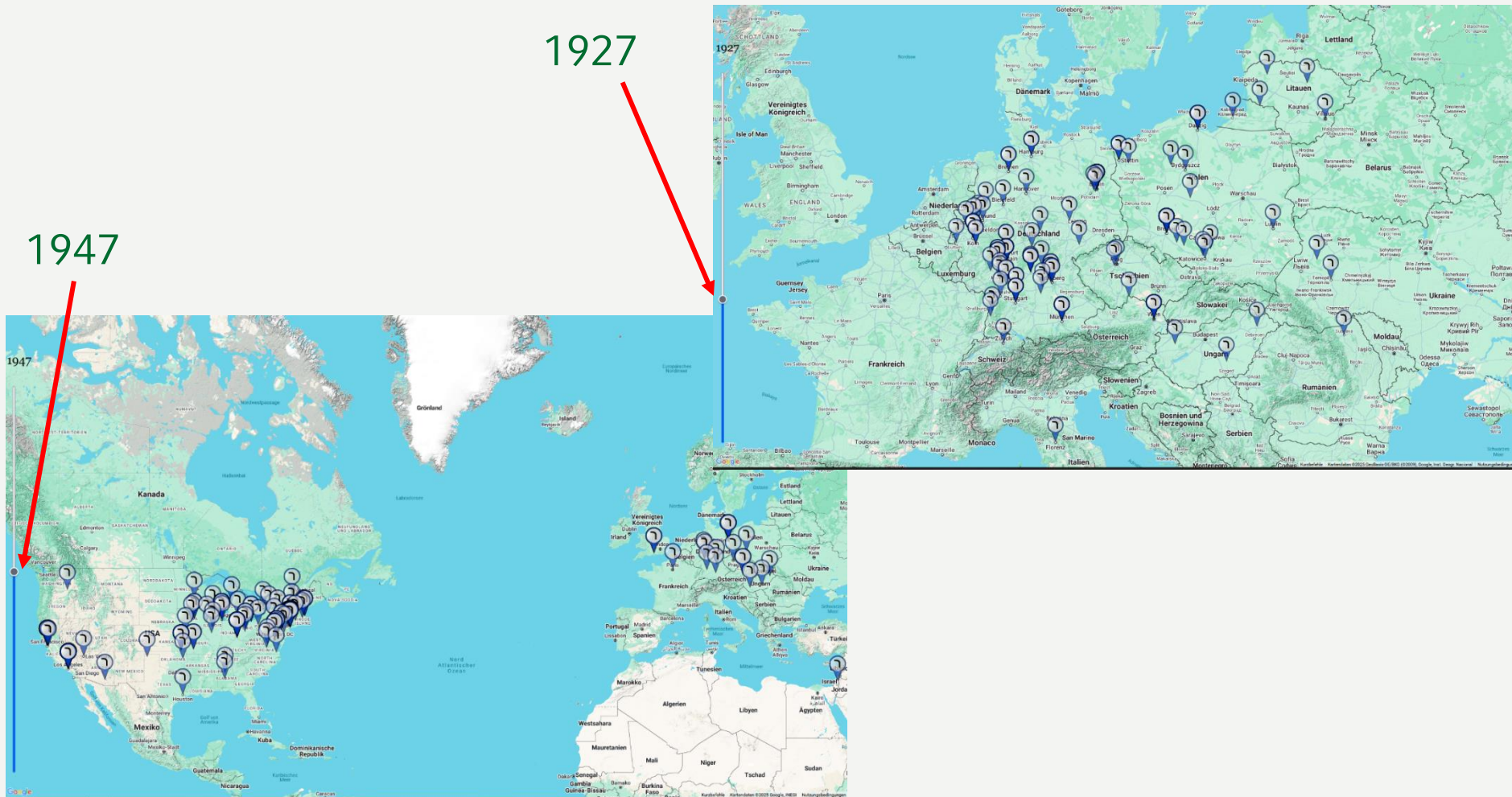
map with timeline graph representations

map with individual life path, time line and information boxes

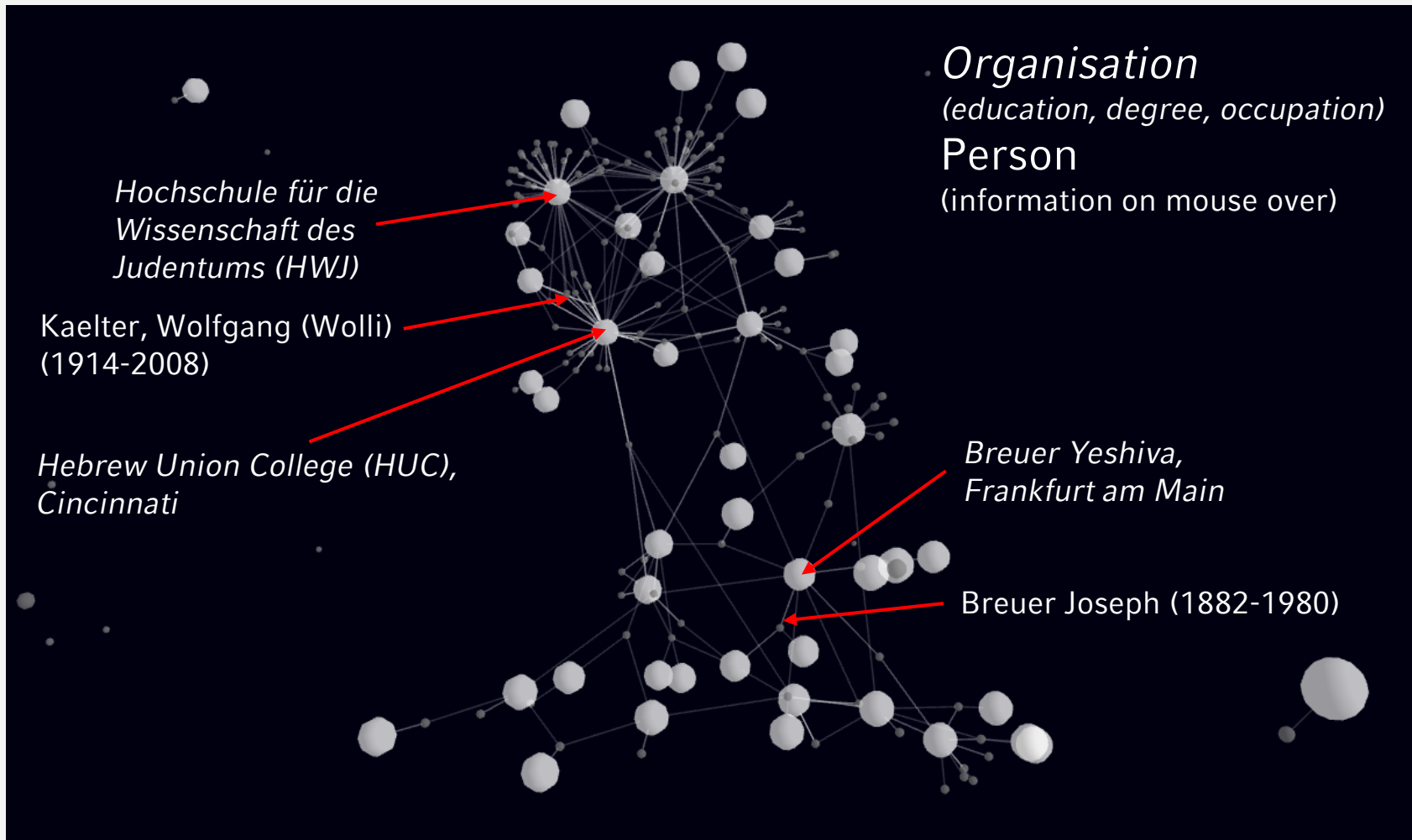
Webportal mira.geschichte.lmu.de: Map with individual life path



