

# Printing in a Periphery: a Quantitative Study of Finnish Knowledge Production, 1640-1828

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# From particular data to global perspective?

**Idea:** Study early modern knowledge production, all of it (1470-1830)

**How?** Combine library catalogues (Fennica, Kungliga, ESTC, CERL HPB database)

**Important:** cleaning up the data (90% of the effort!) and considering how particular data collections (Finnish National Bibliography, English Short-Title Catalogue etc.) have been formed.

**How to fail:** take worldcat or similar combination of datasets and analyse it as a whole without cleaning it up first.

**Overcoming a national gaze** by focus on knowledge production through more complex cross-national network of cities

## Data: bibliographic catalogues 1640-1828

### **Fennica** Finnish National bibliography

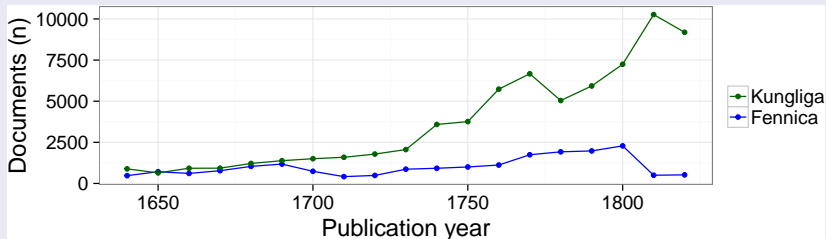
- ▶ 19241 documents 1640-1828

### **Kungliga** Swedish National bibliography

- ▶ 69108 documents 1640-1828

### **Why this project?**

- ▶ Visible roots of the diversity of “Finnishness” reflected in knowledge production, 1640-1828



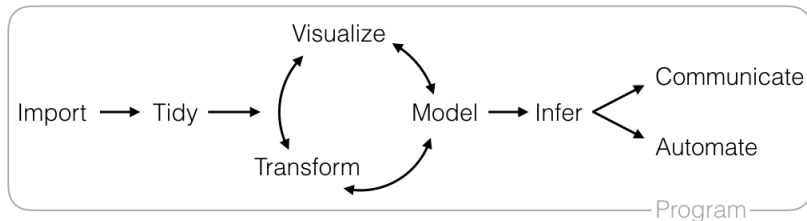
# Methods: Open data analytical ecosystem

**Customized** our dedicated R packages for bibliographic analysis combine flexibility with automation

**Automated** scales well with new data and unforeseen changes; a million documents cleaned up in 30 minutes

**Open source** fully transparent and reproducible data analytics:  
<https://github.com/rOpenGov/fennica>

**Research potential** greatly underestimated; world is full of metadata collections



(Figure by Hadley Wickham)

# Preprocess & Enrich

## Clean up messy entries

```
polish_physical_extent("iii-xxiv, 118, [2] p.")$pagecount
```

```
## [1] 142
```

## Enrich data (geocoordinates, gender, ..)

```
get_country("Porvoo")
```

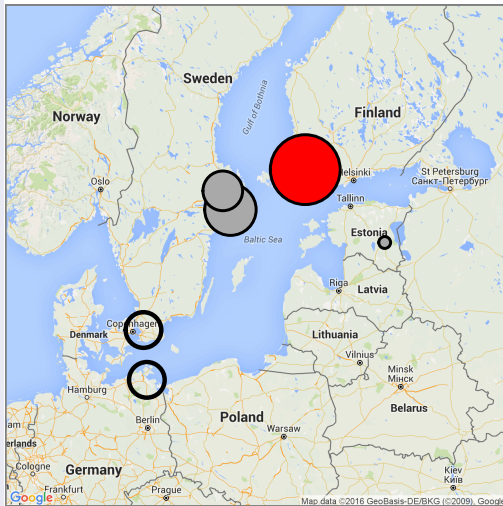
```
## [1] "Finland"
```

- Parse, clean up, enrich, summarise, analyze, visualize, report..

