

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

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2016-07-06

# From particular data to global perspective?

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

**How?** By combining library catalogue data (Fennica, Kungliga, ESTC, CERL)

**Important:** to clean up the data (90% of the work) and to take into account 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 first.

[Intro 2/3]

## Data (1470-1828):

- ▶ Fennica (Finnish National Bibliography): 20328 documents
- ▶ Kungliga (National Library of Sweden): 73165 documents

## Method

- ▶ Scalable code in library catalogue data ecosystem (github)
- ▶ xxx TODO: WHAT DOES LEO WANT TO SAY HERE?
- ▶ Benefit no. 1: once the work has been done, the data is available for everyone to use and to enrich it. The ecosystem is constructed with even unforeseen changes in mind.

## Context

- ▶ Finnish knowledge production 1640-1828 can only be understood in the Swedish context.
- ▶ Academy of Turku as part of the Swedish University system is the centre of Finnish knowledge production.

## Findings

Enlightenment in Finland after “the rock bottom” of 1700-1721

1. Changes in University curriculum reflected in published theses
2. Religious publishing in Finnish language
3. Economy and social science published in Swedish language

→ Deep roots of the diversity of “Finnishness” reflected in knowledge production, 1640-1828.

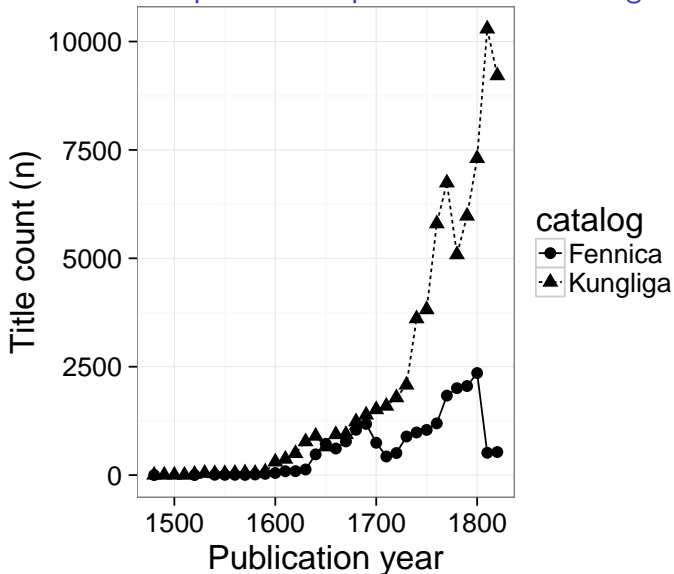
[Big Picture 1/4]

## TODO Kartta!!!

jossa näkyy Turku osana Ruotsin valtakuntaa  
ts. eri kaupungit ja niiden nimikemäärät kartalla. Kartat voisi tehdä,  
jos mahdollista, vuosille 1650, 1710, 1767 ja 1800 niin näkyy  
muutos. Tai sitten video jossa näkyy kehitys. Pohjois-Eurooppa  
karttapohjana.

Toteutuksesta riippuen voidaan miettiä, jos tämä kartta-slide  
korvaisi tuon alla tulevan “Comparing publishing activity in Swedish  
University town”.

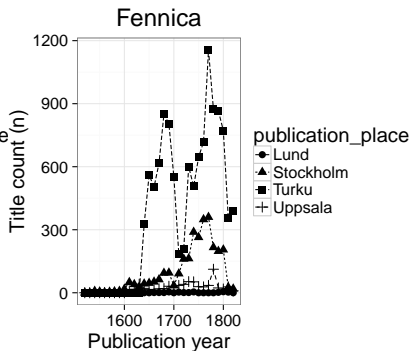
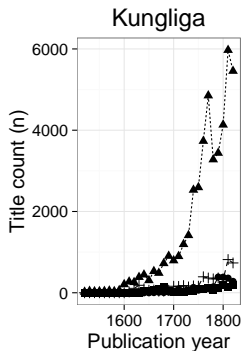
## Peaks and drops – role of publishers and contingency



