

Miten Kirjesampo syntyi: matka "Kirjeiden valtakunnasta" 1600-1800 (Republic of Letters) Suomen suuriruhtinaskuntaan

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Helsinki Centre for Digital Humanities (HELDIG)

<http://seco.cs.aalto.fi/u/eahyvone/>

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 - Connecting everything to everything else
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5. **LetterSampo Finland (2021-2025)**
 - Letters during the Grand Duchy of Finland 1809-1917

A pair of hands, one on the left and one on the right, are shown holding a transparent glass sphere. Inside the sphere is a miniature, detailed image of the Earth, showing continents and clouds. The hands are positioned as if they are gently cradling or presenting the sphere. The background is a bright blue sky filled with soft, white, fluffy clouds. The overall image conveys a sense of care, protection, and global vision.

Vision of the LetterSampo Project

The background of the image is a close-up, slightly blurred version of the Mona Lisa painting. The focus is on the woman's face, which is partially obscured by the text overlay. The lighting is soft, highlighting the contours of her face and the texture of her skin.

*“Learn how to see. Realize that everything
connects to everything else.”*

Leonardo da Vinci (1452–1519)

How to Connect Everything to Everything Else? Using Linked Open Data

- Enriching everybody's data collaboratively from separate silos
 - Everybody wins by collaboration!
- Creating Findable, Accessible, Interoperable, Re-usable data
 - The value of data increases!
- Creating more intelligent applications for the public, curators, and researchers
 - The machine “understands” linked data!



FAIR



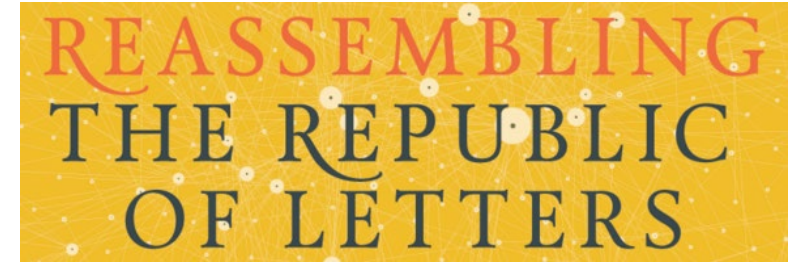
<https://www.go-fair.org/fair-principles/>





1. Background (2014-2018) – Research on Republic of Letters

Background (2014-2018)



- **Reassembling the Republic of Letters 1500-1800, 2014-2018**

- EU COST Action lead by the University of Oxford
- Over 30 countries involved
- <http://www.republicofletters.net/>



- **Mapping the Republic of Letters project**

- Collaborations & researcher exchange with Stanford University
 - Mapping the Republic of Letters, Nicole Coleman/CESTA



- **Cultures of Knowledge Project at Oxford, 2015-2017**

- Developing the Early Modern Letters Online (EMLO) service
- Aalto as subcontractor, focus on a Linked Data model
- Funded by Mellon Foundation, USA
- <http://www.culturesofknowledge.org/>

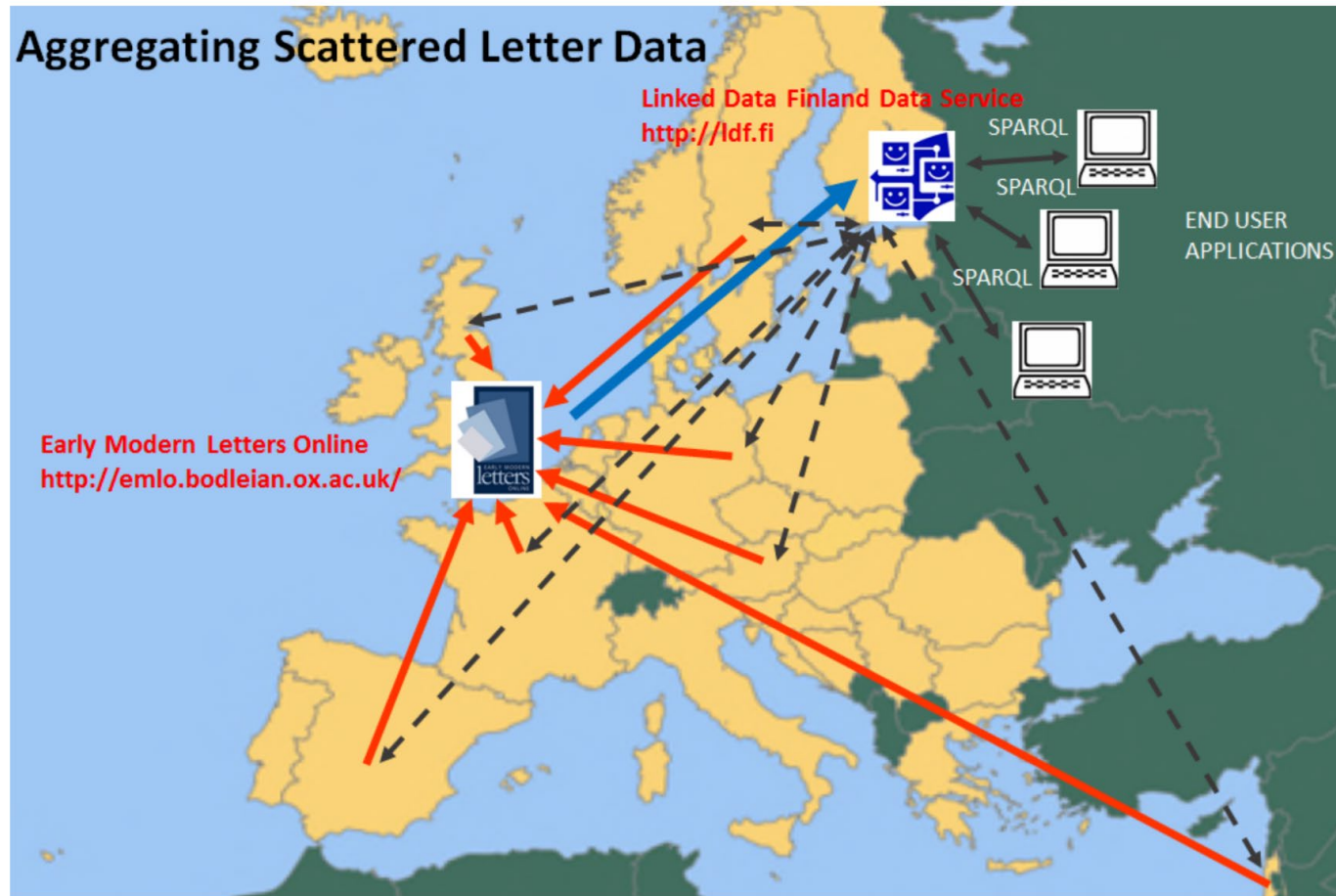
- Team at Aalto: Jouni Tuominen, Eetu Mäkelä, Eero Hyvönen (PI)

- Team at Oxford: Arno Bosse, Miranda Lewis, Howard Hotson (PI)

THANKS



Our Idea and Contribution: Application of Linked Data to Epistolary Data Publication and DH Research



Goals/Results:

- EMLO Data as Linked Data on the Linked Data Finland platform
- Tools for creating and harmonizing the data
- **Providing the enriched data back to data owners/users!**
- First data-analyses tested

Challenges:

- Interoperability: aligning & harmonizing the data
- Incompleteness & uncertainty of historical data
- Modelling prosopographical data of correspondents
- The EMLO data is not openly available for research!

