



Longest Title

Chronicles of Artist Exhibitions:

Exploring Temporal Patterns in Artists' Co-Exhibition Activity Using Visual Analytics

Velitchko Filipov, Teresa Kamencek, Victor Schetinger, Raphael Rosenberg, Silvia Miksch

Digital Art History

Highly *inter- & trans-disciplinary* field

Lots of data, databases

Data is *intricate* and *multifaceted*

Increasingly using visualization tools:

Maps, timelines, bar/pie charts

Sometimes networks

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U8F5U ..... .vU08F
@M4X ... .vA$#86
@M4v ... .c0B@86
#Mc ... .1$@86
@MA ... .ivA#88b
M4M2 ... .i: .1E0EbQ9zz2ot::ic:non180$884
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@Mc no: :#E1bn.: .Q@#n .Cc,i... .iAE$6
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@M ... .z2t:,...: .t$W@8
M4M ... .ii, ... .6W#8b
M4M. ... .11A#$86
@Mc ... .Xb$@M@8
@M4E ... .vz0#8@M@8
9$M@ ... .:vU0QB@86
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$M@M0 ... .ivvc78Q@#886
@M4Mi ... .i. .cAYcl@i ... .ivz192EB@#86
@ESM@Z: ... :2:..A#M@88M@ ... .iv:CIU90b$#86
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@8$@M@ ... .:t7v. ... .YYS$E$WQ#6
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```

World > Europe > Netherlands > North Holland

Amsterdam



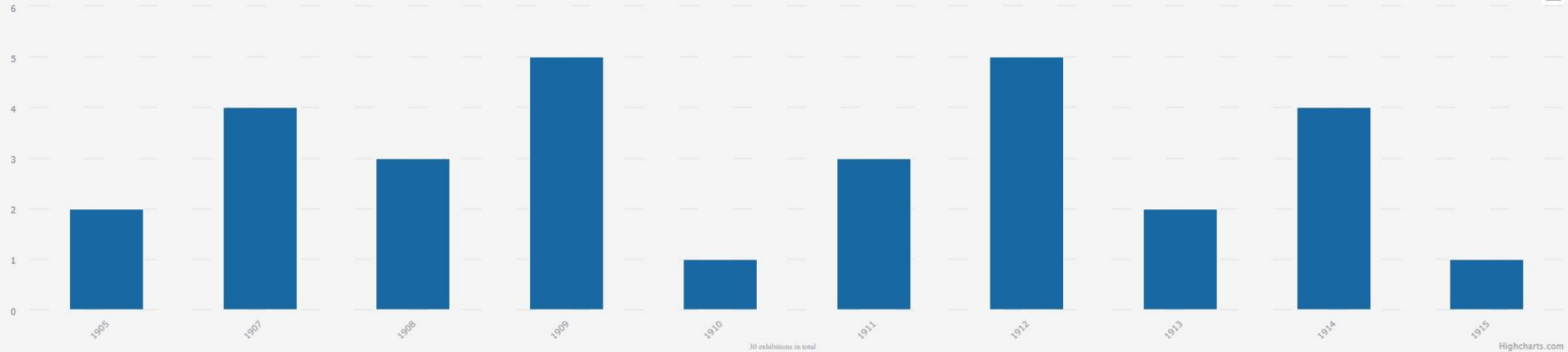
Exhibitions by Type (Pie Chart)



Artists' Nationality (Pie Chart)



Exhibitions by Year (Bar Chart)



ArtVis

Transdisciplinary project in collaboration with CReALab @ Uni Wien

 <https://www.cvast.tuwien.ac.at/projects/artvis>

Analyze complex relationships between:

People (artists, critics, collectors);

Objects (artworks, techniques, forms);

Places (galleries, auction houses, cities/countries);

Institutions (academies, museums, artist associations)

Their *development* and *change over time* is important

ArtVis

Art History Visualized



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ArtVis - Data

Database of Modern Exhibitions (DoME) <http://exhibitions.univie.ac.at/>

Relational database (1905-1915):