## [Big Picture 3/4]

### Comparing publishing activity in Swedish University towns

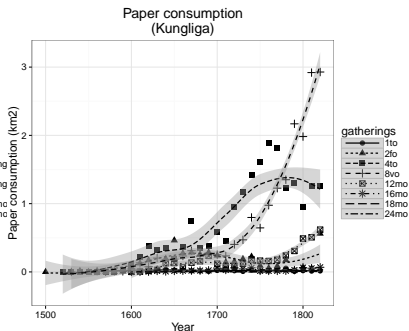
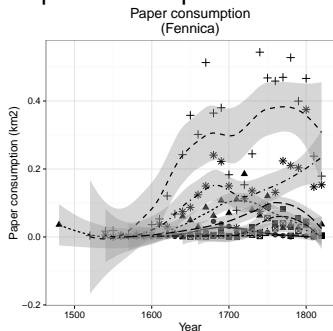
- ▶ Turku
- ▶ Uppsala
- ▶ Lund
- ▶ Stockholm



## [Big Picture 4/4]

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

Paper consumption for different document formats over time.





Publishers

[Publishers 1/6]

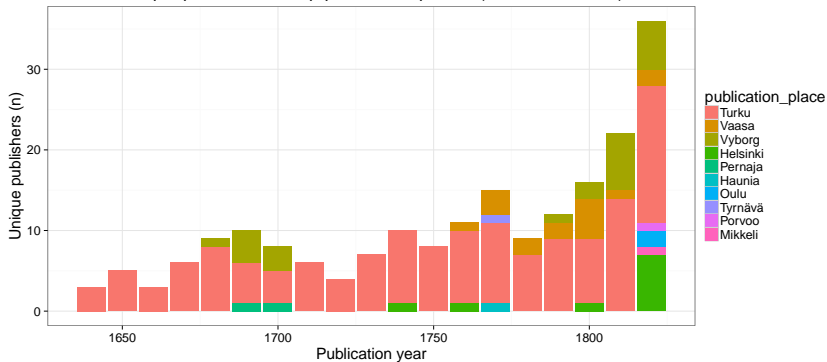
### TODO Turku in Sweden!!!

Janin ajatus: Kaaviot Fennicasta ja Kungligasta, jossa lasketaan eri kaupunkien nimikemäärien, paperinkulutuksen ja kustantajien suhteellinen osuus vuoteen 1828. Eli samanlainen kaavio kuin on kielistä "Book printing in Finland" –osiossa. Laaditaan kaaviot Tukholmasta, Uppsalasta, Lundista, Greifswaldista ja Turusta. Voiko myös tehdä erillisen kaavion, jossa Tukholma on poistettu, josta näkee näiden kilpailevien kakkoskaupunkien tilanteen.

## [Publishers 2/6]

### Development of number of publishers in Finland

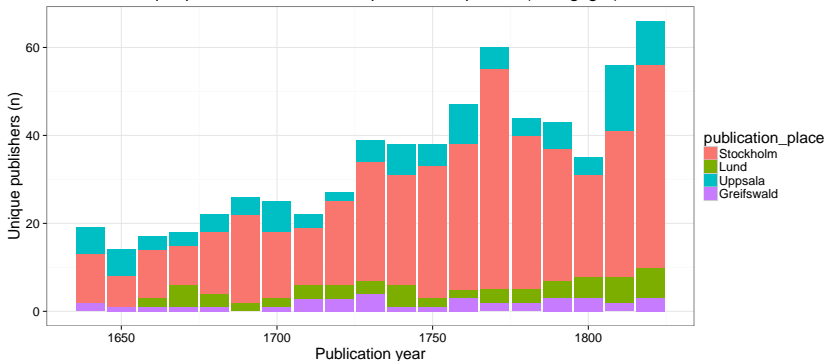
Unique publishers in top publication places (Finland/Fennica)



[Publishers 3/6]

