Human Dynamics group
Wednesday 4 December 2019

Academic Mapping of Human Dynamics

Dario Rodighiero

MIT Comparative Media Studies

Education
BA in Computer Science
MA in Theory and Technology of Communication
PhD in Architecture and Social Sciences

Employment
European Commission
Science Po Paris
Swiss Federal Institute of Technology Lausanne
MIT CMS/W
Harvard MetaLab

Specialties
Design
Digital Humanities

Mapping at different scales

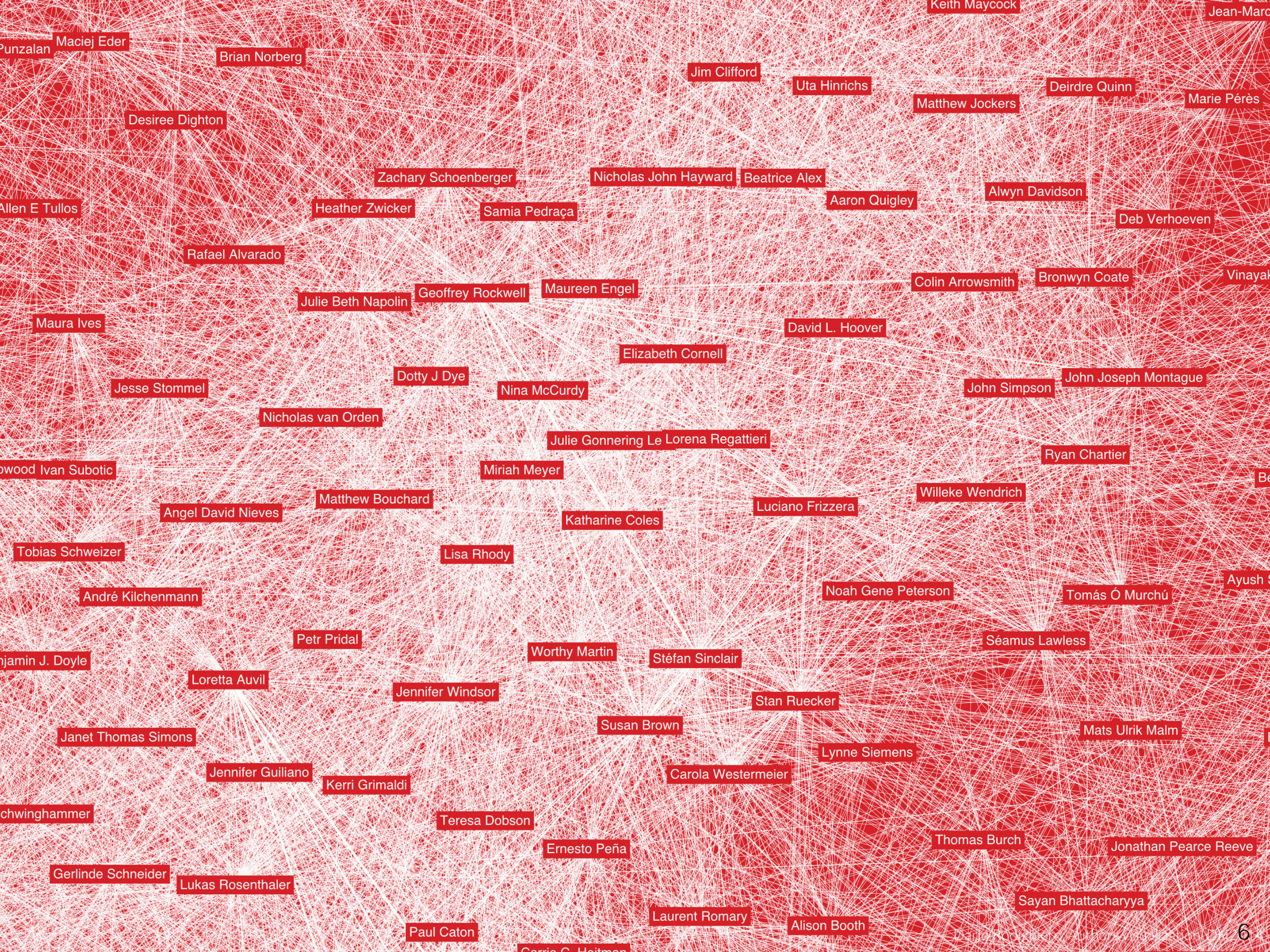
- Conferences
- Institutions
- The World

Case studies

DH2014, DH2019, and Spherical network
Affinity Map, and Super-vision
World Wide Map of Research