Exhibitions ~ 1.4k

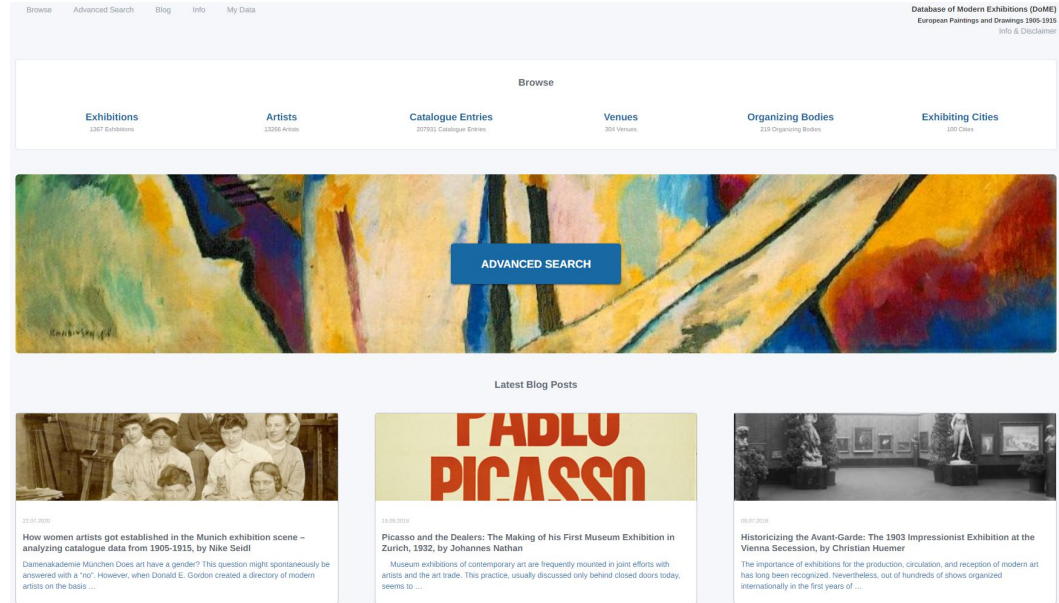
Artists ~ 14k

Catalogue Entries ~ 208k

Venues ~300

Organizing Bodies ~200

Exhibiting Cities ~ 100



Research Question

“How can VA support art historians in gaining insights about artists’ co-exhibition behavior and comparing activity patterns between them?”

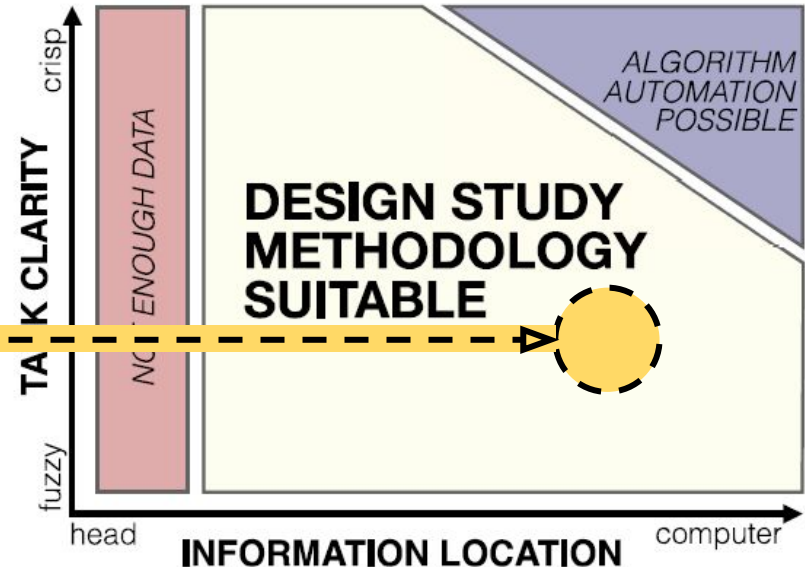
Design Study

🔗 Sedlmair et al.