## Development of number of publishers in Swedish University towns

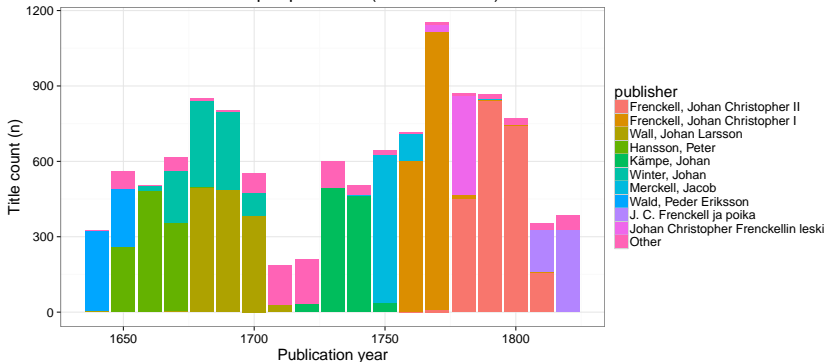
Unique publishers in selected publication places ( Kungliga )



[Publishers 4/6]

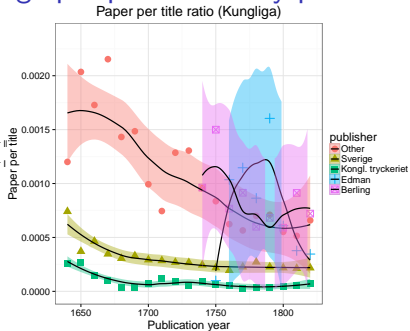
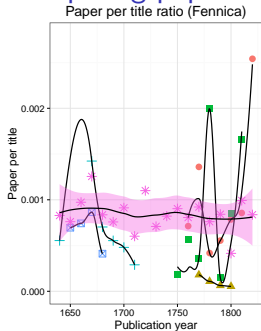
## Title count of the output of publishers in Turku

Title count per publisher (Turku/Fennica)



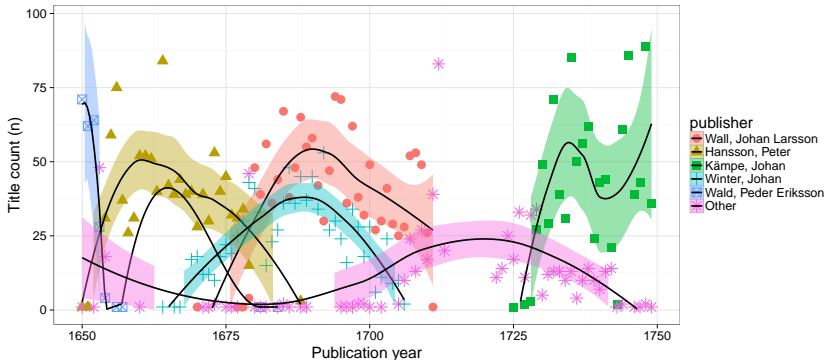
## [Publishers 5/6]

### Comparing paper used on average per publication by publishers



## Rock Bottom of the Great Northern War (1700-1721)

Title count (Turku/Fennica)



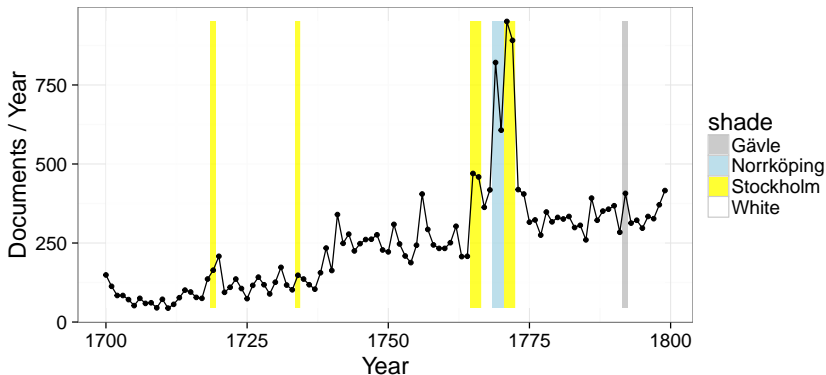
[Swedish age of Freedom and abolishment of censorship 1/2]

## Gävle in Riksdagar

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

Gävle (gray) during riksdagar (Kungliga) TODO: TÄÄ EI TOIMI  
NYT OLLENKAAN KUN ON AIKA PIENI TOI NOUSU  
NÄKYVISSÄ TÄSSÄ. MENEKÖ OIKEIN? ERI NÄKÖINEN  
TUOLLA MANUSKRIPITIN PUOLELLA.

