

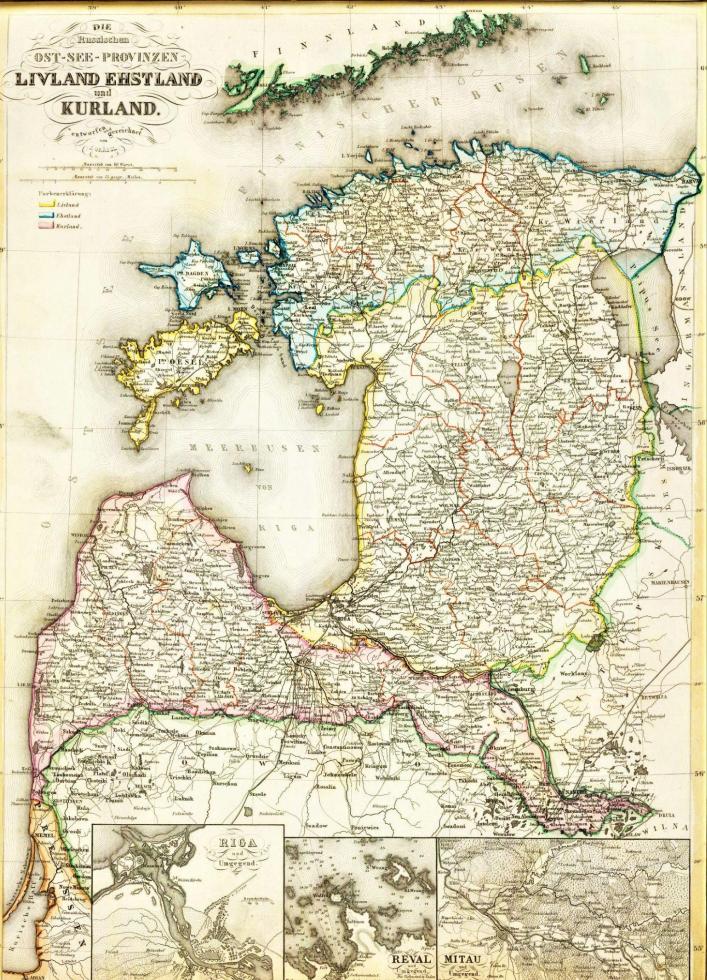
Studying major transitions in literary communities through the Estonian National Bibliography (1800-1940)

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Crash course: social history of the Estonian language

- Very long (recorded) oral tradition
- Relatively new as a literary language
- Tied to social hierarchy:
 - From the Baltic crusades (13th century), German was established as the main language of commerce and culture in the region
 - Increasing overlap between linguistic and social divisions, which in turn reinforced each other
 - Using German was the prerequisite of almost any kind of social mobility
- (Slow) changes in the 19th century:
 - Liberation of peasants (≈ Estonians) from serfdom in 1816/19; additional social reforms during the 19th century, urbanization, industrial development
 - Enlighteners and estophiles among the Baltic German elite
 - National Awakening period (1850s-1870s)
 - Russification (1890s)
- “Coming of age”:
 - Modernist movements in the early 20th century
 - Official language of the Estonian Republic, est. 1918



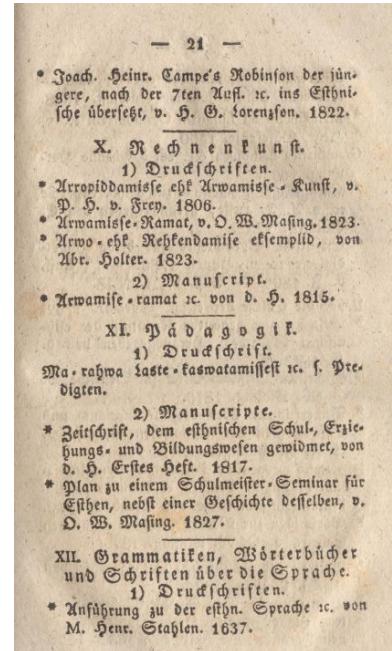
The “Baltic provinces” of the Russian Empire, 1860
(David Rumsey Map Collections)

Research question and objectives

- Q: Estonian transitioned from being a "peasant language" to a dominant literary culture in an semi-colonial environment – how did this happen?
- Objectives:
 - a. Quantifying Estonia's multilingual publishing history
 - b. Identifying the effect of major historical events and periods on book publishing
 - c. Observing the emergence of the Estonian literary community on the backdrop of demographic trends
 - d. Inquiring about the relationship between the Estonian and German literary communities over time
- Method: bibliographical data science (Lahti et al. 2019)

National bibliographies

- Register publications connected to a language and/or region
- Collect systematic data (titles, authors, formats, etc.) on printed publications
- Have recently become subjects for data analysis (e.g Lahti et al. 2019)

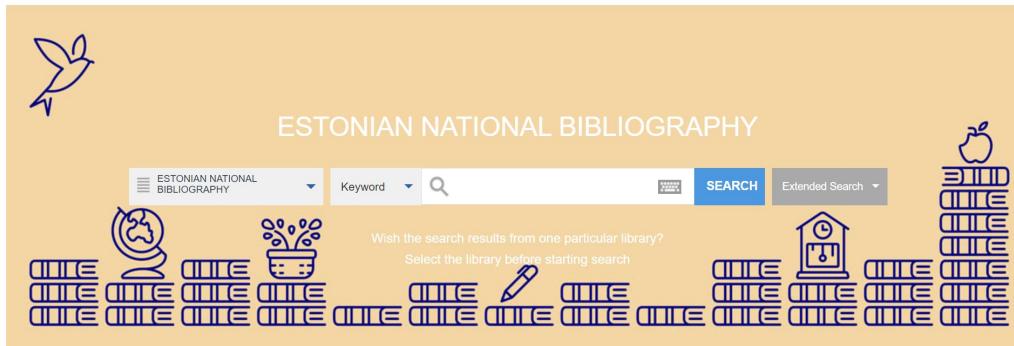


Excerpt from Rosenplänter's article
“Übersicht der estnischen Literatur” (1832)

Estonian National Bibliography (ENB)

Consists of publications that are either:

- a. published in Estonia
- b. in Estonian
- c. by Estonians
- d. about Estonia or Estonians



<https://digilab.rara.ee/en/>

The data

- Comprehensively described with good coverage
- Non-harmonised
- A lot of pre-processing and cleaning to be useable

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=400 1|\$aÅdsøn, Arthur.

=400 1|\$aÅdsøn, Karl Arthur.

=400 1|\$aÅdsøn, Artur.\$d1889-1977.

=500 1|\$aBöllmann, Peeter.\$cpseud.: \$d1889-1977.

=670 ||\$aEesti kirjanike leksikon. 2000.

