

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

Mikko Tolonen, Jani Marjanen, Hege Roivainen, Leo Lahti

2016-07-14

# 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

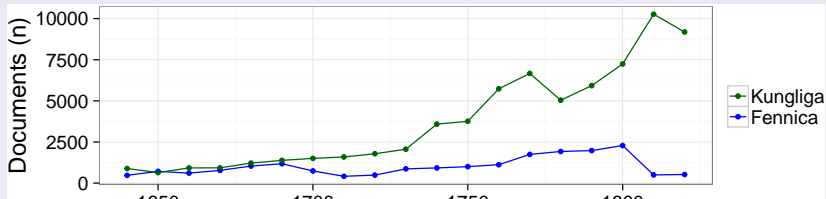
- ▶ 19241 documents 1640-1828

## Kungliga Swedish National bibliography

- ▶ 69108 documents 1640-1828

## Why this project?

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



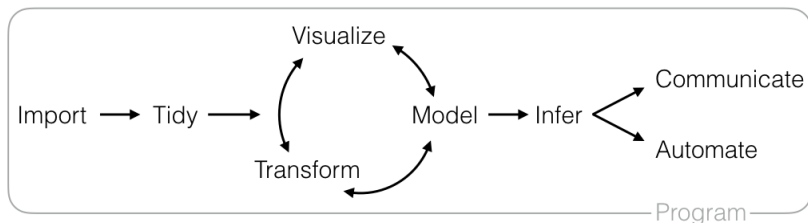
# Methods: Open data analytical ecosystem