Stockholm (Kungliga)





[Swedish age of Freedom and abolishment of censorship 2/2]

### Number of publishers in Stockholm 1760-1770

TODO: Epäonnistuin tässä tuomaan koodin niin että knittaisi oikein. Täten joudun laittamaan kuvalinkin tähän. Harmittaa. Jotkut muut onnistui niin hyvin...

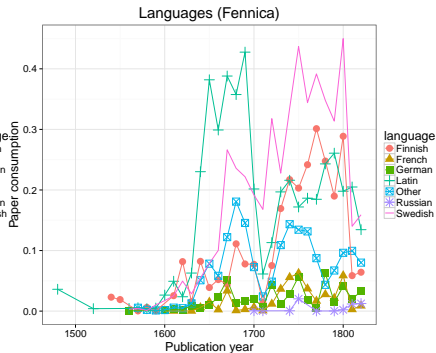
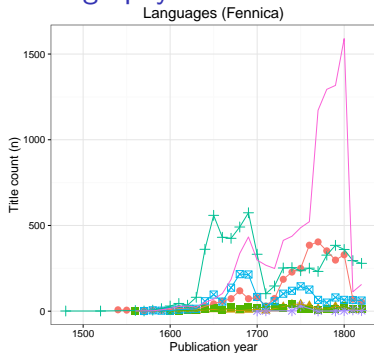
[https://github.com/rOpenGov/fennica/blob/master/inst/examples/figure\\_201606\\_Krakow/polev1-3.png](https://github.com/rOpenGov/fennica/blob/master/inst/examples/figure_201606_Krakow/polev1-3.png)

## Languages

TODO: “Other” kielikategorian selvittäminen seuraavissa kuvissa. Onko siellä joku tietty kieli joka näkyy hyvin selvästi mukana analyysissä? Nousee isoksi kategoriaksi. Nyt oon merkannut, että Kreikan kieli (Greek) mukaan moneen kohtaan. Jos kyseessä joku muu kuin Kreikka niin sitten se. Jos taas paljon kombinaatioita pieniä kieliä, niin antaa siinä tapauksessa olla.

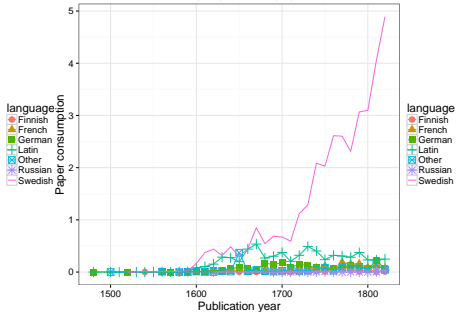
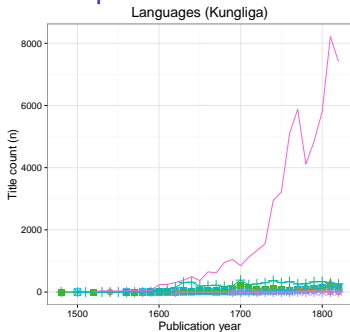
[Languages 1/4] #TODO: TÄSSÄ OLISI HYVÄ JOS v. 1800  
julkaisut ei tippuisi nollaan!

