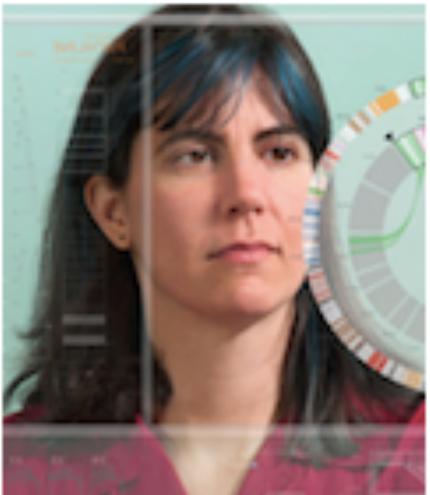


the **future** of **data** and **design** ...  
... in **visualization research**

@mattbrehmer  
May 19 2015

## MEMBERS



Tamara Munzner



Michelle Borkin



Matthew Brehmer



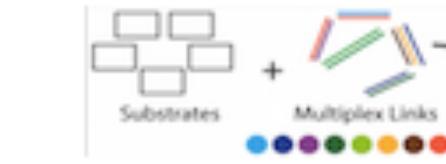
Johanna Fulda

## RECENT NEWS

5/02/2015 [PAPER]:

[Detangler: Visual Analytics for Multiplex Networks](#)

by Benjamin Renoust (National Institute of Informatics, Tokyo, Japan), Guy Melançon (Université de Bordeaux), and Tamara Munzner was accepted to *EuroVis 2015*, May 25-29 in Cagliari, Italy.



Benjamin will present this paper in the [Graphs](#) session on Thursday, May 28 at 11am.

[[pre-print pdf](#)]

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2/23/2015 [SOFTWARE]:

[TimeLineCurator](#)

We released a browser-based visualization tool for curating timelines generated from freeform text. Try it out and let us know what you think!



[[web application](#)]

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2/19-20/2015 [TALK]:

Book tour talks: Tableau, Microsoft Research, giCentre

Tamara Munzner spoke on [Visualization Analysis and Design](#) at Tableau Software 2/20, and Microsoft Research 2/19. Her seminar at City University London's [giCentre](#) was on Feb 3.



[[slides](#)]

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12/22/2014 [PODCAST]:

Data Stories #44: w/ Tamara Munzner

Enrico Bertini and Moritz Stefaner interview Tamara Munzner in their bi-weekly podcast on data visualization.



[[episode](#)]

**cs.ubc.ca/group/infovis**

research papers  
talk slides  
demo videos  
open source software  
vis design resources

what is **visualization research**?

technique-driven  $\leftrightarrow$  problem-driven

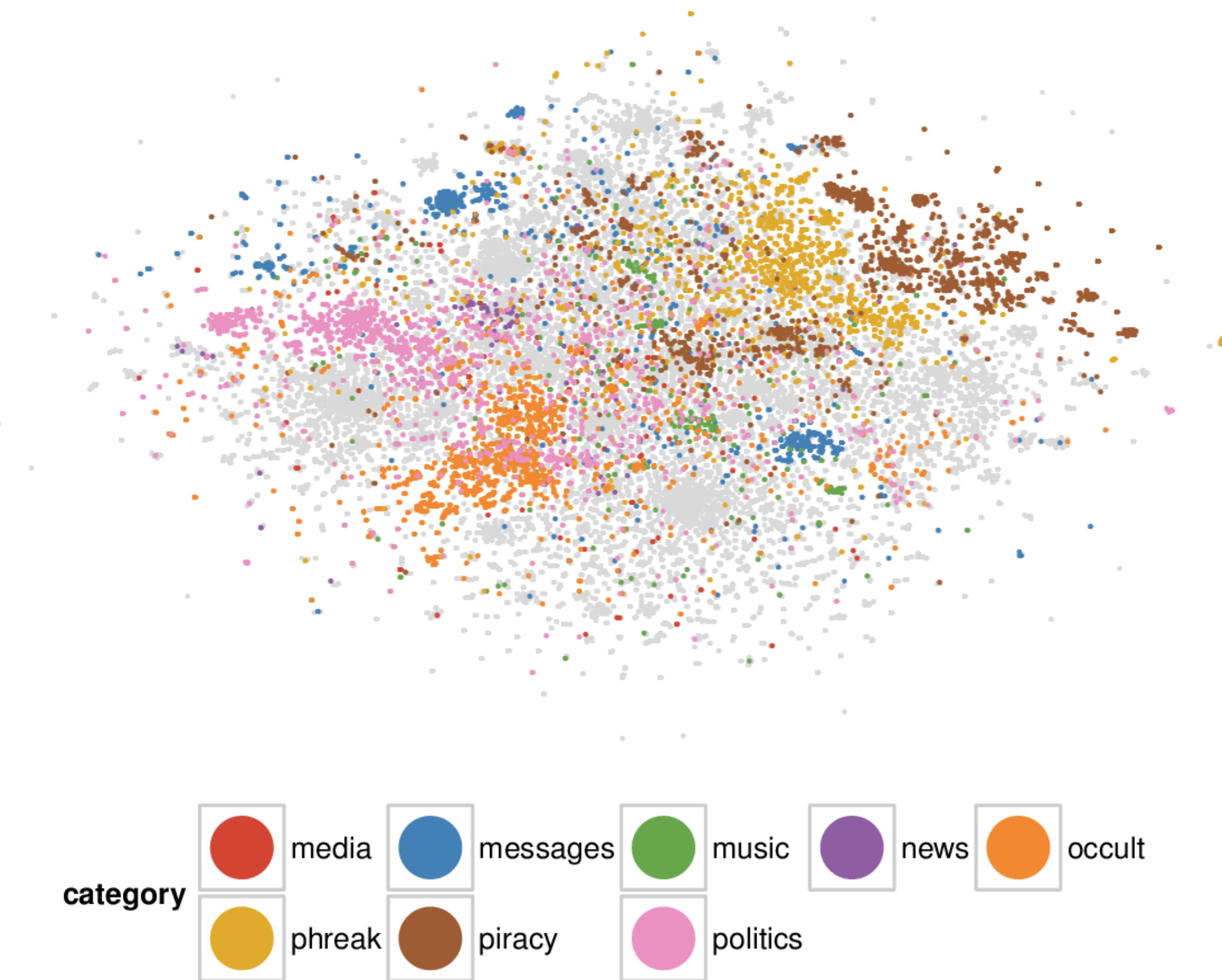
what is visualization research?

