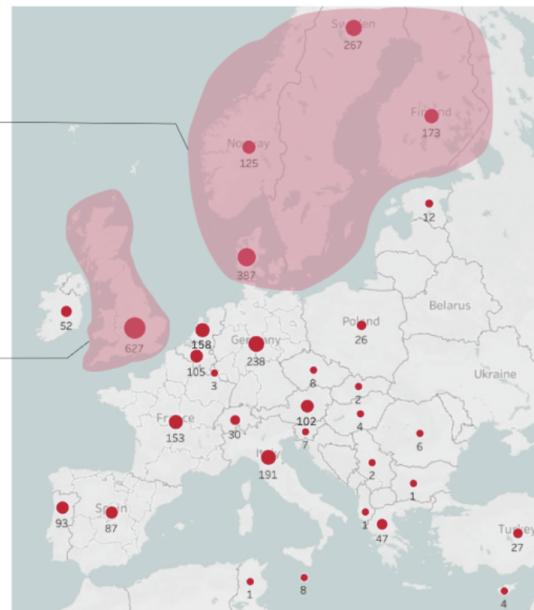


# PARTICIPATORY DESIGN; WHERE, WHEN, WHAT, WHO

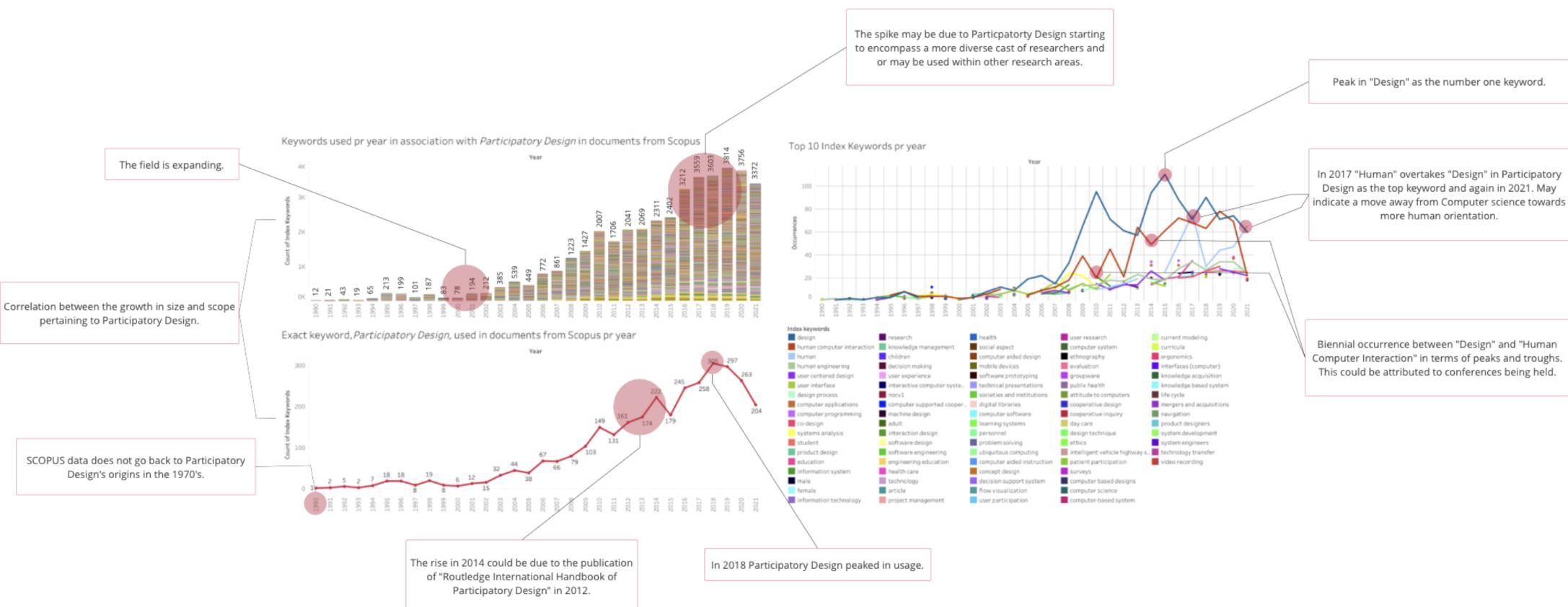
TAN8, Group 2 (Aalborg East)  
Signe Kloppenborg  
Nikolaj Arildsen  
Martin Clinch  
Rasmus Smetana

# World Map of Articles

Scandinavia is still very prominent pertaining to Participatory Design, where it all started.



