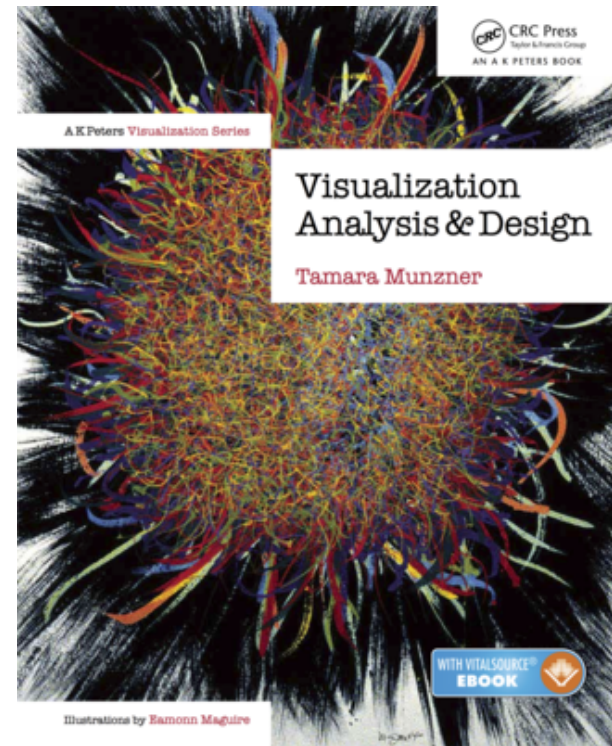


InfoVis Group Intro



Tamara Munzner

Department of Computer Science
University of British Columbia

*Grad Orientation CS Idol
5 Sep 2023*

<http://www.cs.ubc.ca/~tmm/talks.html#gradOrient23>



@tamaramunzner

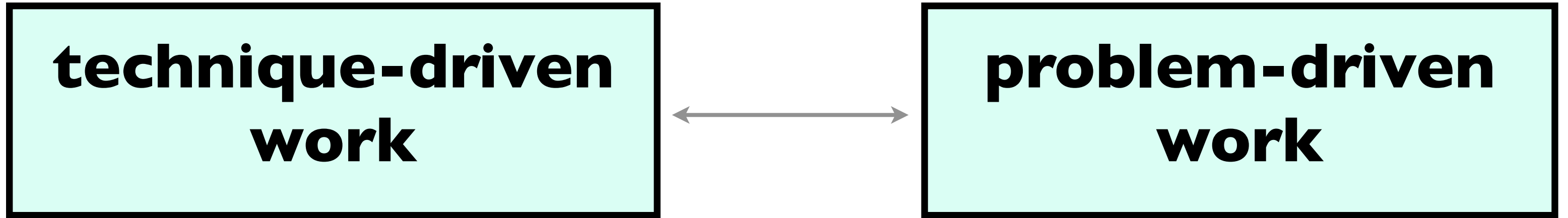
@tamara@vis.social

Angles of attack