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

**Automated** scales well with new data and unforeseen changes; a million documents ~ 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
```

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

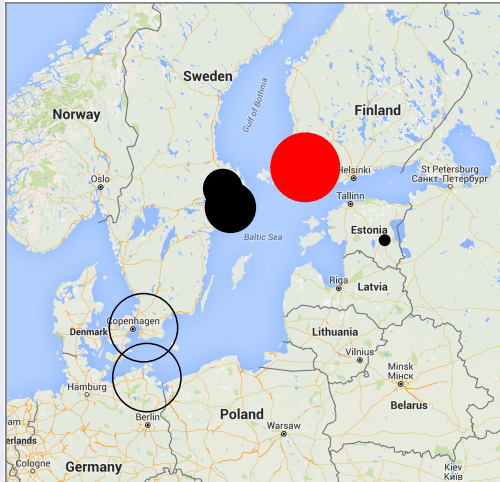
```
get_country("Porvoo")
```

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

# 1. General trends and political events

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

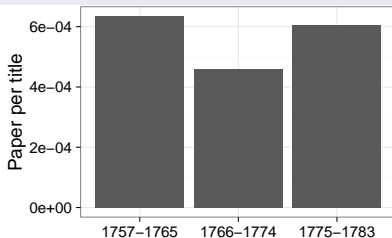
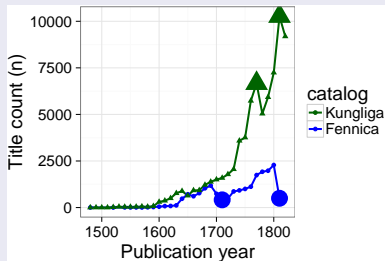
1650



## [General trends & political events]

### Publishing activity over time

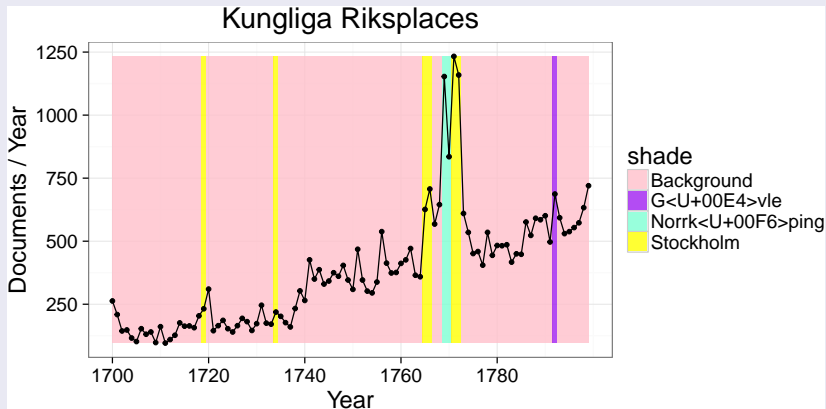
- ▶ 1700-1721 Fennica drop
- ▶ 1760-1770 Pamphleteering plays a crucial role during abolished censorship
- ▶ 1803-1815 Napoleonic wars





## Swedish knowledge production & cycles of representation

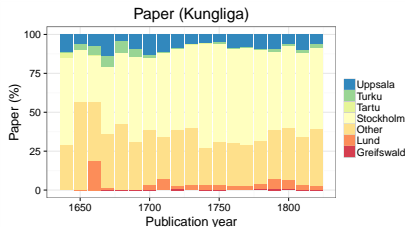
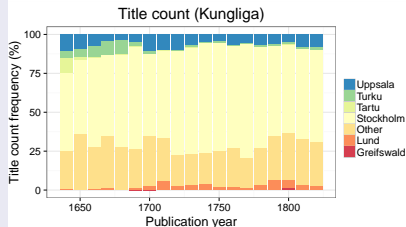