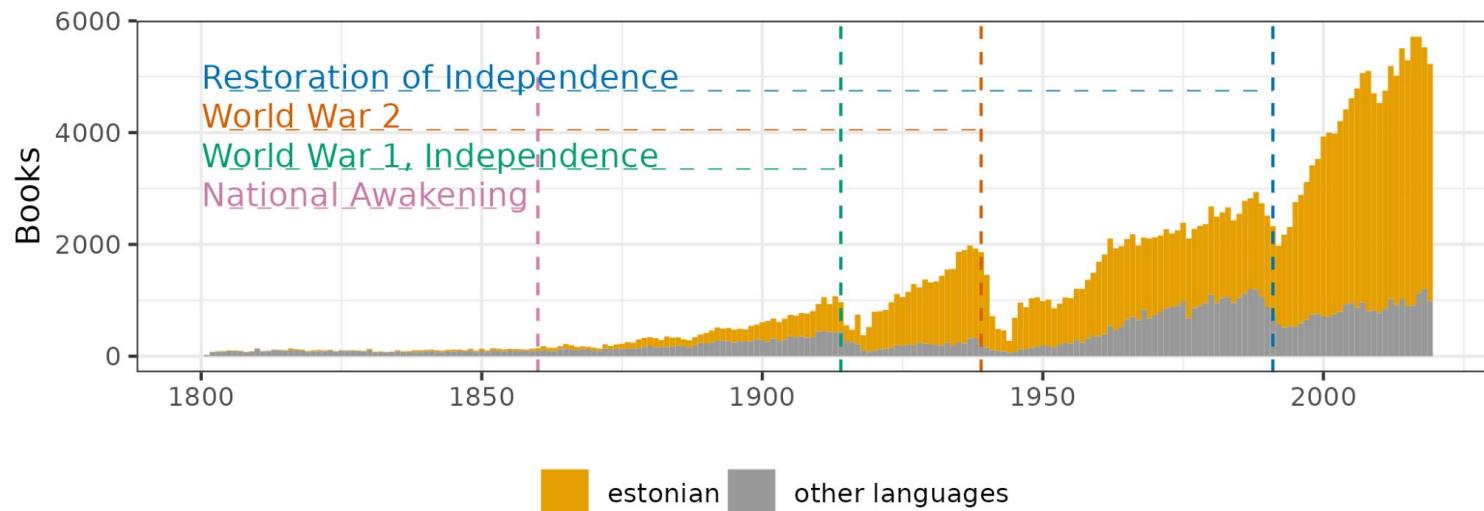
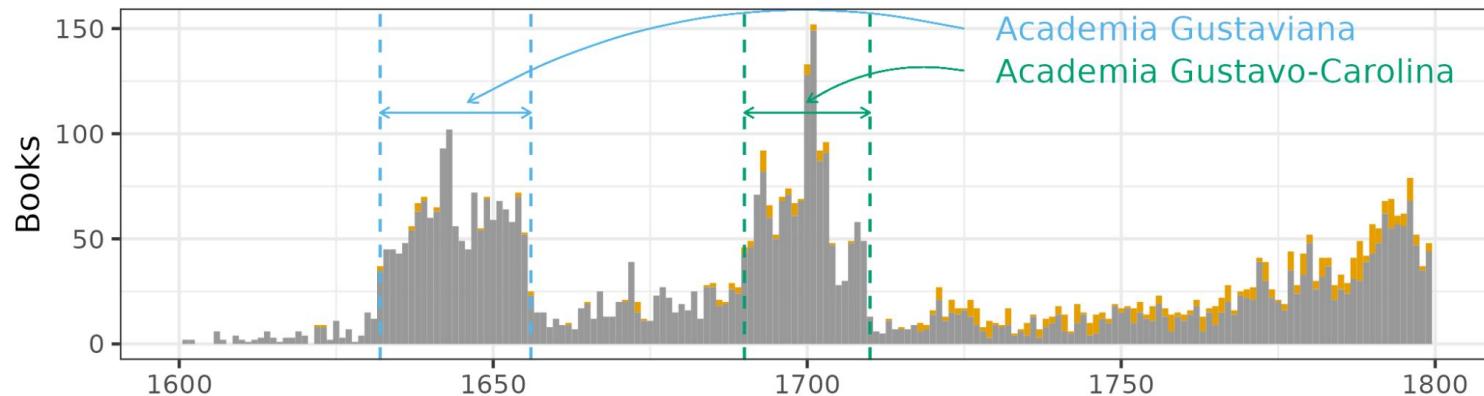
=680 ||\$iEesti luuletaja, näitekirjanik ja kritik. M. Undri abikaasa. Kasutanud pseudonüümi Peeter Böllmann.

title_responsibility_statement	publication_place	publisher	publication_date
Anton Hansen Tammsaare ; illustreeritud Herald Eelma	Tallinn	Eesti Raamat	1974
Mart Laar	Stockholm	Välis-Eesti & EMP	1997
Mikhail Makarov ; [kaas E. Tali]	Tallinn	Eesti Raamat	1966
Pearl Buck ; inglise keelest tõlkinud A. Hanko ; [kujundatud Eesti Looduseuurjate Selts Eesti Teaduste Akadeemia järgi]	Tallinn	Eesti Raamat	1994
Knut Hamsun ; [tõlkinud Henrik Sepamaa ; kujundanud...]	Tallinn	Eesti Raamat	1993
Alexandre Dumas (junior) ; [prantsuse keelest tõlkinud J.-L. Petit]	Tallinn	Eesti Raamat	1992
Linda Pettit	Tallinn	Valgus	1993
Heinrich Böll ; [saksa keelest tõlkinud M. Sirkel ; kujundatud Marina Tsvetajeva ; [koostanud, eestindanud ja järelõetanud toimetajad: Raivo Rähni, Sven Kiviivali, Ants Noormets,...]	Tallinn	Eesti Raamat	1994
U. Ekman	Uppsala	Elu Sõna	1993
Linda Pettit	Tallinn	Valgus	1992
James Herriot ; [inglise keelest tõlkis Jaagup Alasts ; kujundanud Juhani Jalk ; illustreeritud H. Mugast]	Tartu	Noor-Eesti	1994
A. H. Tammsaare	Tartu	Noor-Eesti	1917
Peter Brook ; inglise keelest tõlkinud M. Palli ; Festi Teater	Tallinn	Eesti Raamat	1993
Mart Laar	Stockholm	Välis-Eesti & EMP	1994
Iiaulannut by Anne Vabarna ; toimittaneet by Paul Hagu ; Harald Suurlepp ; [kujundanud R. Fangsep]	Kuopio	Snellman-instituuti	1995
	Tallinn	Eesti Raamat	1994

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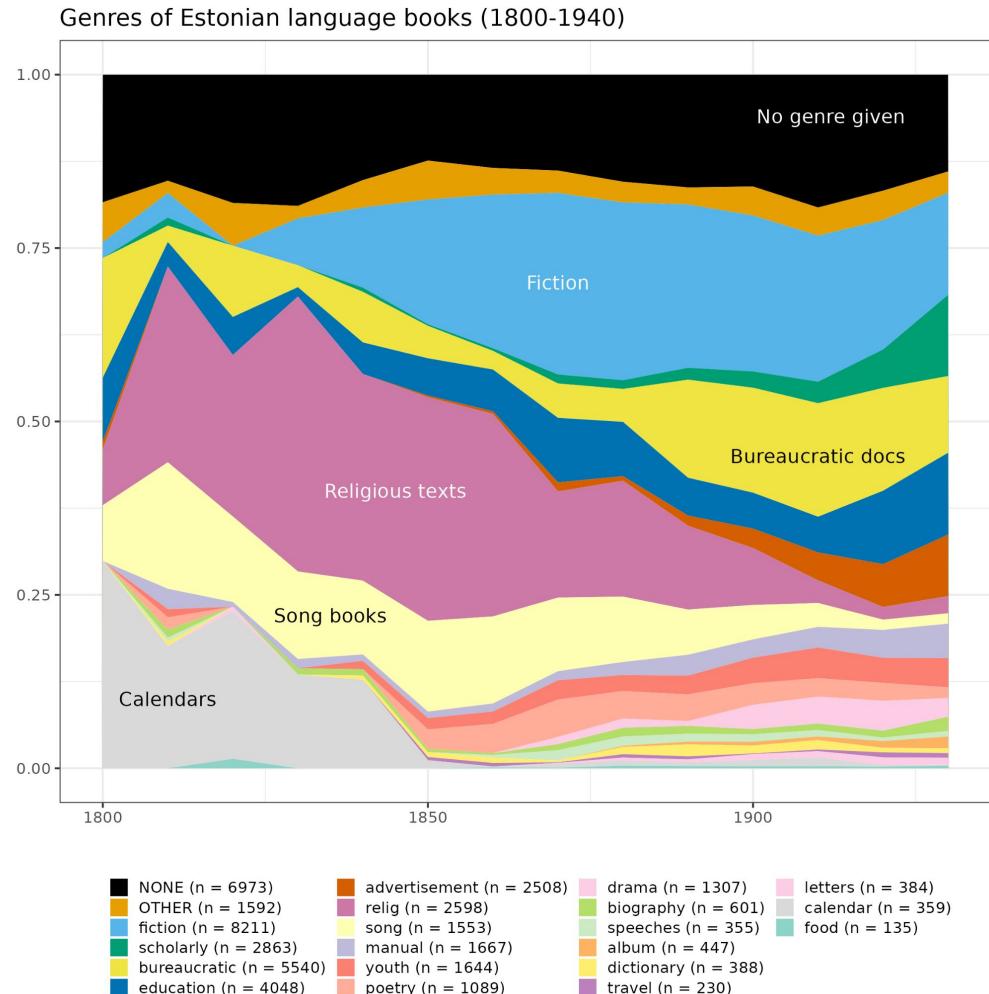
Books in ENB (1600-2020)