Design Study Methodology: Reflections from the Trenches and the Stacks

"[...] analyze a specific real-world problem faced by domain experts, design a visualization system that supports solving this problem, validate the design, and reflect about lessons learned [...]"
page 2

ArtVis positioned
"roughly" here



Contributions

[C1]: Problem characterization and task abstraction

From domain to VA - task/data decomposition and abstraction

[C2]: Proposed visualization design is well justified

Combination of established and proven techniques extended to support domain

[C3]: Validated visualization design

Evidence - an effective solution for the domain and is useful for experts

[C4]: Reflection

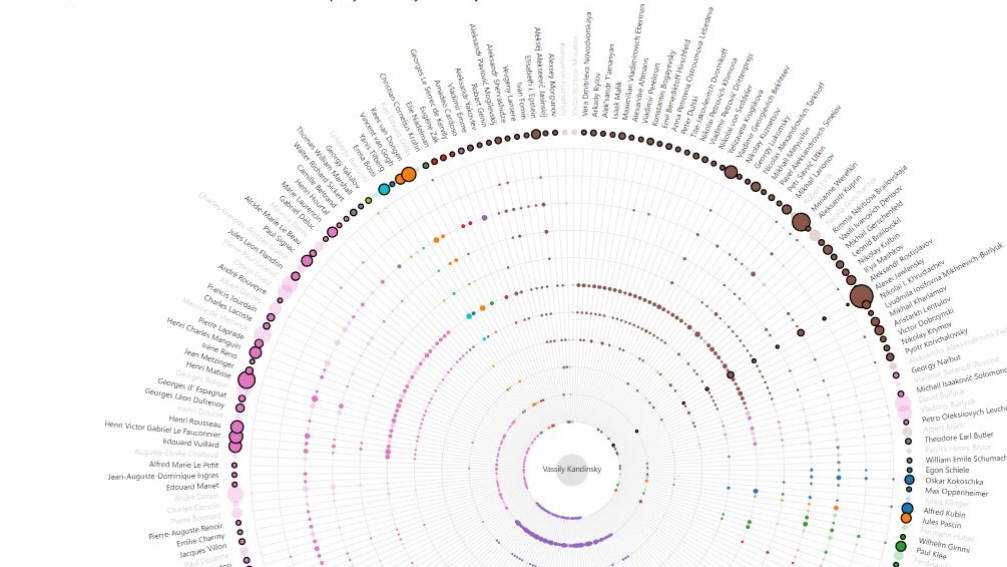
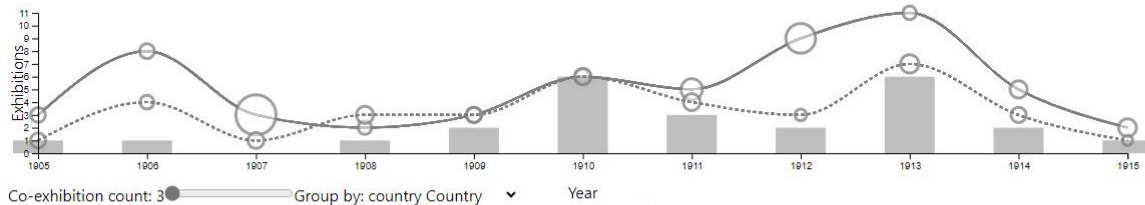
Lessons learned, reflection, proposed guidelines

Proposed Approach

Vassil, 1866 (Moscow) - 1944 (Neuilly-sur-Seine)

57 exhibitions | 588 artworks

☒ Average Artworks per Exhibition



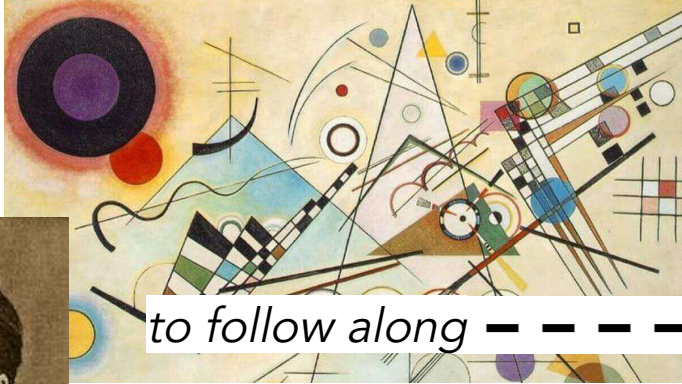
Alexei Jawlensky (RU)
1864 (Torzhok) - 1941 (Wiesbaden)