DH Conference 2014


digital
humanities
SwissTech convention center


Keith Maycock
Jean-Marc
Punzalan
Maciej Eder
Brian Norberg
Jim Clifford
Uta Hinrichs
Deirdre Quinn
Marie Pérès
Matthew Jockers
Desiree Dighton
Zachary Schoenberger
Nicholas John Hayward
Beatrice Alex
Alwyn Davidson
Aaron Quigley
Allen E Tullos
Heather Zwicker
Samia Pedraça
Deb Verhoeven
Rafael Alvarado
Colin Arrowsmith
Bronwyn Coate
Vinayak
Julie Beth Napolin
Geoffrey Rockwell
Maureen Engel
Maura Ives
David L. Hoover
Elizabeth Cornell
Dotty J Dye
John Joseph Montague
Jesse Stommel
Nina McCurdy
John Simpson
Nicholas van Orden
Julie Gonnering Le
Lorena Regattieri
Ryan Chartier
owood Ivan Subotic
Miriah Meyer
Willeke Wendrich
Matthew Bouchard
Angel David Nieves
Luciano Frizzera
Katharine Coles
Tobias Schweizer
Lisa Rhody
Ayush
André Kilchenmann
Noah Gene Peterson
Tomás Ó Murchú
Petr Pridal
Séamus Lawless
njamin J. Doyle
Worthy Martin
Stéfan Sinclair
Loretta Auvil
Jennifer Windsor
Stan Ruecker
Susan Brown
Mats Ulrik Malm
Janet Thomas Simons
Lynne Siemens
Jennifer Guiliano
Carola Westermeier
Kerri Grimaldi
chwinghammer
Teresa Dobson
Thomas Burch
Jonathan Pearce Reeve
Ernesto Peña
Gerlinde Schneider
Lukas Rosenthaler
Sayan Bhattacharyya
Laurent Romary
Alison Booth
Paul Caton


Maura Ives
Amy Earhart
Jesse Stommel
Justin Schell
Ivan Subotic
Angel David Nieve
Tobias Schweizer
André Kilchenmann
Harvey Quamen
Benjamin J. Doyle
Paul Hjartarson
Janet Thomas Simons
Yiva Schwinghammer


Rafael Ballón-Moreno
Jean-Marc Leblanc
Nam Khann Tran
Scott Kleinman
Amy Papaelias
Natsumi Yamashita
Takafumi Suzuki
Jieh Hsiang
Mikal Brotnov Eckstrom
Rebecca Ankenbrand
Ihua Chen
Kimberly Ann Tedrow
Thomas Padilla
Caterina Bernardini
Angela Jorden
Alex Kinnaman
Christopher Prom Chia-Hsuan Chung