## Keywords over time



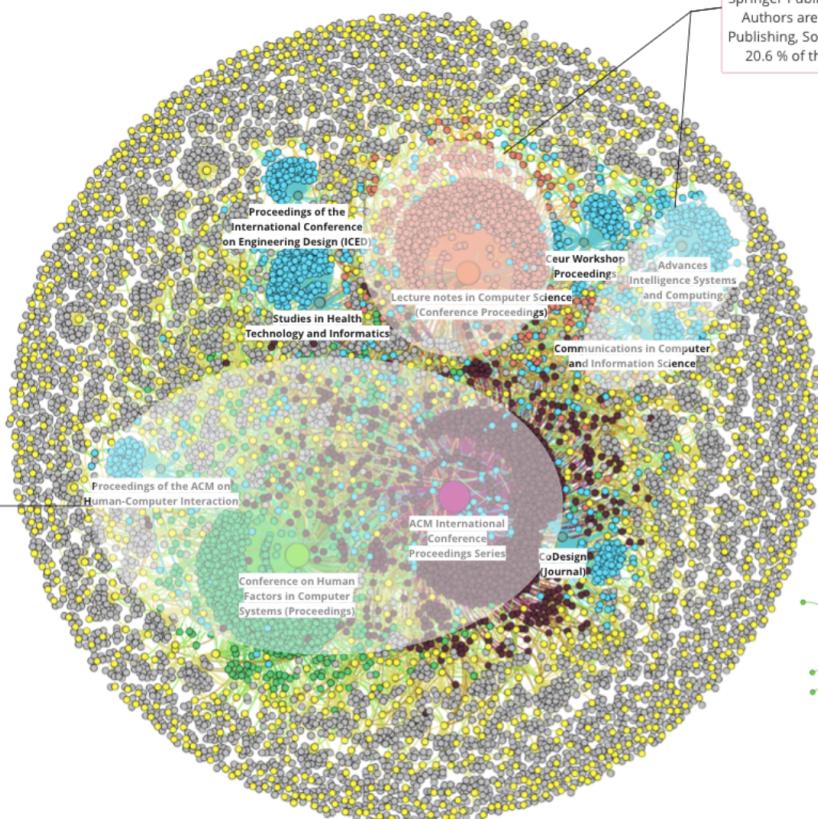
The correlation between size and scope pertaining to Participatory Design might suggest that it encompasses many different domains and paradigms since the 2000's. The top 10 keywords per year also illuminate the evolution, where Design and Human Computer Interaction have been prominent throughout the history of Participatory Design, suggesting a close relationship between them. These keywords once again imply a heavy focus on Computer Science and design of products and services. However, the significant rise of the keyword Human presents a switch from the prominence of technology-led approaches, into a more holistic and user-led approach to humans.

With a broader lens on the 86 top keywords, we can find keywords relating to different domains and paradigms both within and outside the origins of Computer Science. Particularly categories of Health, Education, and Demographics present themselves across the keywords as research areas that are not necessarily tied to Computer Science.