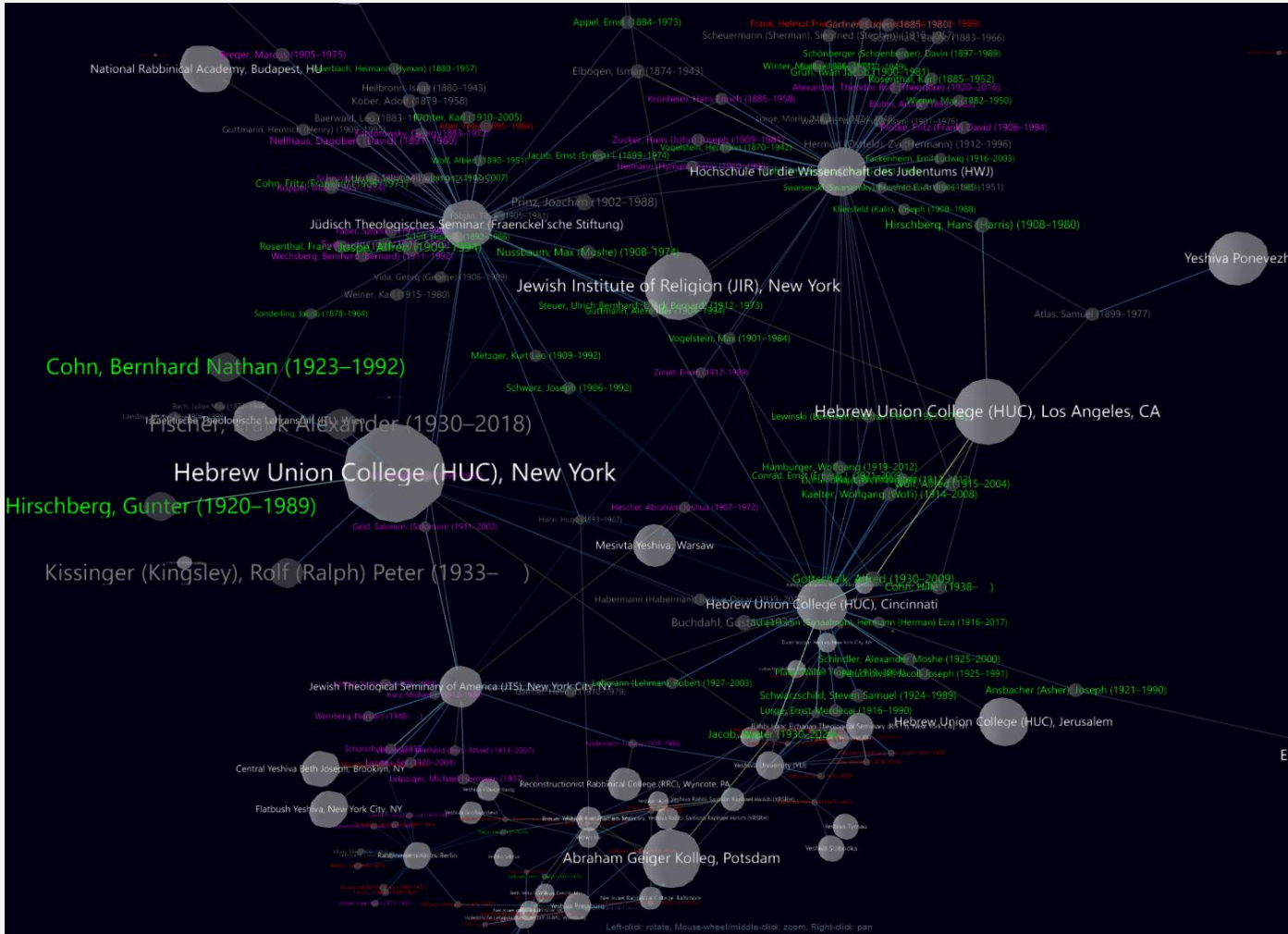
Webportal mira.geschichte.lmu.de: Map with timeline



Webportal mira.geschichte.lmu.de: Graphs (simplified)



Webportal mira.geschichte.lmu.de: Graphs (labeled, colored)