Fig. 1. Overview of the Linked Data approach in creating and aggregating distributed epistolary data.

Major Results of Work at Aalto

- Linked Data model of EMLO database
- Prosopographical Data Model for Biographical Data: Bio CRM
- Tools for Reconciling Named Entities (Mare and Recon)
- EMLO Linked Data service (SPARQL endpoint)
 - With automatic updates from the EMLO database
- First experiments of data analyses on top the EMLO SPARQL endpoint

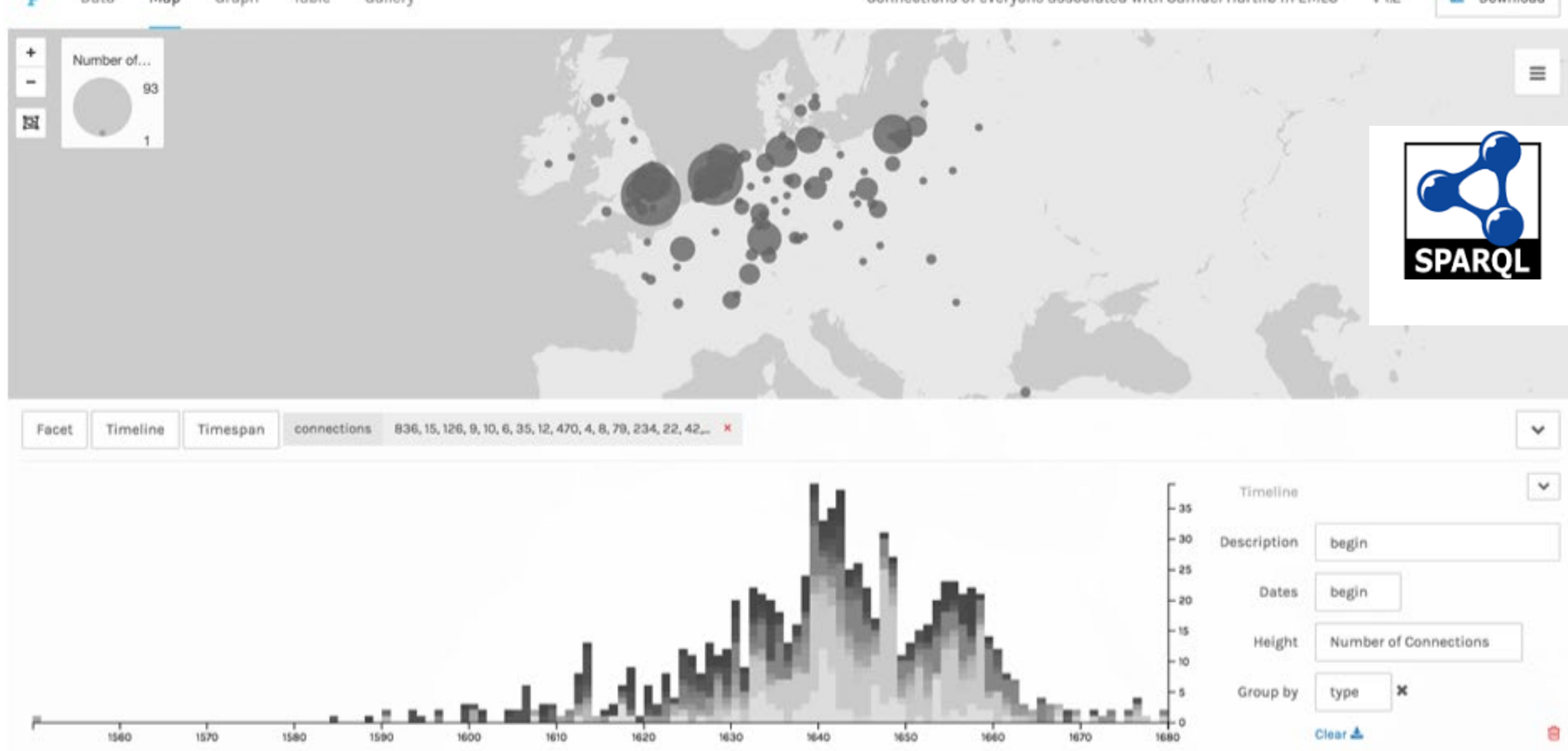


Fig. 6. Samuel Hartlib's social relationships visualised on a map and timeline.

Publications of This Phase of Research

- **2019**

- Howard Hotson and Eero Hyvönen: [Topics](#). *Reassembling the Republic of Letters in the Digital Age* (H. Hotson and T. Wallnig (eds.)), pp. 137-148, Göttingen University Press, 2019. [bib link](#)
- Eero Hyvönen, Ruth Ahnert, Sebastian E. Ahnert, Jouni Tuominen, Eetu Mäkelä, Miranda Lewis and Gertjan Filarski: [Reconciling metadata](#). *Reassembling the Republic of Letters in the Digital Age* (H. Hotson and T. Wallnig (eds.)), pp. 223-235, Göttingen University Press, 2019. [bib link](#)
- Howard Hotson, Thomas Wallnig, Jouni Tuominen, Eetu Mäkelä, and Eero Hyvönen: [People](#). *Reassembling the Republic of Letters in the Digital Age* (H. Hotson and T. Wallnig (eds.)), pp. 119-136, Göttingen University Press, 2019. [bib link](#)