Some historical periods and events added for comparison



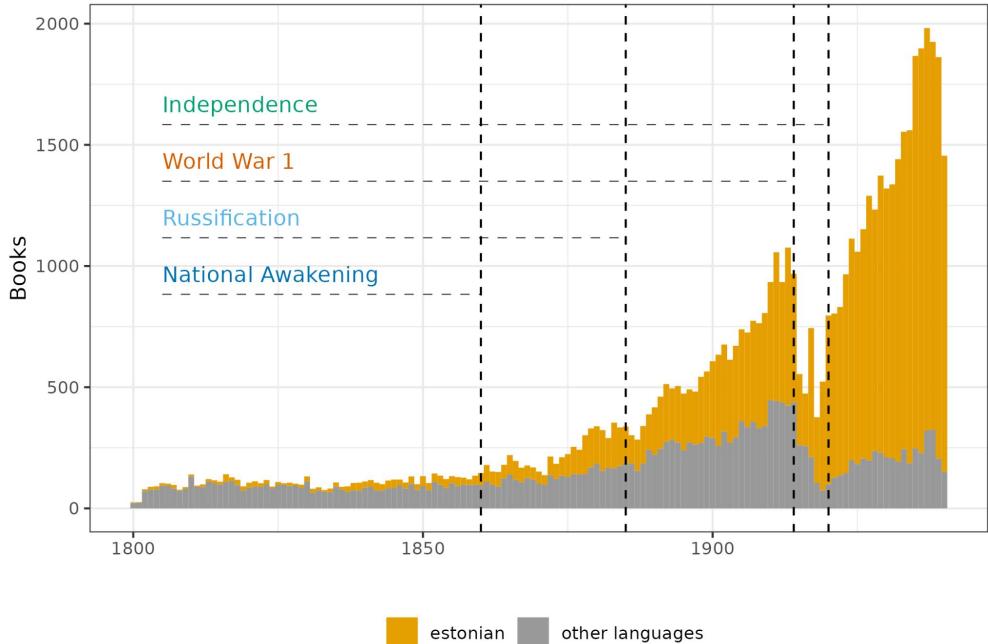
Temporal focus: 1800-1940

- 43,570 works
 - 25,986 Estonian (60%)
 - 17,588 other languages (40%)
- 9768 people
 - Authors, publishers, illustrators etc.
 - 5571 with birth dates (57%)
 - 711 multilingual authors (16%)
- Harmonized and cleaned author names and book metadata.
- Augmented metadata by detecting language from book titles.

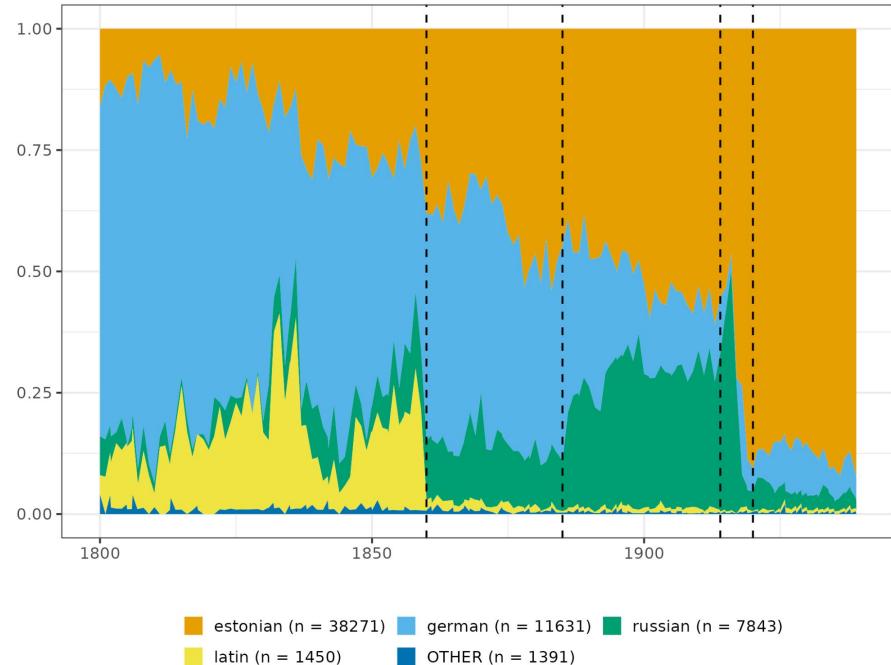


Emergence of the Estonian literary community

Number of books in Estonian and other languages (1800-1940)



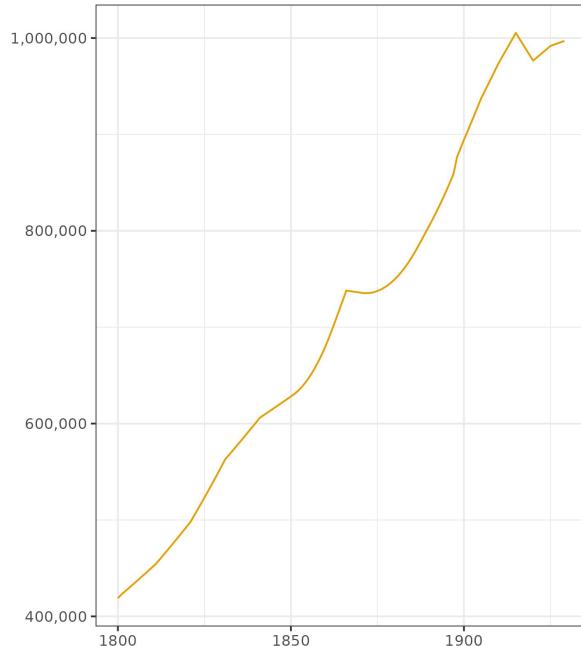
Share of language in books (1800-1940)



Population growth and publishing trends

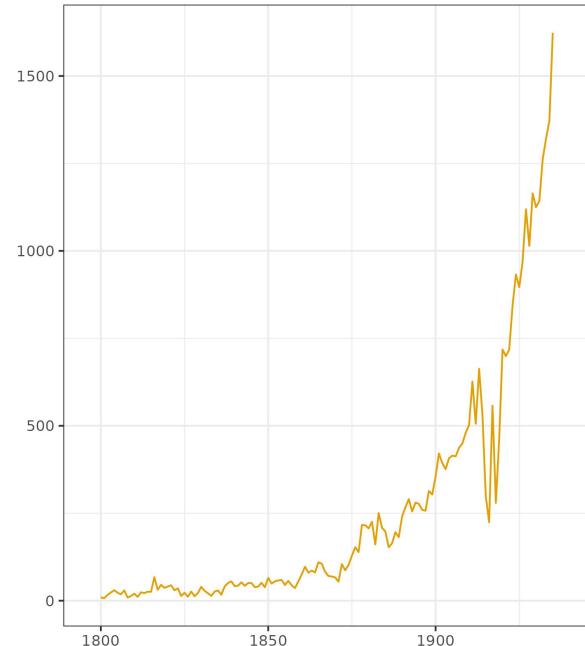
Estonian native speakers (1800-1930)