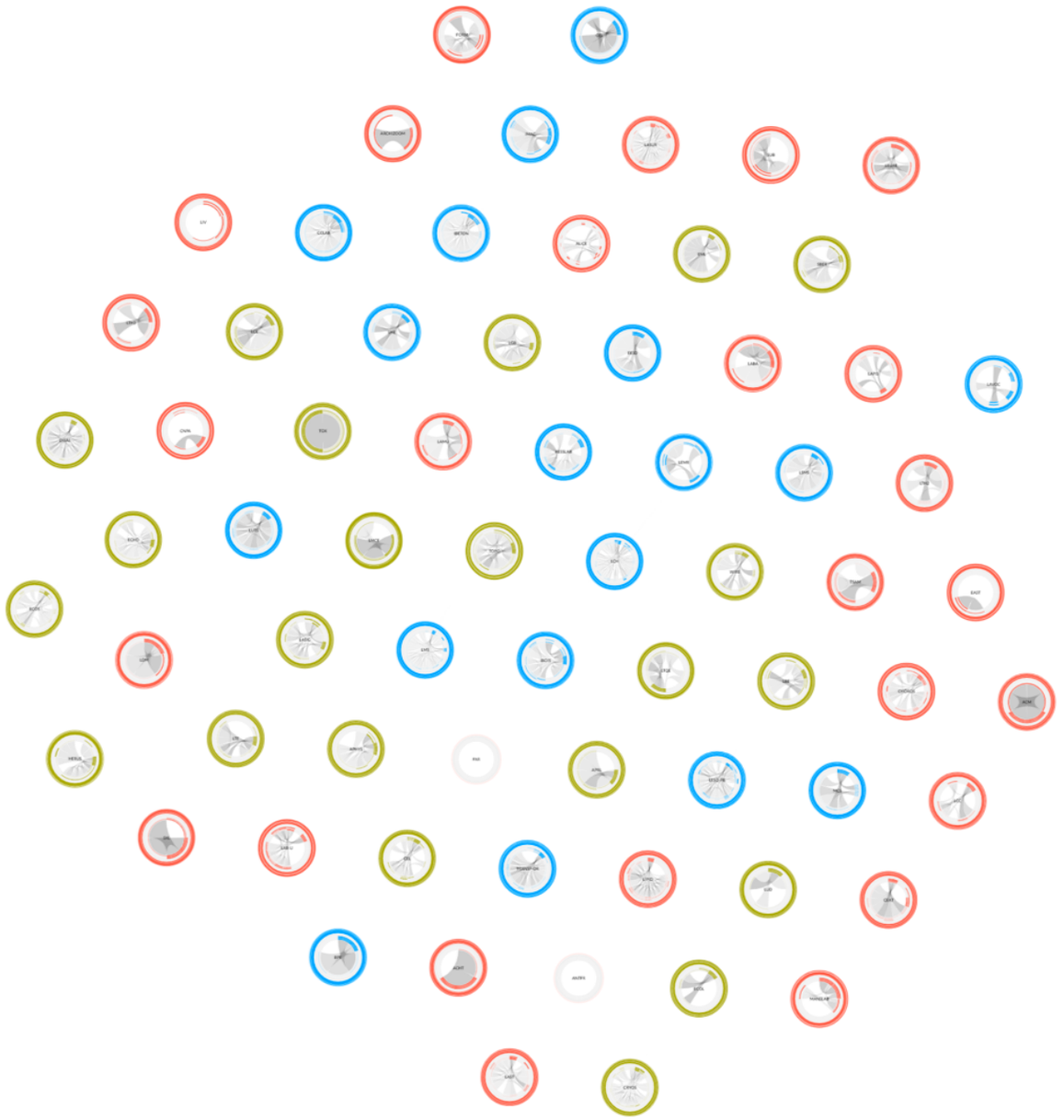

Paul de Soto
Yhon Wygoda
Elton T. E. Barker
Leif Isaksen
Maryam Foradi
Ines Schiller
Rainer Simon
Monica Berti
Gregory R. Crane


Wiebke Wiede
Sergej Zɜrr
Beate Hofmann
Peter Birke
Nuria Rodríguez-Ortega
Jean-Marc Leblanc
Marie Pérès
Scott Kleinman
Mia Ridge
Scott Brian Reed
Ingrida Vosylit
Kimberly Ann Tedrow
Yandex
digital Humanities
Brian Croxall
Emory University