- **2018**

- Jouni Tuominen, Eero Hyvönen and Petri Leskinen: [Bio CRM: A Data Model for Representing Biographical Data for Prosopographical Research](#). *Proceedings of the Second Conference on Biographical Data in a Digital World 2017 (BD2017)*, vol. 2119, pp. 59-66, CEUR Workshop Proceedings, Linz, Austria, 2018. [bib pdf link](#)
- Jouni Tuominen, Eetu Mäkelä, Eero Hyvönen, Arno Bosse, Miranda Lewis and Howard Hotson: [Reassembling the Republic of Letters - A Linked Data Approach](#). *Proceedings of the Digital Humanities in the Nordic Countries 3rd Conference (DHN 2018)*, pp. 76-88, CEUR Workshop Proceedings, vol. 2084, Helsinki, Finland, March, 2018. [bib pdf link](#)

- **2017**

- Jouni Tuominen, Eero Hyvönen and Petri Leskinen: [Bio CRM: A Data Model for Representing Biographical Data for Prosopographical Research](#). *Biographical Data in a Digital World 2017 (BD2017)*, Linz, Austria, November, 2017. [bib pdf link](#)

Overview of results



REASSEMBLING THE REPUBLIC OF LETTERS IN THE DIGITAL AGE

Standards, Systems, Scholarship

Edited by Howard Hotson and Thomas Wallnig



Göttingen University Press



Results of the COST Action Free to Download

- <https://doi.org/10.17875/gup2019-1146>

Spin-off Projects in Finland

Focus of this talk

- LetterSampo International: Framework, data service, and portal
 - Network Analyses Project on Epistolary Data in Aalto
 - **LetterSampo Finland: Constellations of Correspondence Project**
-
- Bio CRM Stimulated Our Work on **Publishing Biographies as LOD** on the Semantic Web
 - WarSampo (2017-2019)
 - BiographySampo (2008)
 - Norssit Alumni (2008)
 - U.S. Congress Prosopographer (2009)
 - AcademySampo (2020)
 - More information:
<https://seco.cs.aalto.fi/projects/biographies/>
 - Inspired our work on data-analytic and visualization tools in Sampo systems



2. LetterSampo (2019-)

– Historical Letters on the Semantic Web

Problem: Content is available as texts for humans to read but not as data for computers!

DATA

We Demonstrate a Paradigm Change: 4 Generations of Publishing Data for Humanities

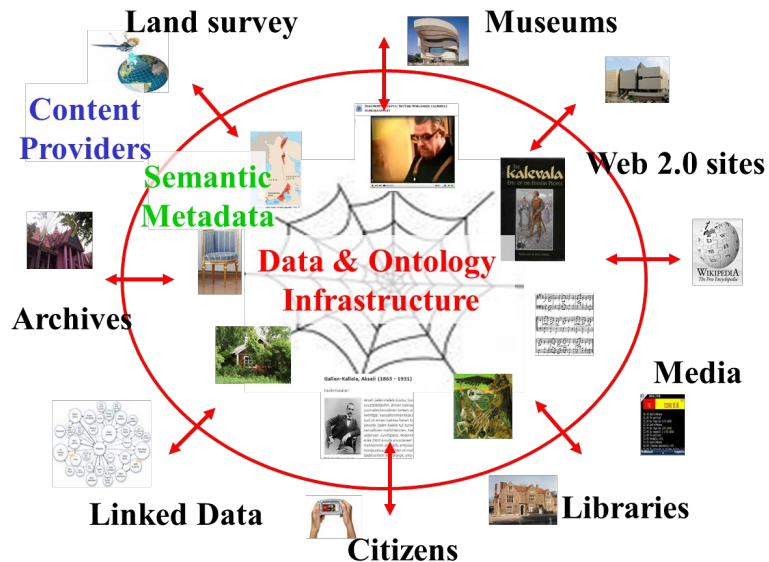
1. Printed Texts
2. Online Systems for Searching and Exploring
3. Publishing Content as Linked Data with Tools for DH
4. Automatic Knowledge Discovery and Artificial Intelligence

Sampo Model for 1) Human Users and 2) Machines



LINKED DATA SERVICE

Findable, Accessible, Interoperable, Re-usable
FAIR data!



Linked Data Finland

Living Laboratory Data Service for the Semantic Web

<https://ldf.fi/>

APPLICATIONS & TOOLS

Use Cases

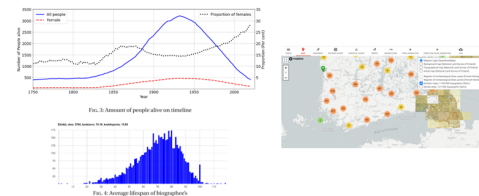
Sampo Portals & Applications



Sampos:

<https://seco.cs.aalto.fi/applications/sampo/>

Digital Humanities Research



Tools

Sampo-UI, etc.

Google Colab, Jupyter,
YASGUI, etc.



References

Eero Hyvönen: How to Create a National Cross-domain Ontology and Linked Data Infrastructure and Use It on the Semantic Web. *Semantic Web*, 2024. DOI: 10.3233/SW-243468.

Eero Hyvönen: Digital Humanities on the Semantic Web: Sampo Model and Portal Series. *Semantic Web*, vol. 14, no. 4, pp. 729-744, 2023.

Esko Ikkala, Eero Hyvönen, Heikki Rantala and Mikko Koho: Sampo-UI: A Full Stack JavaScript Framework for Developing Semantic Portal User Interfaces. *Semantic Web*, vol. 13, no. 1, 69-84, 2022.

The Idea of “Framework”