Residing in modern Estonia



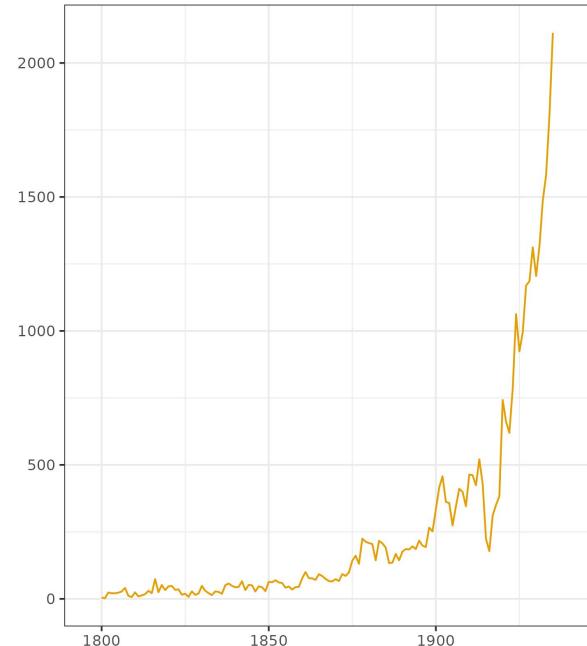
Estonian language books

Per million native speakers



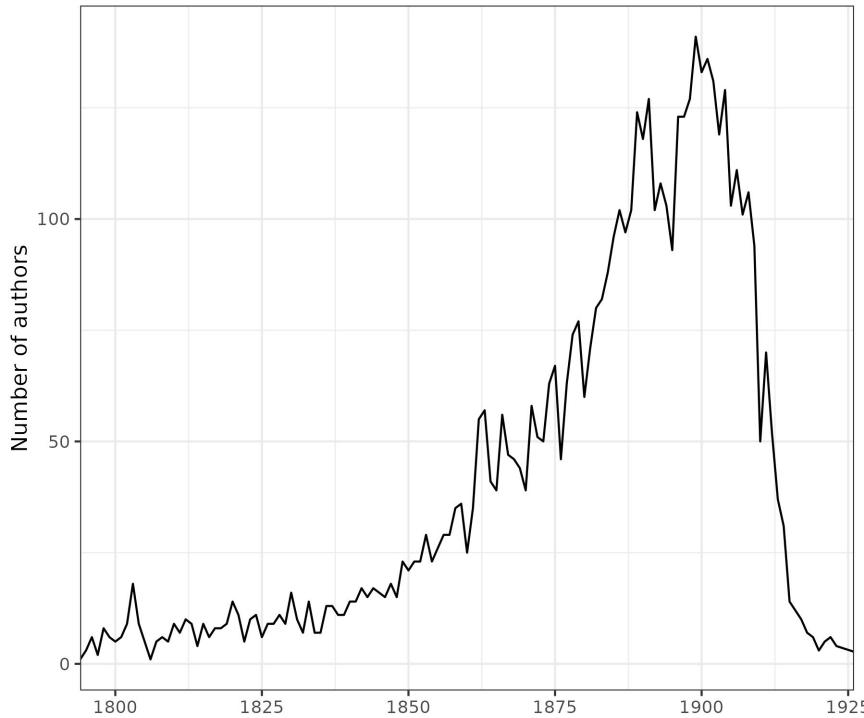
Estonian literary actors

Per million native speakers

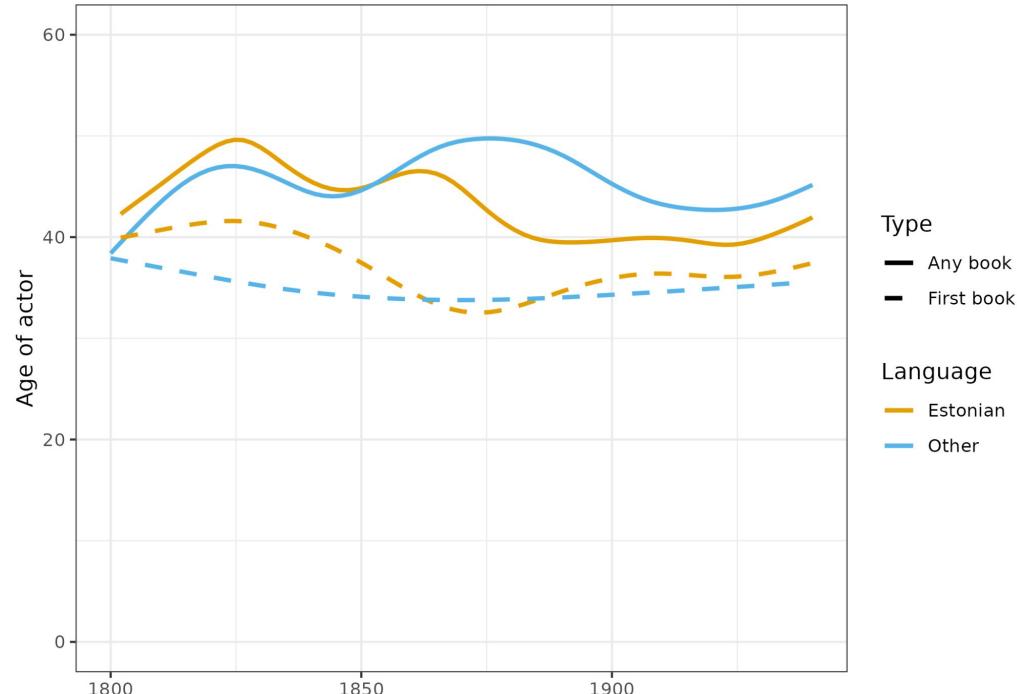


New people to written language community

Birthyears of actors active in 1800-1940

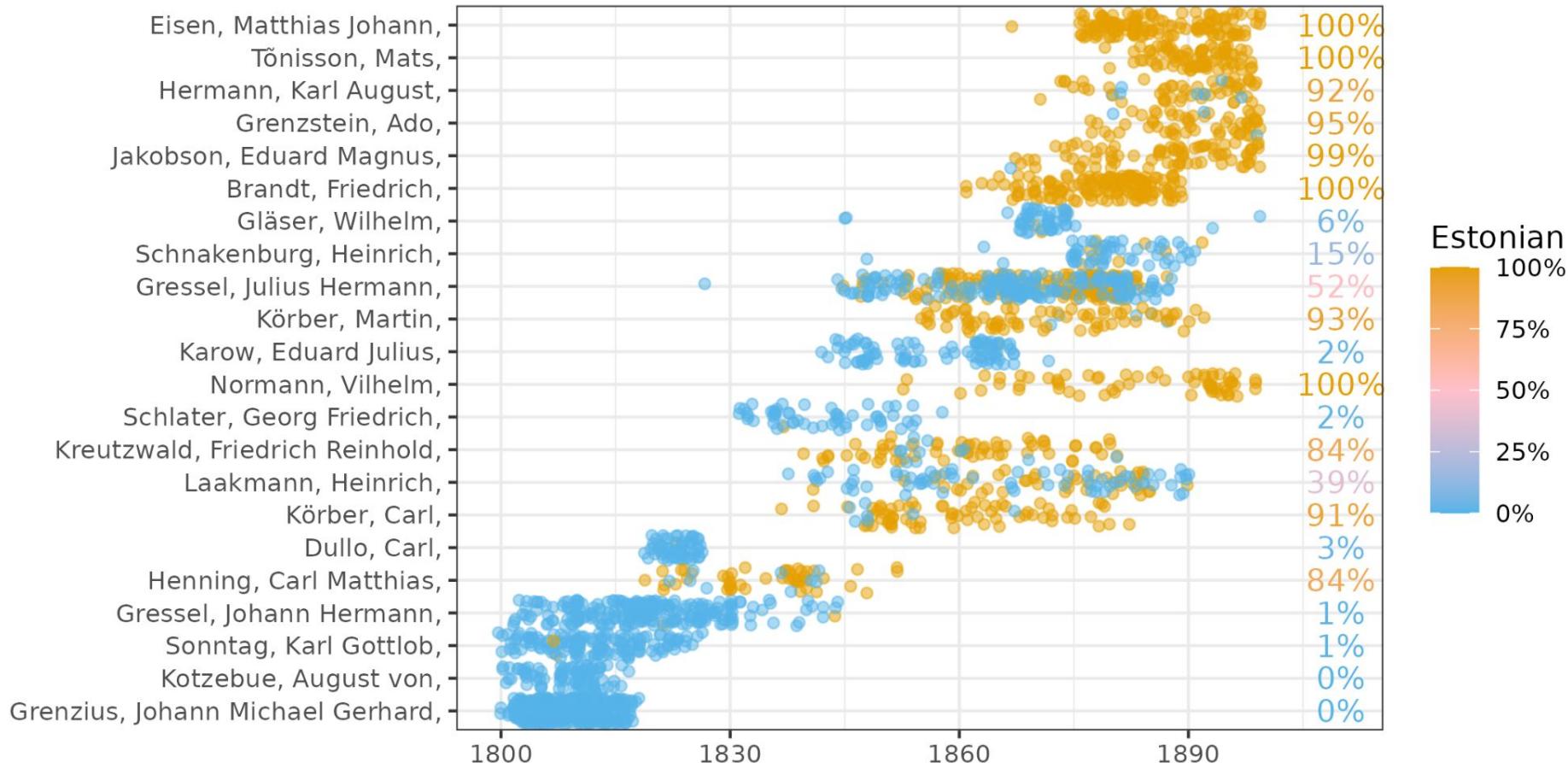


Age of average active living actor by language (1800-1940)
Across all books (—) and for first books published (- - -)