AffinityMap

Actual affinities

- Co-advising
- Co-authoring
- Co-teaching

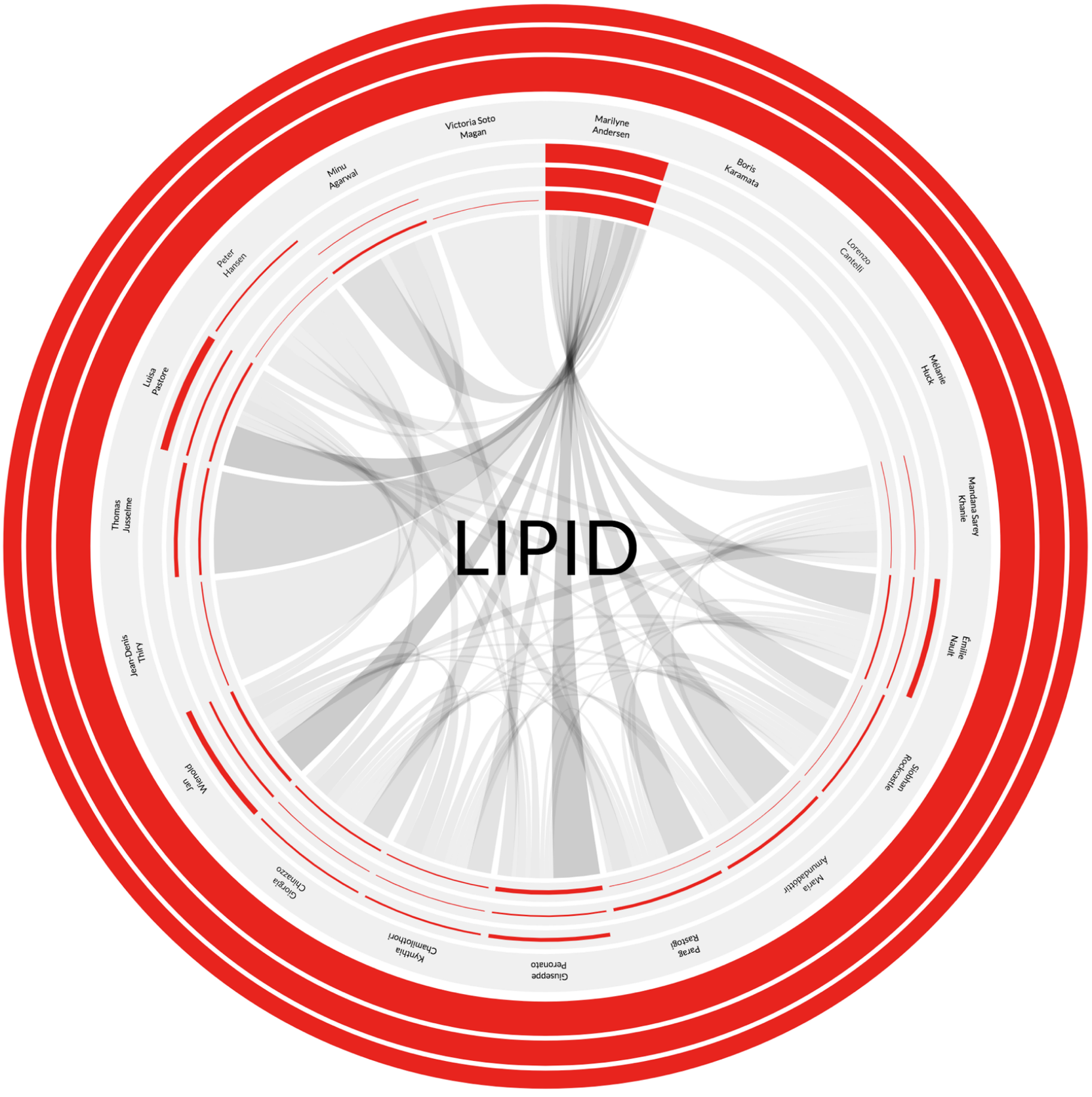


Potential affinities

- Natural Language Processing

Combinations

- Research (co-authoring + keywords)
- Education (co-advising + co-teaching)


LIPID
Marilyne Andersen
Boris Karamata
Lorenzo Cantelli
Mélanie Huck
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Émilie Nault
Siobhan Rockcastle
Maria Afmundadottir
Parag Rastogi
Giuseppe Peronato
Kyrtihia Chamilothori
Giorgia Chiriazzo
Jan Wienold
Jean-Denis Thiry
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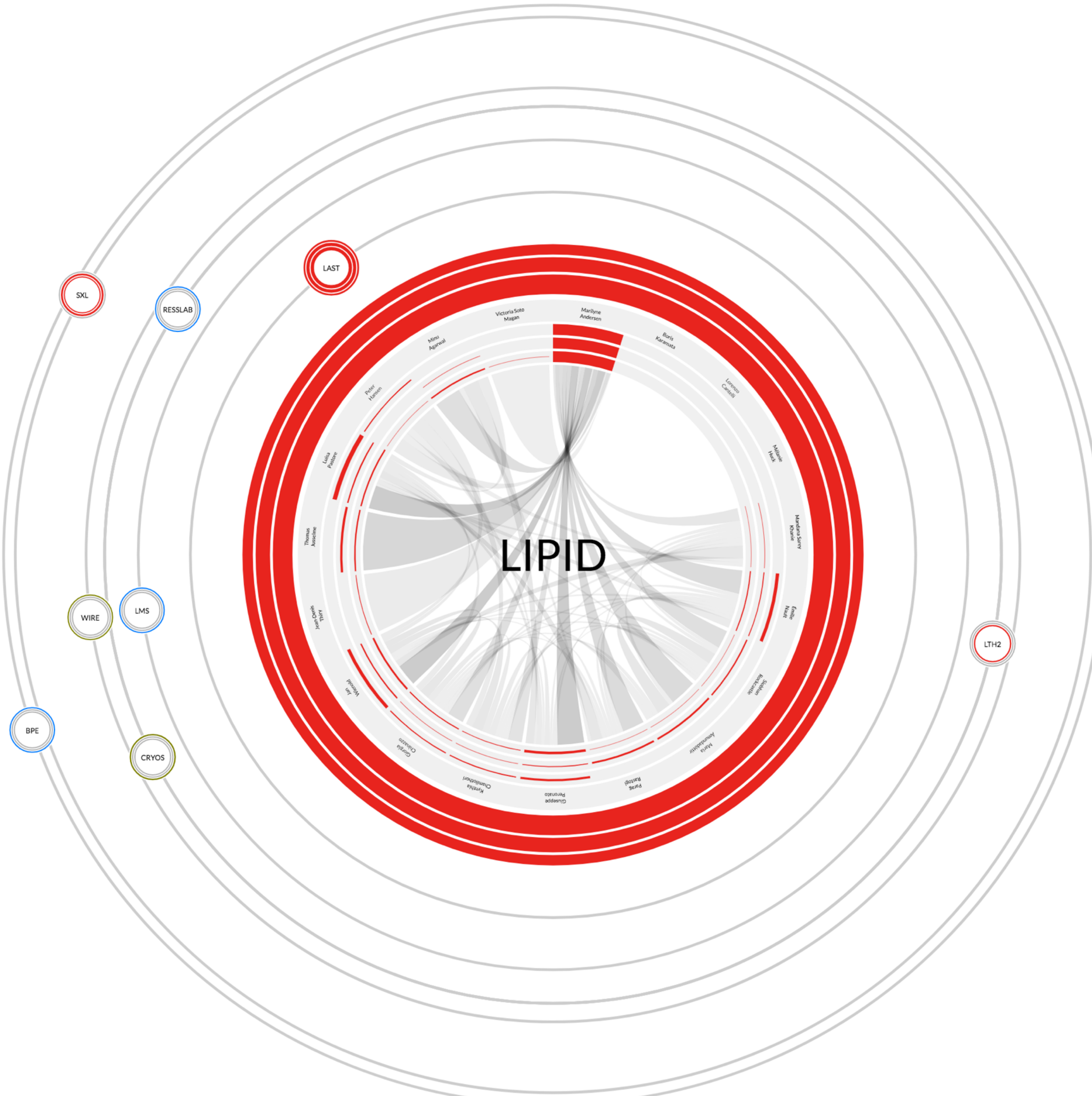
Luisa Pastore
Peter Hansen
Minu Agarwal
Victoria Soto Magan