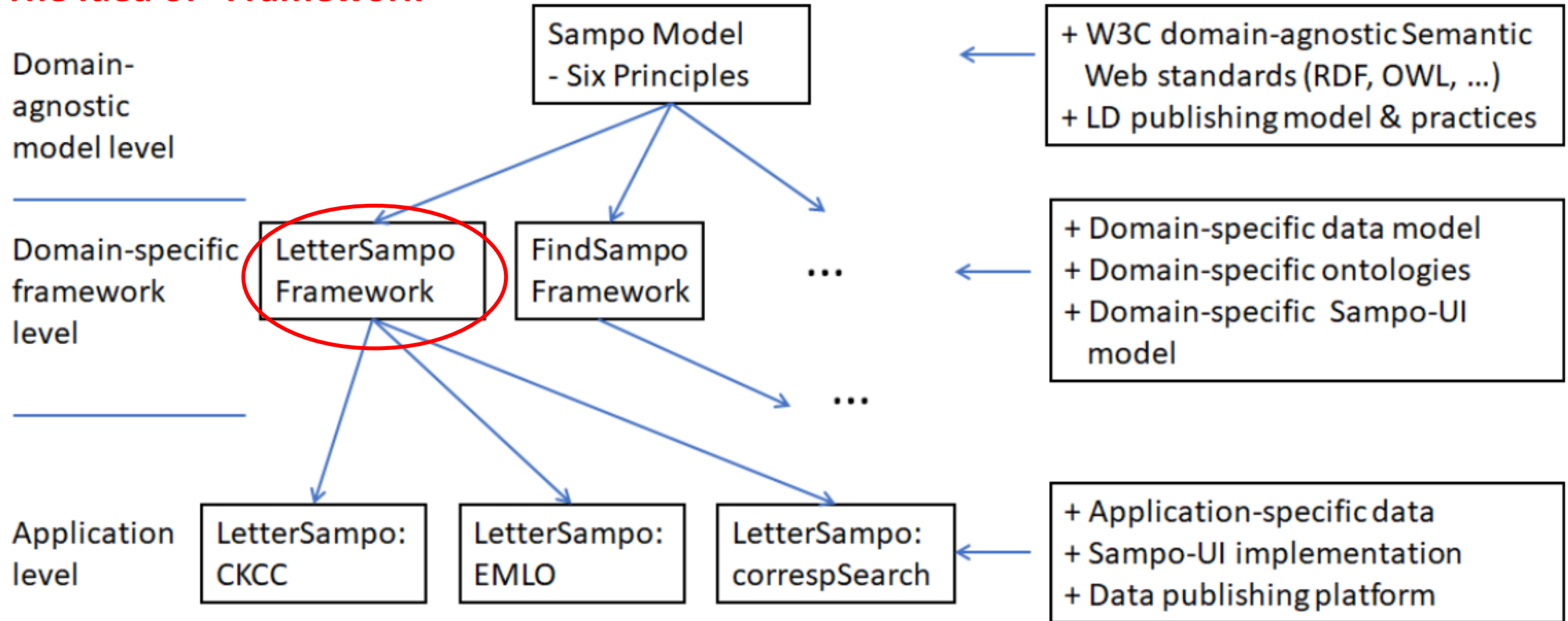
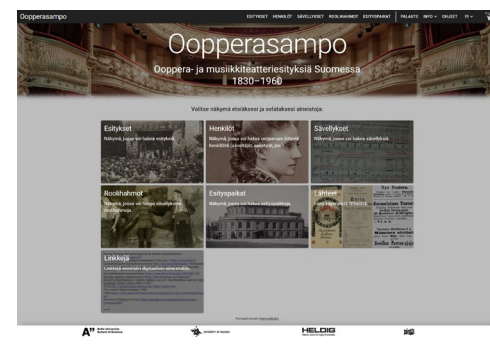
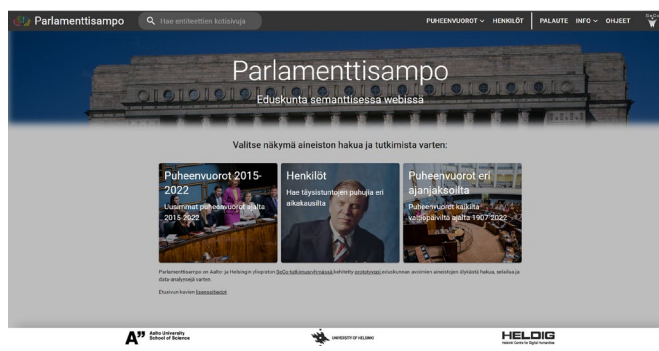


Fig. 2. Three conceptual layers for creating Sampo portals: Sampo Model, Sampo frameworks, and applications. The idea is to re-use generic solutions of the model layer in domain-specific frameworks and then frameworks for application instances in different domains.

Making Application Development Easy: Sampo-UI

- Reuse “standard” interface model & logic
 - Easy to (re-)learn by end users
 - Easy to (re-)implement by developers
- Base applications on simple linked data service API: SPARQL
- Available open source in Github



Esko Ikkala, Eero Hyvönen, Heikki Rantala and Mikko Koho: [Sampo-UI: A Full Stack JavaScript Framework for Developing Semantic Portal User Interfaces](#). *Semantic Web 13* (1), pp. 69-84, 2022. [bib](#) [pdf link](#)

Heikki Rantala, Annastiina Ahola, Esko Ikkala and Eero Hyvönen: [How to create easily a data analytic semantic portal on top of a SPARQL endpoint: introducing the configurable Sampo-UI framework](#). *VOILA! 2023 Proceedings, CEUR WS Proceedings, Vol. 3508*, 2023. [pdf link](#)

Sampo Series of LOD Services & Portals



A. Gallen-Kallela: The Defense of the Sampo, 1896, Turku Art Museum

1. **MuseumFinland** – Finnish Museums on the Semantic Web (2004) [39 000 users]
2. **CultureSampo** – Finnish Culture on the Semantic Web (2008) [107 000 users]
3. **TravelSampo** - Mobile Contextualized Services of Cultural Tourism (2011)
4. **BookSampo** – Finnish Fiction Literature on the Semantic Web (2011) [1.6 million annual users]
5. **WW1LOD** – World War I Linked Open Data (2014)
6. **WarSampo** – Finnish World War 2 on the Semantic Web (2015-19) [1 200 000 users]
7. **Norssi Alumni on the Semantic Web** – Historical person registry using LOD (2017)
8. **U.S. Congress Prosopographer** – U.S. Congress Legislators 1789-2018
9. **BiographySampo** - Finnish Biographies on the Semantic Web (2018-20) [381 000 users]
10. **NameSampo** – Linked Data Workbench for Toponomastic Research (2019) [55 000 users]
11. **WarVictimSampo 1914-1922** – National War History [80 000 users]
12. **Mapping Manuscript Migrations (MMM)** – medieval manuscripts (2020) [9100 users]
13. **AcademySampo** – Finnish Academic People 1640 – 1899 (2021) [26 000 users]
14. **FindSampo** – Archaeological Finds on the Semantic Web (2021) [7 000 users]
15. **WarMemoirSampo** – Memoirs of Finnish WW2 veterans (2021) [4 400 users]
16. **LetterSampo** – Early Modern Letters on the Semantic Web (2022)
17. **ParliamentSampo** – Parliament of Finland on the Semantic Web (2023)
18. **LawSampo** – Finnish Legislation and Case Law on the Semantic Web (2023)
19. **BookSampo II** – Semantic Search, Browsing, and Data-analyses (2023)
20. **OperaSampo** – Opera and music theater performances in Finland 1830-1960 (2023)
21. **ConfermentSampo** – Conferment Ceremonies of the University of Helsinki 1640-1899 (2023)
22. **CoinSampo** – Finnish Numismatic Public Finds 2013 – 2023 (2024)

Work in progress: **LetterSampo Finland** , **ArtSampo**, **PASampo**, **Samposampo**,



Sampo = Mythical artifact of the Finnish Epic Kalevala that gives to its owner riches and good fortune. *A metaphor of amazing ancient technology.*

Eero Hyvönen: [Digital Humanities on the Semantic Web: Sampo Model and Portal Series](#). *Semantic Web*, 14(4), 729-744, 2023.