**technique-driven** <→ problem-driven

# technique-driven

developing  
techniques & algorithms

example:  
visualizing large  
document collections



Dimensionality reduction for documents with nearest neighbor queries.  
Ingram & Munzner. In J. Neurocomputing (2014)

# technique-driven

perceptual studies

example:  
graph readability  
metrics



A search-set model of path tracing in graphs.  
Dawson, McGrenere, & Munzner. In J. Information Visualization (in press)

what is visualization research?

technique-driven  $\leftrightarrow$  **problem-driven**

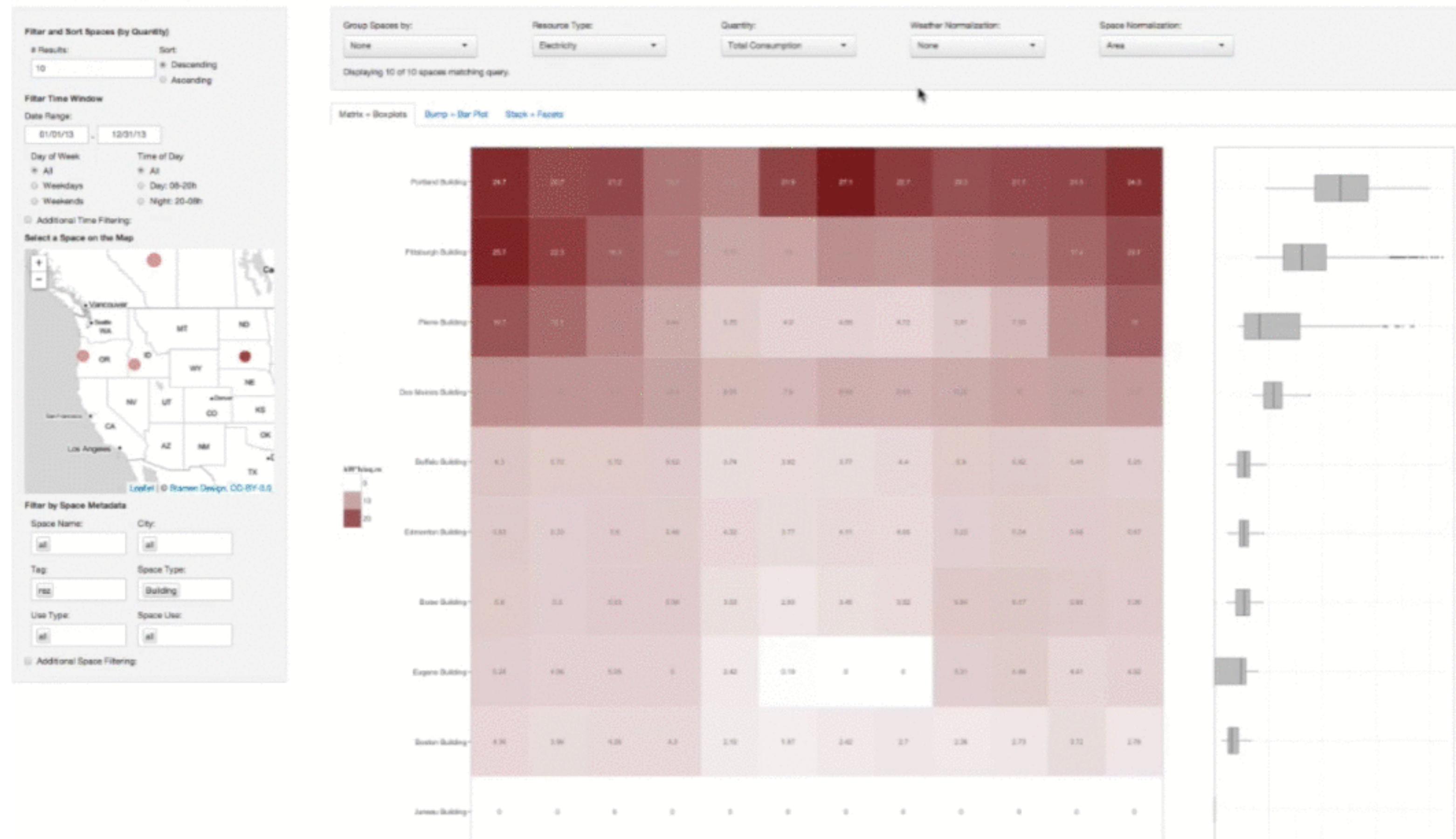
# problem-driven

external collaborations

real data, real use cases

example:  
energy portfolios analysis

## Portfolio Visualization Sandbox



Matches, mismatches & methods: Multiple-view workflows for energy portfolio analysis.  
Brehmer, Ng, Tate, & Munzner. (in review)

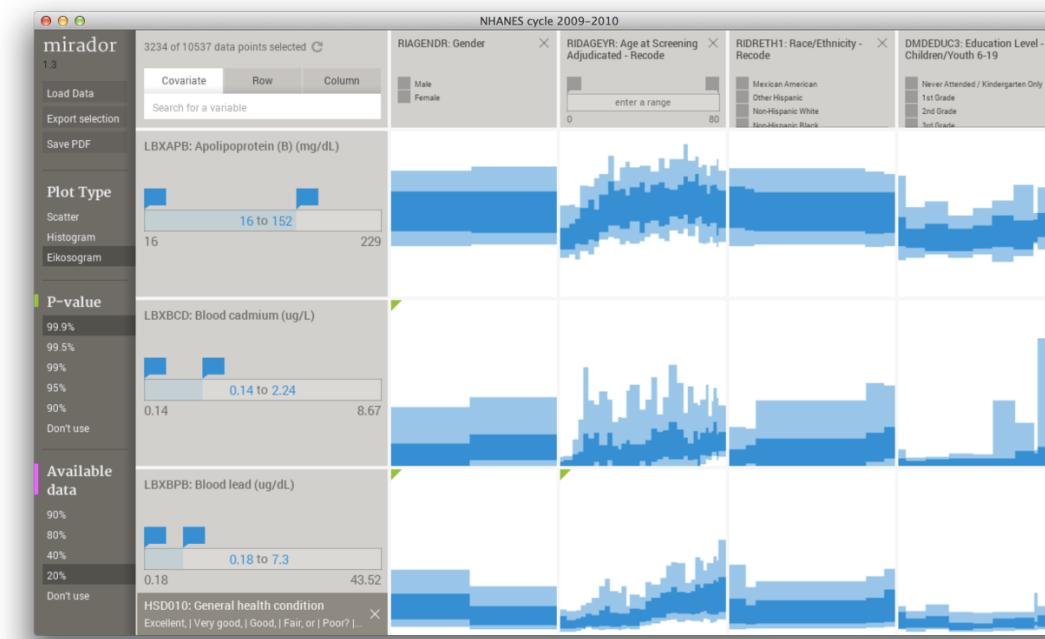
current trends & the future of  
**visualization research**