## Development of use of different languages in Finnish National Bibliography



## [Languages 2/4]

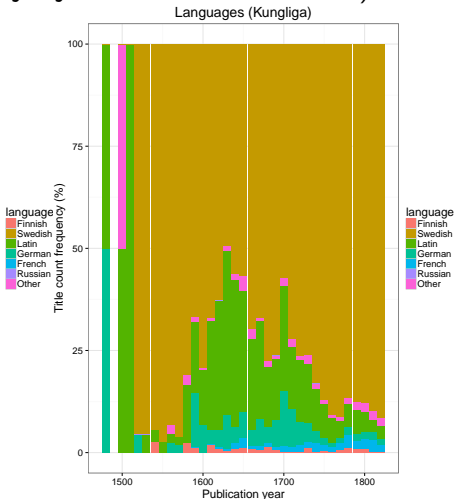
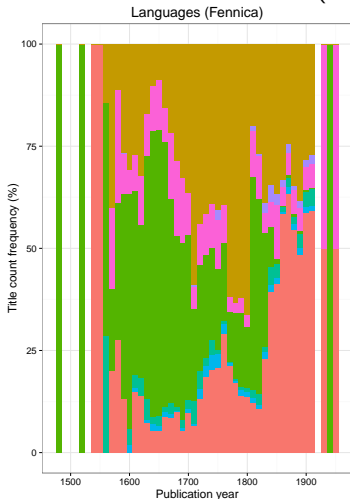
### Development of use of different languages in Kungliga data



## [Languages 3/4]

### Different languages in Fennica and Kungliga (percentage)

TODO: GREEK mukaan (tai jos joku muu iso kieli niin se)!



TODO: KIELI% !!!!!!!!!!!!!!!

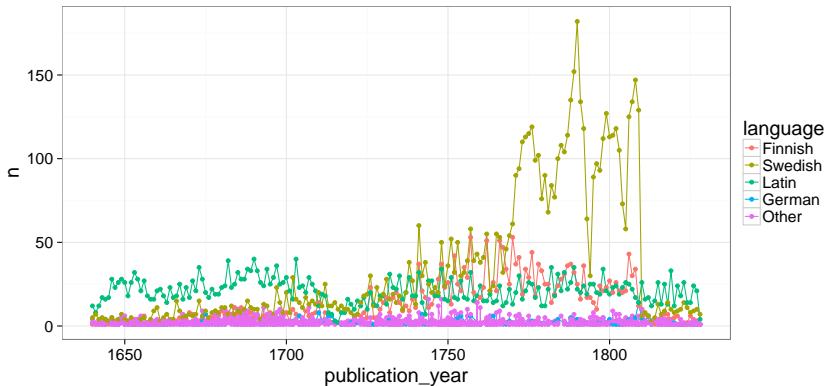
Sama prosenttianalyysi kielistä kuin edellisessä slidessä mutta paikkakuntaakohtaisesti (sekä Fennican että Kungligan mukaan):  
Turku, Greifswald, Stockholm, Uppsala, Lund. Rajataan analyysi vuoteen 1828.

[Languages 4/4]

## Topic diversity in different languages in Finnish publications

TODO: TÄMÄ PITÄISI RAJATA LOPPUMAAN VUOTEEN 1828.

Number of subject topics



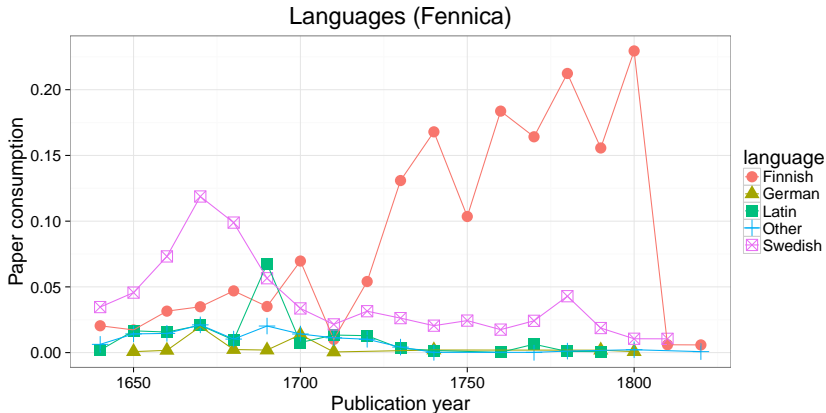
Religious texts in Finland



## [Religious texts in Finland 1/3]

Devotional literature (catechisms, hymns, prayer collections, etc.)