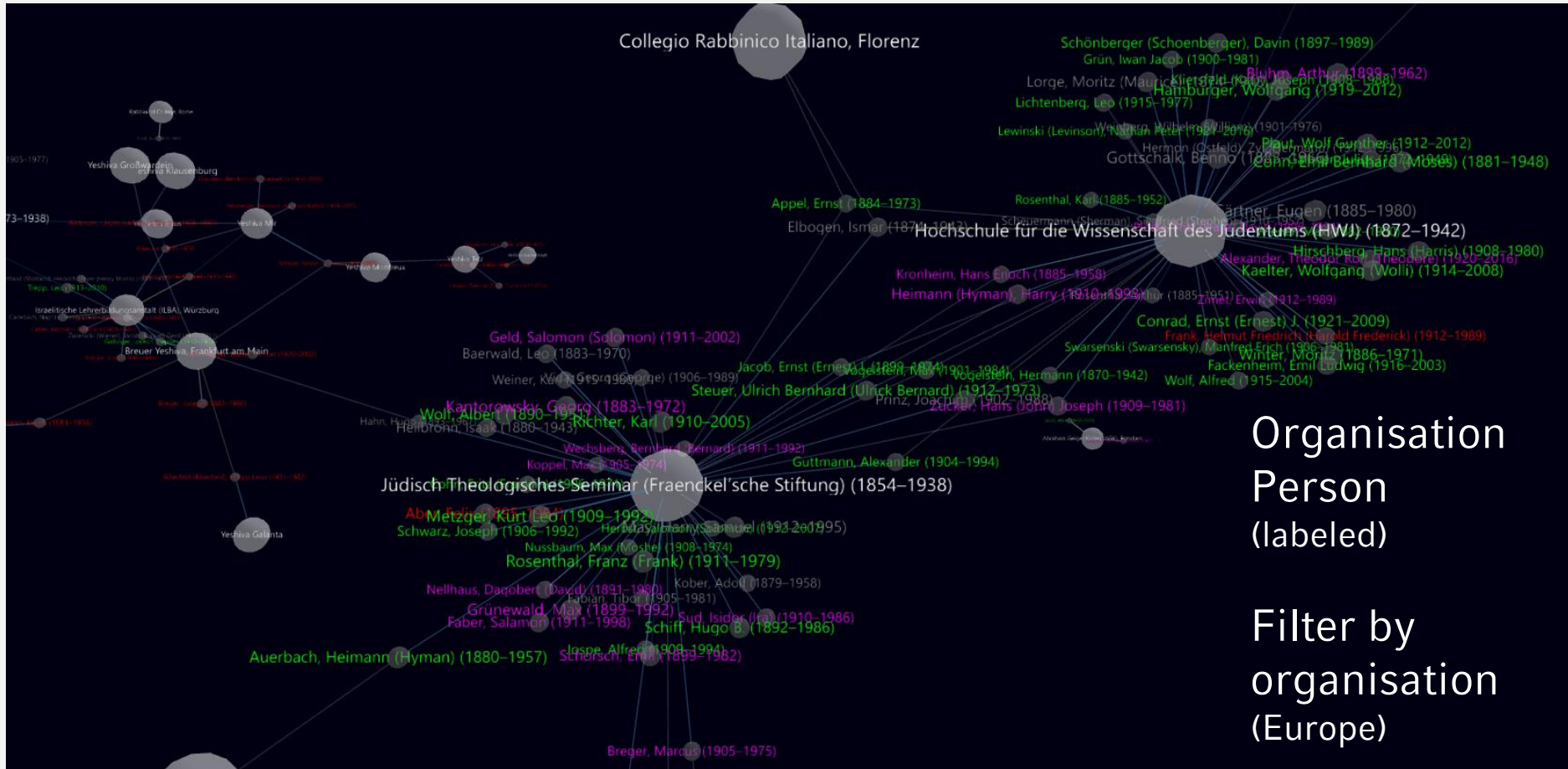
Organisation
Person
(labeled)

Color Code
(religious movement)

R-form
 O-rthodox
 C-onservative
 O-thers

Filter by
