

# 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

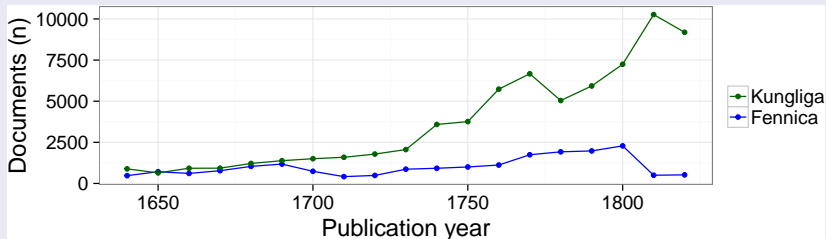
- ▶ 19241 documents 1640-1828

### **Kungliga** Swedish National bibliography

- ▶ 69108 documents 1640-1828

### **Why this project?**

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



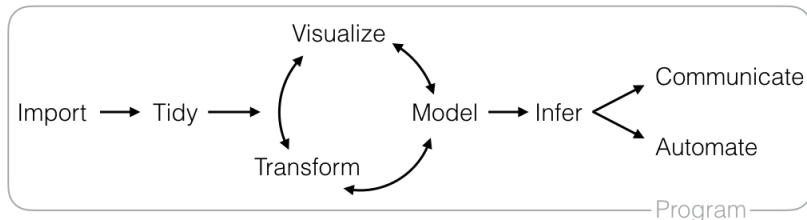
# Methods: Open data analytical ecosystem

**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)

# Automated algorithms for data clean-up

## Clean up messy entries

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

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

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

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

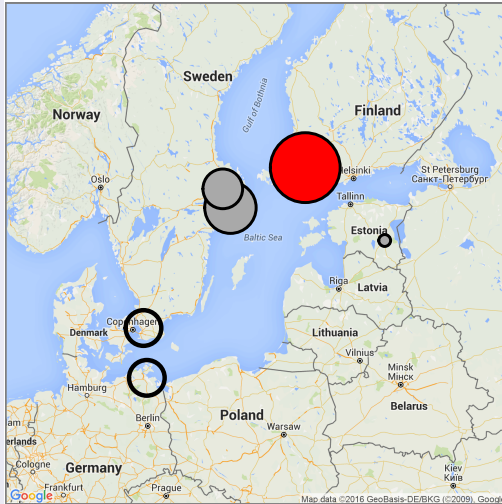
```
## [1] "Finland"
```

- Open source tools: parse, clean up, interpret, augment, enrich, validate, summarise, analyze, visualize, report..

# 1. General trends and political events

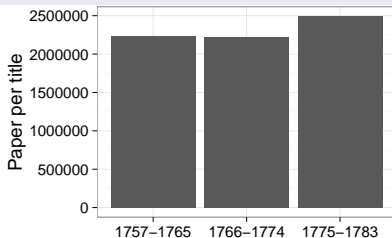
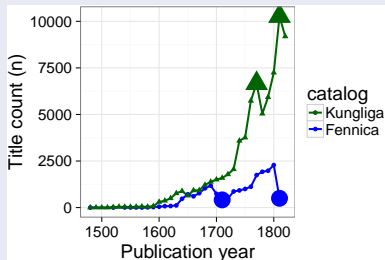
# Turku as a Swedish University Town among Uppsala, Tartu and Stockholm (+ Lund & Greifswald)

# 1650



## Publishing activity over time

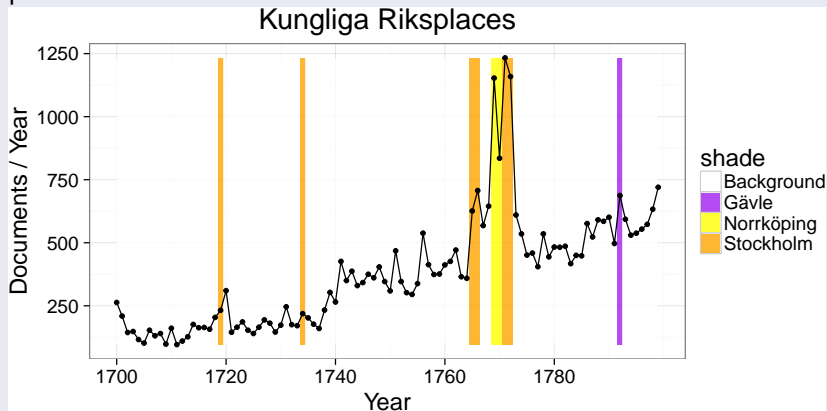
- ▶ 1700-1721 Great Northern War & Fennica drop during “the Great Wrath”
- ▶ 1760-1770 Pamphleteering plays a crucial role during abolished censorship
- ▶ 1803-1815 Napoleonic wars