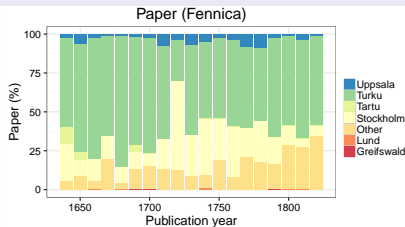
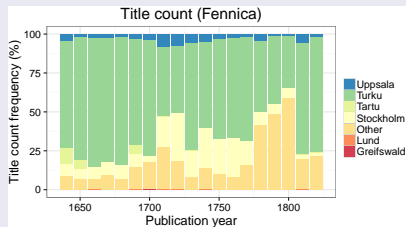
An example how historical events, namely **parliamentary assemblies** in the Swedish case, have an effect on knowledge production.



## 2. Publishers in Sweden and Turku

# [Publishers in Sweden and Turku]

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



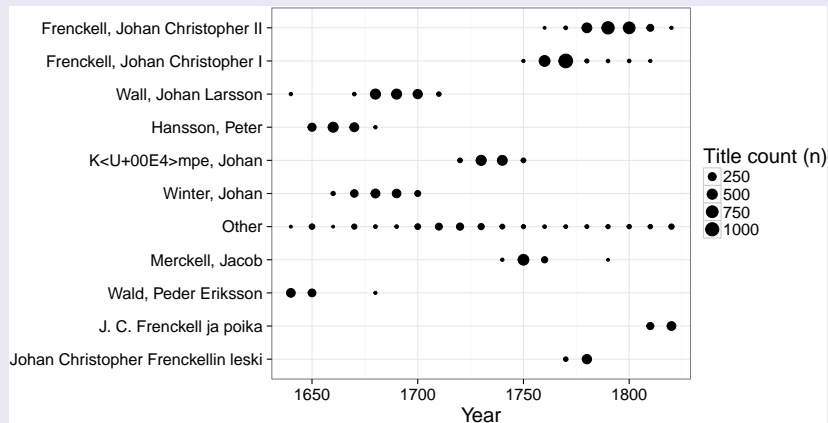
## [Publishers in Sweden and Turku]

### Publishers in Swedish University towns (and Finland)



## [Publishers in Sweden and Turku]

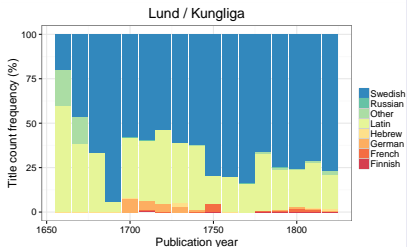
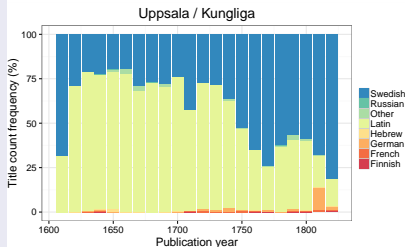
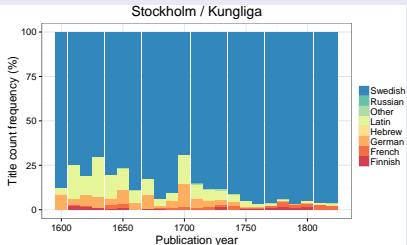
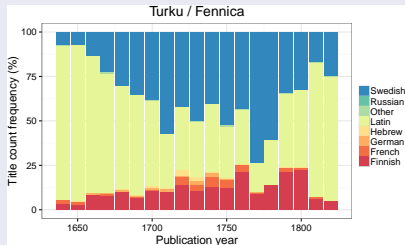
### Top publishers in Turku/Fennica



### 3. Languages and religious texts in Finland

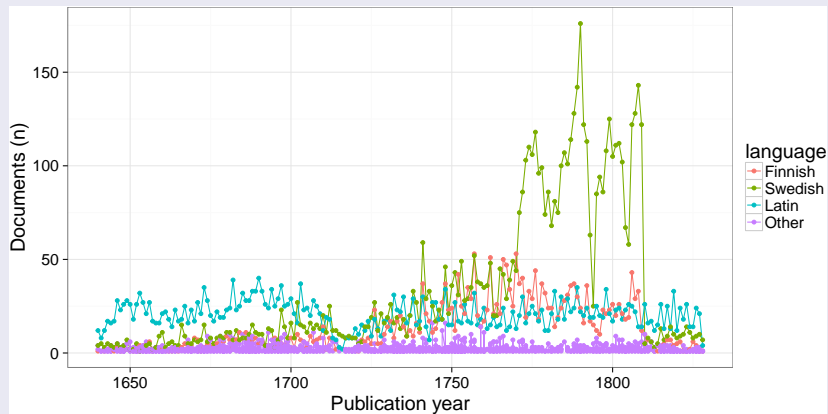
# [Languages & religious texts in Finland]

## Different languages in Turku, Stockholm, Lund and Uppsala



## [Languages & religious texts in Finland]

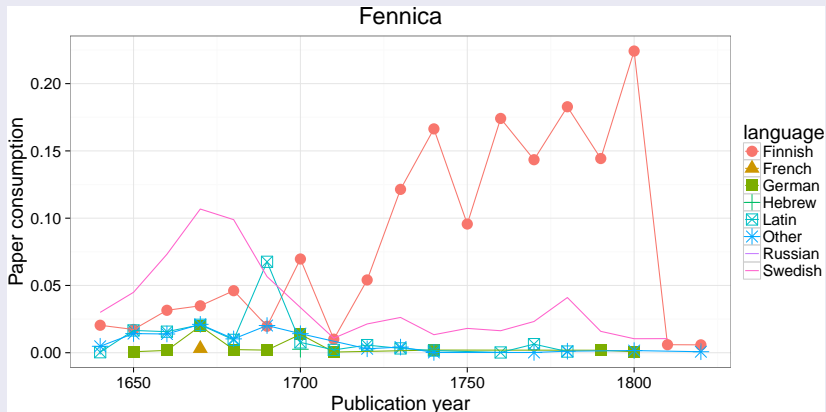