organisation
(not applied)

Webportal mira.geschichte.lmu.de: Graphs (labeled, colored)



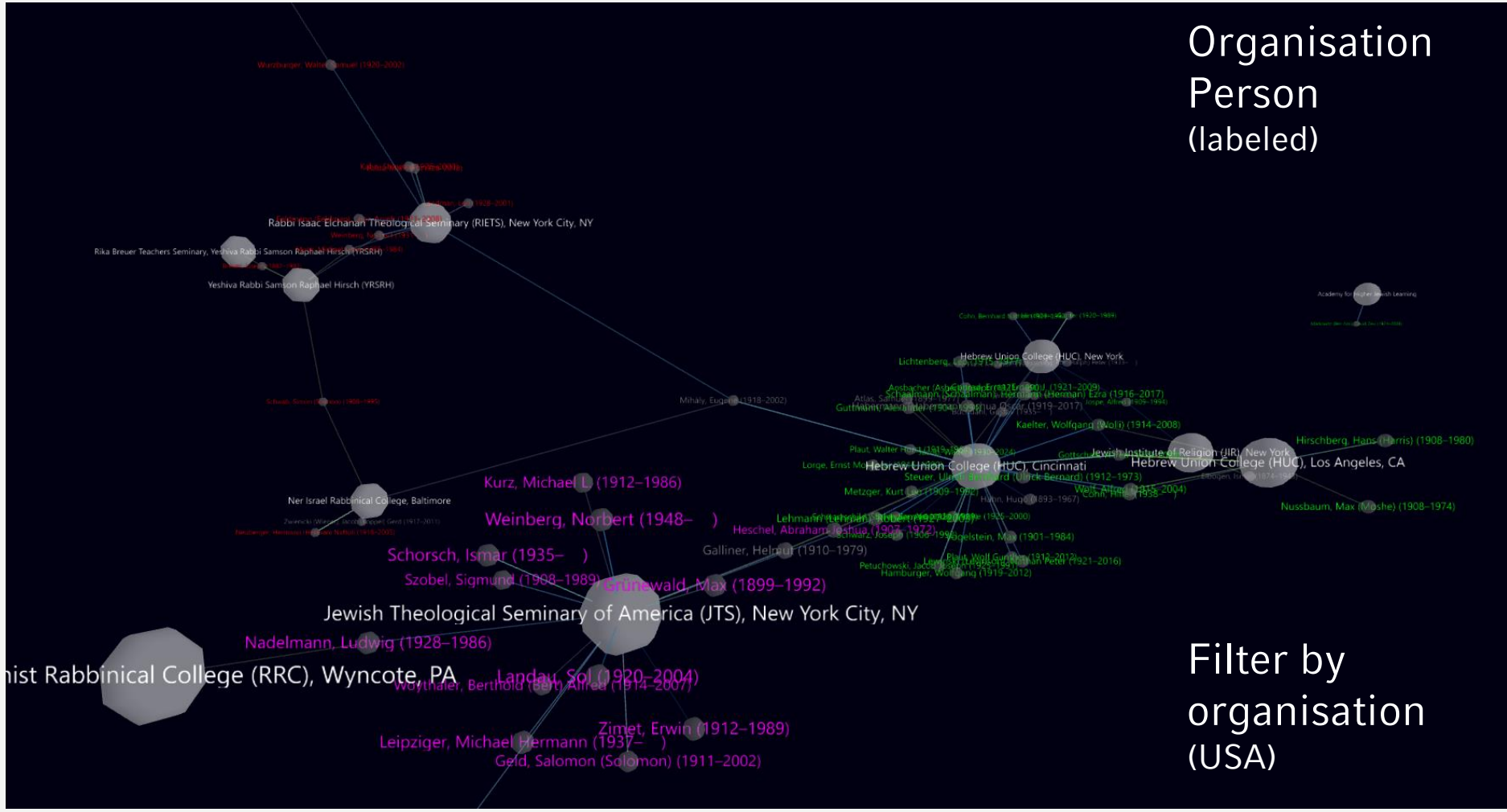
Organisation
Person
(labeled)