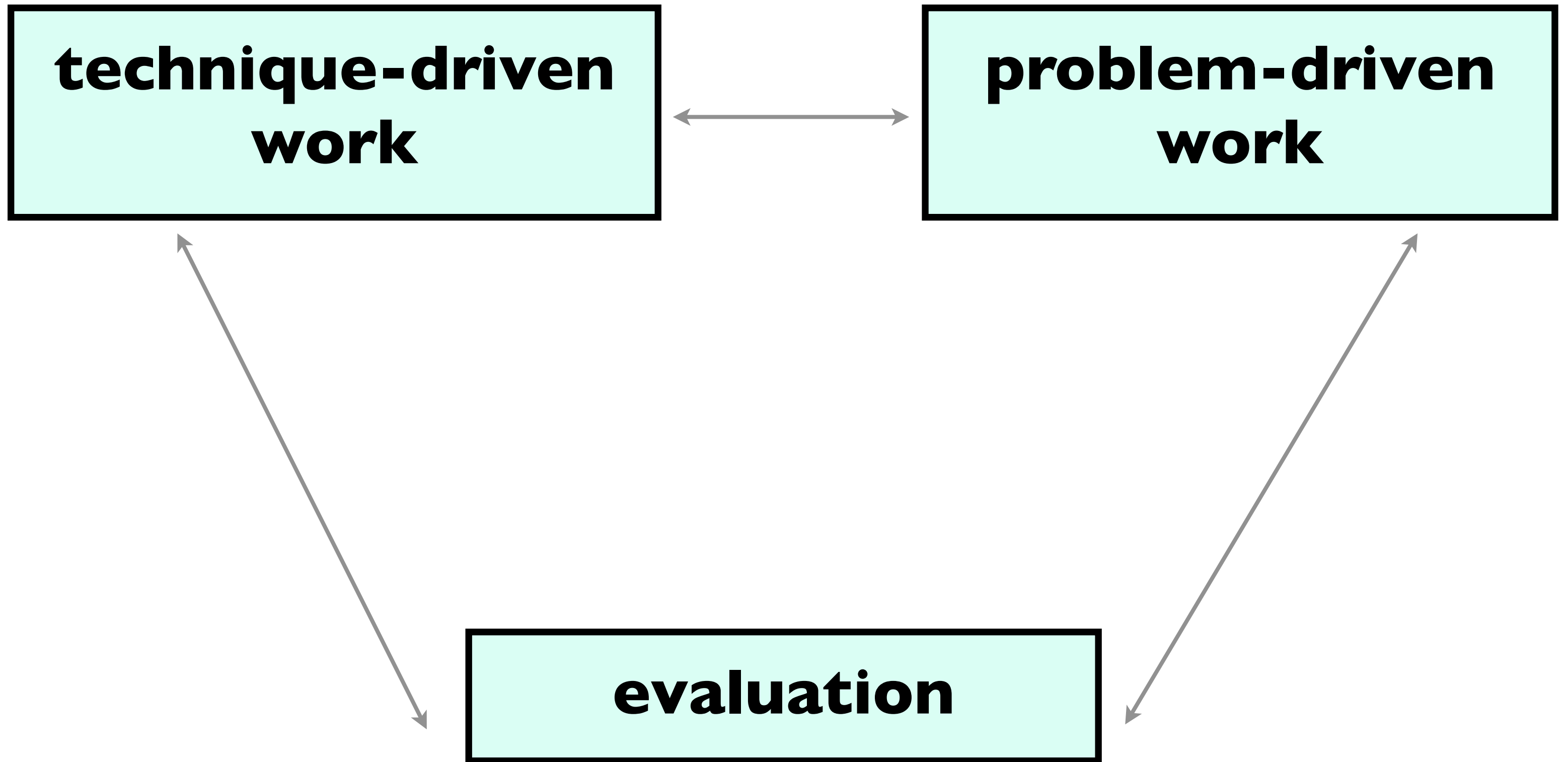
Angles of attack

**technique-driven
work**

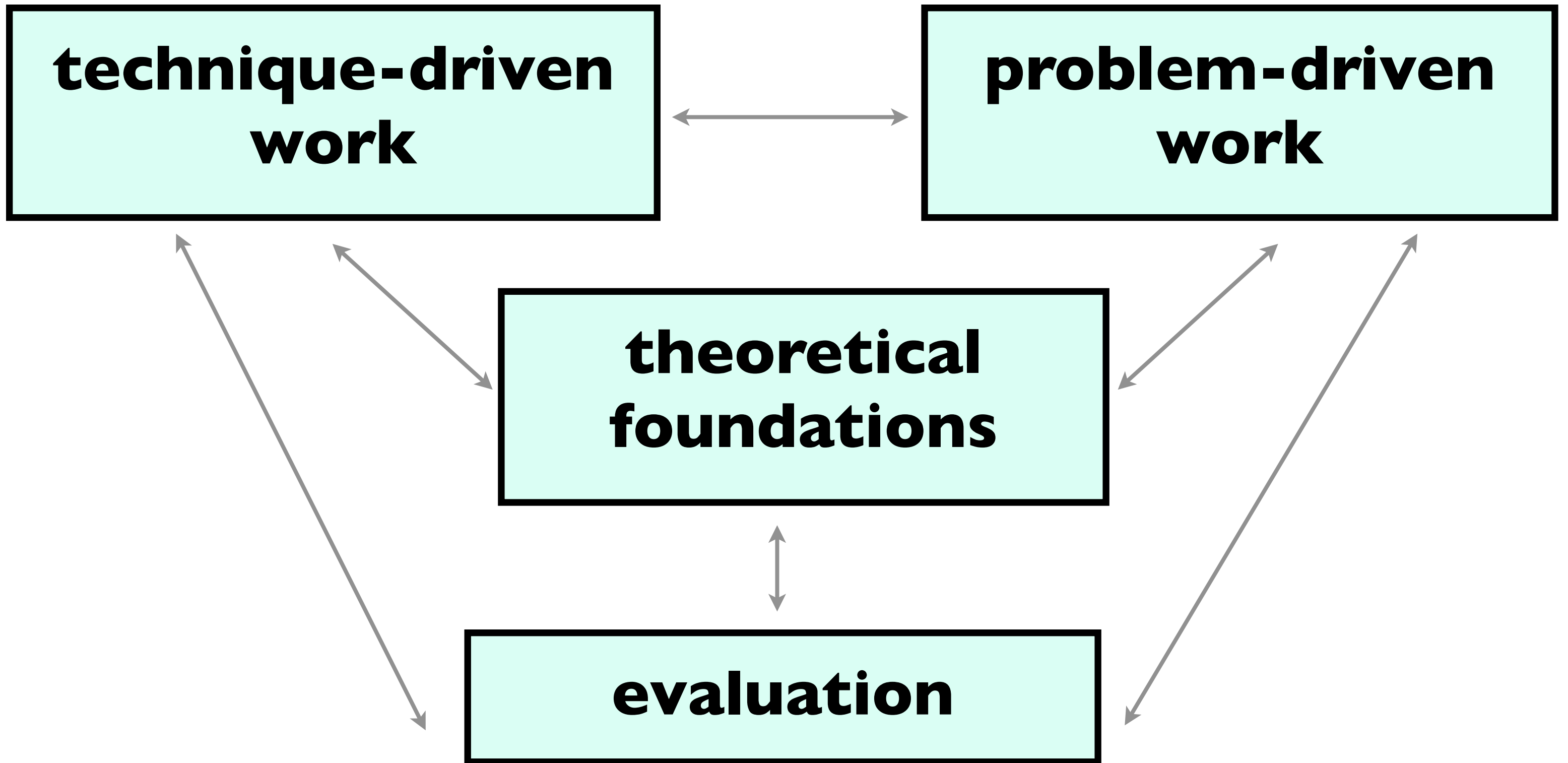
Angles of attack



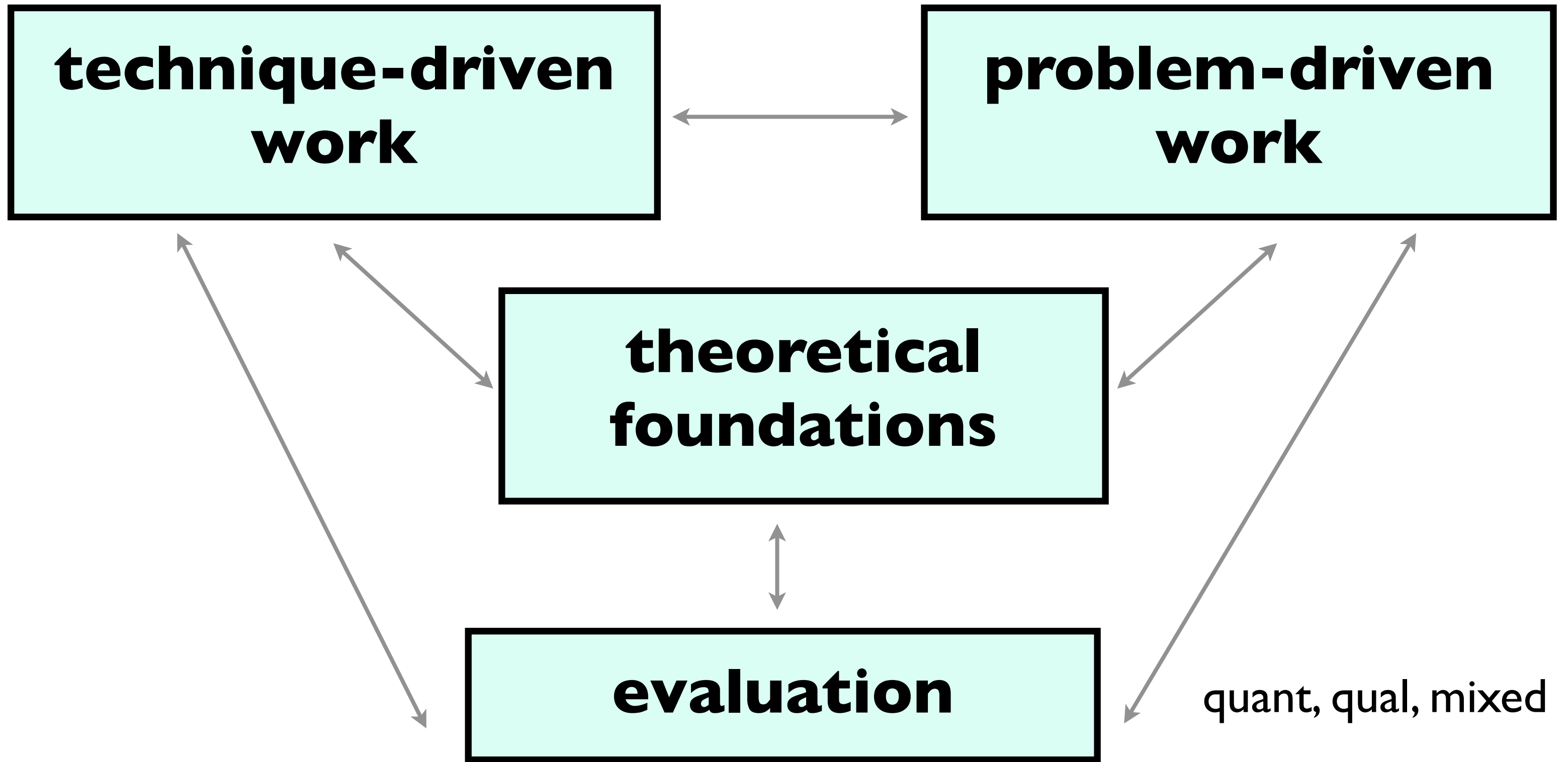
Angles of attack



Angles of attack



Angles of attack



Technique-driven: Graph/tree drawing

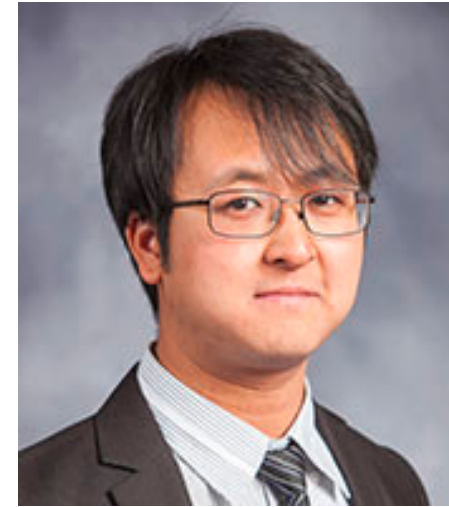
T