# 1. General trends and political events

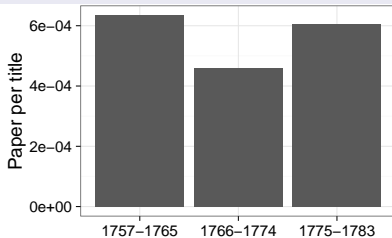
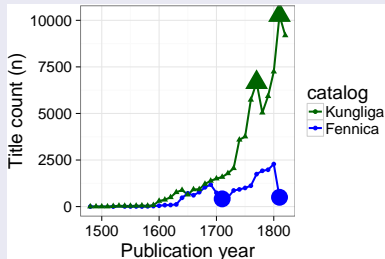
# Turku as a Swedish University Town among Uppsala, Tartu and Stockholm (+ Lund & Greifswald)

# 1650



## Publishing activity over time

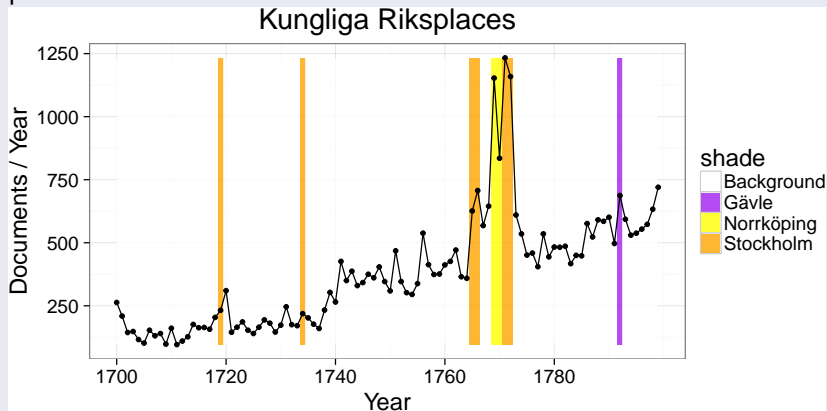
- ▶ 1700-1721 Great Northern War & Fennica drop during “the Great Wrath”
- ▶ 1760-1770 Pamphleteering plays a crucial role during abolished censorship
- ▶ 1803-1815 Napoleonic wars





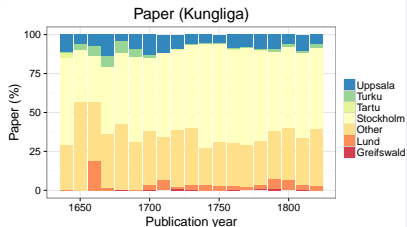
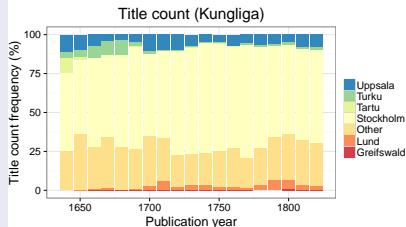
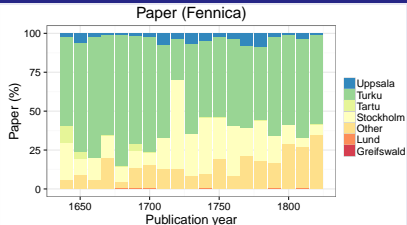
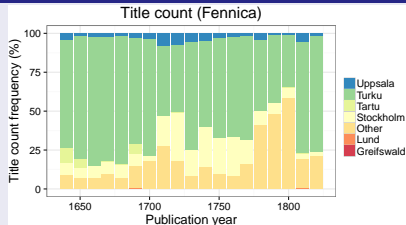
## Swedish knowledge production & cycles of representation

An example how historical events, namely **parliamentary assemblies** in the Swedish case, have an effect on knowledge production.