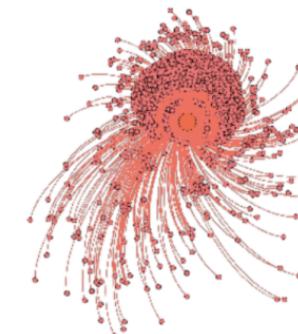
## Source title-Authors network

Bipart network, helps to explain how the nodes are connected

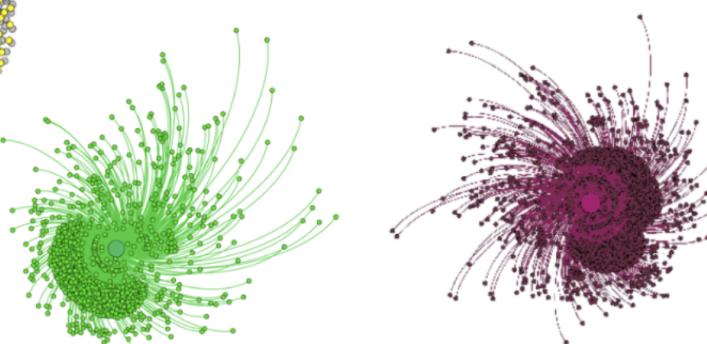
- Yellow Source title
- Grey Authors
- Cyan Ego Network with 100-1000 connected authors
- Green Ego Network of Conference in Human Factors and Computer Systems
- Dark Blue Ego Network of ACM International Conference Proceedings Series
- Red Ego Network of Lecture Notes in Computer Science



These three Source titles are under the umbrella of the European based Springer Publishing. 1.418 out of 5.332 Authors are connected to Springer Publishing. Source titles accounting for 20.6 % of the top 10 Source titles.



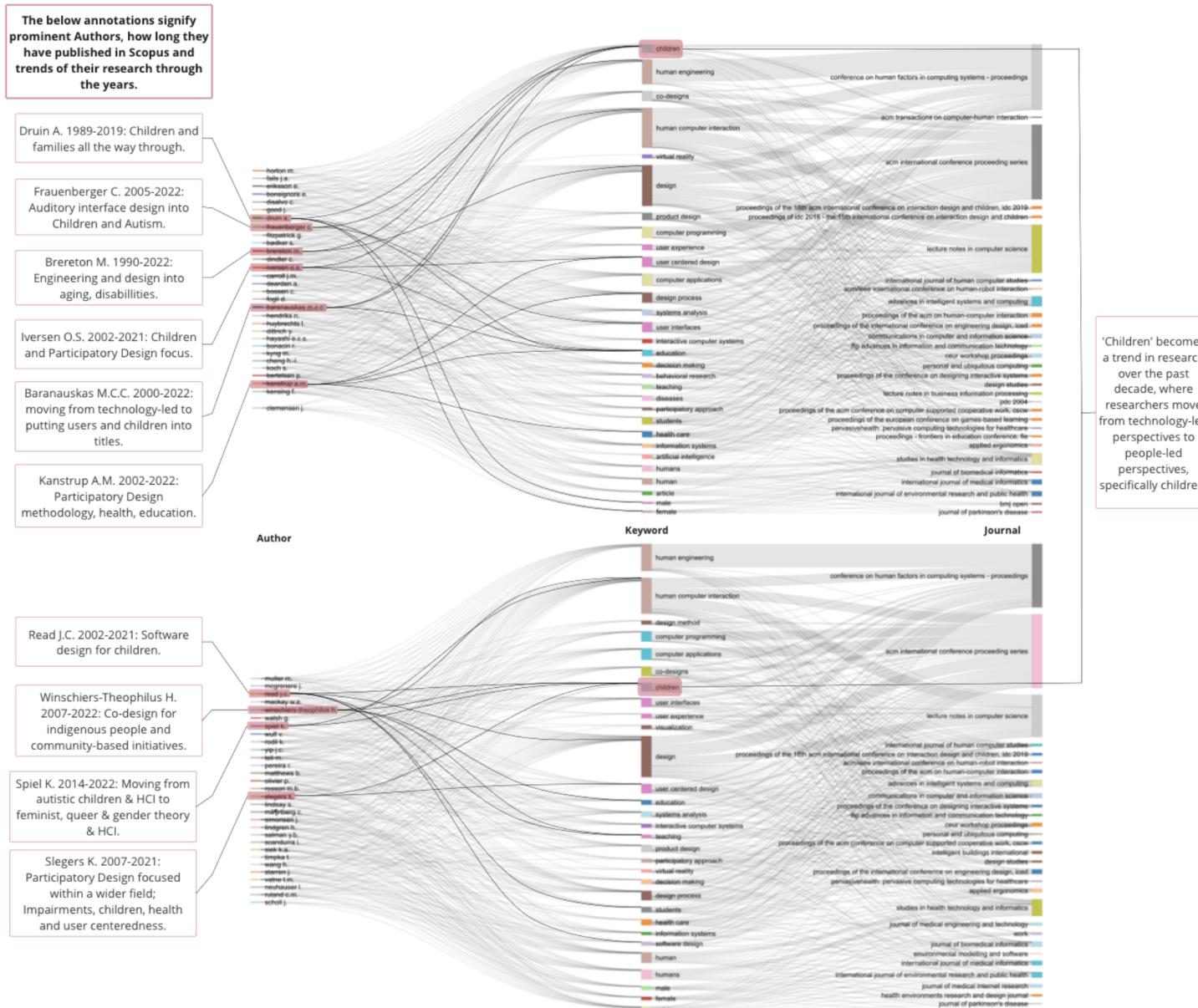
The three largest Source titles engage with Computer Science. This is in accordance with Participatory Design stemming from the Computer Science research area.