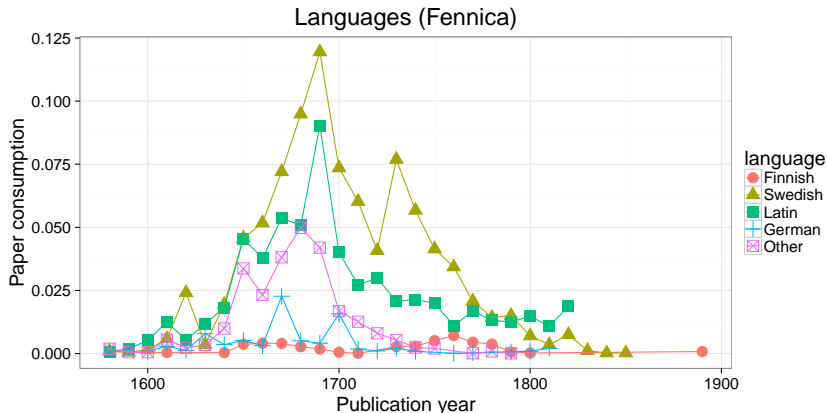
- Form of literature denoting the advancement of reading in Finland in the nineteenth century. It has been unclear when does it show up as a relevant category.



[Religious texts in Finland 2/3] #TODO: TÄSTÄ ja seuraavasta TOI "IF FENNICA FULL TIME SPAN" KOMENTO POIS. En saanut koodattua sitä. TODO: GREEK mukaan!

## Temporary sermons in Latin and Swedish

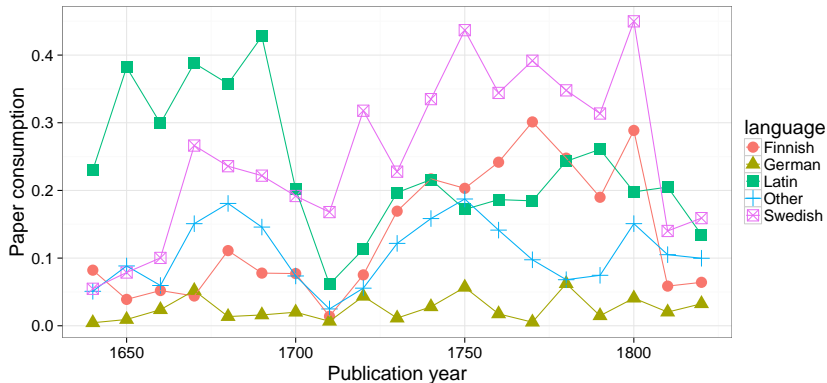
- ▶ play an important role in early modern knowledge production. It has not been analysed in what language they were in Finland (and Sweden).



[Religious texts in Finland 3/3] #TODO: GREEK mukaan!

## Combining devotional literature and temporary sermons

Languages (Fennica)



University curriculum in Turku 1640-1828

[University curriculum 1/5]

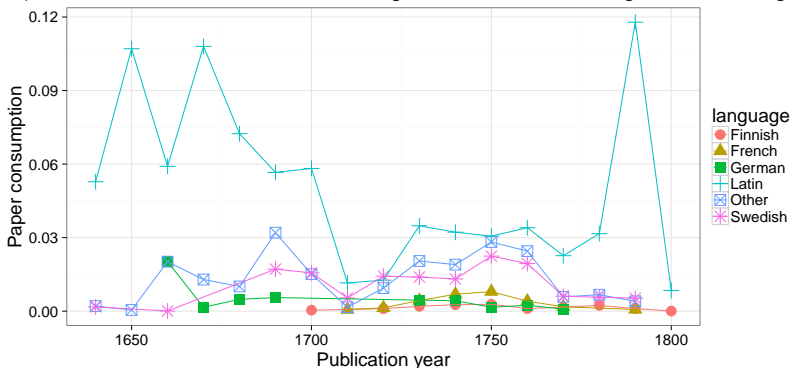
TODO: OISKO NÄMÄ VIELÄ SELVEMPIÄ VÄRIKKÄINÄ

BARPLOTTEINA? Leo, lisäksi säädätkö pois ton risuaitahässäkän näistä? En saanut sitä pois. TODO3: GREEK mukaan!