lowering the bar

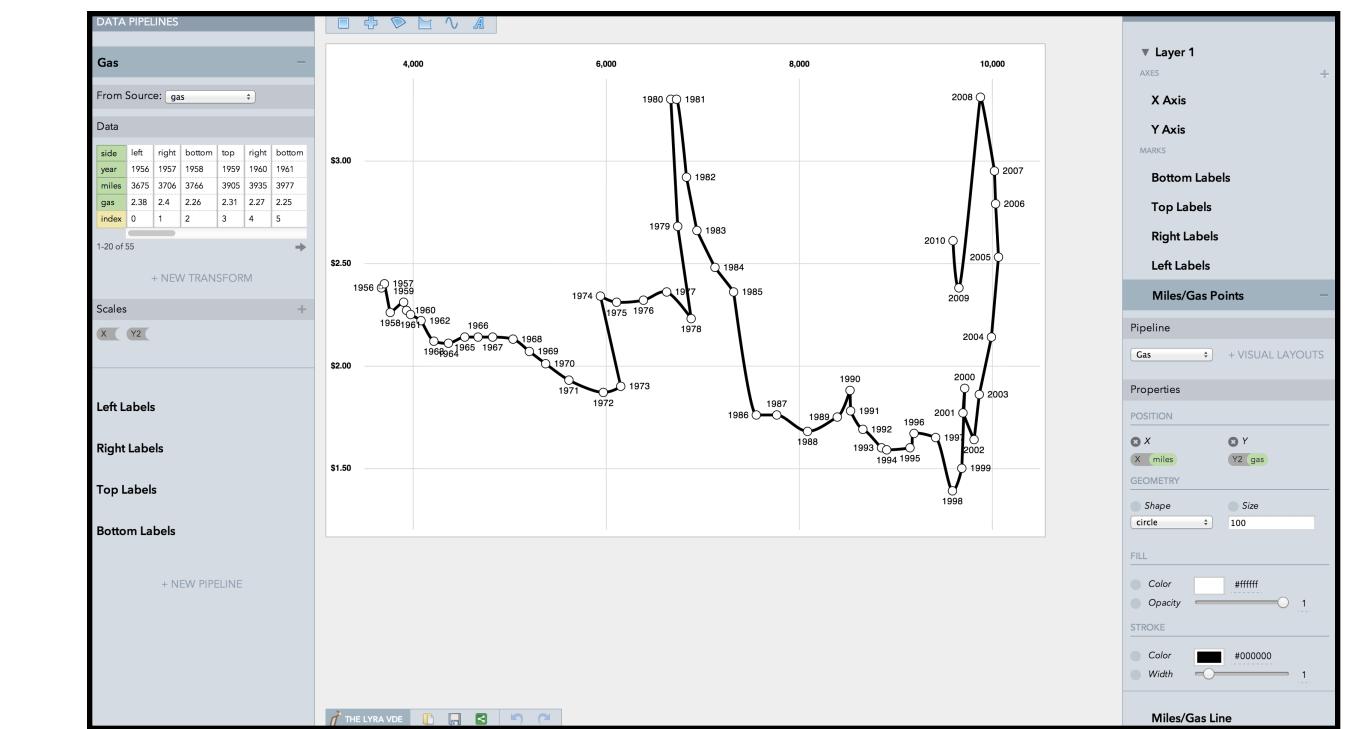


 **tableau**  
S O F T W A R E

[tableau.com](http://tableau.com)



Mirador  
by Fathom  
[fathom.info/mirador](http://fathom.info/mirador)