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- graph layouts
- graph metrics
- current:
 - Spinospectrum visual encoding & data abstractions (Matt Oddo)

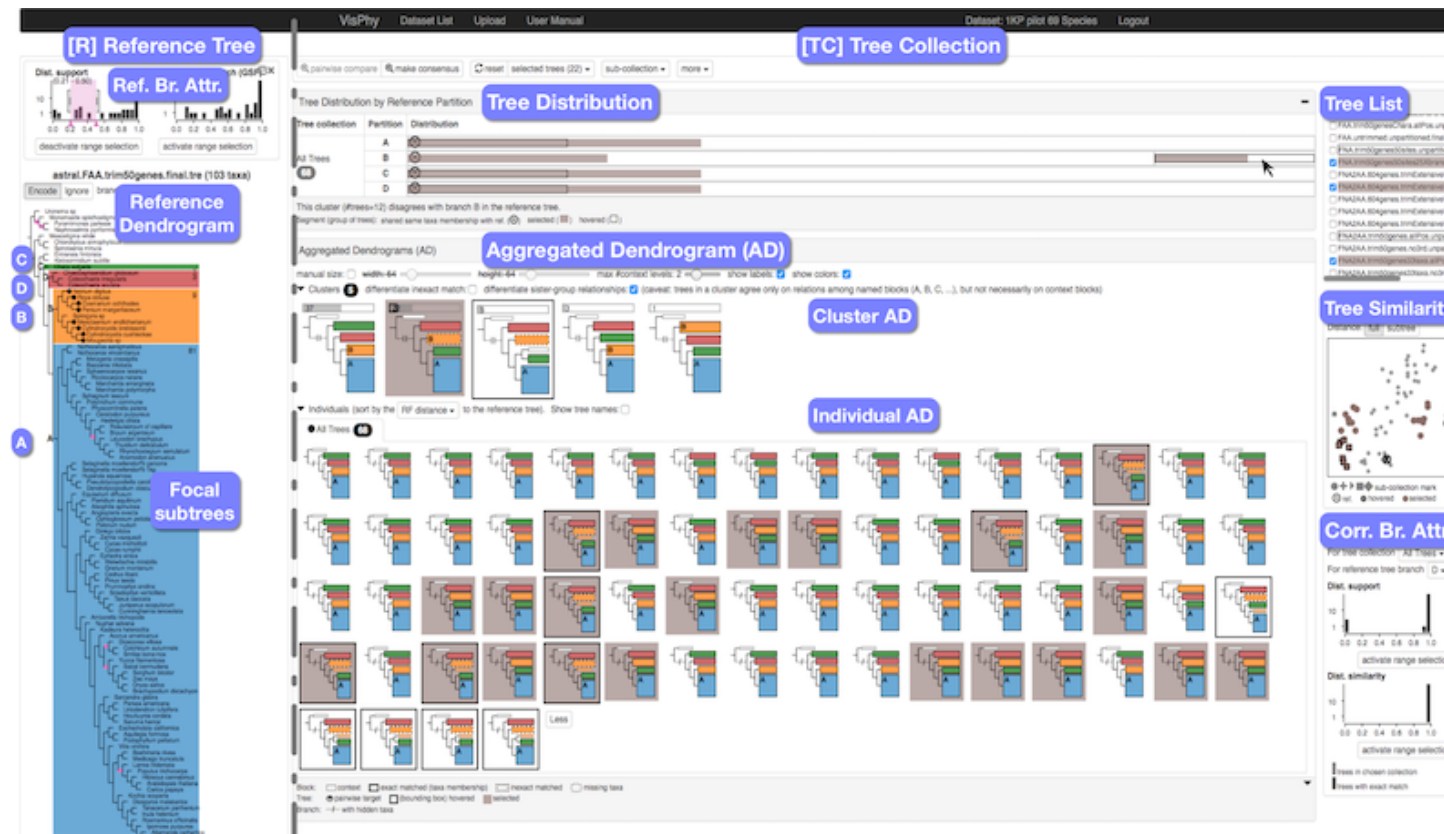
Zipeng Liu



Shing Hei Zhan



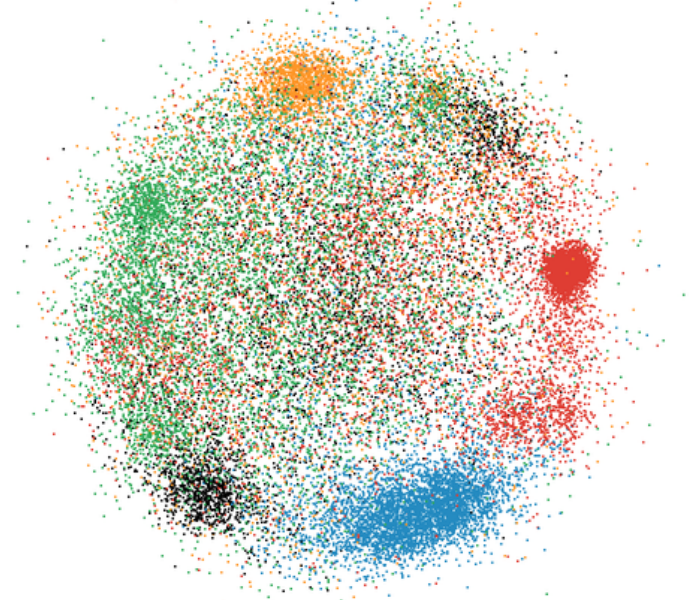
Aggregated Dendrograms
<https://youtu.be/2SLcz7KNLJw>