Creating a network of authors and source titles, constituting where documents have been published, provides us with an overview of the largest major actors pertaining to Participatory Design. While it does not provide insights into how much has been written in the source titles, it illustrates how many authors engage with Participatory Design within them. Where the keywords did not have an association between each other, the source titles can provide us with insights into the research areas that are being engaged with. The three major source titles (1000+ authors connected) engage primarily with Computer Science, as well as four of the source titles with 100-1000 connected authors.

Additionally, two of the source titles with 100-1000 connected authors are within the research area of Design. This may be expected as Participatory Design has roots within both research areas. However, one of the source titles with 100-1000 connected authors is "Studies in Health Technology and Informatics", which adds the aspect of Health into the conversation. Although Computer Science is the dominant research area pertaining to Participatory Design, the area is often interdisciplinary and embraces diverse disciplines. Lastly, two publishers, ACM and Springer Publishing account for 81.1% of the top journals collectively. This might be attributed to using Scopus as a database, but it can also illustrate how the conversation about Participatory Design is centered within these two major publishers.

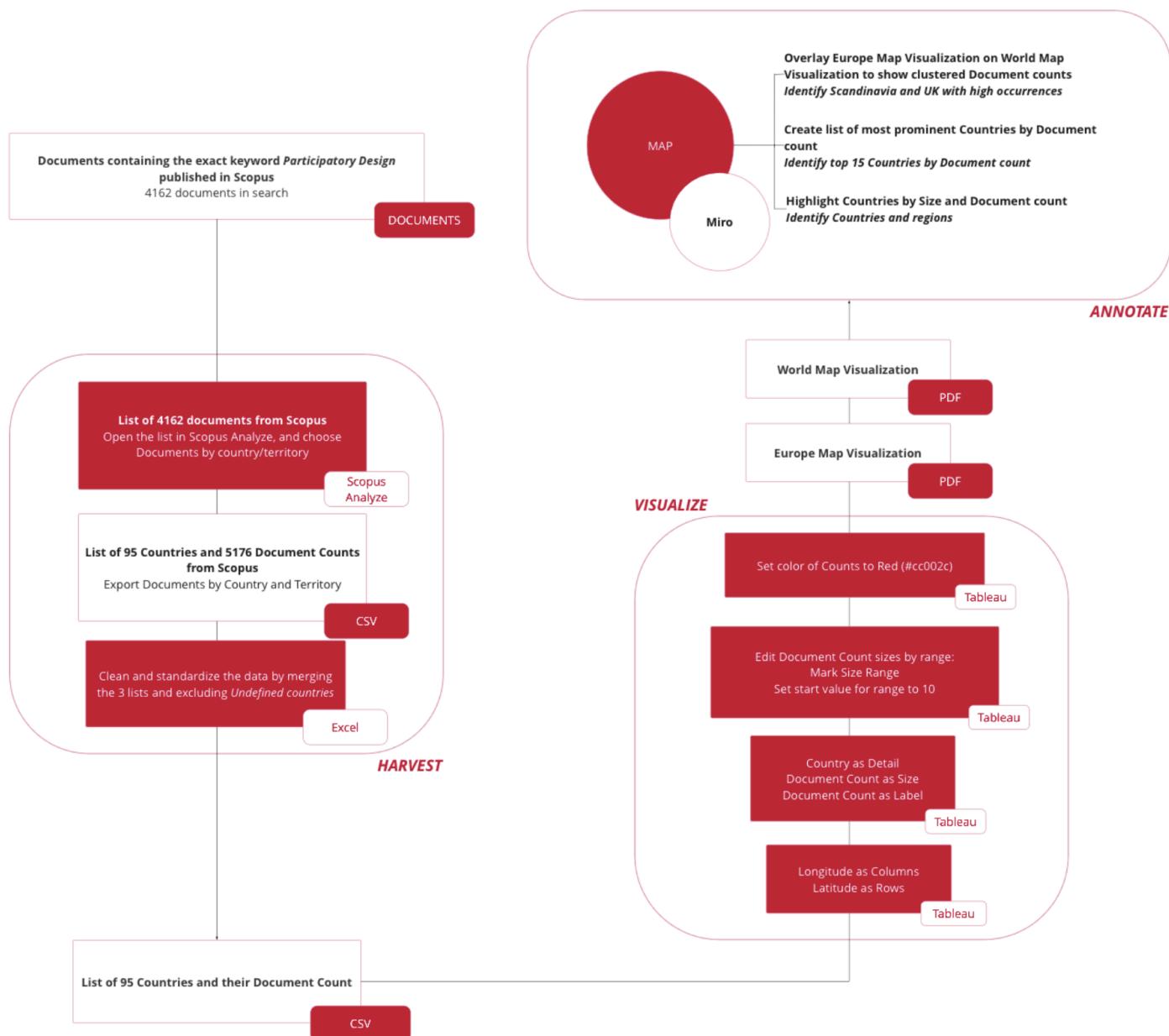
# Author-Keyword-Journal Sankey Diagram



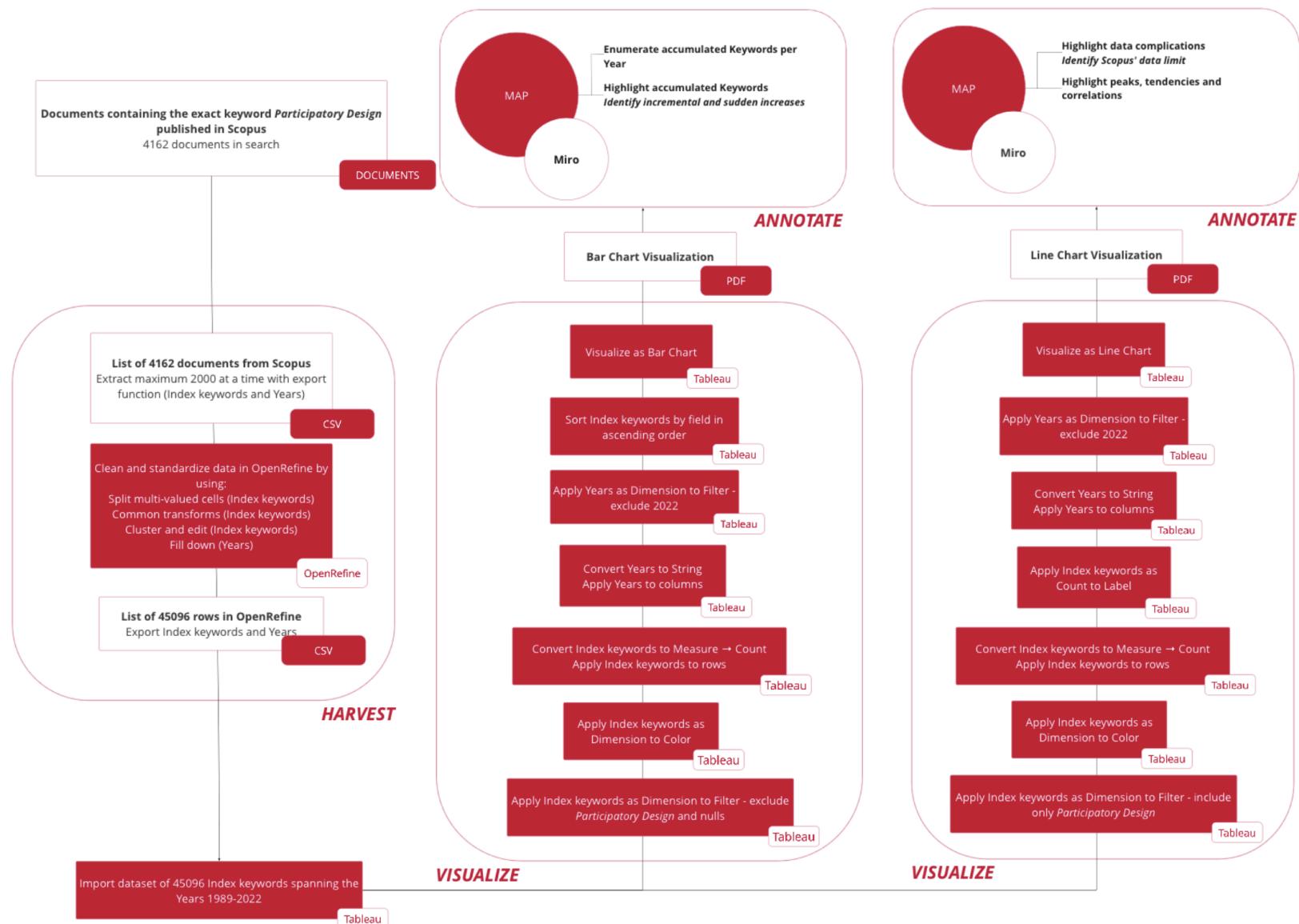
The Sankey Diagram synthesizes the primaries of the authors, keywords, and source titles. It introduces named authors as a new factor, providing some insight into the material that contributed to the conversation around Participatory Design. Looking at the works of significant authors illuminates some insights into the conversation and the evolution of the conversation. Many of the authors are from Scandinavia, which aligns with the origins of Participatory Design, while the author who has contributed the most, Baranauskas, is Brazilian. Since Brazil lies outside the Participatory Design dominant regions of North America and Europe, it differs from the tendencies. Additionally, the two highlighted Scandinavian authors, Kanstrup and Iversen, have engaged with human factors, not necessarily connected to Computer Science, throughout their publications on Scopus. Baranauskas, Brereton, and Frauenberger's publications illuminate the interesting aspect that their early works were all engaged with technology-led approaches, while their later works have transitioned into seemingly more user-led approaches. Particularly children have come to prominence both within the keywords, but also in the titles of many authors' publications from the last few years.

After exploring the area pertaining to Participatory Design, we can see that there is still a general proclivity towards Computer Science. However, as the size of the research area evolves, so does the amount and variety of actors involved. Moreover, prominent researchers engaging with Participatory Design have seemingly switched from technology-led approaches to more human centered approaches, showing how the concept is in continuous motion. The process of mapping literature and supplementing qualitative investigations into the Where, What, When and Who has opened the door for further research that can illuminate the Why. With an increasing focus on holistic, human centered approaches and sustainable values, we suggest a move to more qualitative investigations into how Participatory Design might be utilized in other research areas.