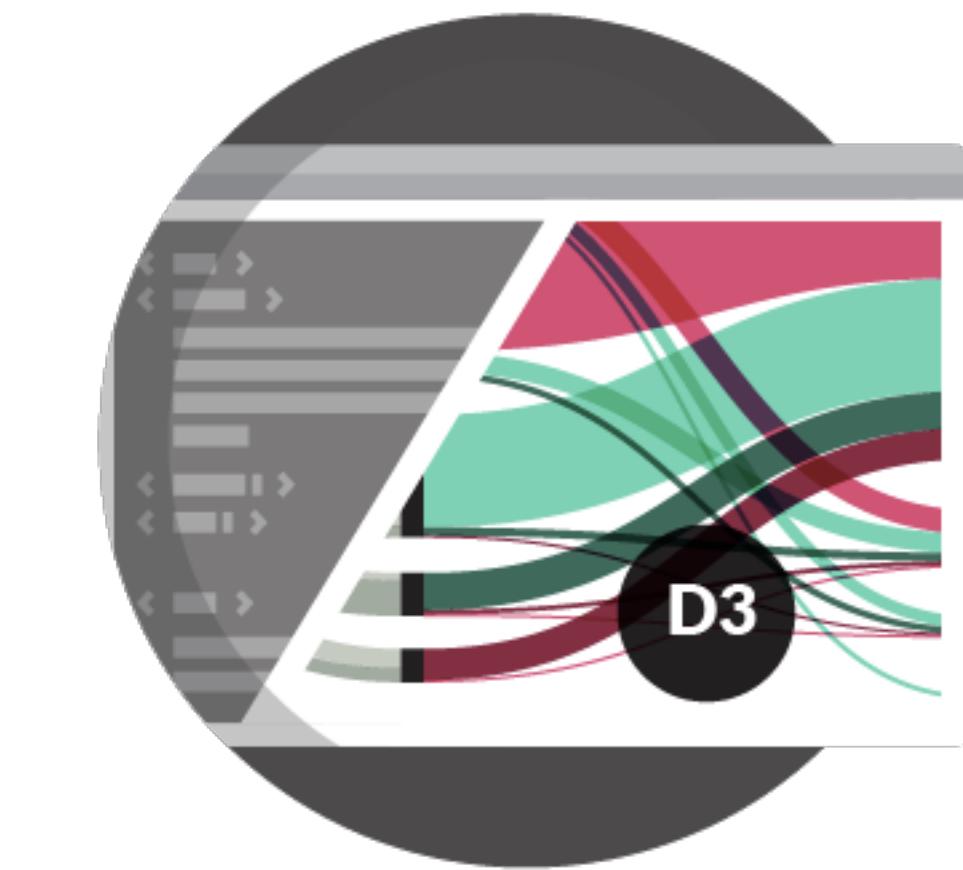


Lyra  
by U. Washington IDL  
[idl.cs.washington.edu/projects/lyra](http://idl.cs.washington.edu/projects/lyra)



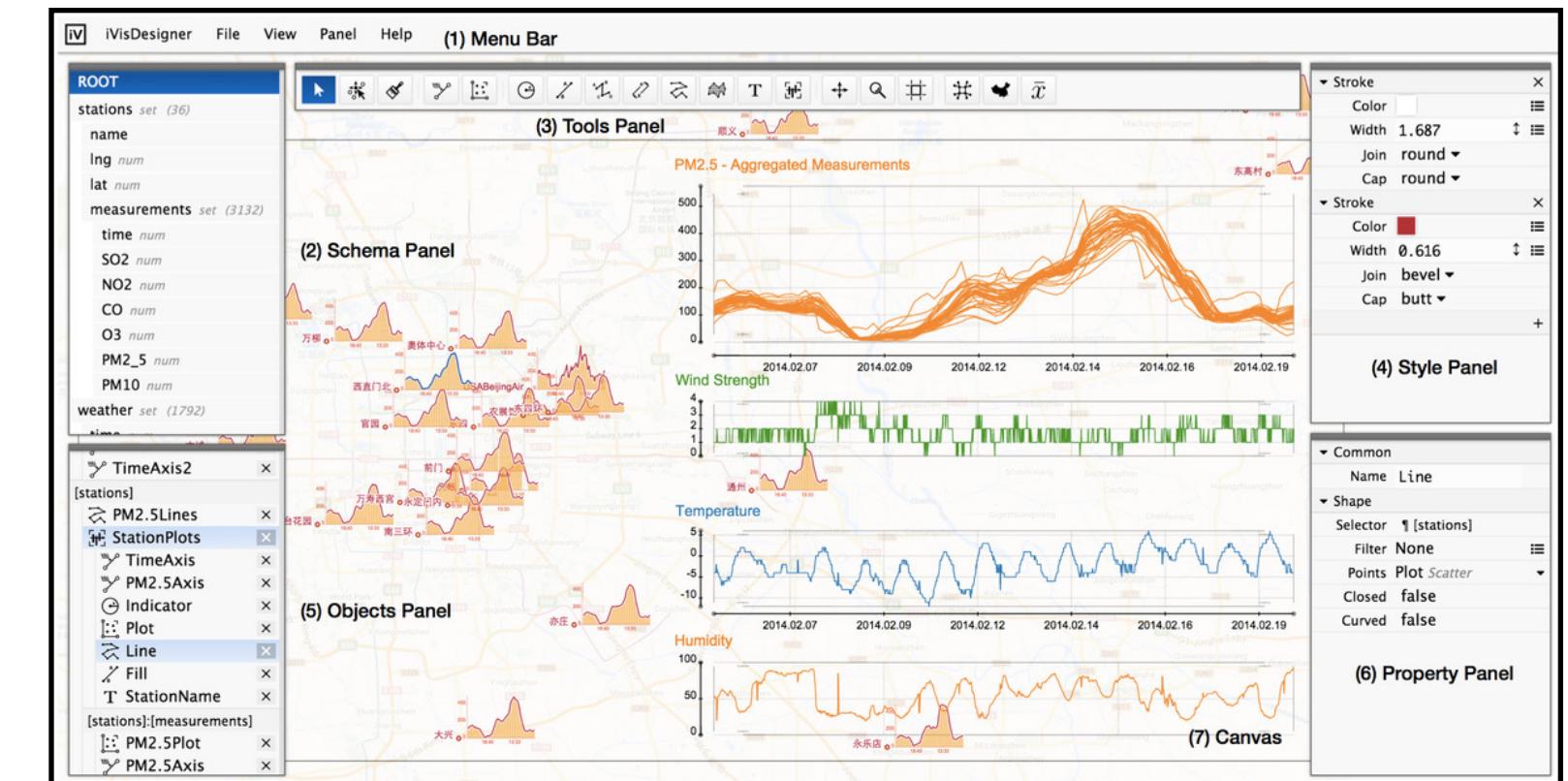
**Shiny**  
by RStudio  
A web application framework for R  
Turn your analyses into interactive web applications  
No HTML, CSS, or JavaScript knowledge required