36 exhibitions | 249 artworks

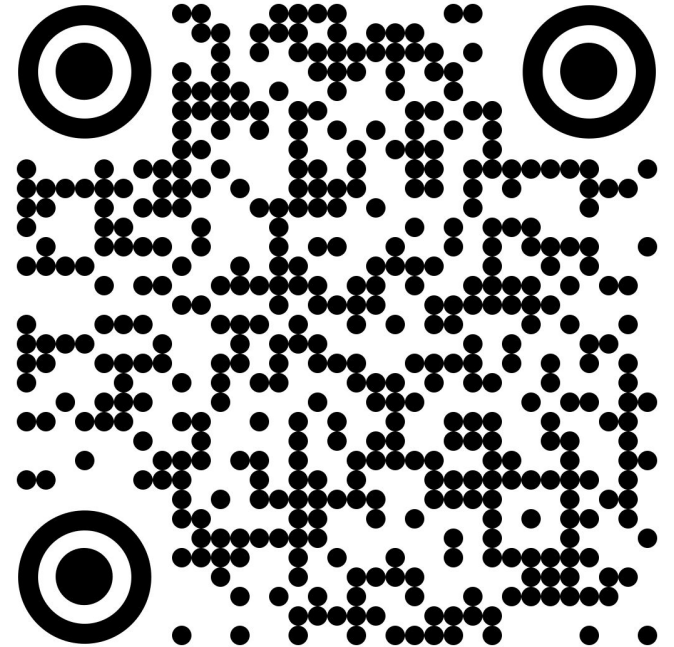
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|-------|------|---|-------------------|---------------|------------------|
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| group | 1911 | Салон 2. Международная Художественная Выставка | 431 | 12.65% | 1.43% |
| group | 1909 | Neue Künstlervereinigung München E.V., Turnus 1909-1910 | 137 | 10% | 11% |

Demo 🙌

<https://artvis.cvast.tuwien.ac.at/artists/5>



Vassily Kandinsky



Evaluation Methodology

ICE-T Wall et al.

A Heuristic Approach to Value-Driven Evaluation of Visualizations

Determine the '*value*' of a visualization along 4 components:

Insight: The ability to spur and discover insights and/or insightful questions about the data


Confidence: - The ability to generate confidence, knowledge, and trust about the data, its domain and context

Essence: The ability to convey an overall essence or takeaway sense of the data

Time: The ability to minimize the total time needed to answer a wide variety of questions about the data

Evaluation Plan

ICE-T Wall et al.

 A Heuristic Approach to Value-Driven Evaluation of Visualizations

Exploratory / Confirmatory analysis scenario ~ 1 hour

Filling out questionnaire

5 Domain Experts (Art History)

5 Visualization Experts

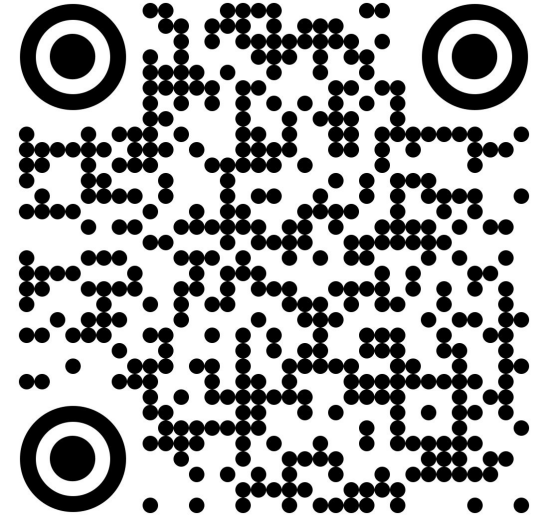
Compare and discuss results

Thank you!

Q&A

Suggestions? (shorter title maybe 😅)

Feedback?



demo link

Contact:

Velitchko Filipov

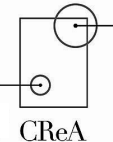
velitchko.filipov@tuwien.ac.at



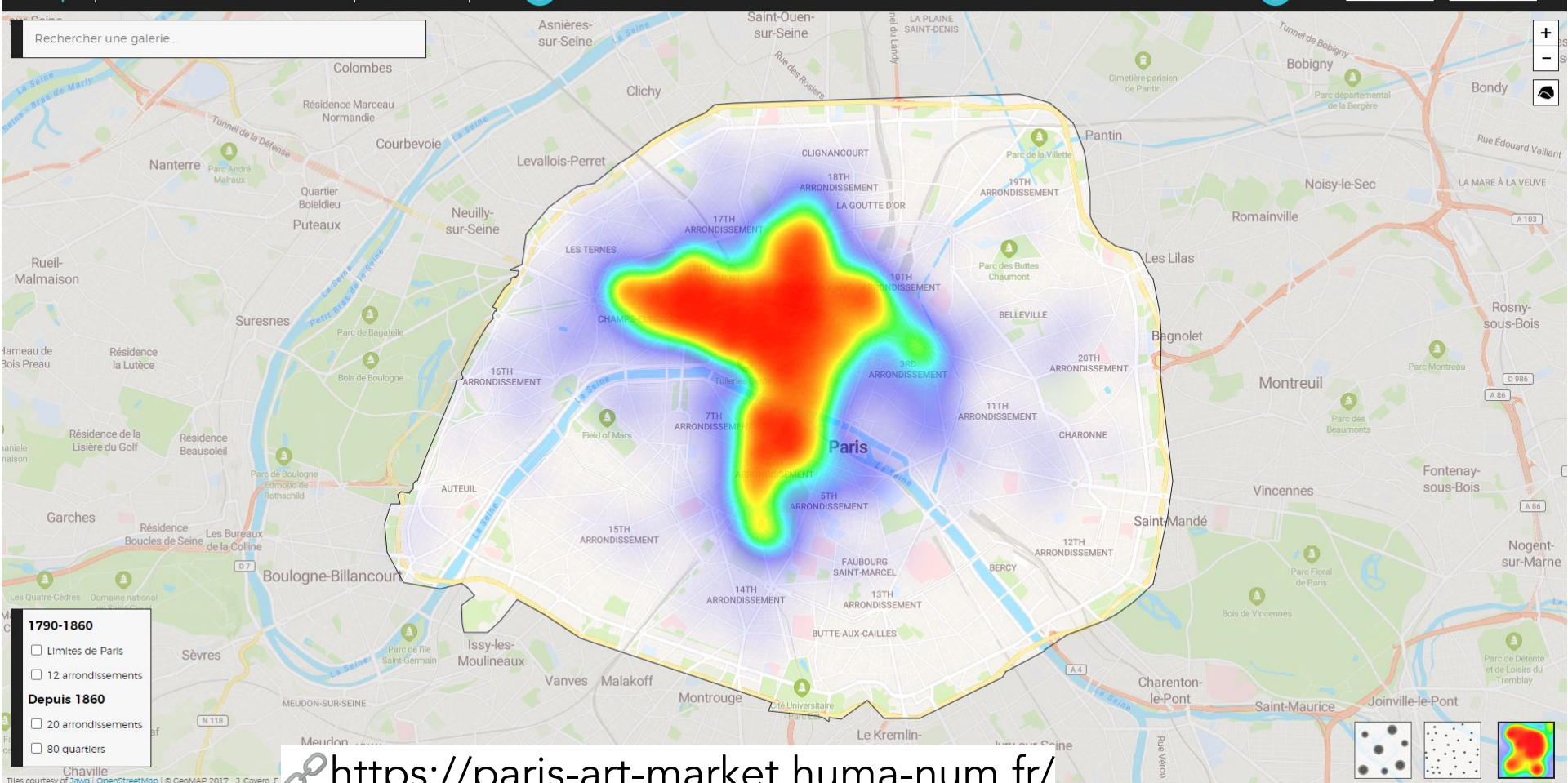
CVAST



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Rechercher une galerie...



ArtVis - Data

Relational \rightarrow Graph database

Why?