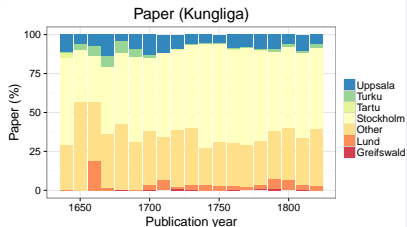
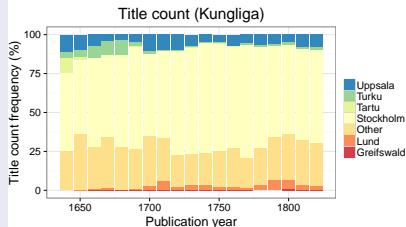
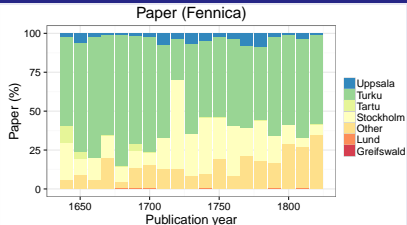
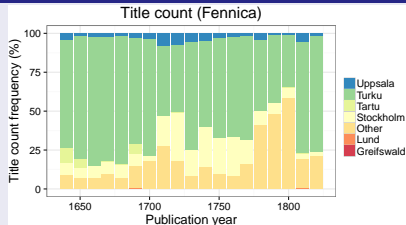
## Swedish knowledge production & cycles of representation

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

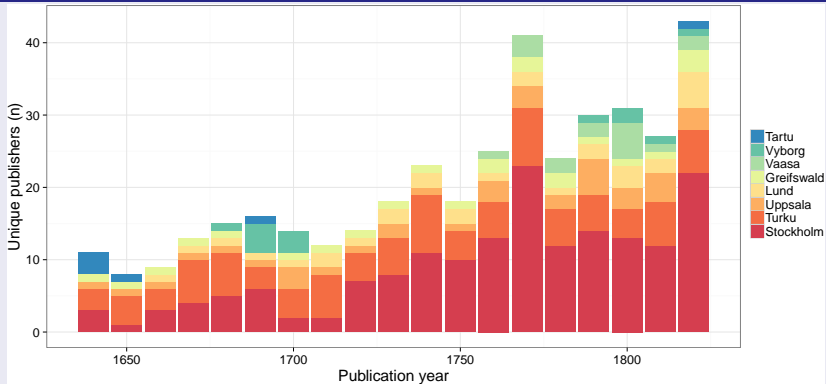


## 2. Publishers in Sweden and Turku

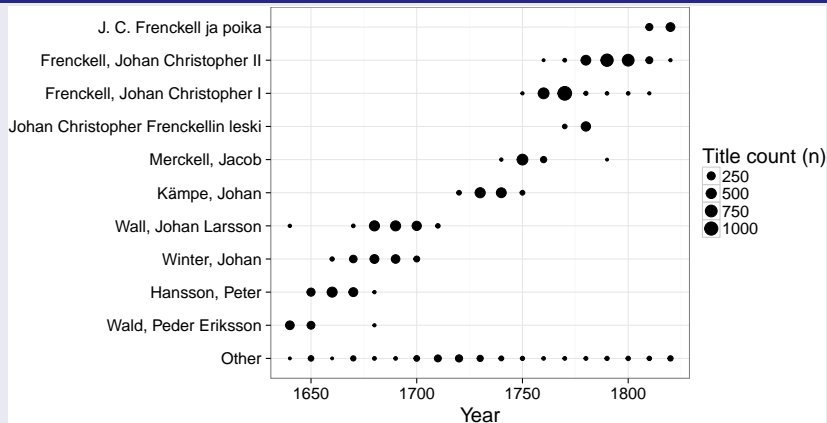
# Turku in Sweden: proportions for title count and paper in Swedish University towns