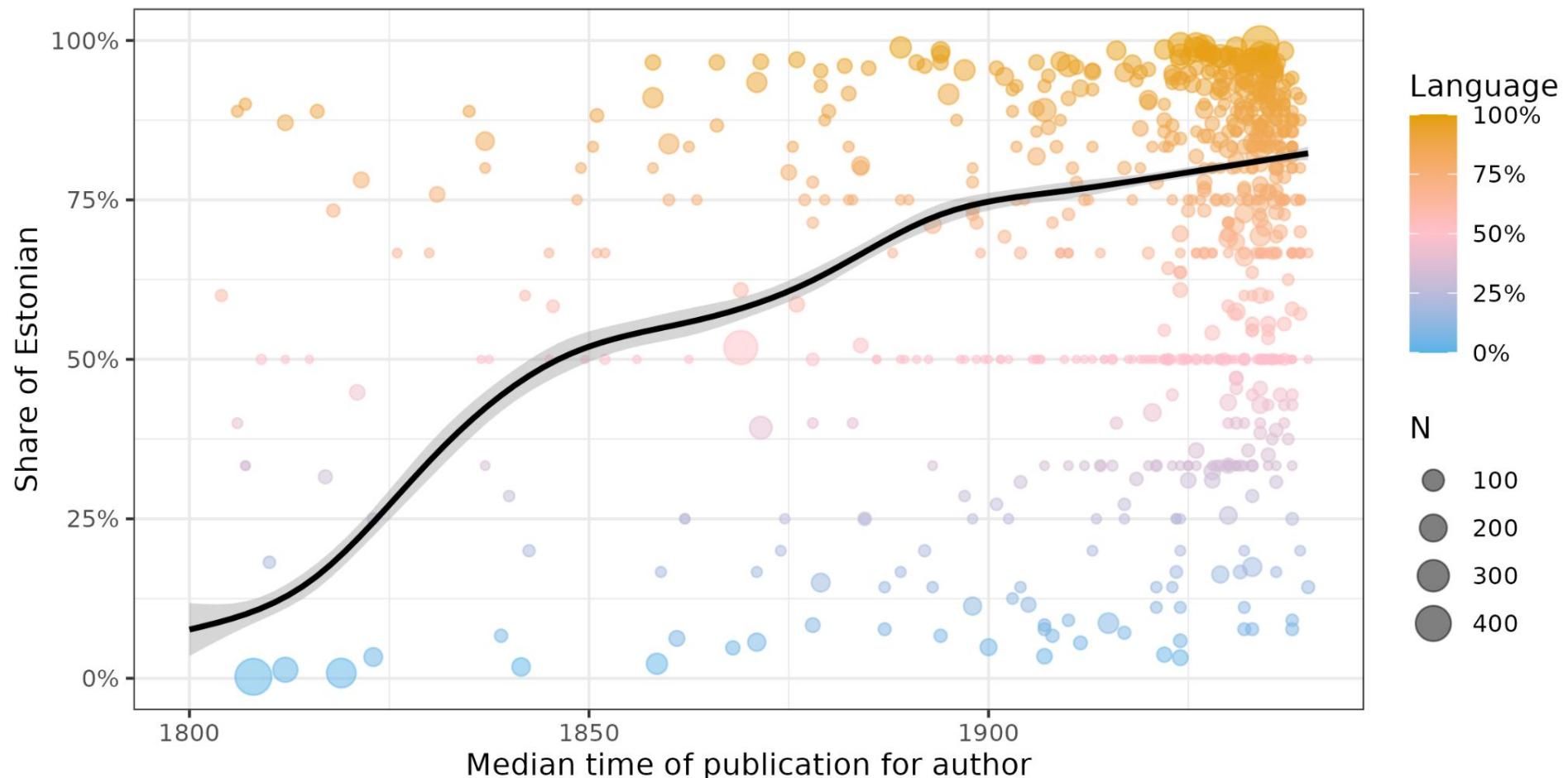
Language of books during actor's life

Actors with > 50 works, lifetime share on the right



Language choice for multilingual actors (n = 711)

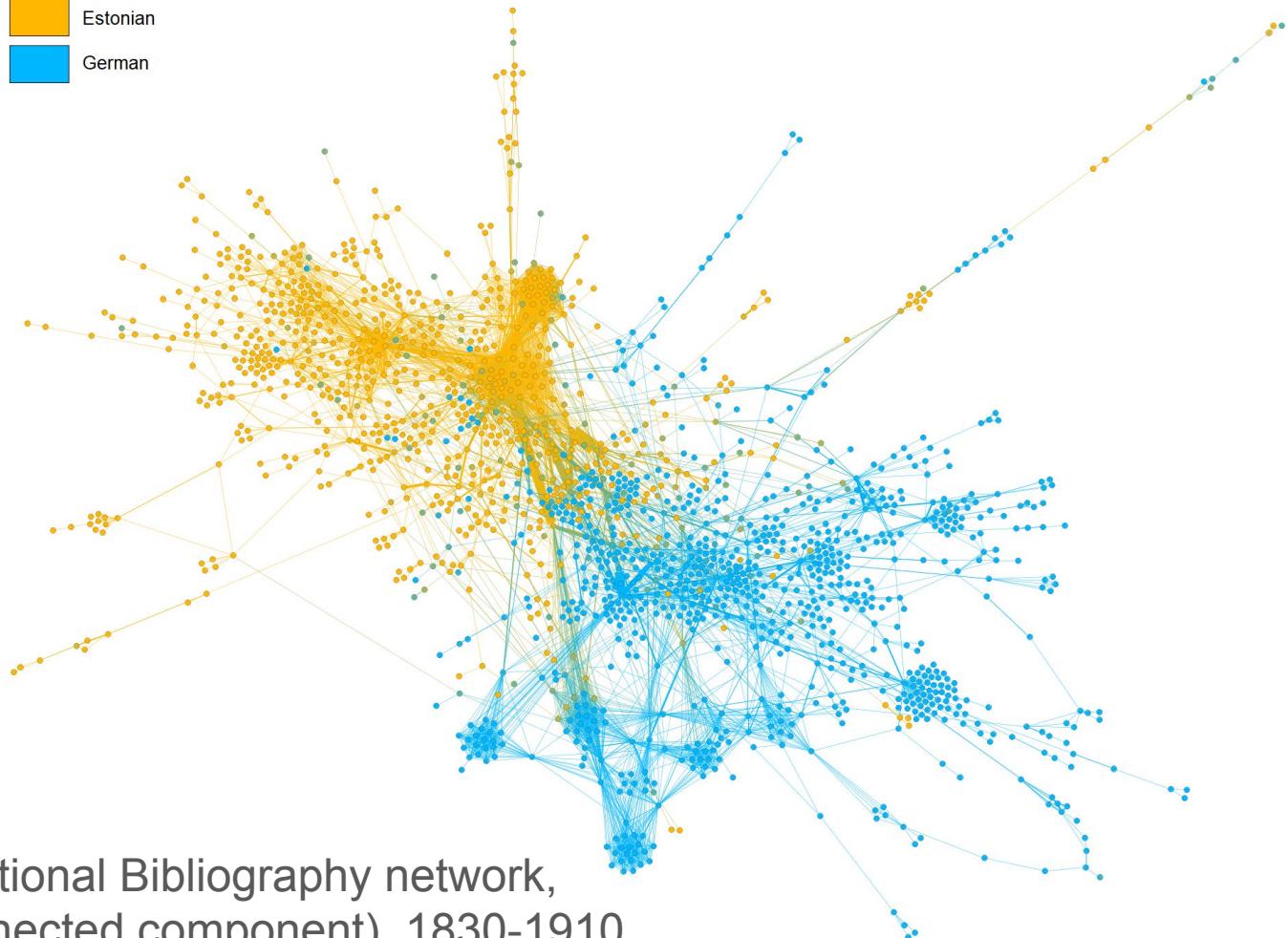
Lifetime share of language for actor vs median time of publication



Networks

- The National Bibliography data can also be viewed as a literary network, where nodes are actors and edges are works (e.g. Hill *et al* 2019)
- Shows the relationships between authors, publishers, illustrators, editors and others
- Can be constructed diachronically and be coded to represent attributes like language

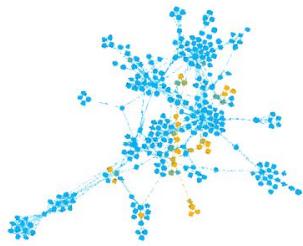
 Estonian
 German



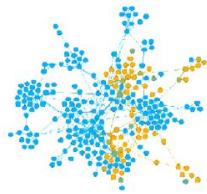
Estonian National Bibliography network,
(largest connected component), 1830-1910