Filter by
organisation
(Europe)

Color Code: (religious movement) **R**-reform **O**-rthodox **C**-onservative O-thers

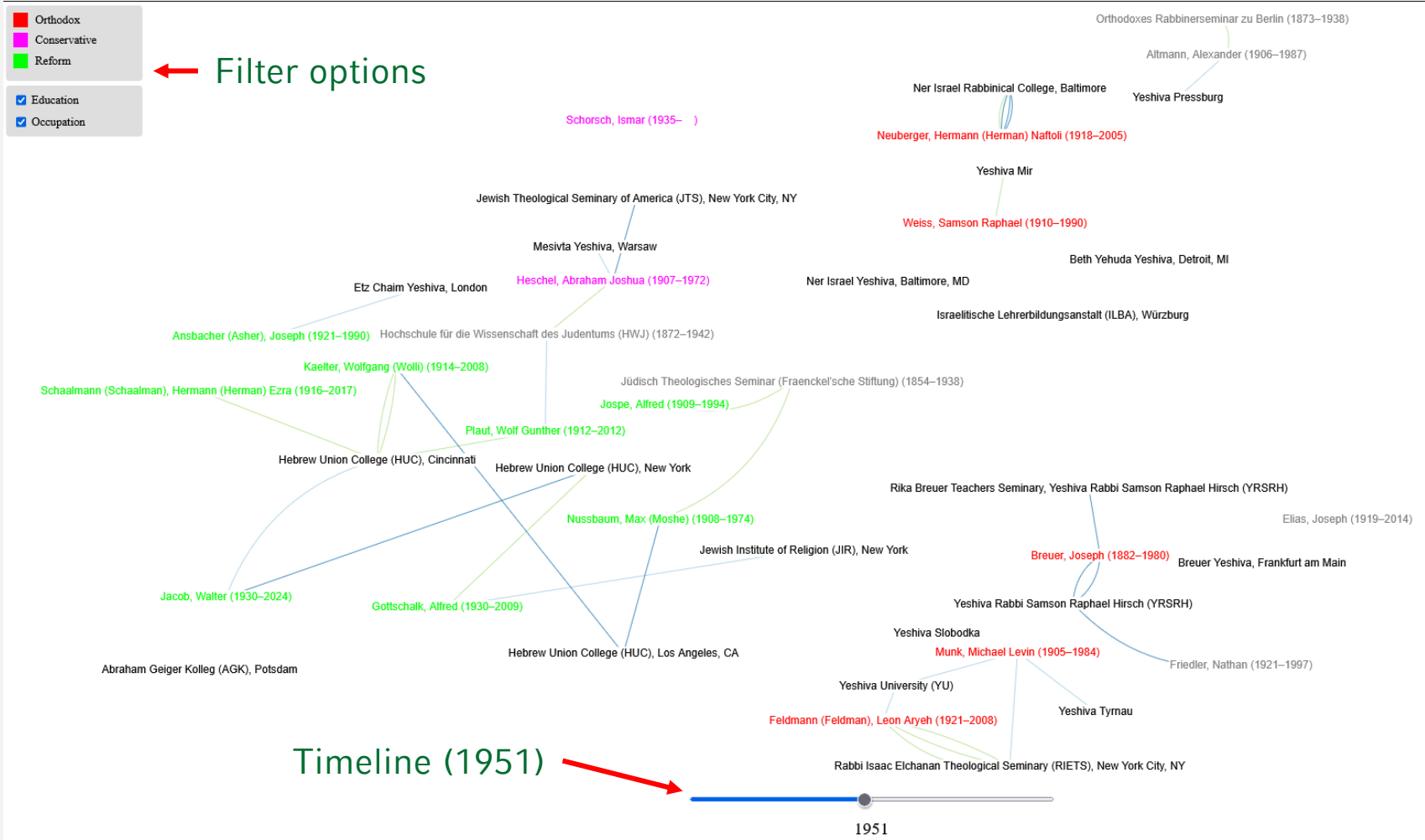
Webportal mira.geschichte.lmu.de: Graphs (labeled, colored)