## Publishers in Swedish University towns (and Finland)



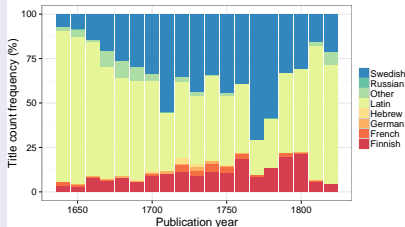
## Top publishers in Turku/Fennica



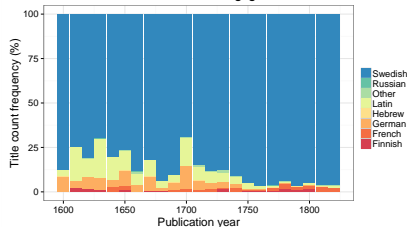
### 3. Languages and religious texts in Finland

# Different languages in Turku, Stockholm, Uppsala and Lund

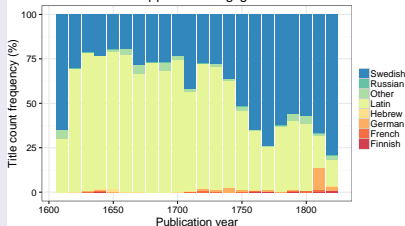
Turku / Fennica



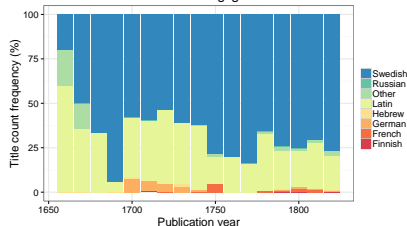
Stockholm / Kungliga



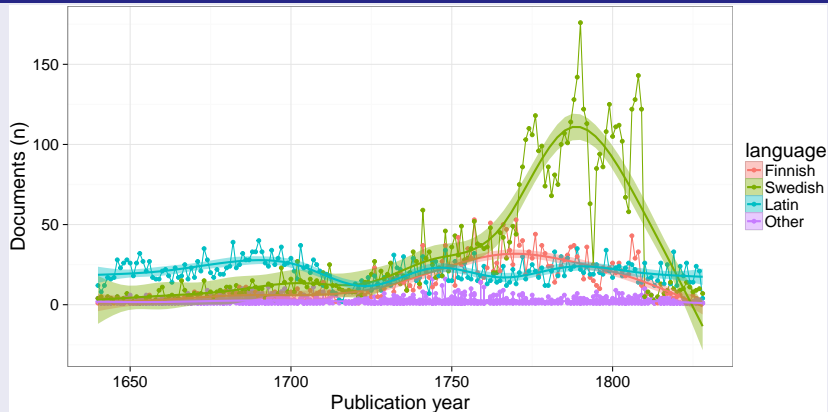
Uppsala / Kungliga



Lund / Kungliga



## Topic richness per language (publications in Fennica)

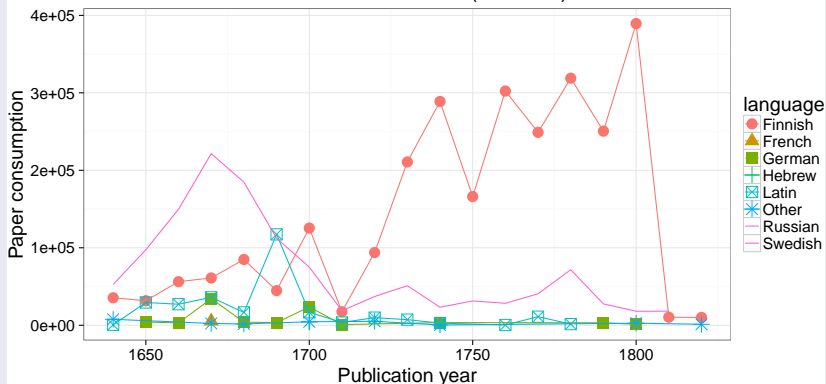




## Devotional literature (catechisms, hymns, prayers, etc.)

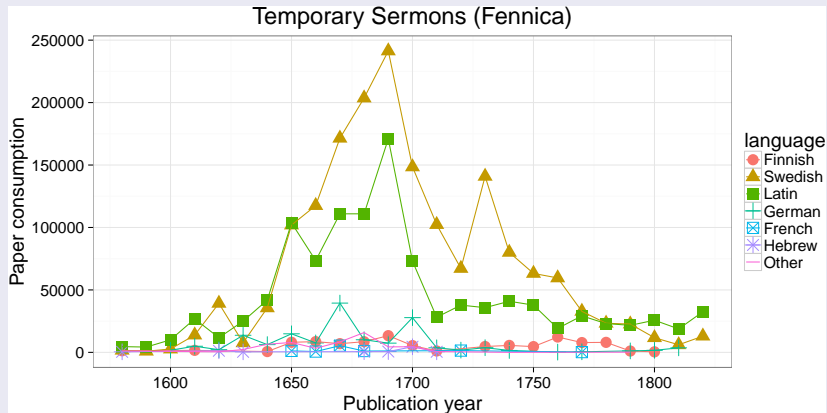
Form of literature denoting the advancement of reading in Finland in the 19th century. It has been unclear when devotional literature shows up as a relevant category.