LIPID
LAST
SXL
RESSLAB
WIRE
LMS
BPE
CRYOS
LTH2
Marilyne Andersen
Boris Karamata
Lorenzo Cantelli
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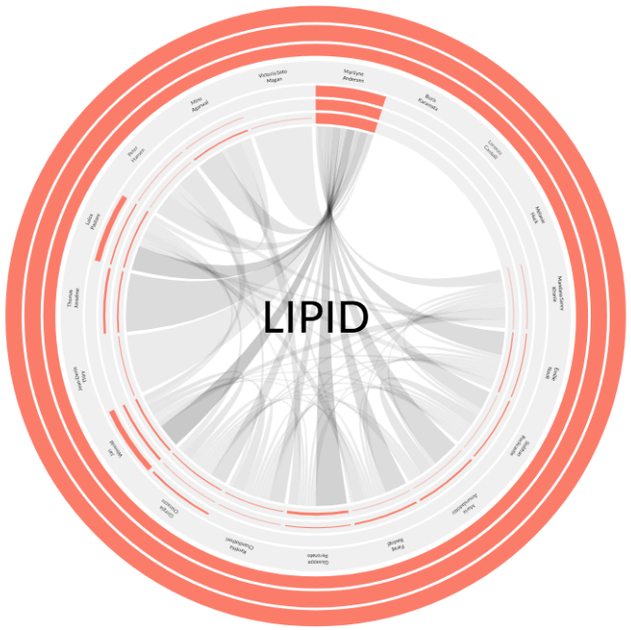
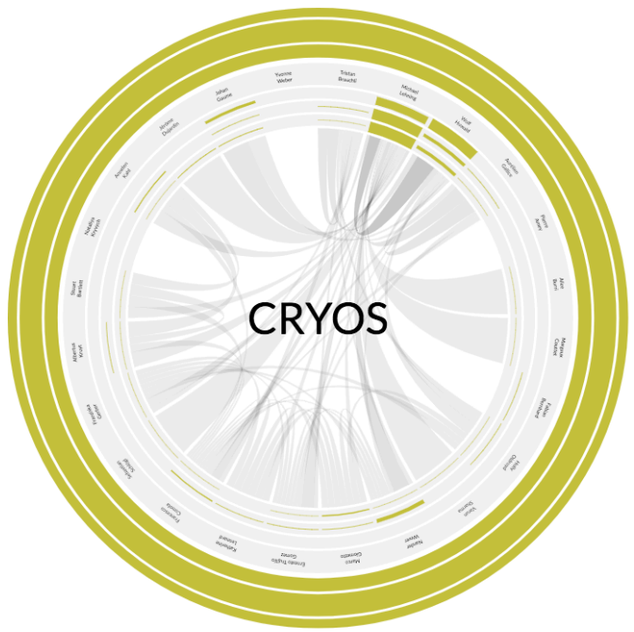


bipv
solar
energy
buildings
assessment
neighborhood
architectural
irradiation
prototype
workflow
design
urban