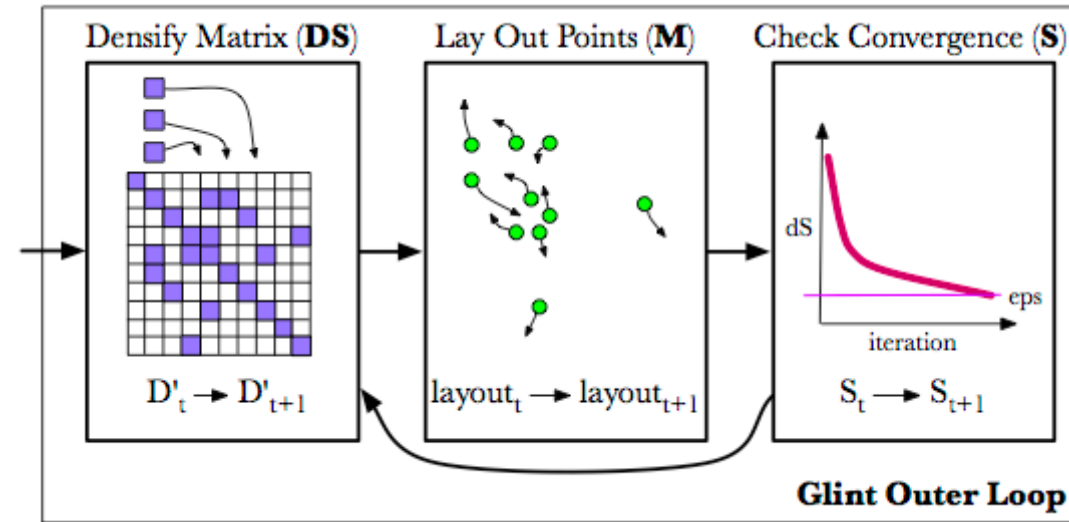
Technique-driven: Dimensionality reduction

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Stephen Ingram



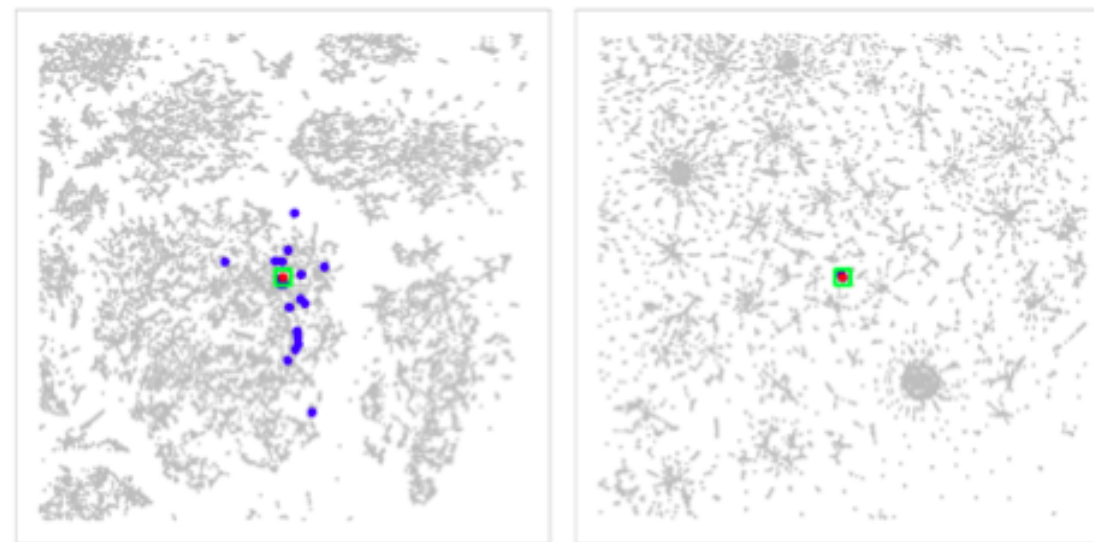
Glimmer



Glint



DimStiller

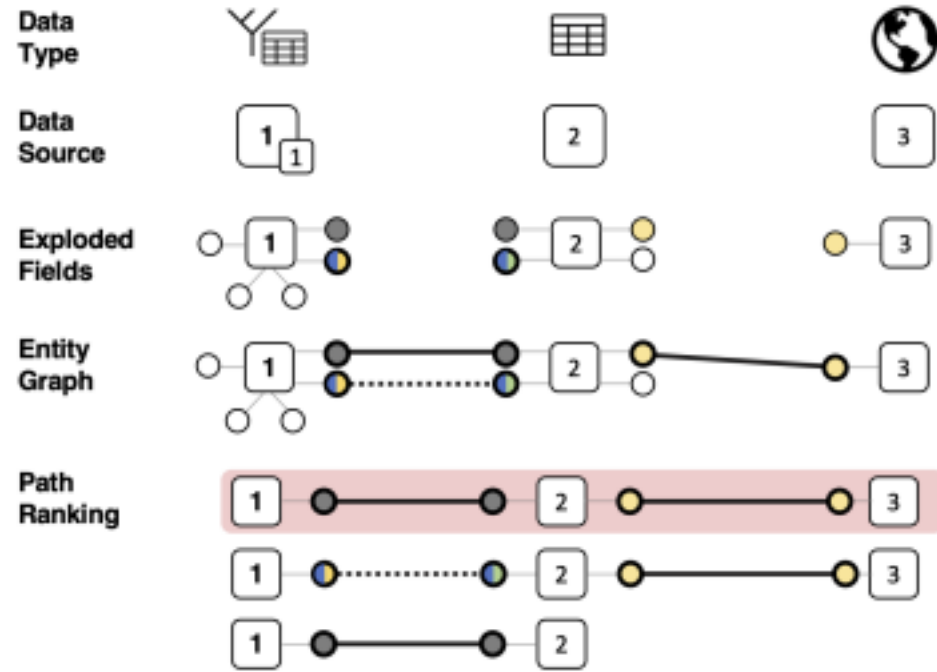


QSNE

Technique-driven: Recommenders

T F E P

Anamaria Crisan



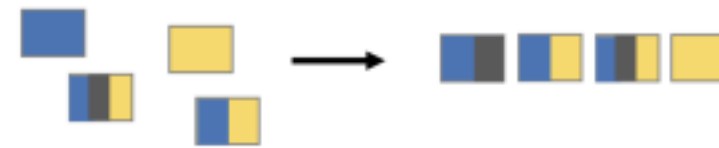
Singleton Specification

```
chart_spec("phylogenetic tree",
  data = DS_1,
  metadata = DS_1_Tab,
  color = var_A)
```

```
chart_spec("geographic map",
  data = DS_3,
  color = var_A)
```