[shiny.rstudio.com](http://shiny.rstudio.com)

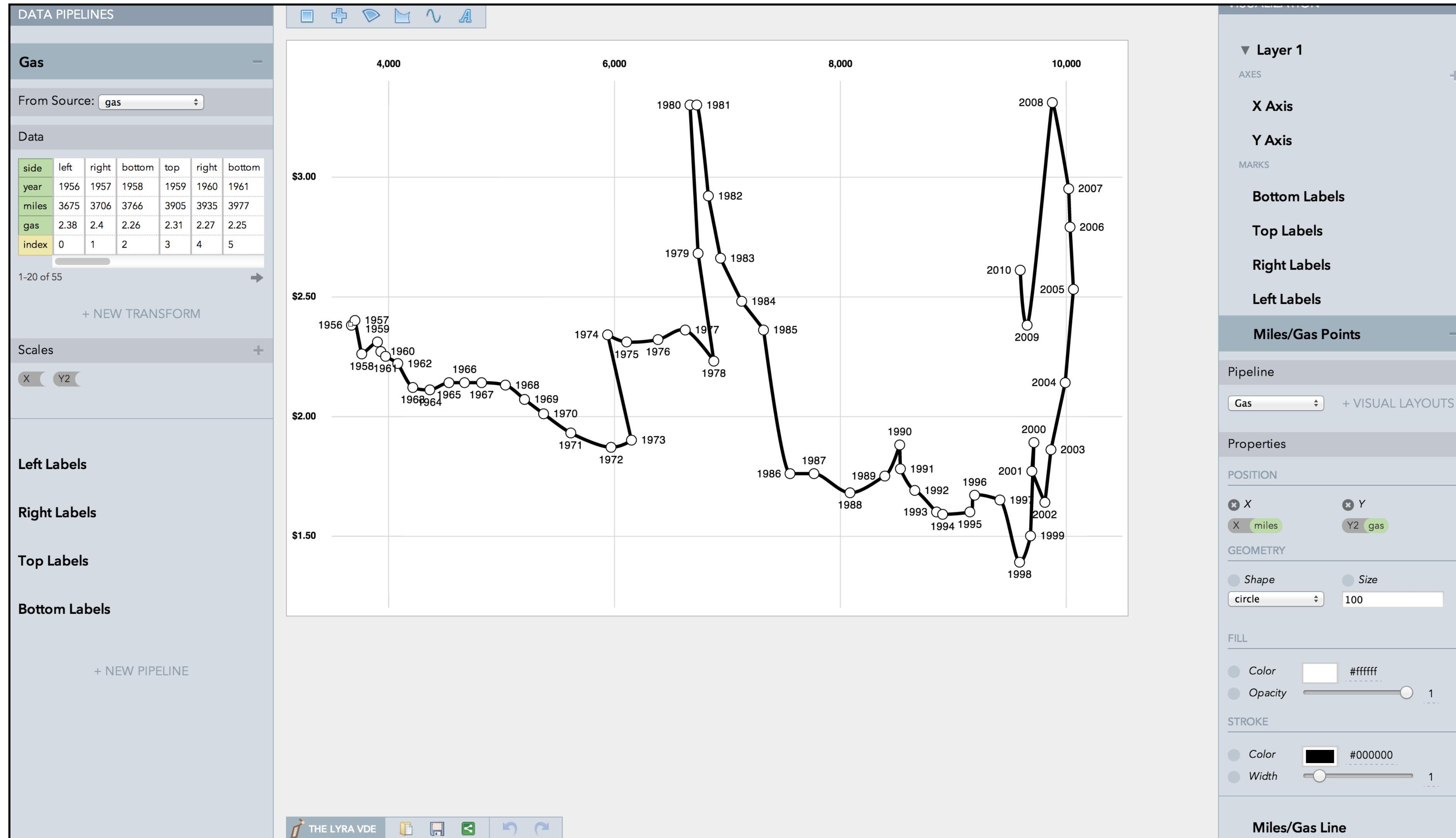


The missing link between spreadsheets  
and vector graphics.