## Printing of theology in different languages in Turku

## [1] "kirkkohistoria;raamatunhistoria;eksegetiikka;homile

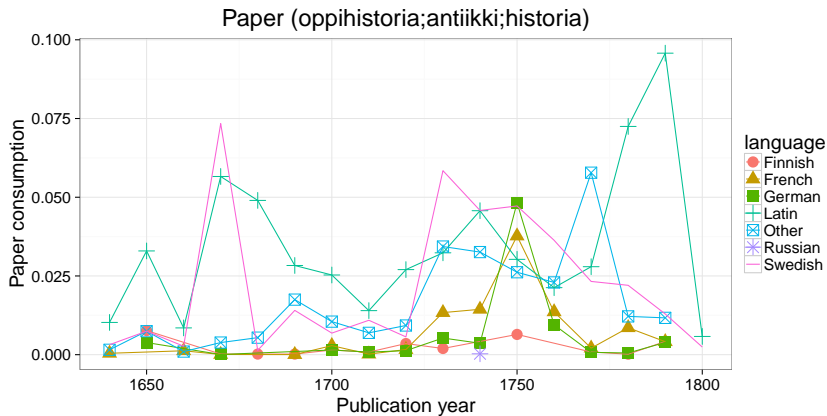
er (kirkkohistoria;raamatunhistoria;eksegetiikka;homiletiikka;dogmatiikka;teologia)



[University curriculum 2/5] TODO: GREEK mukaan!

Printing of history in different languages in Turku

## [1] "oppihistoria;antiikki;historia"

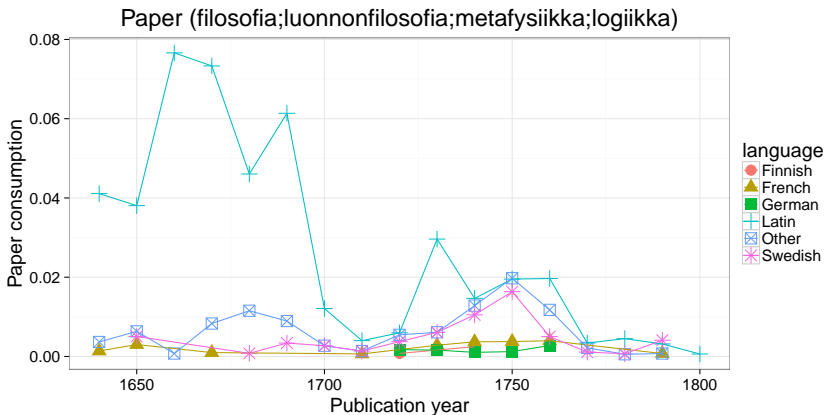


[University curriculum 3/5]

## Printing of philosophy in different languages in Turku

TODO: GREEK mukaan!

```
## [1] "filosofia;luonnonfilosofia;metafysiikka;logiikka"
```

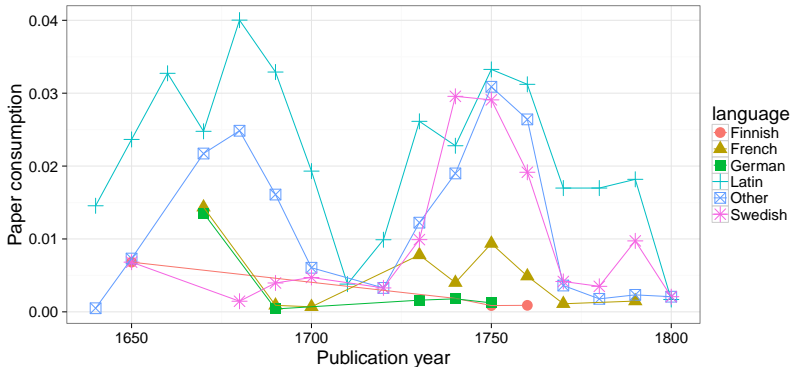


[University curriculum 4/5] TODO: GREEK mukaan!