### Topic richness per language (Finnish publications)





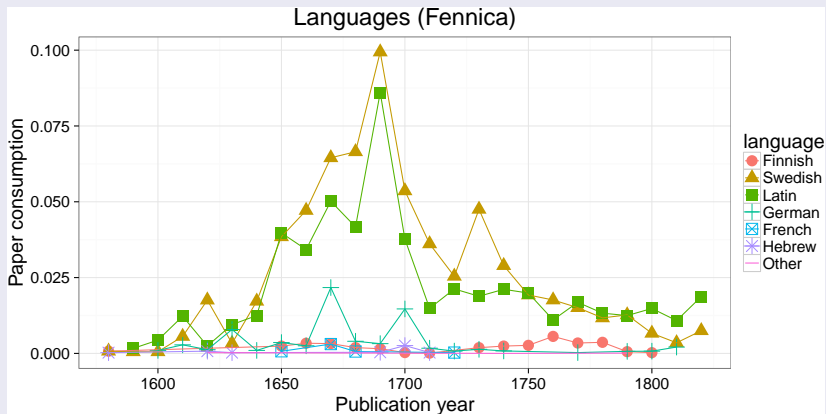
## Devotional literature (catechisms, hymns, prayers, etc.)

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



## Temporary sermons in Latin and Swedish

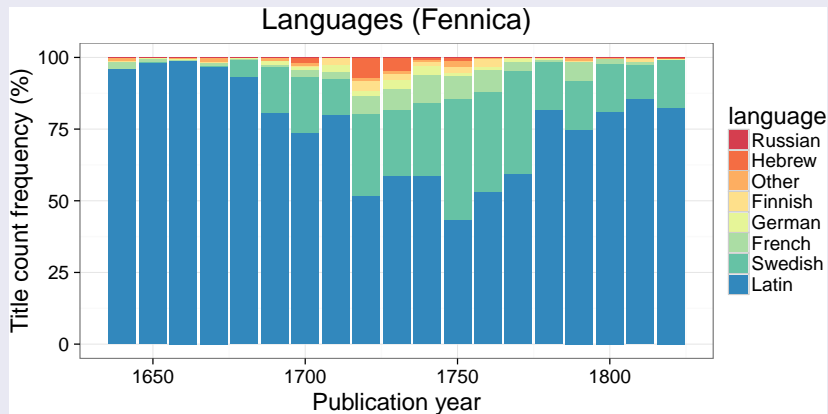
- Important role in early modern knowledge production. It has not been analysed in what language they were in Finland (and Sweden).

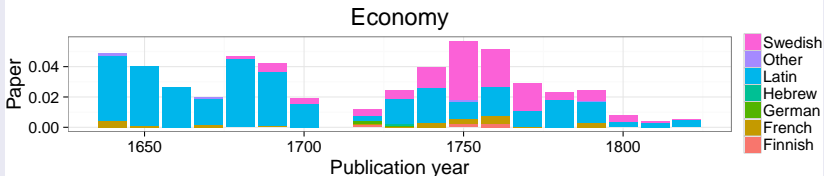


## 4. University curriculum and Enlightenment in Finland

## [University curriculum & Enlightenment in Finland]

### Dissertation languages in Turku 1640-1828

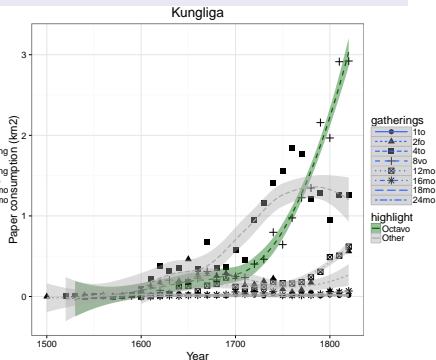
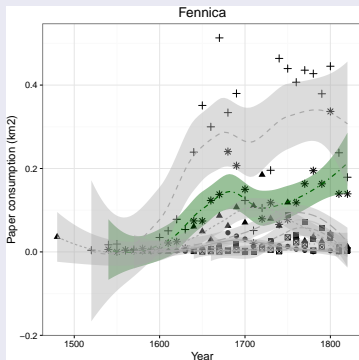




# [University curriculum & Enlightenment in Finland]

## 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

## For more info, see:

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

## Duplicate publications in Fennica/Kungliga