solar
thermal
climate
energy



solar
energy

https://affinitymap.epfl.ch

Physicalization

Distant and close reading

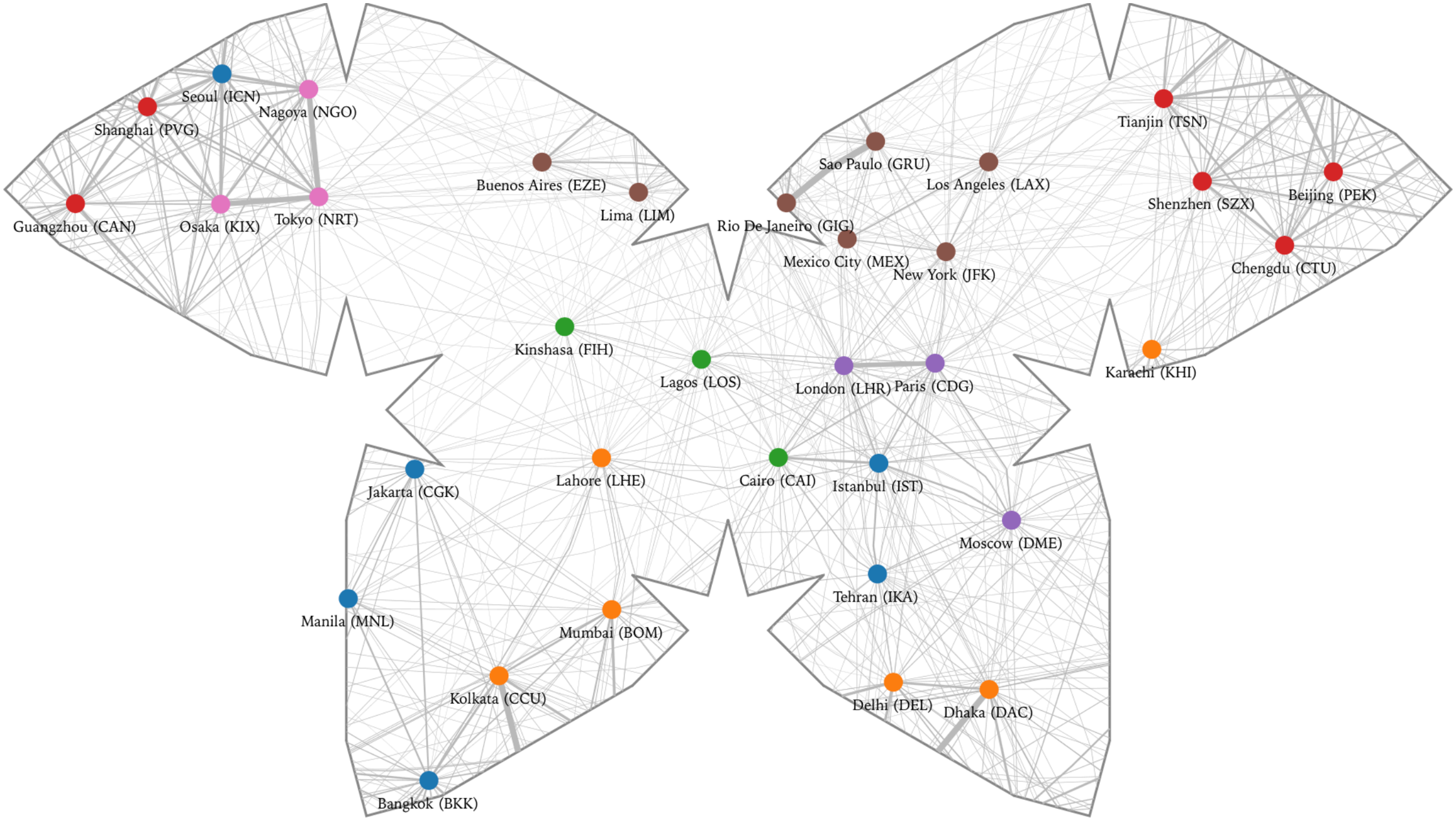
Sharing the design

Space for conversation

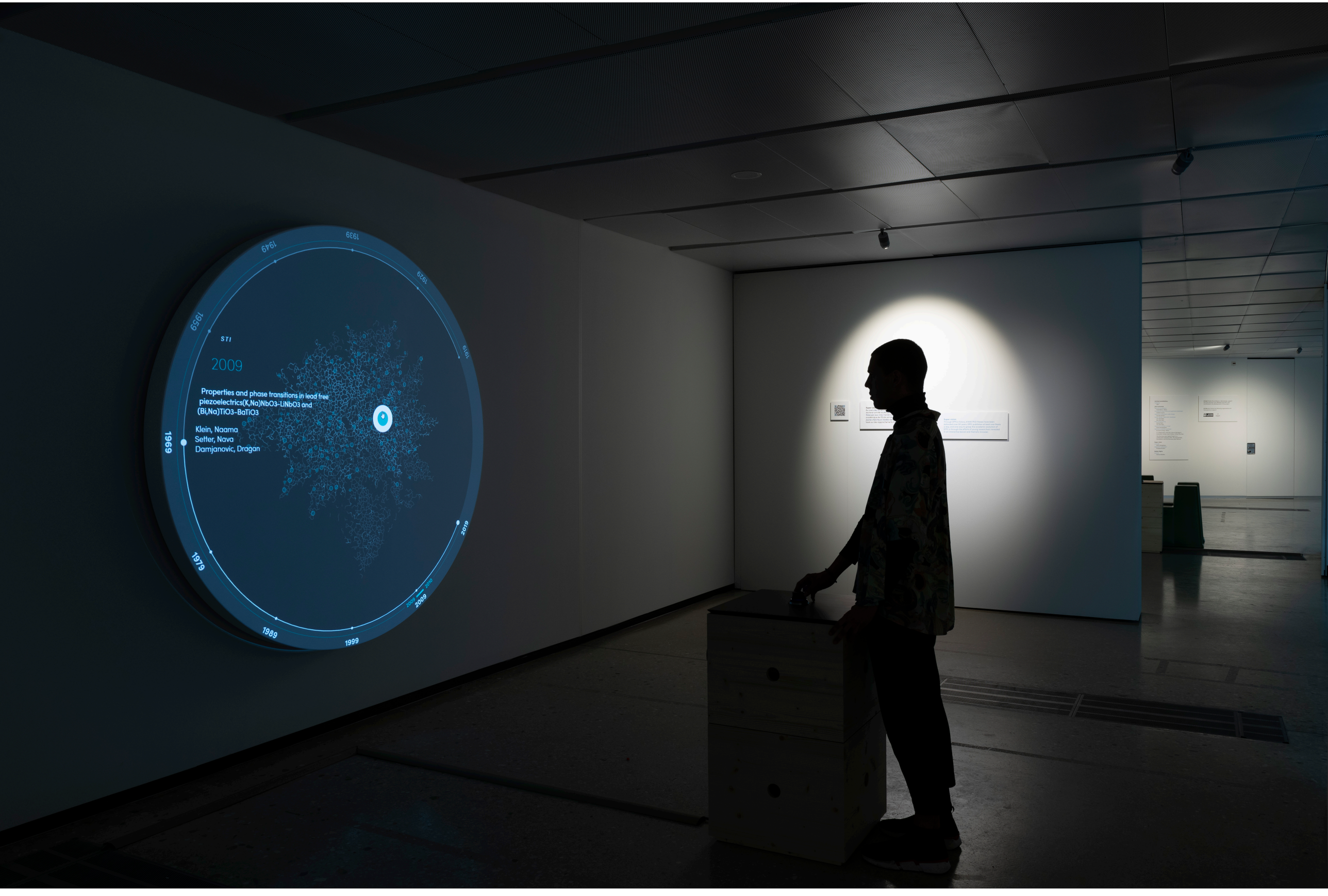
Self-recognition

Appropriation of your own image

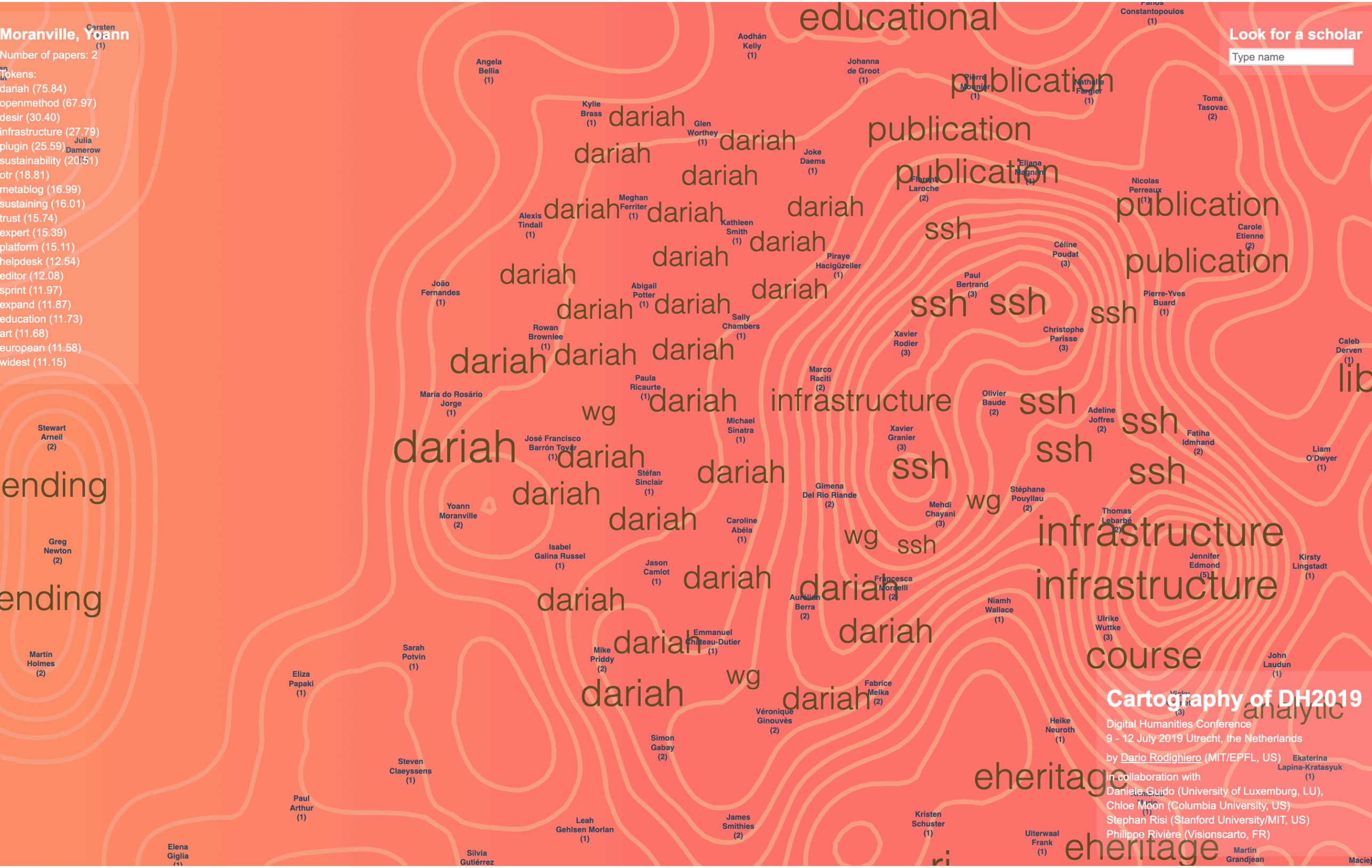
Current Projects



https://observablehq.com/d/7abe9fe914c29e4b



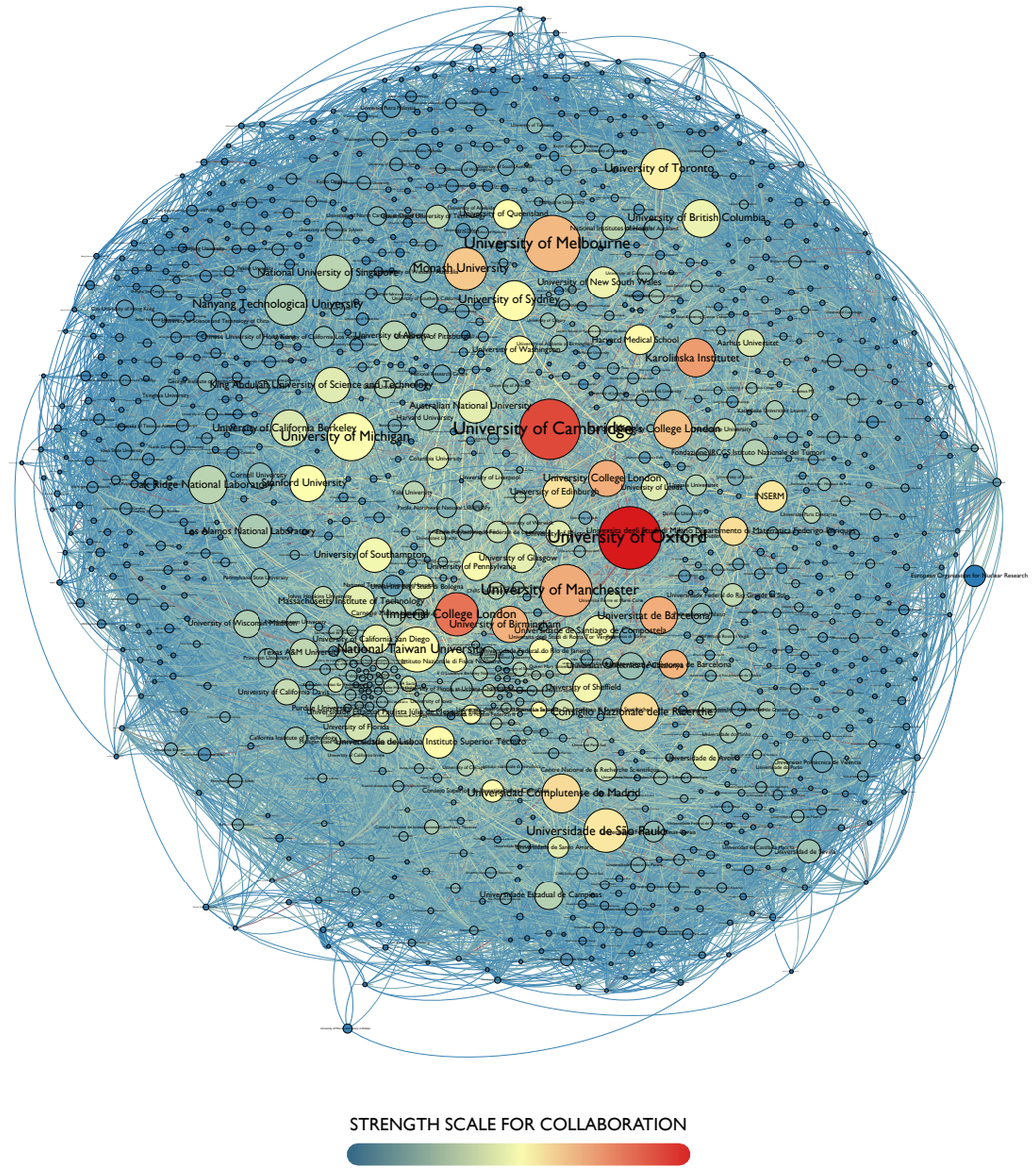
https://visionscarto.net/maps/tests-previews/epfl.app/



https://rodighiero.github.io/DH2019/

Worldwide Map of Research

- Funded by Swiss National Science Foundation
- Based on the ORCID dataset
- 1 millions of active profiles
- 16 millions of DOI
- ~200,000 Institutions worldwide (RingGold)
- Analysis of collaborations
- Analysis of individual trajectories
- Recommendation system for academic mobility



Metric investigation

- Lexical distance
- Heterogeneity of social ties
- Trajectories

Visual advancements in network visualization

- Semantic background
- Pointing out the heterogeneity of social ties
- Satellites to summarize node’s relationships
- Elevation cartography

Protecting individuals / ethics of visualization

- Group individuals in envelops
- Applying gravity to avoid distant individuals
- Same size and border thickness to avoid comparison
- Continuos space to avoid edges