## Printing of natural science in different languages in Turku

## [1] "luonnontieteet;matematiikka;fysiikka;kemia;tähtitiede

tieteet;matematiikka;fysiikka;kemia;tähtitiede;maantiede;geodesia;geofysiikka;me



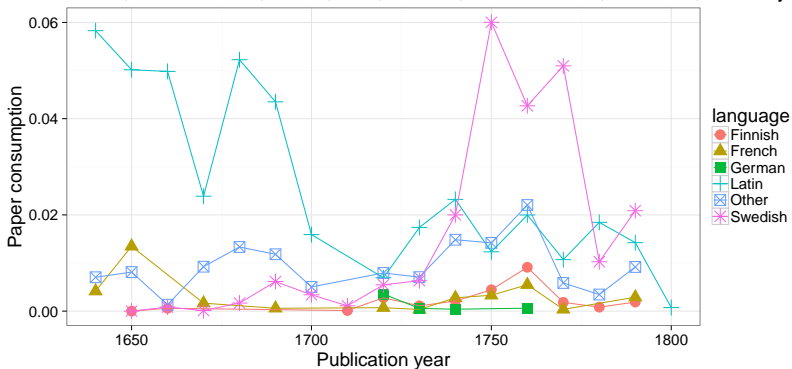


[University curriculum 5/5] TODO: GREEK mukaan!

## Printing of economy and social science in different languages in Turku

```
## [1] "psykologia;yhteiskuntafilosofia;valtiofilosofia;ta
```

```
kuntafilosofia;valtiofilosofia;talous;raha;moraali;velvollisuudet;kasvatus;maanviljely
```

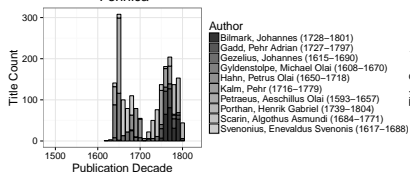


## Effects of the Enlightenment in Finland

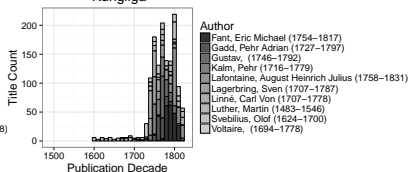
- ▶ decline of metaphysics, rise of social and economic theory
- ▶ the Enlightenment literature read in Finland mainly printed elsewhere

TODO: KUVA PITÄIS RAJATA 1640-1828, EN ONNISTUNUT

Title count top authors  
Fennica

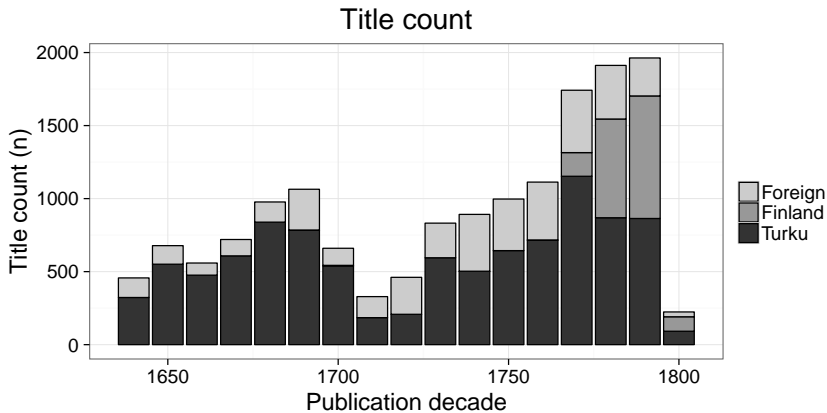


Title count top authors  
Kungliga



## Finland in the Swedish context

- Dramatic events regarding the diversity of “Finnishness” take place in the early nineteenth century — but the analysis of Finnish knowledge production 1828-2016 is for another day.



## Duplicate publications

TODO: General analysis (any simple picture) of duplicates between Kungliga and Fennica based on Hege's deduplication code.

Thanks !

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