Largest connected components

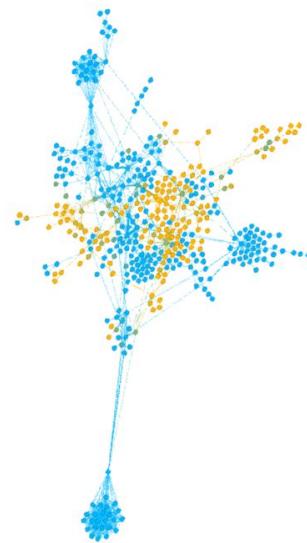
1830-1849



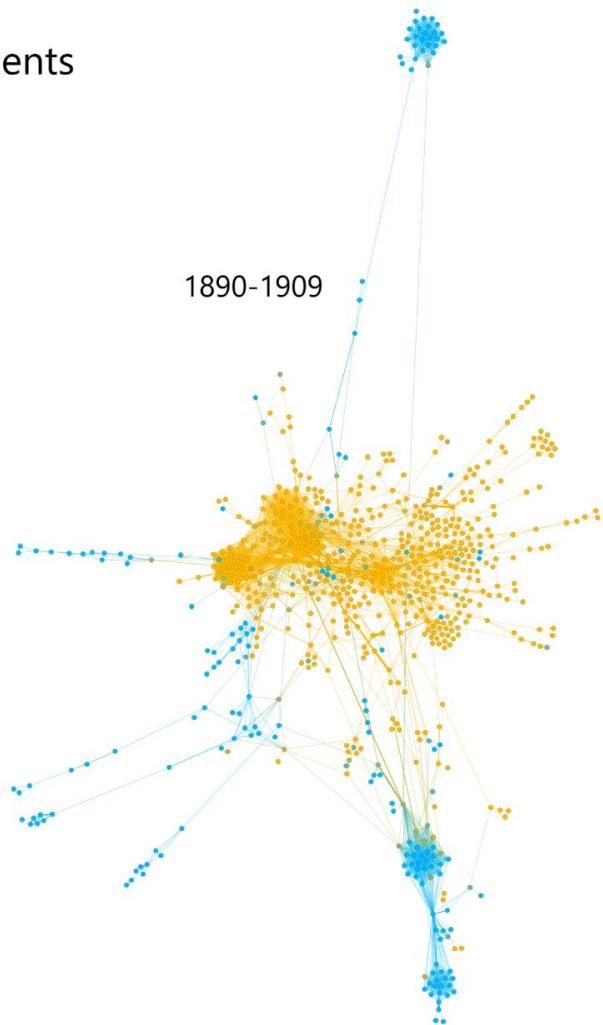
1850-1869



1870-1889



1890-1909

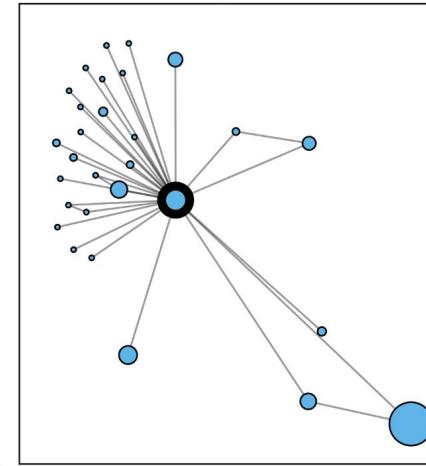
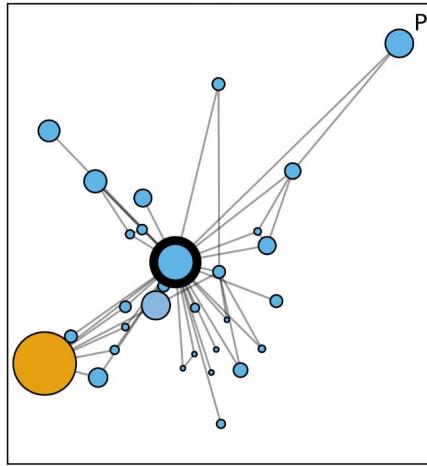
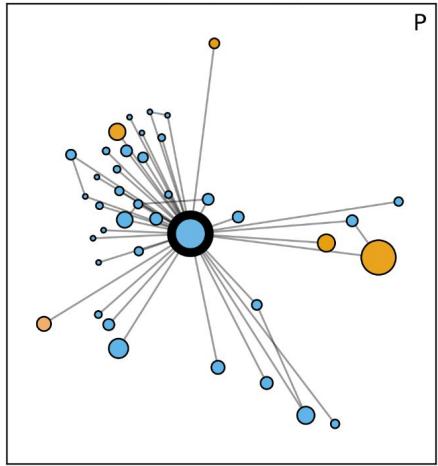


Ego networks (radius=1) of most central nodes by betweenness, 1850-1869

1. Karow, Eduard Julius

2. Kluge, Franz

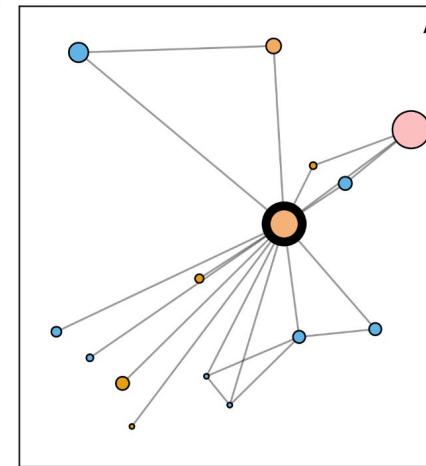
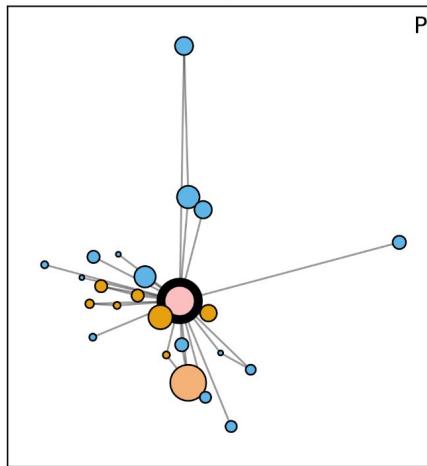
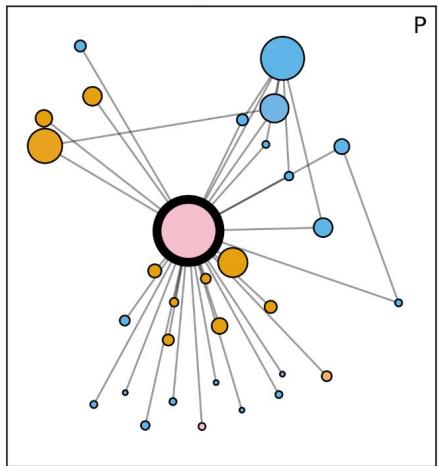
3. Schulz, Carl Anton