LetterSampo Project

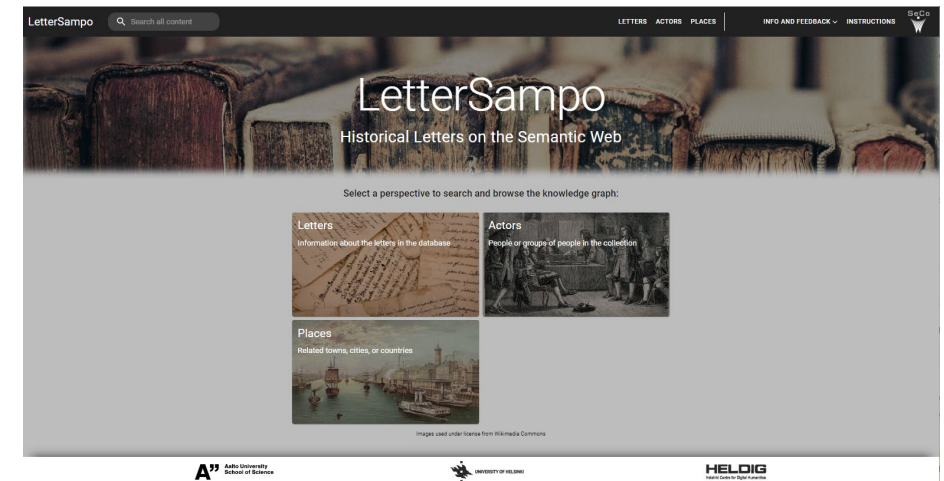
at Aalto and University of Helsinki (HELDIG) 2018-2022

- Entending the Sampo model to “**LetterSampo Framework**”
 - The same model and UI can be applied easily to different datasets conforming to similar data models
- Use international **open** datasets for research
 - Prof. Charles van den Heuvel et al.
 - Huygens Institute, Netherlands & University of Amsterdam
 - Provided the **CKCC corpus (20 000+ letters)**
 - Dr. Stefan Dumont et al.
 - Berlin-Brandenburg Academy of Sciences and Humanities, Germany
 - Provided the **correspSearch dataset (150 000+ letters)**
 - Re-using results of the earlier EMLO Linked Data case study
- Team: Petri Leskinen, Jouni Tuominen, Eero Hyvönen (PI)



A Result: New Research Resources Openly Available on the Web (cc BY 4.0)

- **CKCC corpus** (of Huygens Institute)
 - Online LOD SPARQL service: <https://www.ldf.fi/dataset/ckcc>
 - Zenodo LOD data dump: https://zenodo.org/record/6631385#.Y3Uy_3ZBw-U
- **correspSearch corpus** (of Berlin-Brandenburg Academy of Sciences and Humanities)
 - Online LOD SPARQL service: <https://www.ldf.fi/dataset/corresp>
 - Zenodo LOD data dump: <https://zenodo.org/record/6631357#.Y3UzH3ZBw-U>
- **LetterSampo portal** online
 - CKCC + correspSearch linked open data
 - <https://lettersampo.demo.seco.cs.aalto.fi/>
- **Sampo-UI tool (with LetterSampo)**
 - <https://github.com/SemanticComputing/sampo-ui>



Video about LetterSampo: <https://vimeo.com/461293952>
Using Early Modern Letters Online (EMLO) Linked Data



Publications of This Phase of Research

Overview of results

- Eero Hyvönen, Petri Leskinen and Jouni Tuominen: [LetterSampo – Historical Letters on the Semantic Web: A Framework and Its Application to Publishing and Using Epistolary Data of the Republic of Letters](#). Journal on Computing and Cultural Heritage, ACM, November, 2022. [bib](#) [pdf](#) [link](#)
- Petri Leskinen, Javier Ureña-Carrion, Petri Leskinen, Jouni Tuominen, Mikko Kivelä and Eero Hyvönen: [Knowledge Graphs and Data Services for Studying Historical Epistolary Data in Network Science on the Semantic Web](#). 2024. Semantic Web, submitted for review. [bib](#) [pdf](#)