Organisation
Person
(labeled)

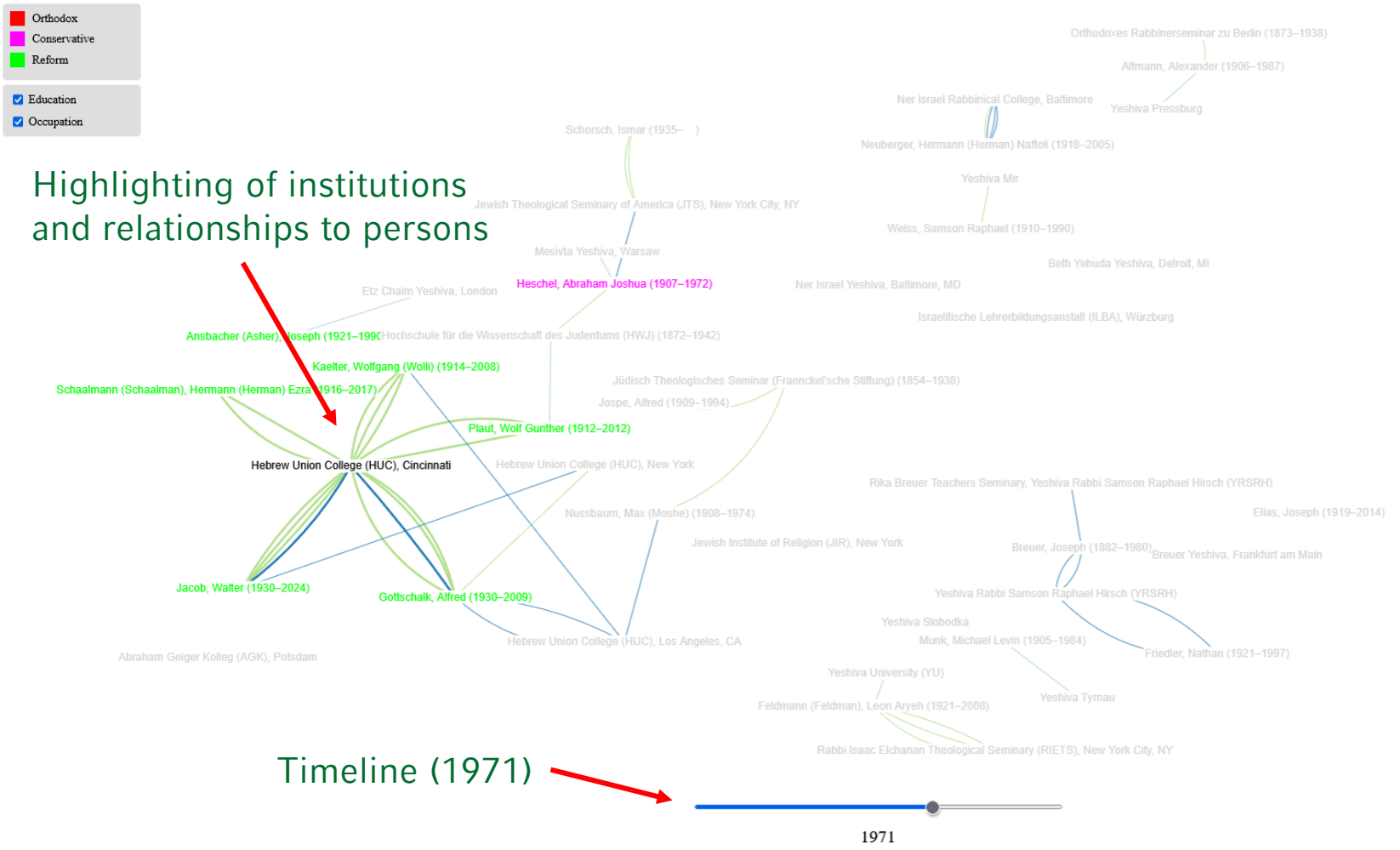


Filter by
organisation
(USA)