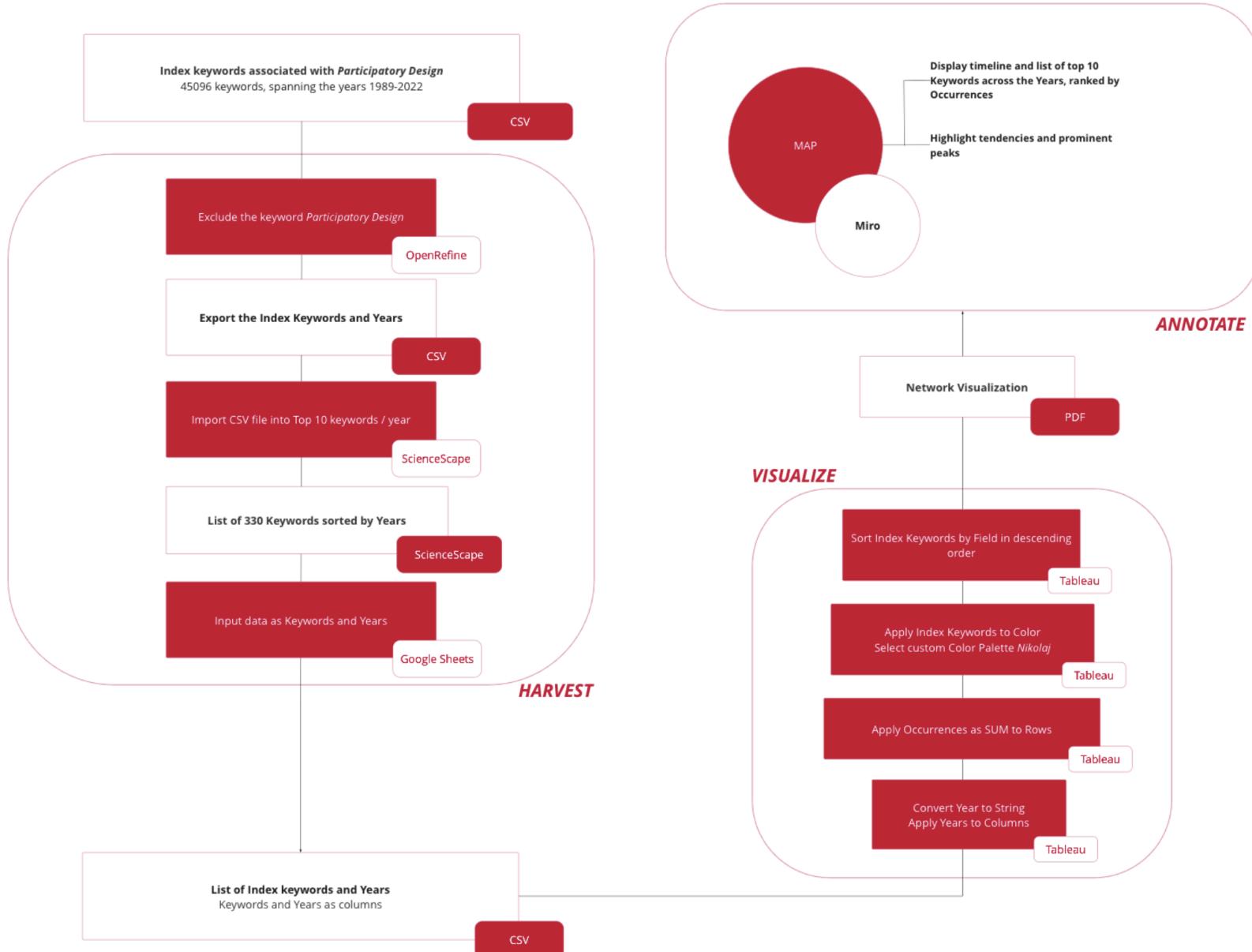
# 1 Protocol for World Map of Articles



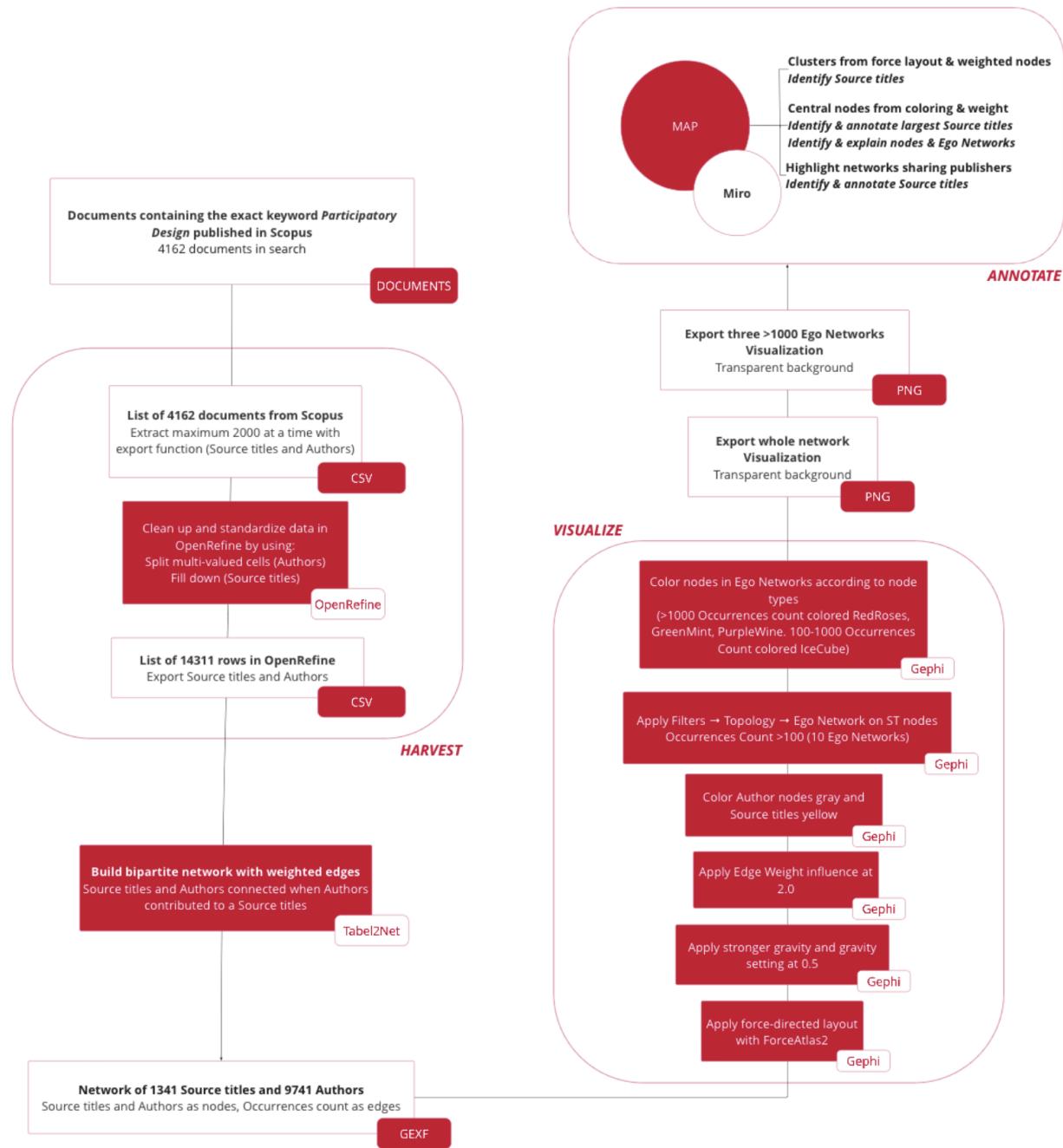
## 2a Protocol for *Participatory Design* and associated keywords



## 2b Protocol for top 10 keywords per year



### 3 Protocol for Source title-Authors network



# 4 Protocol for Author-Keyword-Journal Sankey Diagram