GEViTRec

Align & Combine



Arrange & Render



Acquire

View

Assess

Pursue

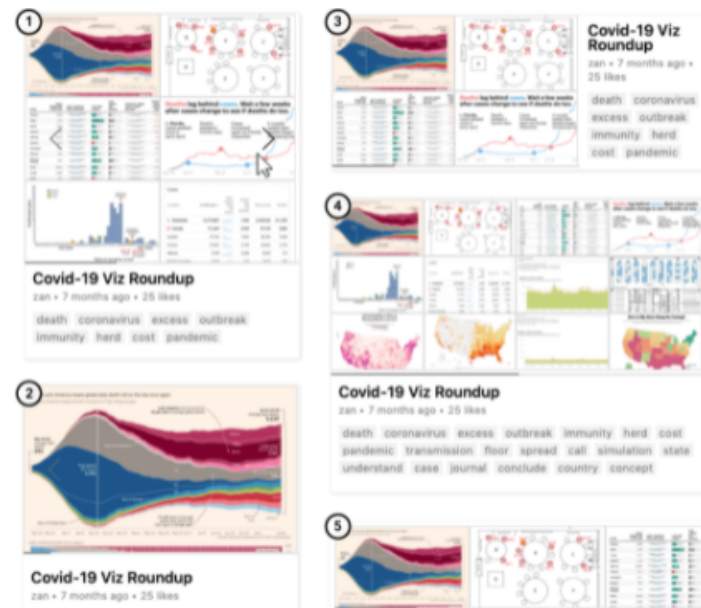
Data Recon



Michael Oppermann



Robert Kincaid (Tableau)



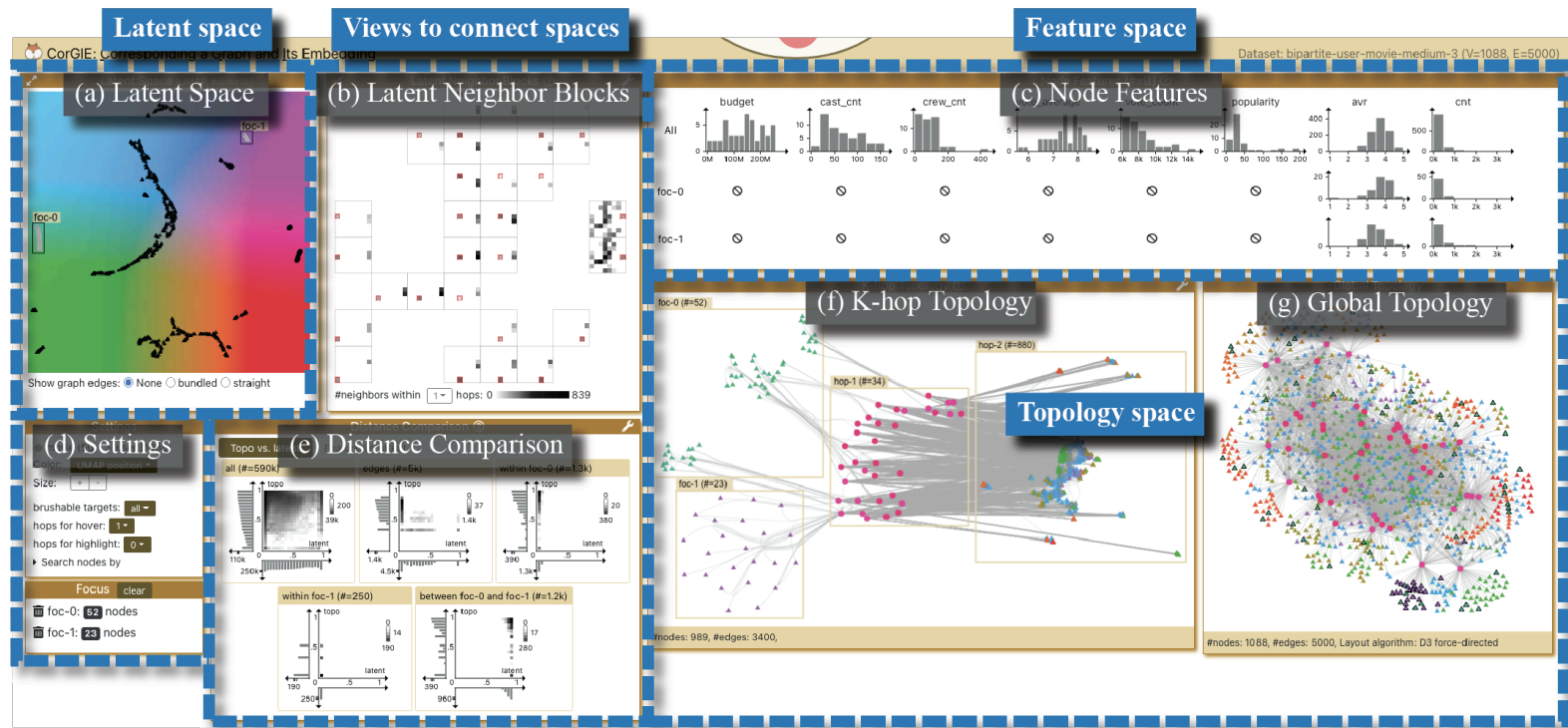
<https://youtu.be/SRAWFr4tBjA>

<https://youtu.be/7-7v4m-1bVY>

VizCommender
VizSnippets

Curation of ML output

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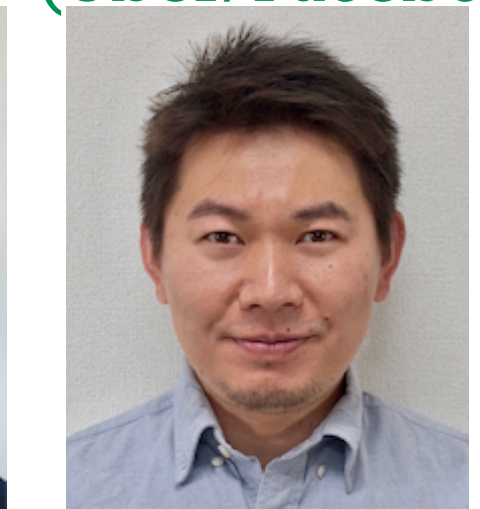
Zipeng Liu



Jürgen Bernard



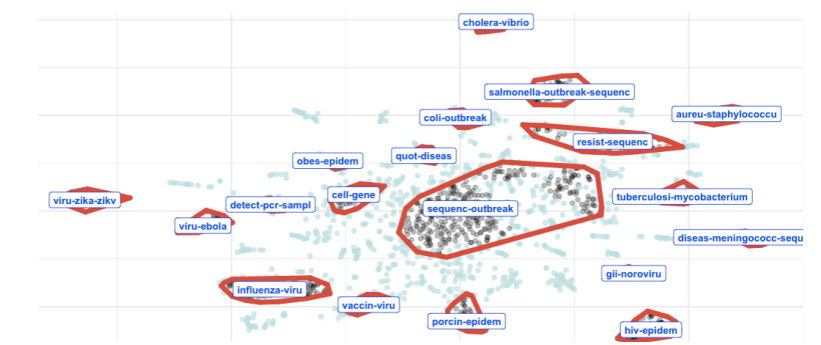
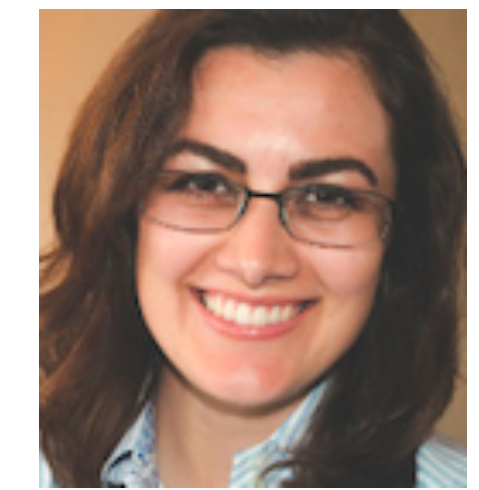
Yang Wang (Uber/Facebook)