4. Gressel, Julius Hermann

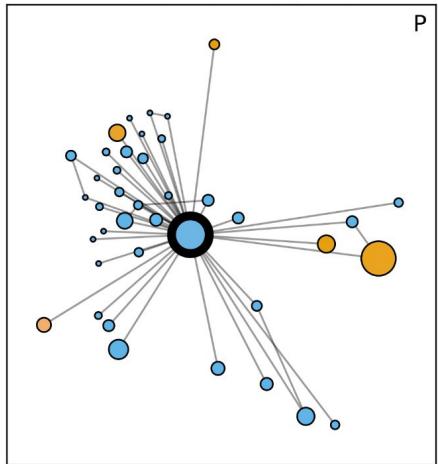
5. Laakmann, Heinrich

6. Kreutzwald, Friedrich Reinhold

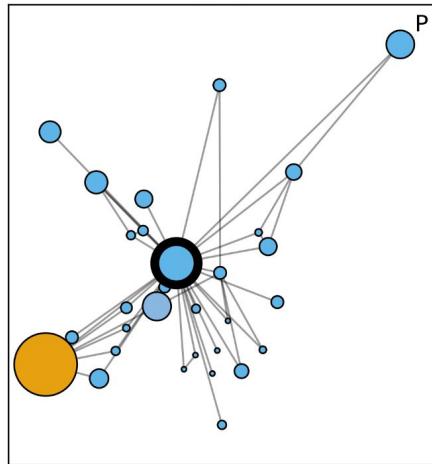


Ego networks (radius=1) of most central nodes by betweenness, 1850-1869

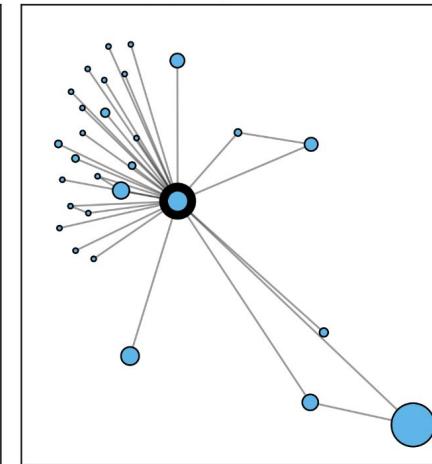
1. Karow, Eduard Julius



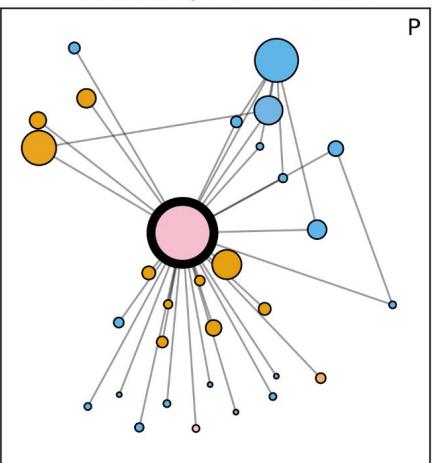
2. Kluge, Franz



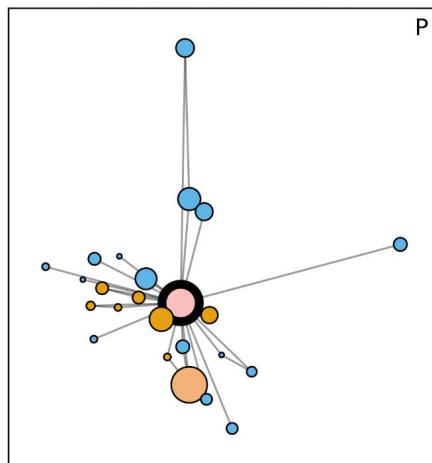
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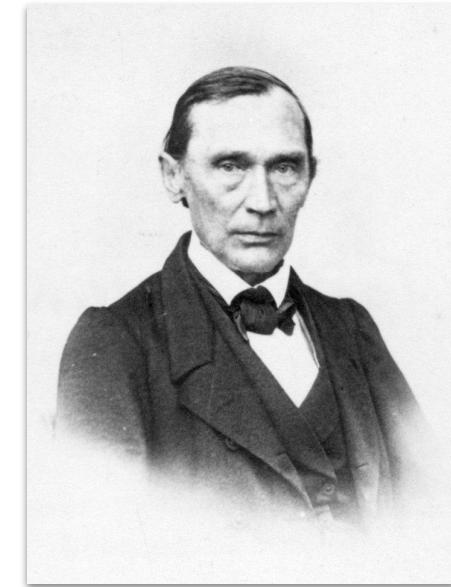
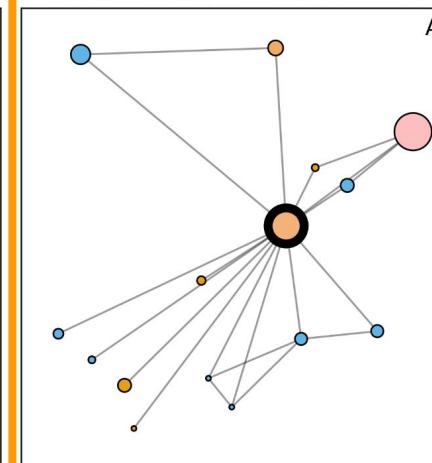
4. Gressel, Julius Hermann



5. Laakmann, Heinrich



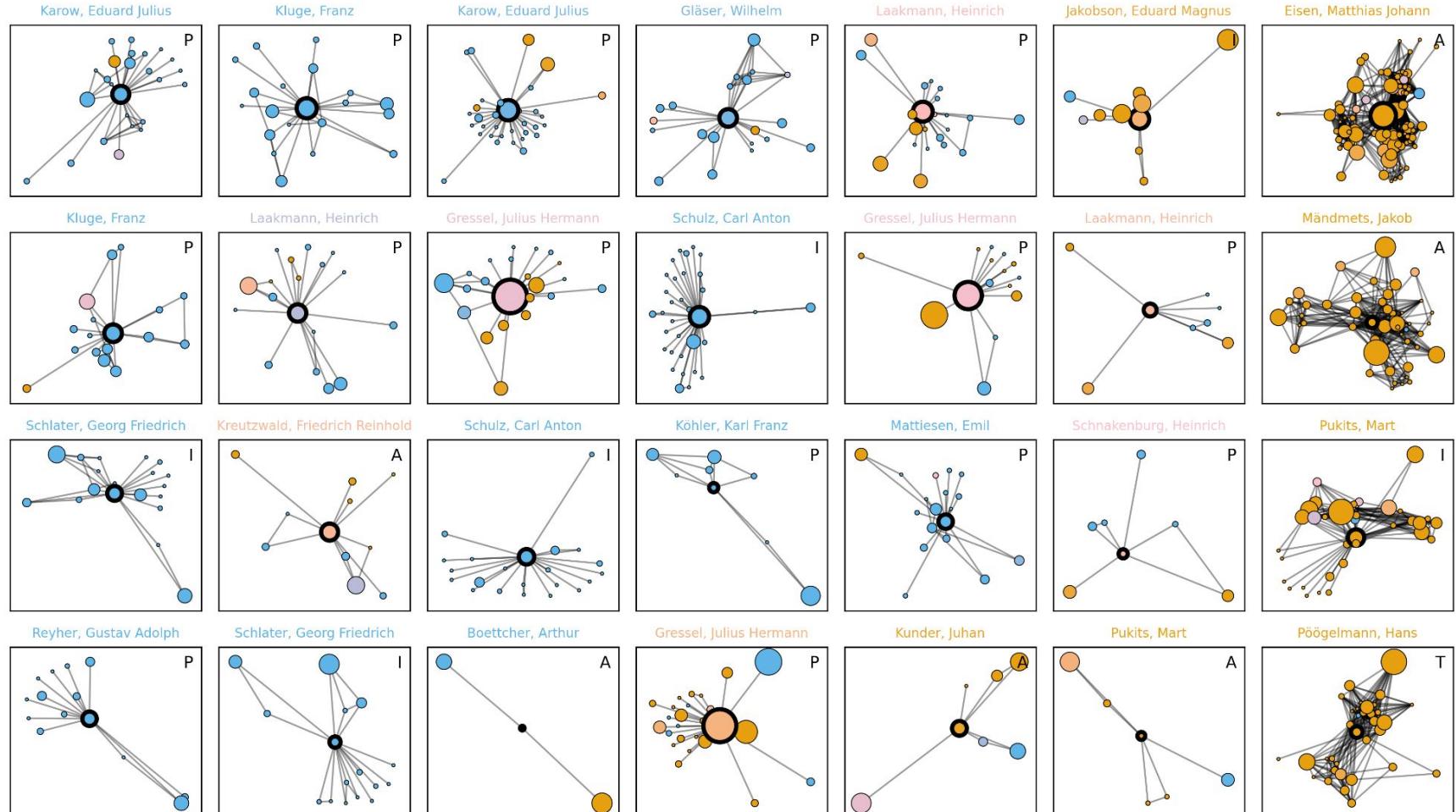
6. Kreutzwald, Friedrich Reinhold



- Leading figure in the early National Awakening
- Author of the Estonian national epic “Kalevipoeg”
- Published mainly in Estonian, but also German and other languages