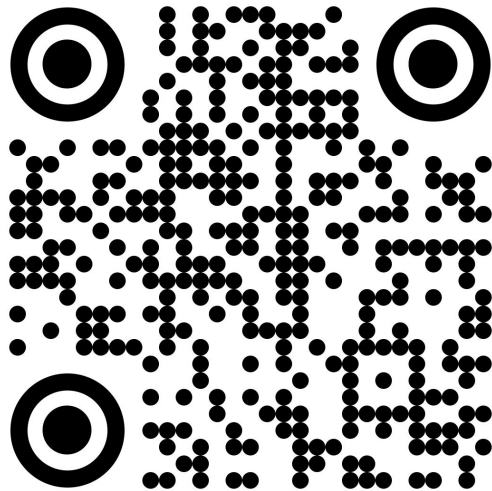
- It's a network with highly connected data

- Impact on data retrieval times

- Continuous need to update structure

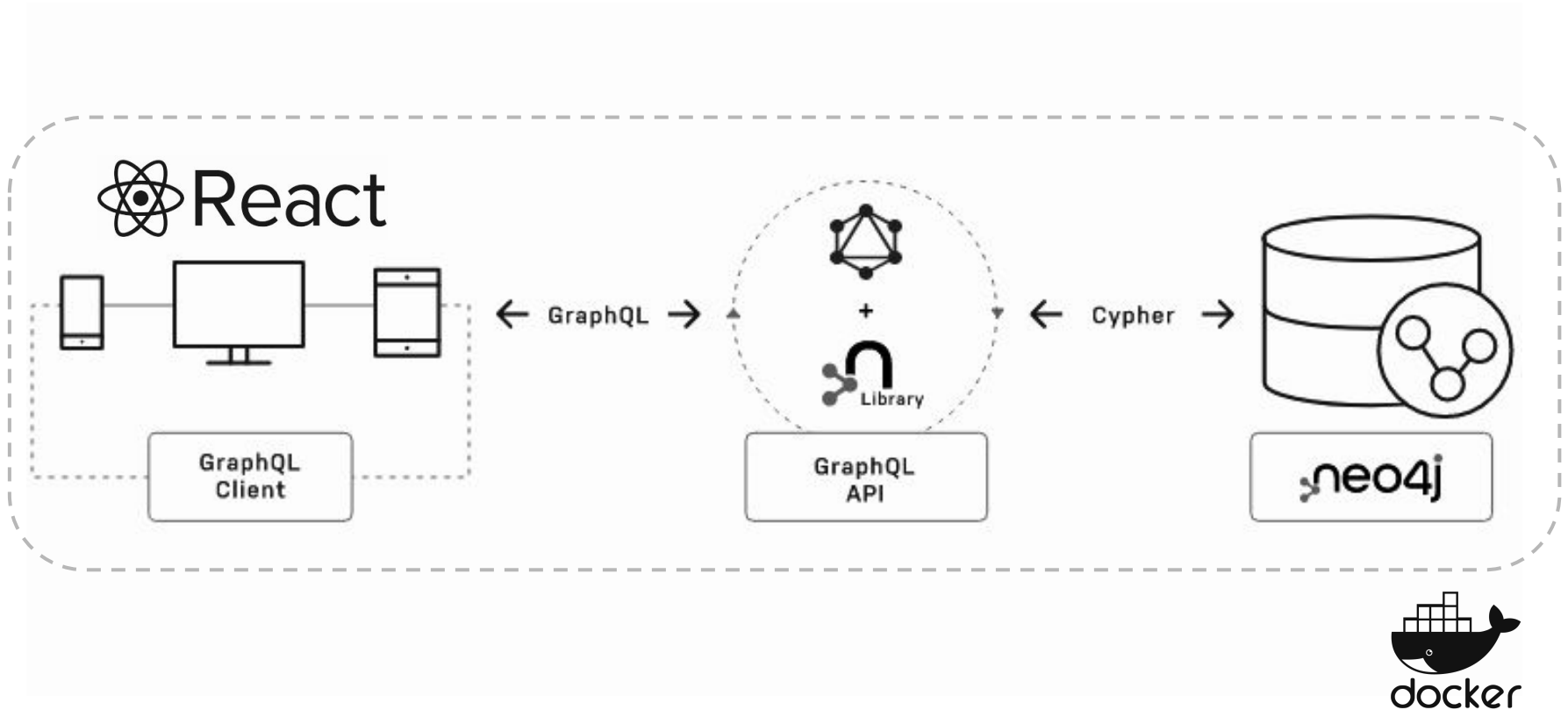
- Exploring and visualizing complex data sets