<https://youtu.be/sQMF50aNtKI>

CorGIE

Anamaria Crisan

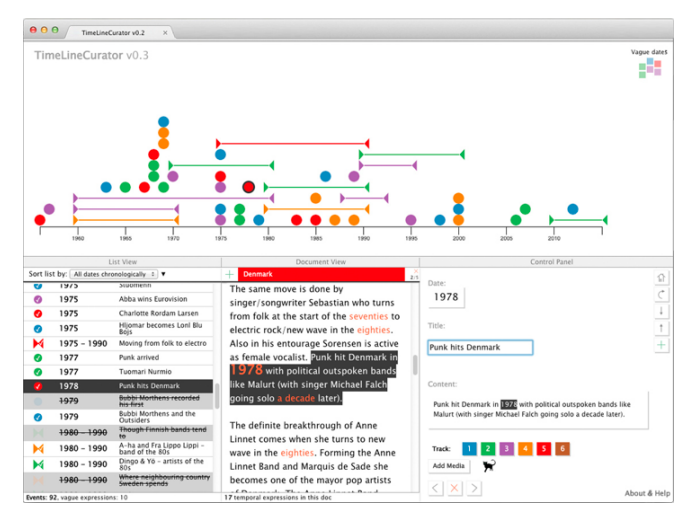


Adjutant

Matt Brehmer



Johanna Fulda



TimeLineCurator

<https://vimeo.com/123246662>

Problem-driven: design studies

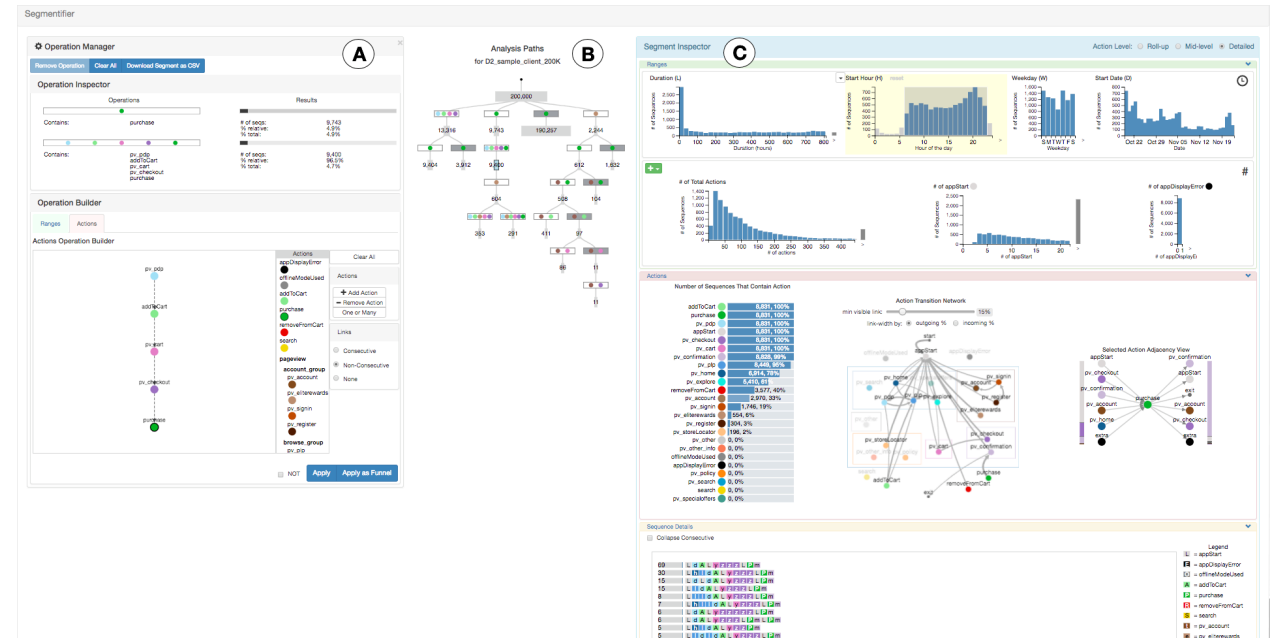
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- log & provenance data, clickstreams
 - current: prov for intrusion detection & program comprehension (Francis Nguyen)
- genomics & medicine
 - current: personal health stories (Ryan Smith)
- sustainability: energy, fisheries
- data journalism
- many others: always opportunistic!
 - current: deep time museum exhibit (Mara Solen)



Segmentifier

<https://youtu.be/TobYDFeISOq>



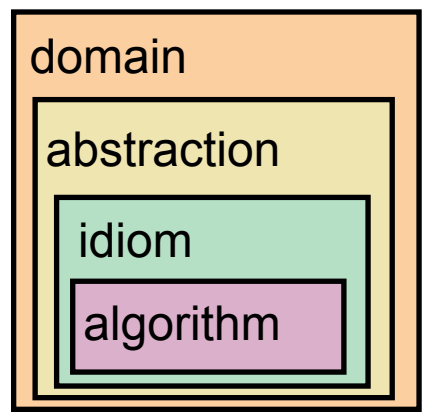
Kimberly Dextras-Romagnino

Theoretical foundations: Models & methods

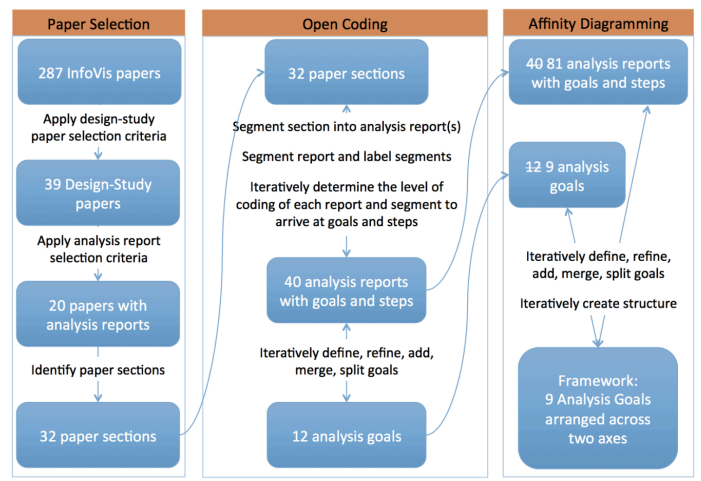
T F E P

- Strategy Pitfalls
- What I Did Over My Summer
- Least Publishable Unit
- Dense As Plutonium
- Bad Slice and Dice