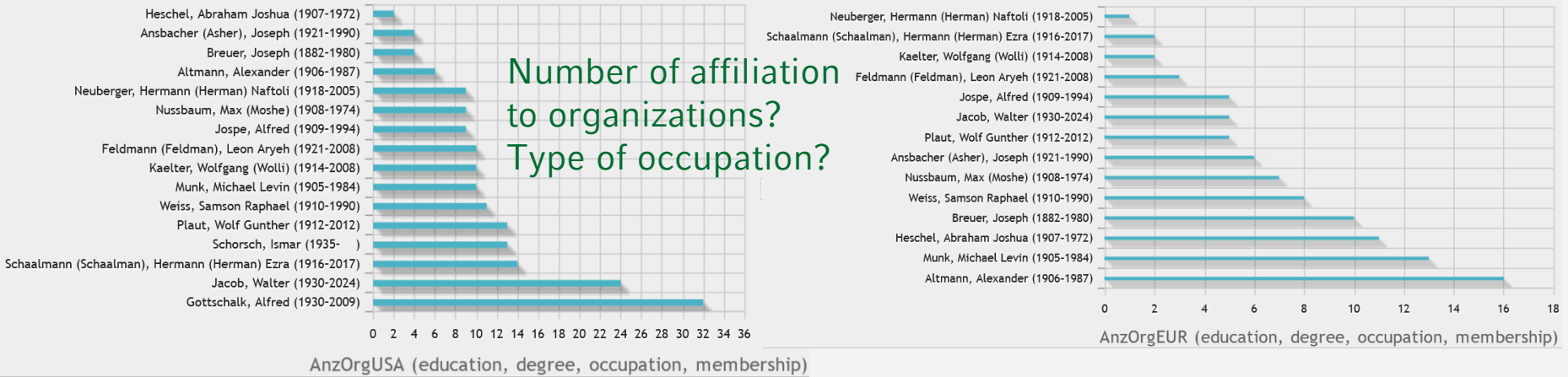
Graph visualization with filter options and timeline



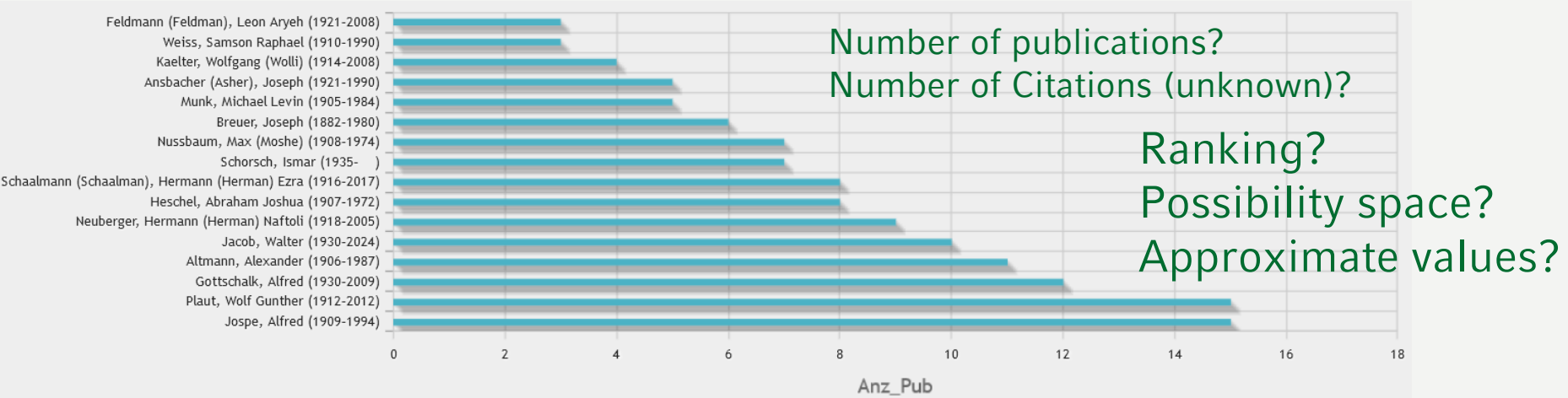
Graph visualization with filter options and timeline



Quantitative evaluation: Combination of a set of criteria



How to measure importance and influence of a person?





Computation of teacher-student relationship?