Actor ⓘ

Descartes, René, 1596-1650



TABLE



LETTERS



NETWORK OF LETTERS

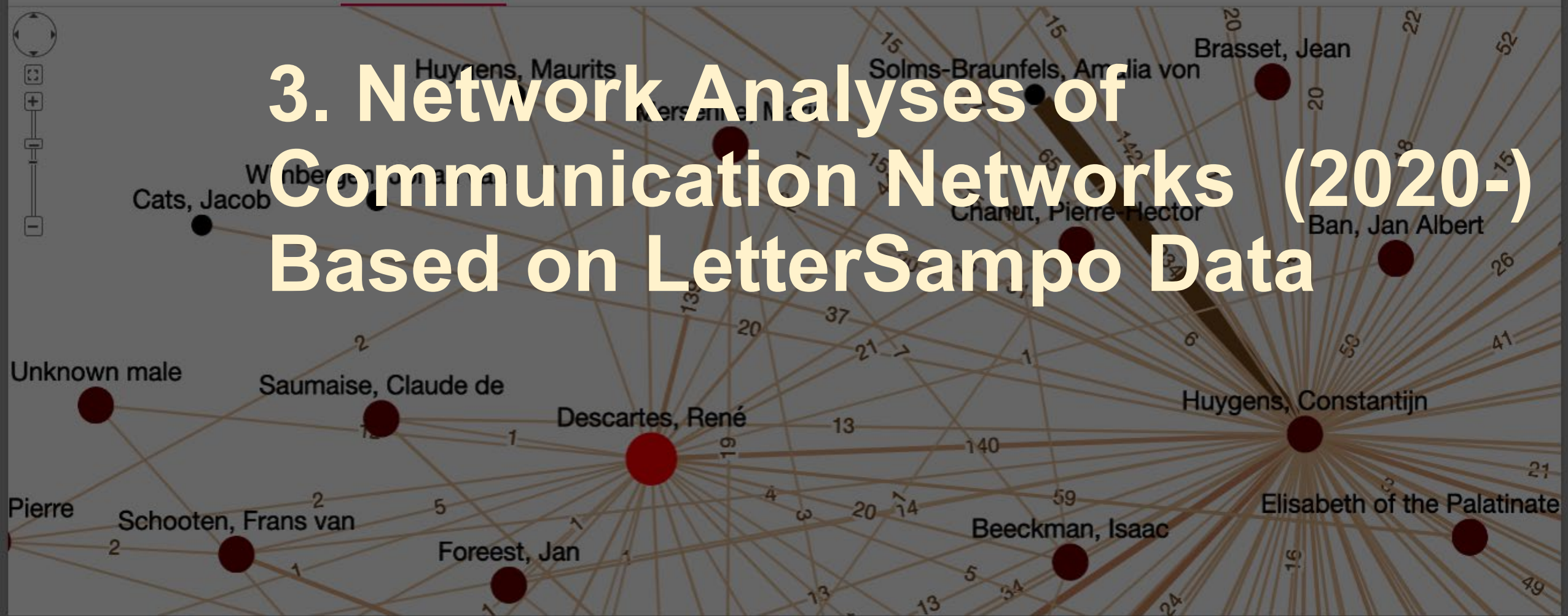


TIMELINE OF LETTERS



EXPORT

3. Network Analyses of Communication Networks (2020-) Based on LetterSampo Data



Idea

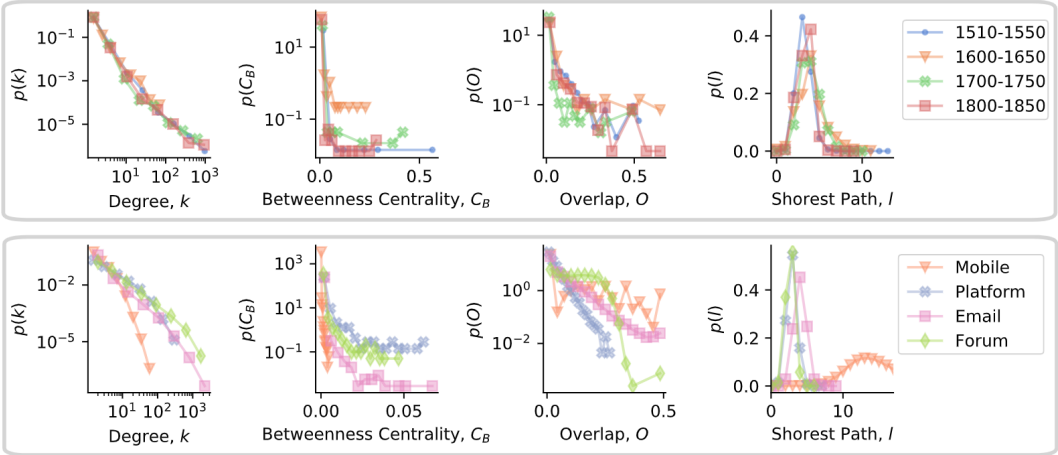
- Use Network Analysis in studying correspondence networks
 - Comparing modern and historical communication networks
- Joint work of the LetterSampo project and Aalto Complex Systems Research Group (CSRG)
 - Team CSRG: Javier Urena-Carrion, Mikko Kivelä (PI)
 - Team SeCo: Petri Leskinen, Jouni Tuominen, Eero Hyvönen (PI)
- Epistolary Data Providers / Collaborators
 - Huygens Institute CKCC corpus, Charles van den Heuvel
 - Berlin-Brandenburg Academy of Sciences and Humanities: correspSearch, Stefan Dumont
- Four datasets about modern communication networks

Dataset	Content	Observation Period	Source
Platform	Wall-posting on Facebook in New Orleans, where a directed link is created if a user posts on another user’s wall. Data obtained from crawling public profiles in January 2009, each link tracks activity for one year after the first communication event. Total of ~ 41K nodes, ~ 183.5K edges and 854.6 ~K wall posts.	1 year	[50]
Email	Dataset of emails between employees of Enron Corporation, obtained as part of an investigation into the Corporation’s collapse. Sampling might focus on 150 users. Total of ~ 20K users, 297.5K edges and ~ 1.1M emails.	1998-2004	[51]
Forum	Activity on a movie forum, where a contact is created if a user comments on a thread posted by another user. Total of ~ 6K users, ~ 138.1K edges and ~ 1.4M thread comments.	7 years	[52]
Mobile	Call Detail Records of mobile phone calls from an operator in a European country in 2007, where the operator had approximately 20% market share. We used a reduced version of the full dataset, where we focused on a region of the country. The small version of the dataset has ~ 174K nodes, ~ 190K edges and ~ 6.8M phone calls.	4 months	[3]

vs. correspSearch letters

TABLE 1: Datasets analyzed and compared in this paper

“The analyses indicate striking resemblances between contemporary and epistolary communication network patterns, including dyadic interactions and ego-level behaviour.”



Publications of This Phase of Research

Overview of results

- Javier Ureña-Carrion, Petri Leskinen, Jouni Tuominen, Charles van den Heuvel, Eero Hyvönen and Mikko Kivelä: [Communication Now and Then: Analyzing the Republic of Letters as a Communication Network](#). Network Science, December, 2021.
[bib](#) [pdf](#) [link](#)
- Petri Leskinen, Javier Ureña-Carrion, Petri Leskinen, Jouni Tuominen, Mikko Kivelä and Eero Hyvönen: [Knowledge Graphs and Data Services for Studying Historical Epistolary Data in Network Science on the Semantic Web](#). May, 2024. Semantic Web, submitted for review. [bib](#) [pdf](#)

The background of the slide is a detailed historical painting of a harbor, likely from the 19th century. It shows a variety of ships, including large sailing vessels with multiple masts and smaller steamships with smokestacks. The ships are crowded in the water, suggesting a busy port. In the background, a city skyline is visible with various buildings, including a prominent tower or lighthouse. The sky is filled with soft, diffused light, possibly indicating a hazy or overcast day. The overall color palette is muted, with earthy tones and a sense of historical atmosphere.