Papers Process & Pitfalls



Nested Model

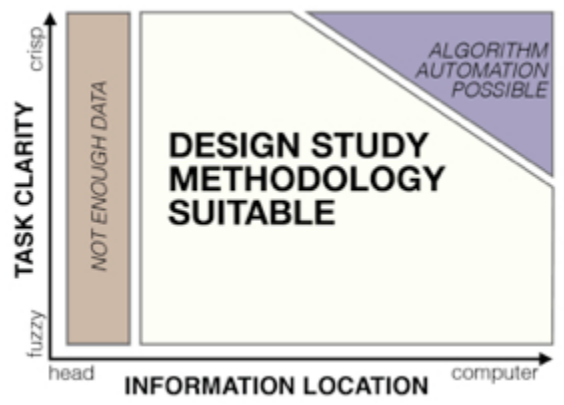


Goals2Tasks

Heidi Lam (Tableau)



Melanie Tory (Tableau)



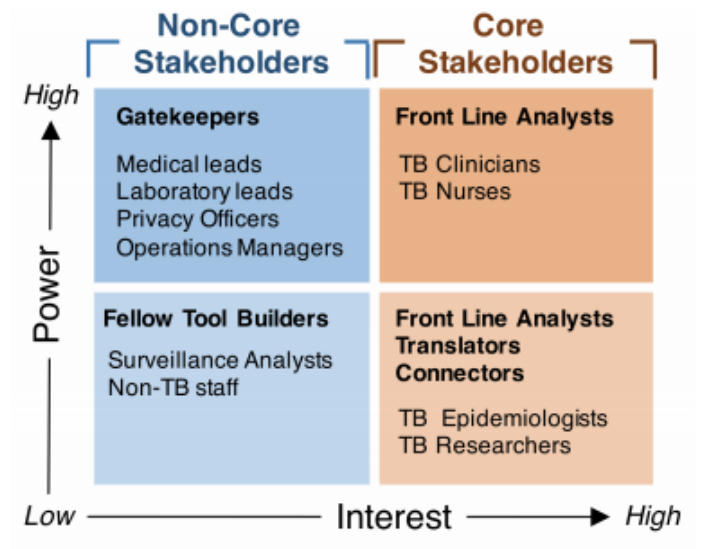
Design Study Methodology



Michael Sedlmair

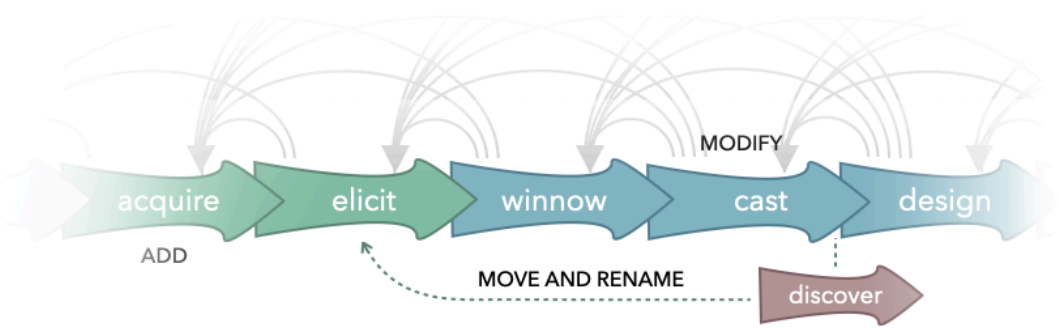


Miriah Meyer



Regulatory & Organizational Constraints

Anamaria Crisan



Data-First Design Studies



Michael Oppermann

Theoretical foundations: Typologies

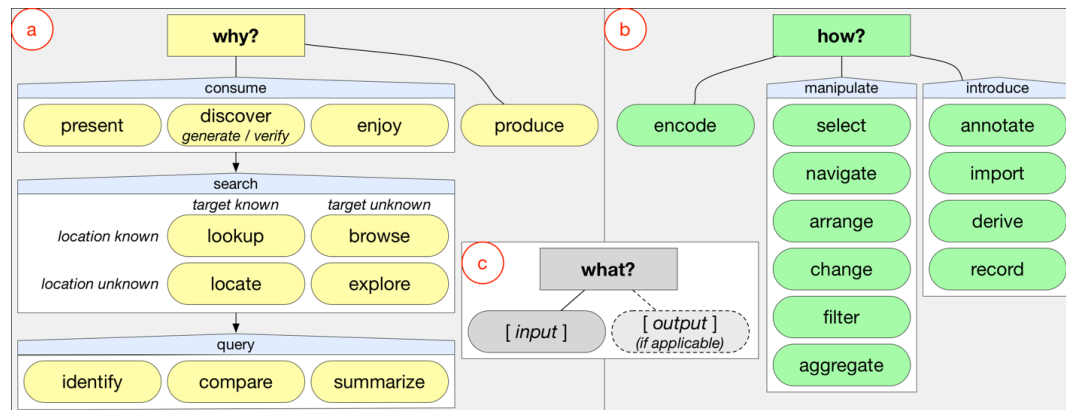
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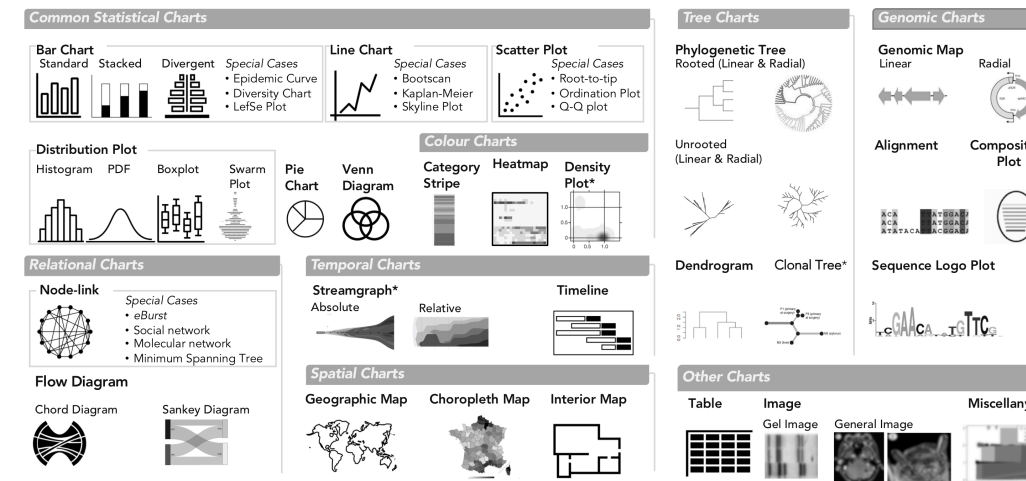
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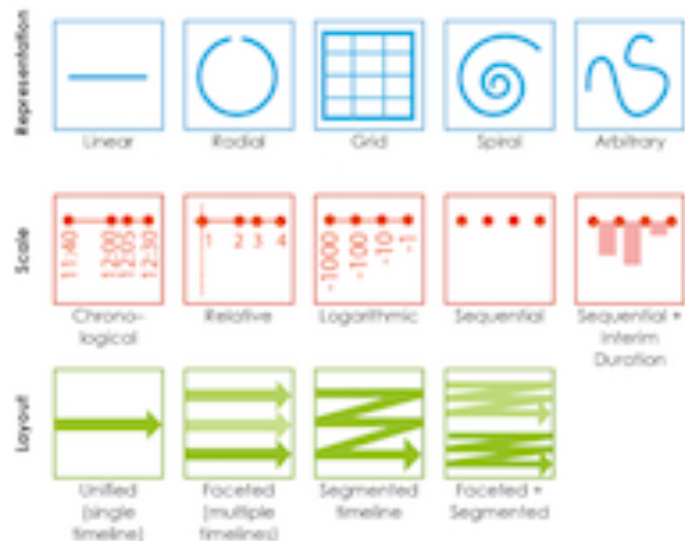
Matt Brehmer