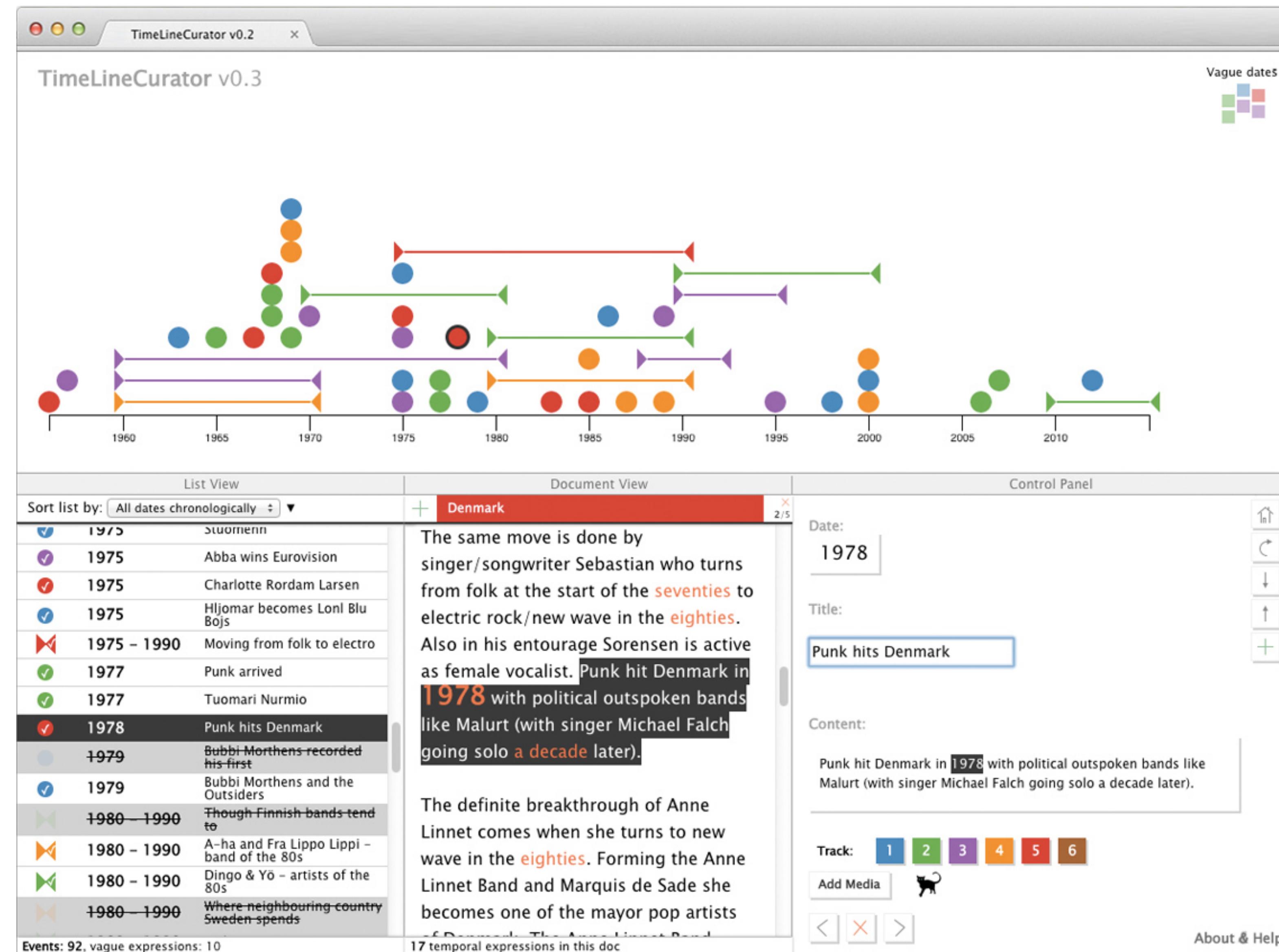
[raw.densitydesign.org](http://raw.densitydesign.org)



iVisDesigner  
by Ren, Hollerer, & Yuan  
[donghaoren.org/ivisdesigner](http://donghaoren.org/ivisdesigner)