LetterSampo Finland:

Constellations of Correspondence: Large and Small Networks of Epistolary Exchange in the Grand Duchy of Finland (CoCo) (2021–25)

LetterSampo Consortium and Teams:

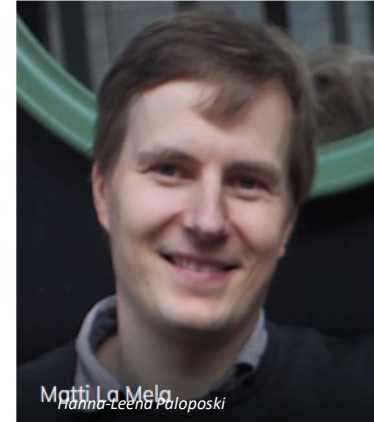
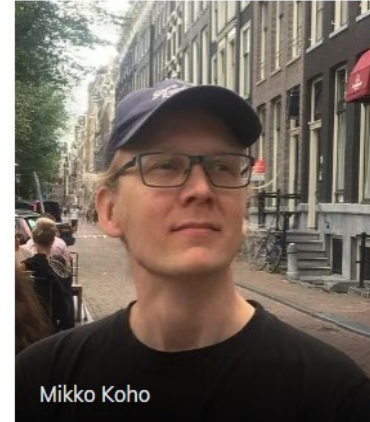
CoCo project: Large and Small Networks of Epistolary Exchange in the Grand Duchy of Finland (CoCo) (2021–25)

Teams (key personnel, excl. trainees):

Finnish Literature Society: Johanna Enqvist, Hanna-Leena Paloposki, Ilona Pikkanen (PI)

Aalto: Senka Drobac, Heikki Rantala, Muhammad Faiz Wahjoe, Annastiina Ahola, Rafael Leaf, Mikko Koho (PI), Eero Hyvönen (PI)

University of Helsinki: Petri Leskinen, Matti La Mela, Ossi Koho, Jouni Tuominen (PI)



Use Cases and Research Questions

- **Searching distributed letters**
- **Providing a global view of correspondences**
- **Analyzing metadata**
- **Analyzing letter contents**
- **Analyzing underlying networks**
- **Analyzing archival collections**
- **Developing infrastructure for epistolary data**



LetterSampo Finland

Finnish Nineteenth-Century Letters on the Semantic Web

Choose a perspective to search for, browse and analyze letters using metadata



Letters



People and Organizations



Fonds and Collections



Places

Main perspectives to all data

Digital editions



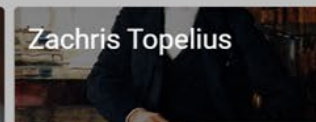
Albert Edelfelt



Elias Lönnrot



J. V. Snellman



Zachris Topelius

Perspectives to digital editions

Information about the contributors and collections



Contributors

Contributing organizations

Select example searches, visualizations, and linked information

LETTERS OF AKSELI GALLEN-KALLELA

NETWORK OF LETTERS OF ELIAS LÖNNROT

LETTERS BETWEEN JOHAN LUDVIG AND FREDRIKA RUNEBERG

TOP CORRESPONDENCES OF UNO CYGNAEUS

LINKED DATA ABOUT IDA AALBERG

TIMELINE OF HELENE SCHJERFBECK'S LETTERS

PLACES MENTIONED IN A. EDELFELT'S LETTERS ON A MAP

THE FINNISH LITERATURE SOCIETY FONDS

CORRESPONDENCE NETWORKS OF PEOPLE RELATED TO THEATER WORLD

WOMEN AS RECORDS CREATORS AT THE NATIONAL LIBRARY OF FINLAND

Example searches and visualizations

LetterSampo Finland LOD service

<https://www.idf.fi/dataset/coco>



LetterSampo Finland – Finnish Nineteenth-Century Letters on the Semantic Web

Linked Data Finland



[Home](#)

[Project](#)

[Datasets](#)

[Search Data](#)

[Schemas](#)

[Services](#)

[Policies](#)

[Documentation](#)

[Validation](#)

[Linked Data Science](#)

[Applications](#)

[Your Data?](#)

[Linked Data School](#)

This dataset includes data regarding Finnish Nineteenth-Century epistolary data. The RDF data has been converted from the source data provided by multiple Finnish cultural heritage organizations; we call the new dataset LetterSampo Finland.

The Knowledge Graph contains harmonized data of:

1. Letters,
2. Actors,
3. Fonds,
4. Places,
5. Occupations.

The data model is designed for epistolary letter data, including the information about the sender, recipient, time of sending, and places of sending and receiving.

To test and demonstrate its usefulness, this Knowledge Graph is in use in the semantic portal [LetterSampo Finland](#), explained in more detail in the [project page](#).

The Knowledge Graph is published on [Zenodo](#) with a version history.

The Knowledge Graph can be downloaded also as CSV files ([LetterSampo data](#)).

Part of the Linked Data work in the Finnish research infrastructure

FIN-CLARIAH / DARIAH-FI: <https://seco.cs.aalto.fi/projects/fin-clariah/>



Suomen Akatemia
Finlands Akademi
Research Council of Finland

Funded by the
European Union
NextGenerationEU

Network for Data-Intensive Social Science and
Humanities Research

DARIAH-EU
Celebrating the first decade

The pan-European
infrastructure for arts
& humanities scholars

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DARIAH
CLARIN

DARIAH-FI

<https://www.dariah.fi/>

Key publications of the CoCo Project

New overview paper of results



2025-2024

Eero Hyvönen, Petri Leskinen, Henna Poikkimäki, Heikki Rantala, Annastiina Ahola, Refael Leal, Jouni Tuominen, Senka Drobac, Ossi Koho, Ilona Pikkanen and Hanna-Leena Paloposki: [LetterSampo Finland knowledge graph, data service, and semantic portal for researching epistolary data of the Grand Duchy of Finland \(1809-1917\)](#). pp. Submitted for review, May, 2025. [bib](#) [pdf](#)

Henna Poikkimäki, Petri Leskinen, Eero Hyvönen: [Using Network Analysis for Studying Cultural Heritage Knowledge Graphs – Case Correspondence Networks in Grand Duchy of Finland 1809–1917](#). *Digital Humanities in the Nordic and Baltic Countries Publications. DHNB2025 Conference Proceedings*, vol. 7, no. 2, University of Oslo Library, Norway, March, 2025. [bib](#) [pdf](#) [link](#)

Eero Hyvönen, Petri Leskinen, Henna Poikkimäki, Heikki Rantala, Jouni Tuominen, Senka Drobac, Ossi Koho, Ilona Pikkanen and Hanna-Leena Paloposki: [Searching, exploring, and analyzing historical letters and the underlying networks: LetterSampo Finland \(1809–1917\) data service and semantic portal](#). *Digital Humanities in Nordic and Baltic Countries (DHNB 2025). Book of Abstracts.*, 2025. Long papers. [bib](#) [pdf](#) [link](#)

Eero Hyvönen, Petri Leskinen, Henna Poikkimäki, Heikki Rantala, Jouni Tuominen, Senka Drobac, Ossi Koho, Ilona Pikkanen and Hanna-Leena Paloposki: [LetterSampo Finland \(1809–1917\) Data Service and Portal: Searching, Exploring, and Analyzing Historical Letters and Their Underlying Networks](#). *Proceedings of ESWC 2025, supplement, poster and demo papers*, pp. Accepted, forth-coming, Springer-Verlag, 2025. [bib](#) [pdf](#)