Abstract Tasks



Ana Crisan



Timelines Revisited

timelinesrevisited.github.io/



Bongshin Lee
(Microsoft)

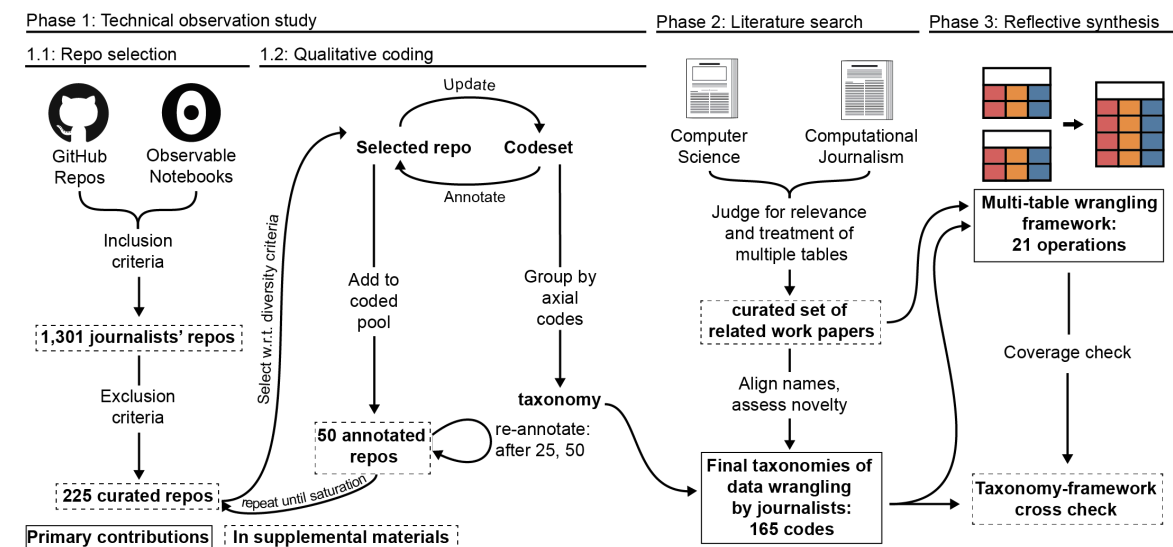


Benjamin Bach
(Microsoft)



Nathalie Henry-Riche
(Microsoft)

GEViT: Genomic Epidemiology Viz Typology



TableScraps

Steve Kasica



InfoVis Group

- papers, videos, software, talks, courses

<http://www.cs.ubc.ca/group/infovis>

<http://www.cs.ubc.ca/~tmm>

- no grad course (547) until Sep 2025

- ugrad course 447, Sep 2023

- sabbatical, Jan-Dec 2024

- ugrad course 447, Jan 2025

<http://www.cs.ubc.ca/~tmm/talks.html#gradOrient23>

MEMBERS



Tamara Munzner



Steve Kasica



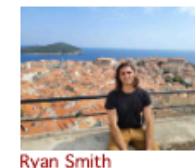
Francis Nguyen



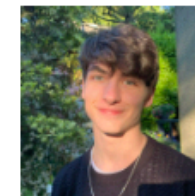
Mara Solen



Matias Oddo



Ryan Smith



Sam Fraser

RECENT NEWS

2/2022 [PAPER]:

Visualizing Graph Neural Networks with CorGIE: Corresponding a Graph to Its Embedding

by Zipeng Liu, Yang Wang, Jürgen Bernard, and Tamara Munzner has been accepted by IEEE Transactions on Visualization and Computer Graphics (TVCG) and will be also presented at IEEE VIS 2022.

[pre-print PDF]



10/2021 [PAPER]:

UBC InfoVis @ IEEE VIS 2021

At IEEE VIS 2021, Michael Oppermann will present the full paper VizSnippets: Compressing Visualization Bundles Into Representative Previews for Browsing Visualization Collections, awarded best paper honorable mention [Wed S1]. He will also present the short paper TimeElide: Visual Analysis of Non-Contiguous Time Series Slices [Thu S2]. Recent PhD graduate Madison Elliott is co-organizer of the Workshop: On Novel Directions in Vision Science and Visualization Research [Mon S1-S2]. Tamara Munzner will be on the panel Reflecting on Visualization History to Drive Future Innovation [Thu S1]. Tamara will also offer her tutorial on Visualization Analysis and Design [Sun fullday]; available on youtube is the full playlist of 6 hrs of video lectures. Also, stay tuned for West Coast Party Thu on gather.town (after sessions, 4-6pm PDT = 6-8pm CDT)!



8/2021 [FAREWELL]:

Farewell to Michael and Zipeng!

Congratulations to graduated PhD students Michael Oppermann and Zipeng Liu! Michael joins Virtual Identity in Austria as a senior data science consultant, and Zipeng joins Beihang University as an assistant professor.



8/2021 [PAPER]:

VizSnippets: Compressing Visualization Bundles Into Representative Previews for Browsing Visualization Collections

by Michael Oppermann and Tamara Munzner will be published in the special issue of IEEE Transactions on Visualization and Computer Graphics (TVCG) and will be presented virtually at IEEE VIS 2021.

[pre-print PDF]



8/2021 [PAPER]:

TimeElide: Visual Analysis of Non-Contiguous Time Series Slices

by Michael Oppermann, Luce Liu, and Tamara Munzner will be published as a short paper in the Proc. of IEEE VIS 2021.

[pre-print PDF]



8/2021 [PAPER]:

GEVITRec: Data Reconnaissance Through Recommendation Using a Domain-Specific Visualization Prevalence Design Space

by Anamaria Crisan, Shannah Elizabeth Fisher, Jennifer L. Gardy, and Tamara Munzner has been accepted by IEEE Transactions on Visualization and Computer Graphics (TVCG) and will be presented at IEEE VIS 2022.

[pre-print PDF]