- Intuitive graph query languages



Public GraphQL API

ArtVis - Setup



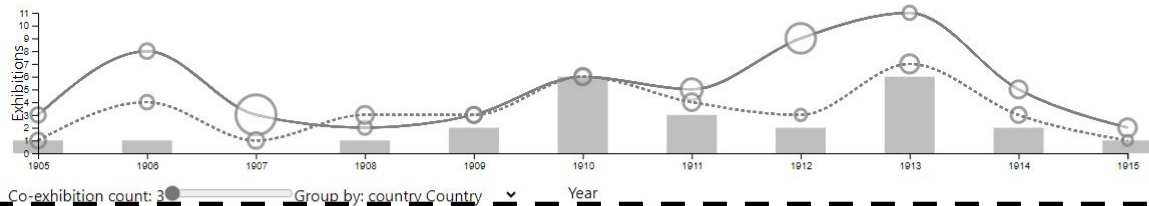
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1866 (Moscow) - 1944 (Neuilly-sur-Seine)

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Exhibitions over time



Timeline of artist(s) exhibition activity

Alexei Jawlensky (RU)

1864 (Torzhok) - 1941 (Wiesbaden)

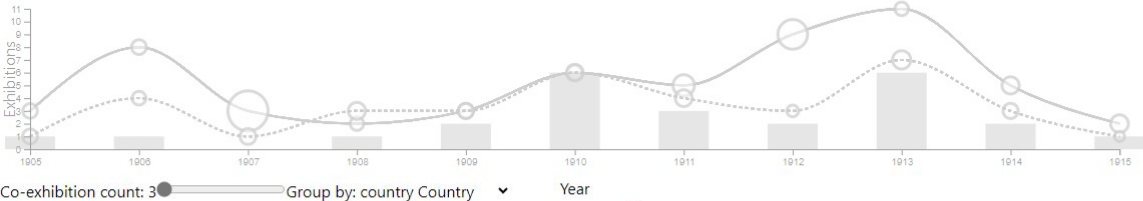
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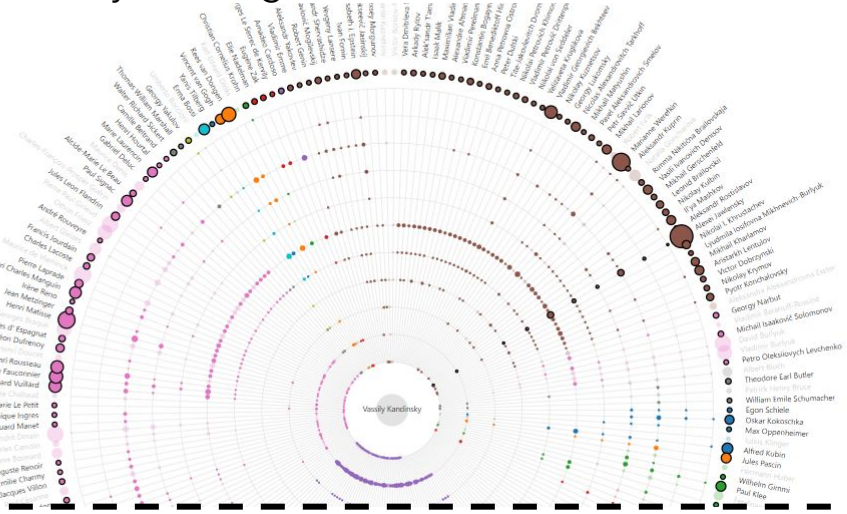


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Dynamic Ego-network of Artist

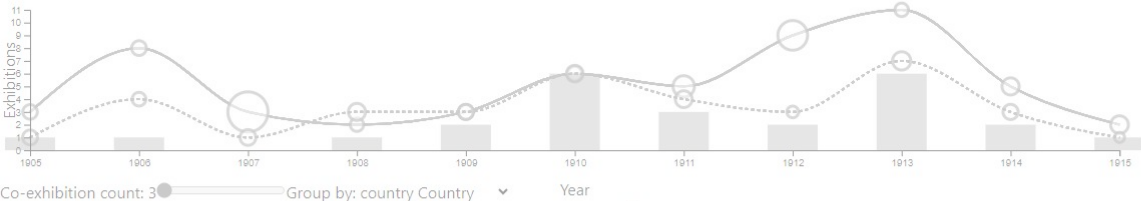


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