Petri Leskinen: [Modeling and Using Biographical Linked Data for Prosopographical Data Analysis](#). Dissertation, Aalto University, School of Science, Department of Computer Science, October, 2024. [bib](#) [pdf](#)

Eero Hyvönen: [Sampo-järjestelmien verkosto avaa linkitettyä kulttuuridataa tutkijoille ja kansalaisille semanttisessa webissä](#). Tieteessä tapahtuu, no. 2, 2024. [bib](#) [pdf](#)

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Eero Hyvönen: [How to Create a National Cross-domain Ontology and Linked Data Infrastructure and Use It on the Semantic Web](#). Semantic Web - Interoperability, Usability, Applicability, IOS Press, 2024. DOI: 10.3233/SW-243468. [bib](#) [pdf](#) [link](#)

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More Info about the CoCo Project:

SeCo's work (Aalto and UH): <https://seco.cs.aalto.fi/projects/coco/>

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Constellations of Correspondence: Relational Study of Large and Small Networks of Epistolary Exchange in the Grand Duchy of Finland (CoCo)

Constellations of Correspondence (CoCo) is a four year consortium research project starting in autumn 2021.

Project Overview

The aim of bringing together this consortium of humanists and researchers in digital humanities (DH) and computer science (CS), is to interrogate an unused treasure in the major Finnish cultural heritage institutions, namely the registered metadata of all letters, public and private, kept in the collections of archives, libraries, and museums, relating to the period of the Grand Duchy of Finland (1809–1917). This is the first project to explore this correspondence catalogue data in a systematic and comprehensive way and to enrich and analyse it to answer ambitious humanistic and computational research questions. The main end-results will be an open semantic portal for different user needs, with humanities-driven data analysis tools, and scholarly analyses of the data.

Letters – words written on paper, enclosed in an envelope and transported to the recipient – were everywhere in the 19th-century world. This ancient means of communication had become a more efficient form of interpersonal and inter-institutional contact, as transportation speeded up, and it permeated all layers of the society as literacy spread and societies on the path to modernization created both new needs and means for written communication. This permeability means that letters are among the most important research materials, when scholars study canonical persons and major historical events. However, enquiries based on quantitative analysis are absent both from the studies that use letters as sources and from the enquiries to epistolary cultures or letter-writing as a social practice. Instead of close-reading select published or unpublished letters our research questions cast a wider net: What kind of patterns of epistolary communication can we recognise in our integrated dataset with a combination of quantitative and qualitative methods? Who could write a letter to whom in the 19th-century estate society?

The project is greatly indebted to the experiences accumulated and methods developed in the COST Action *Reassembling the Republic of Letters 1500–1800* (2014–18) which charted and analysed both the metadata and the content of letters that knit together premodern Europe, and other related projects such as *Mapping the Republic of Letters* (Stanford), *Cultures of Knowledge* (Oxford), and *ePictorialium* (HUYGENS ING, Netherlands). However, a more appropriate translation for the epistolary exchange studied in these projects would be the 'republic of the learned', as it connected a prosperous, meritocratic, and transnational elite. The dataset of the proposed project is temporally and geographically more restricted but, due to these delimitations, much more comprehensive regarding different social layers of 19th-century epistolary culture.

Objectives

The CoCo consortium project has two main objectives:

1. To enhance the value and research potential of epistolary metadata provided by the key cultural heritage institutions. This is a rich material and, in many cases, already immediately available (names of senders and recipients, dates, often places). As an integrated and harmonised dataset this material can enable a whole series of new observations about the cultural, political, and economic networks in the long 19th century of Finnish history, counterbalancing the collection policies of individual cultural heritage (CH) institutions. The main outcome of the project will be a harmonised and openly published dataset of Finnish epistolary metadata, a web user portal for accessing the dataset (see research on [LetterSampo portal](#)), and humanities-driven open-source data analysis research tools for further study of the dataset. A further aim is to facilitate the collaboration between researchers and cultural heritage institutions on the topical issue of semi-automated and manual metadata production, including entity reconciliation (identities of persons, places, and letters).
2. To create a new entry point for all Humanities researchers who make use of letters as their sources, and to study the social relations of the Grand Duchy with novel methods. The main premise of the proposed project is two-fold. Our point of departure is the assumption that the patterns of 19th-century correspondence can function as a proxy for a 19th-century social network. The letters do not reflect a 'society' that hides behind them; rather, in their materiality, they are the society. In other words, we believe that although social connections cannot be reduced merely to letter-writing, the analysis of integrated epistolary metadata will highlight social structures as they unfold chronologically and geographically throughout the century.

The project started with a [kick-off event](#) (in Finnish) on 17.9.2021. For more details about the CoCo project, see the [CoCo homepage](#).

Acknowledgements

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Contact Persons and Collaborators

- Dr. [Ilona Pitkanen](#), the Finnish Literature Society (SKS). Project consortium leader and PI at the Finnish Literature Society.
- Dr. [Jouni Tuominen](#), University of Helsinki and Aalto University. PI at the University of Helsinki.
- Dr. [Mikko Koho](#), Aalto University. PI at Aalto University.

The project advisory board includes Dr. Päivi Happonen (National Archives of Finland), Prof. dr. Charles van den Heuvel (Huygens ING), Dr. Anna Kuismin, Research prof. dr. Claire Lemerrier (CSO, Sciences Po and CNRS, Paris), Dr. Johanna Lijja (National Library of Finland), and Associate prof. Dr. Dirk van Miert (University of Utrecht). Collaborators include Prof. Ruth Ahnert (Queen Mary University, London), Prof. Howard Hotson (University Oxford), and Assistant prof. Mikko Kiveä (Aalto University).

Publications of SeCo related to epistolary exchange

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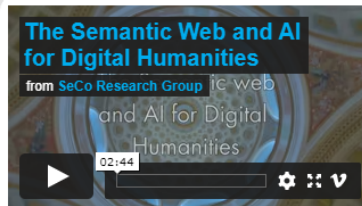
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Our research is [focused](#) on semantic technologies, such as the Semantic Web and intelligent web services. In addition to research and [publications](#), we also create prototype applications that demonstrate the new possibilities of semantic technologies, such as **semantic portals for end users**, **semantic infrastructural data and ontology services**, and **ontologies and tools** for creating semantic applications.



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Our work is highly cross-disciplinary, including application domains, such as Digital Humanities, Health, Learning, Government, Commerce, Geography, and Biology.

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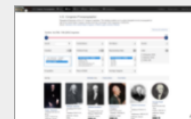
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