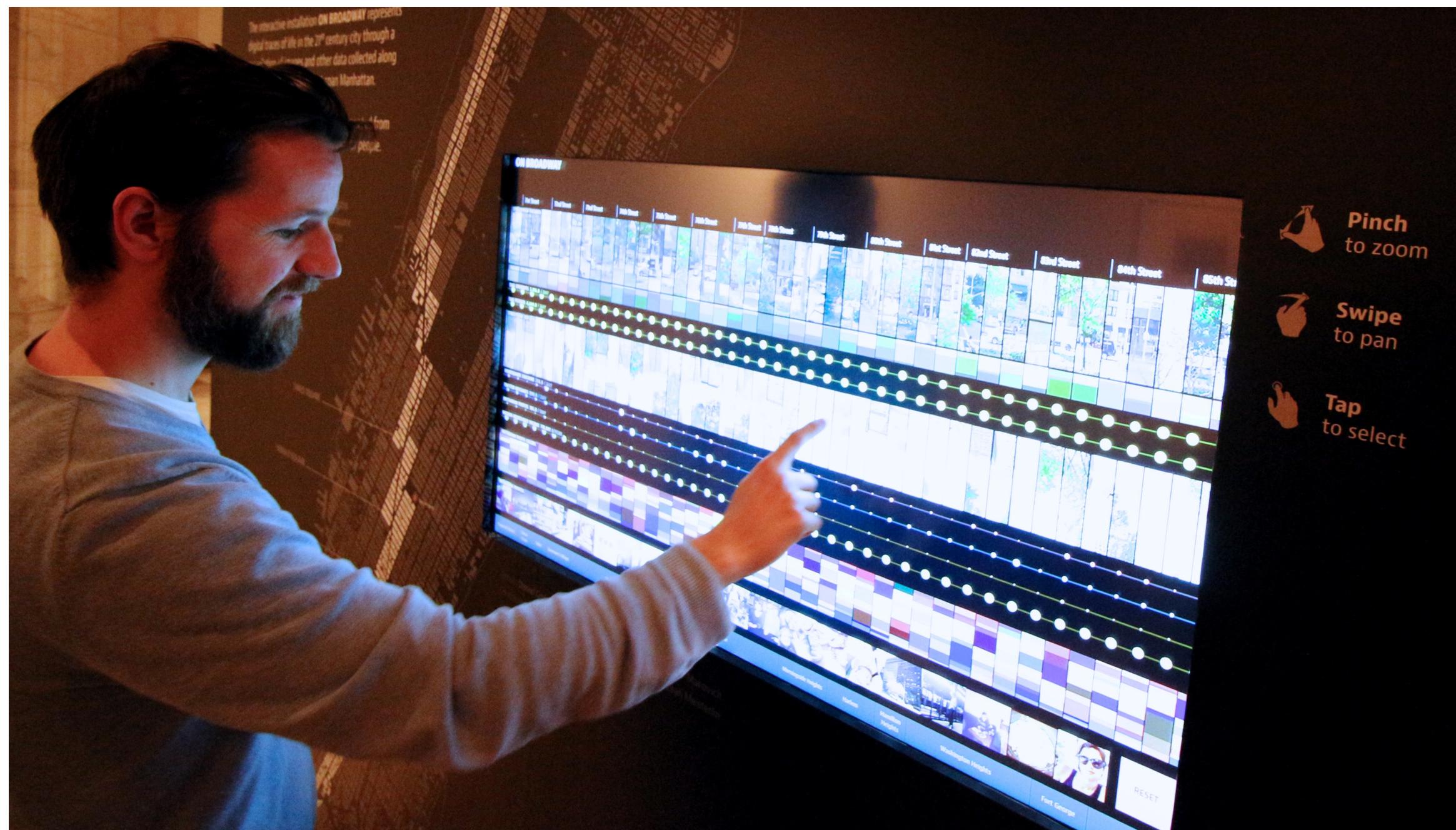
**Lyra** by Arvind Satyanarayan & Jeff Heer (2014)  
[idl.cs.washington.edu/projects/lyra](http://idl.cs.washington.edu/projects/lyra)  
 see also Jeff's talk at [openvisconf.com](http://openvisconf.com)



**TimeLineCurator** by Johanna Fulda, Matt Brehmer, & Tamara Munzner (2015)  
[cs.ubc.ca/group/infovis/software/TimeLineCurator](http://cs.ubc.ca/group/infovis/software/TimeLineCurator)

visualization  
beyond the desktop

# visualization beyond the desktop



"On Broadway" (2015)  
Goddemeyer et al  
[on-broadway.nyc](http://on-broadway.nyc)

Also see: "Death of the Desktop Workshop" at  
IEEE VIS 2014: [beyond.wallviz.dk](http://beyond.wallviz.dk)



Jansen et al (CHI '12)  
[aviz.fr/trc](http://aviz.fr/trc)

visualization literacy &  
data journalism

# visualization literacy & data journalism



visuals  
team



the **future** of **data** and **design** ...  
... in **visualization research**

@mattbrehmer  
May 19 2015