Ego networks (radius=1) of most central nodes, 1840-1910

betweenness centrality rank



1840-1849

1850-1859

1860-1869

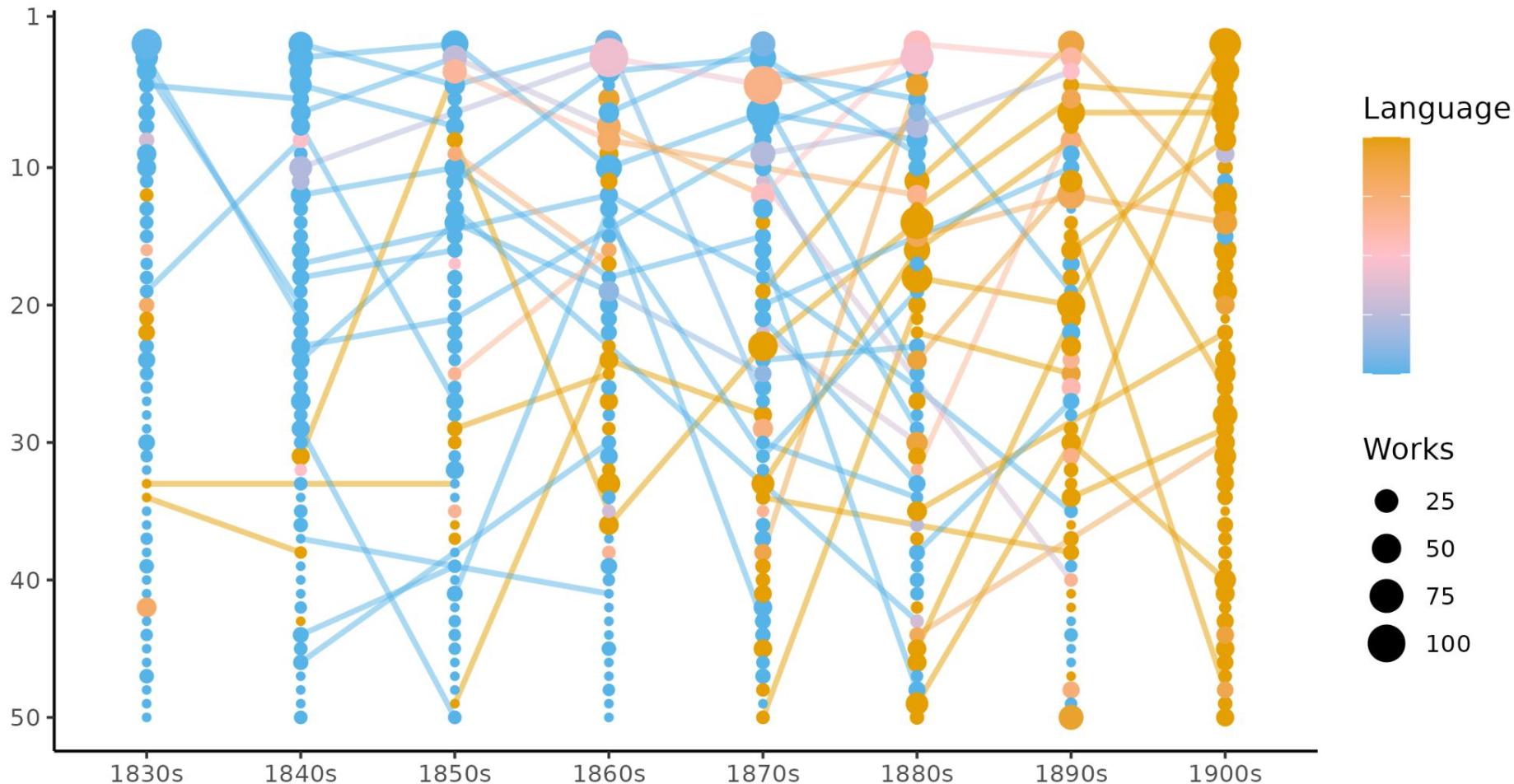
1870-1879

1880-1889

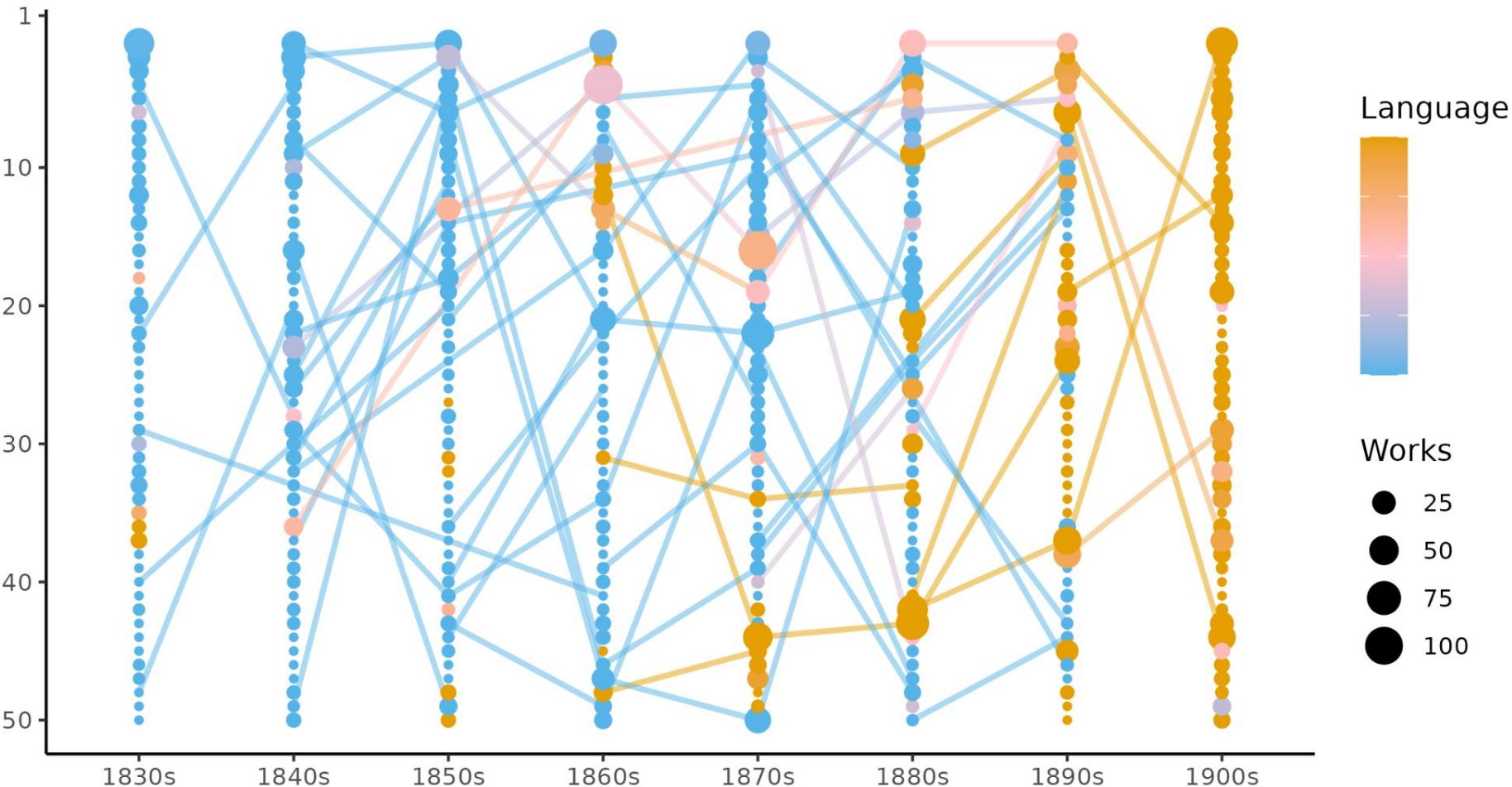
1890-1899

1900-1909

Top 50 most central nodes by decade, ranked by betweenness



Top 50 most central nodes by decade, ranked by closeness



Discussion

- We can see shifts in language use as response to major historical events
- The 19th century Estonian literary community is shaped by young new actors
- The Estonian community initially emerges *from within* the existing Baltic German dominated network - not alongside it
- German's cultural preeminence diminished prior to its political and social influence (or became more transnational?)
- Limitations:
 - Dataset limited to modern borders, which mostly overlaps with the historical Estonian community, but not the German one
- Opportunities:
 - Moving away from an author-centric and canon-centric national literary history
 - Combining different national bibliographies (e.g. Estonian and Latvian) to better analyse literary communities within their historical bounds
 - Informing studies of similar socio-cultural developments elsewhere

Literature

- Leo Lahti, Jani Marjanen, Hege Roivainen & Mikko Tolonen (2019) Bibliographic Data Science and the History of the Book (c. 1500–1800), Cataloging & Classification Quarterly, 57:1, 5-23, DOI: [10.1080/01639374.2018.1543747](https://doi.org/10.1080/01639374.2018.1543747)
- Mark J Hill, Ville Vaara, Tanja Säily, Leo Lahti & Mikko Tolonen (2019) Reconstructing Intellectual Networks: From the ESTC's bibliographic metadata to historical material. In: Proceedings of the Digital Humanities in the Nordic Countries. Proceedings of the Digital Humanities in the Nordic Countries 4th Conference.

Contact us!

We continue to work on using bibliographic data to study cultural history.
Write to us if you have any ideas.

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