Poss_Teacher	Organisation	Beginn	Ende	Anzahl	Poss_Student
Rosenthal, Franz Wilhelm (1914–2003)	Hebrew Union College (HUC), Cincinnati	1940	1948	11	Lorge, Ernst Mordecai (1916–1990) [1942] Schaalman (Schaalman), Hermann (Herman) Ezra (1916–2017) [1941] Habermann (Haberman), Joshua Oscar (1919–2017) [1945] Wolf, Alfred (1915–2004) [1941] Lorge, Ernst Mordecai (1916–1990) [1942] Schwarzschild, Steven Samuel (1924–1989) [1948] Conrad, Ernst (Ernest) J. (1921–2009) [1947] Wolf, Alfred (1915–2004) [1941] Lewinski (Levinson), Nathan Peter (1921–2016) [1948] Schwarzschild, Steven Samuel (1924–1989) [1948] Conrad, Ernst (Ernest) J. (1921–2009) [1947]
Sperber, Alexander (1897–1970)	Jewish Theological Seminary of America (JTS), New York City, NY	1938	1970	10	Leipziger, Michael Hermann (1937–) [1964] Szobel, Sigmund (1908–1989) [1939] Landau, Sol (1920–2004) [1954] Szobel, Sigmund (1908–1989) [1942] Geld, Salomon (Solomon) (1911–2002) [1939] Schorsch, Ismar (1935–) [1962] Nadelmann, Ludwig (1928–1986) [1955] Szobel, Sigmund (1908–1989) [1942] Schorsch, Ismar (1935–) [1962] Klappholz, Kurt (1913–1975) [1938]
Wiener, Max (1882–1950)	Hochschule für die Wissenschaft des Judentums (HWJ) (1872–1942)	1934	1939	8	Heschel, Abraham Joshua (1907–1972) [1934-07] Zimet, Erwin (1912–1989) [1938] Weinberg, Wilhelm (William) (1901–1976) [1935] Fackenheim, Emil Ludwig (1916–2003) [1939] Wolf, Alfred (1915–2004) [1935] Plotke, Fritz (Frank) David (1906–1994) [1936-02-05] Conrad, Ernst (Ernest) J. (1921–2009) [1938] Weinberg, Wilhelm (William) (1901–1976) [1938-08]
Guttman, Alexander (1904–1994)	Hochschule für die Wissenschaft des Judentums (HWJ) (1872–1942)	1935	1940	5	Fackenheim, Emil Ludwig (1916–2003) [1939] Weinberg, Wilhelm (William) (1901–1976) [1938-08] Conrad, Ernst (Ernest) J. (1921–2009) [1938] Plotke, Fritz (Frank) David (1906–1994) [1936-02-05] Zimet, Erwin (1912–1989) [1938]

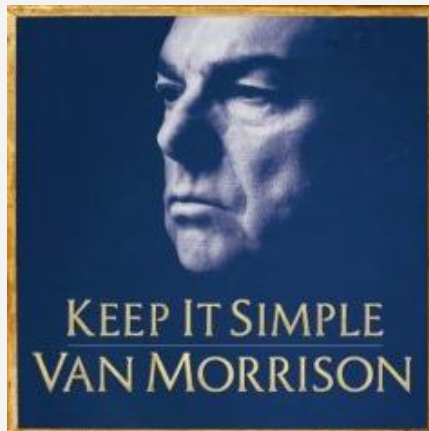
Students [year of degree]

Teacher at between and

Possibility space
Approximate values
Limitation of result set

No autonomous decision

How can sustainability of research software and data be achieved?



„Keep it simple“



„Be FAIR“



Sustainability of Research Software and Data:

- Database System: MySQL with GUI phpMyAdmin
- Development Environment: PHP, JavaScript + Libraries (3js)
- CMS: WordPress
- Comprehensive, multilevel data management by ITG
- File servers at Leibniz Supercomputing Centre
- Redundant database and web servers at ITG
- Research data management services at ITG and UB LMU
- Research data repositories and archives at UB LMU
 - OpenData LMU
 - UB Discover
 - UB Fedora: MIRA Digital Collection



Value and benefits of digital/computational methods

Collecting, structuring and modeling (large amounts) of data ✓

Classifying and (semi-)automatic annotating of data ✓

Geo- and time-referenced visualization ✓

Computation of data and visualization as heuristic method:

- Essential requirement: High data quality and transparency ?
- Statistical evaluation and visualization 👍
- Rule based computation with results that open up a possibility space (computational humanities) 👍

Didactic and heuristic value → improvement of data quality ✓

Sustainable research data management (FAIR) ✓



Thanks to

Prof. Dr. Cornelia Wilhelm

Tabea Henn, M.A.

Dr. Gerhard Schön

Dr. Florian Zacherl

Dr. Stephan Lücke

Kurt Stonus

Questions?

Contact:

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