Devotional Literature (Fennica)



## Temporary sermons in Latin and Swedish

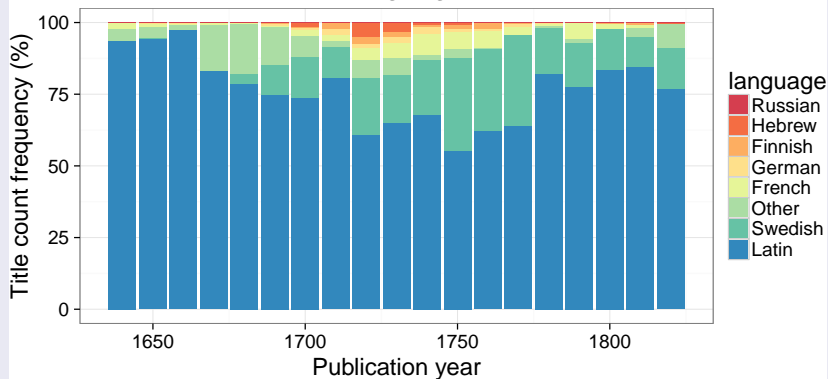
- Important role in early modern knowledge production.  
Language of temporary sermons in contrast to devotional literature has not been analysed in Finland (and Sweden).



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

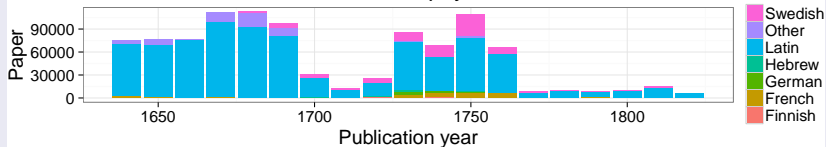
## Dissertation languages in Turku 1640-1828

### Dissertation languages (Fennica)

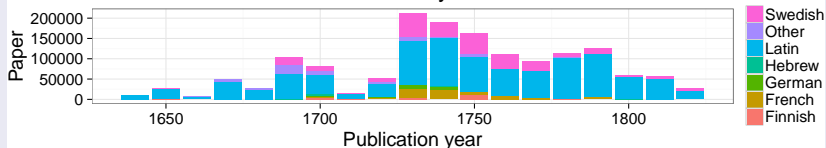


# Printing by topics in different languages in Turku

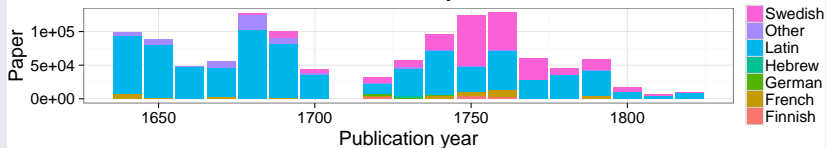
## Philosophy



## History

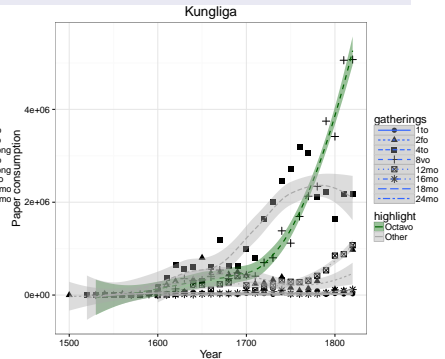
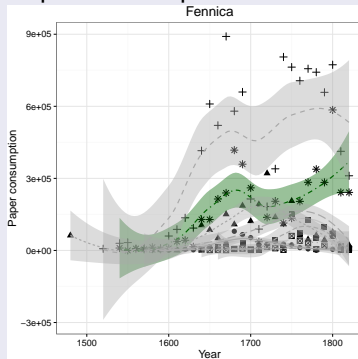


## Economy



## 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

