Navigating large graphs like a breeze with Linkurious
by Sébastien Heymann
A few words about me

I do network/graph analysis and visualization.

PhD candidate in computer science, UPMC LIP6
Co-founder of Gephi open source project - 2008
Co-founder of Linkurious SAS - 2013
Graph Visualization

1. see the network
   1st graph viz tool: Pajek (1996)
   Vladimir Batagelj, Andrej Mrvar

2. interact in real time
   Gephi prototype (2008)
   group, filter, compute metrics...

3. build a visual language
   size by rank, color by partition
   label, curved edges, thickness...
“The greatest value of a picture is when it forces us to notice what we never expected to see”

John Tukey (1962)
Why visualization?

Exploration
generate research hypotheses

Confirmation
find evidences against hypotheses or results

Serendipitous findings
get surprised by looking at data
The “beautiful-but-unreadable” issue
Global vs local approach

Card, Shneiderman
Using Vision to Think, 1999
1. Overview first,
2. Zoom and filter,
3. Details-on-demand.

Van Ham, Perer
Search, Show Context, Expand on Demand, 2009
1. Search,
2. Show Context,
3. Expand on Demand.
Global vs local approach

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*Linkurious solves this problem:*
How to easily store, search and visualize your graphs using Neo4j graph database and a web browser?

*We help:*
data analysts, R&D teams, developers and business people
<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Past Experience</th>
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<tbody>
<tr>
<td>Jean</td>
<td>CMO</td>
<td>Consulting industry</td>
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<tr>
<td></td>
<td></td>
<td>Master: Political Science / Competitive Intelligence</td>
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<tr>
<td>Sébastien</td>
<td>CEO</td>
<td>Gephi co-founder</td>
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<tr>
<td>Romain</td>
<td>CTO</td>
<td>Master: Computer Science / Machine Learning</td>
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<tr>
<td></td>
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<td>PhD: Computer Science / Complex Networks</td>
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30k nodes, 460k relationships

Everything published in Elsevier Scopus & ISI WoS for the search term "project management" in 2012

Multipartite, multiplex graph of publications, authors and stemmed abstract words (using Sci2 tool)

Work in progress with Julien Pollack & Daniel Adler, University of Technology Sydney, project Mapping the Field of Project Management.

Who writes with whom, and about what: a scientometric analysis of project management research, IRNOP 2013, Oslo
Linkurious SAS: French company, 3 guys, +60 customers (startups, big companies, researchers, developers)

Product development driven by user feedback

Main value proposition

navigate in graph data easily

How we can help you:
- research & development partnership
- setting up graph data portals on the Web
More info and live demo at http://linkurio.us

contact@linkurio.us
Linkurious technology

- Full HTML5
- All modern browsers
- 500 nodes at a time

- Scale to millions of nodes, relationships and properties
- Seamless connection to Neo4j
- Installed in a click
- Windows, Mac OS, Linux