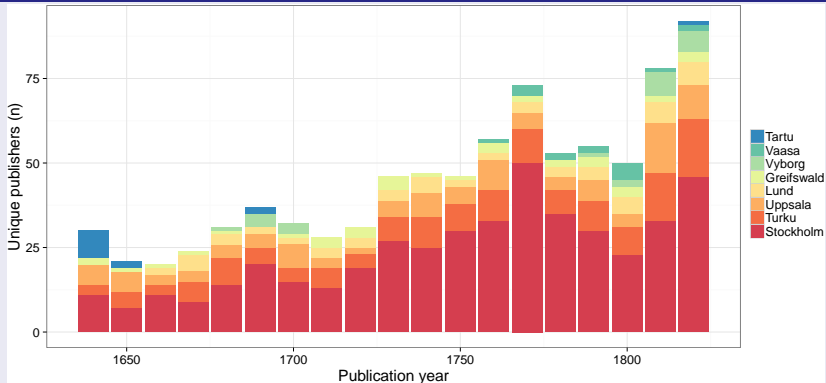


## 2. Publishers in Sweden and Turku

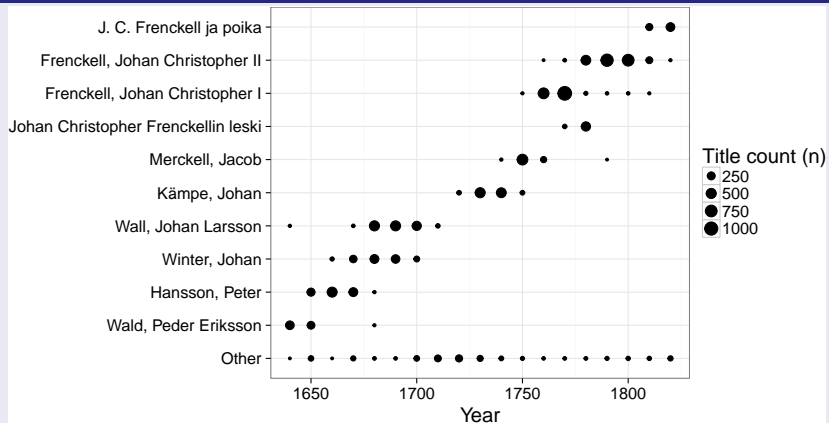
# Turku in Sweden: proportions for title count and paper in Swedish University towns



## Publishers in Swedish University towns (and Finland)

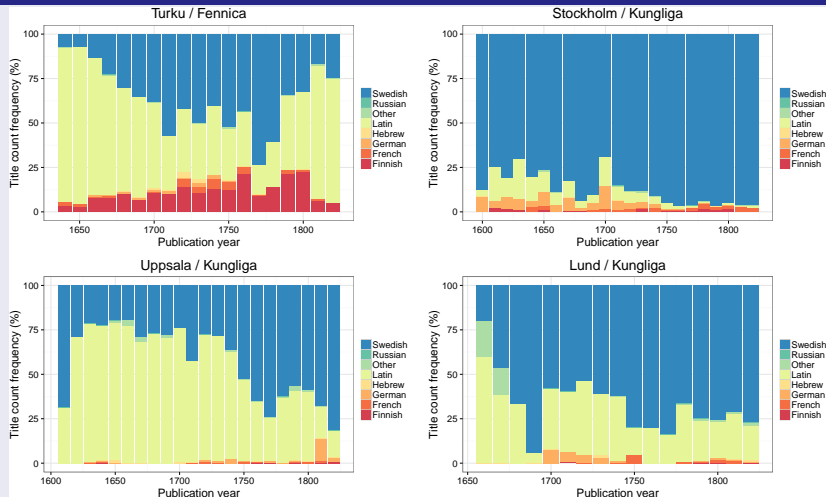


## Top publishers in Turku/Fennica

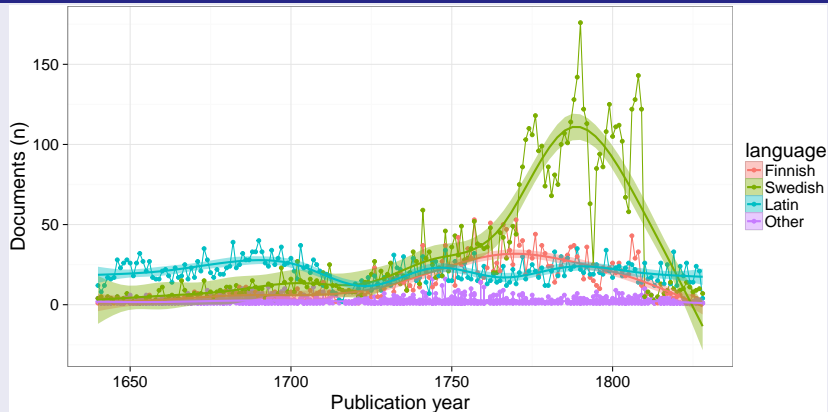


### 3. Languages and religious texts in Finland

# Different languages in Turku, Stockholm, Uppsala and Lund



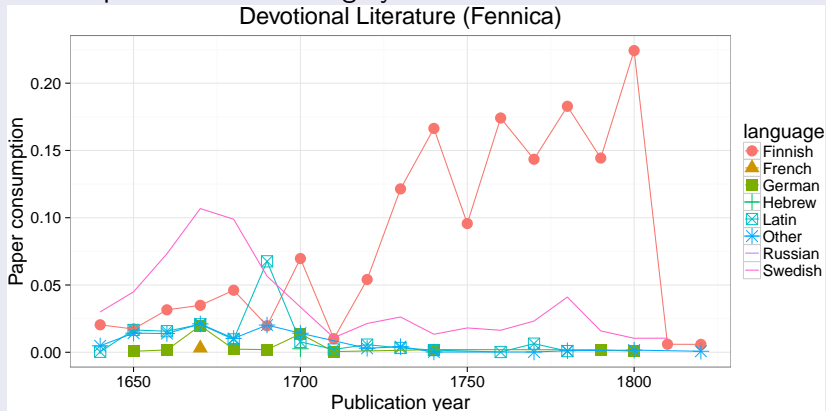
## Topic richness per language (publications in Fennica)





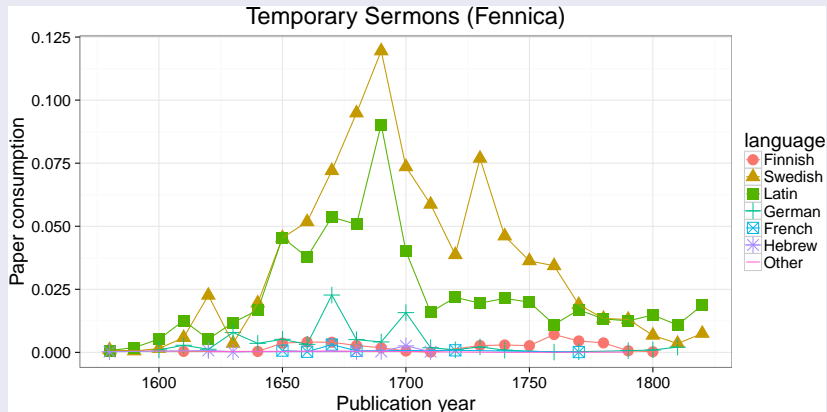
Devotional literature (catechisms, hymns, prayers, etc.)

Form of literature denoting the advancement of reading in Finland in the 19th century. It has been unclear when devotional literature shows up as a relevant category.



## Temporary sermons in Latin and Swedish

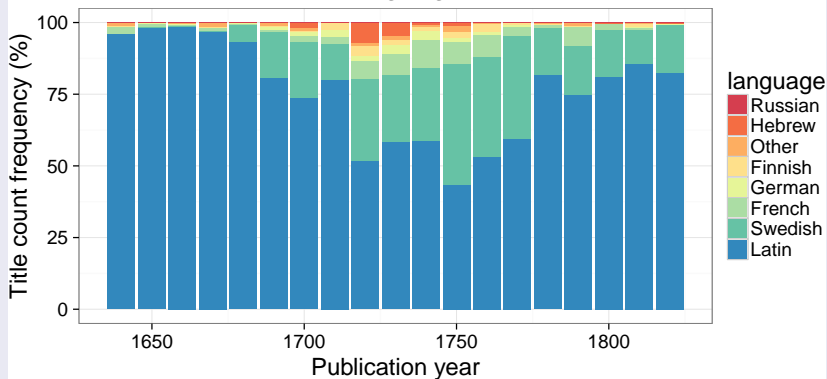
- Important role in early modern knowledge production.  
Language of temporary sermons in contrast to devotional literature has not been analysed in Finland (and Sweden).



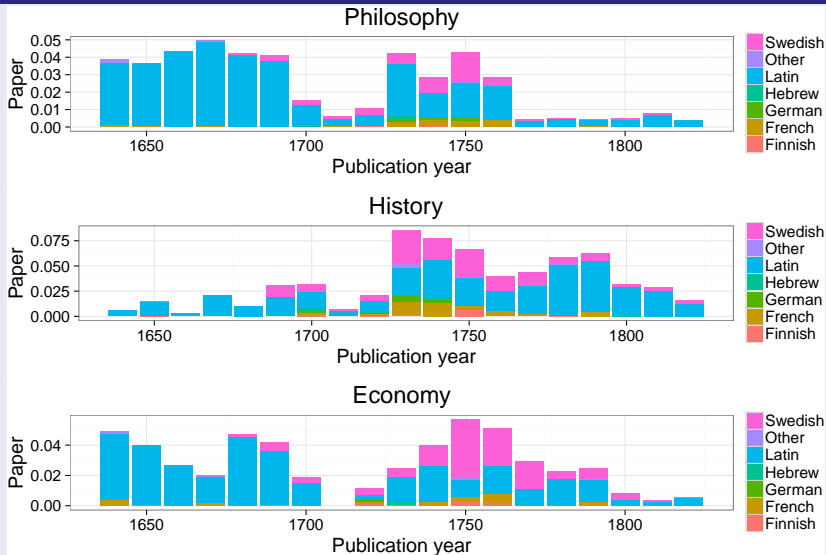
#### 4. University curriculum and Enlightenment in Finland

## Dissertation languages in Turku 1640-1828

### Dissertation languages (Fennica)

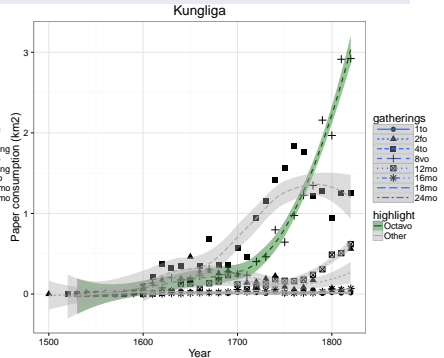
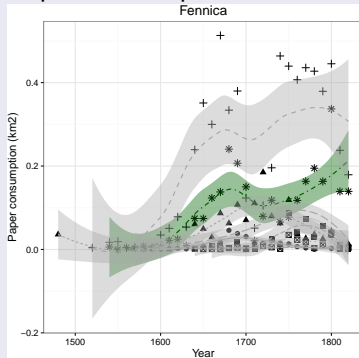


## Printing by topics in different languages in Turku



## Rise of the octavo sized book as vehicle of Enlightenment

### Paper consumption: different document formats over time



# Thanks !

## Institutional support:

- ▶ Academy of Finland
- ▶ University of Helsinki
- ▶ Digitalia / The Regional Council of South Savo

## Data providers:

- ▶ National Library of Finland
- ▶ National Library of Sweden

## Code infrastructure:

- ▶ Github
- ▶ R project

## For more info, see:

- ▶ <https://github.com/rOpenGov/fennica>



## Duplicate publications in Fennica/Kungliga

