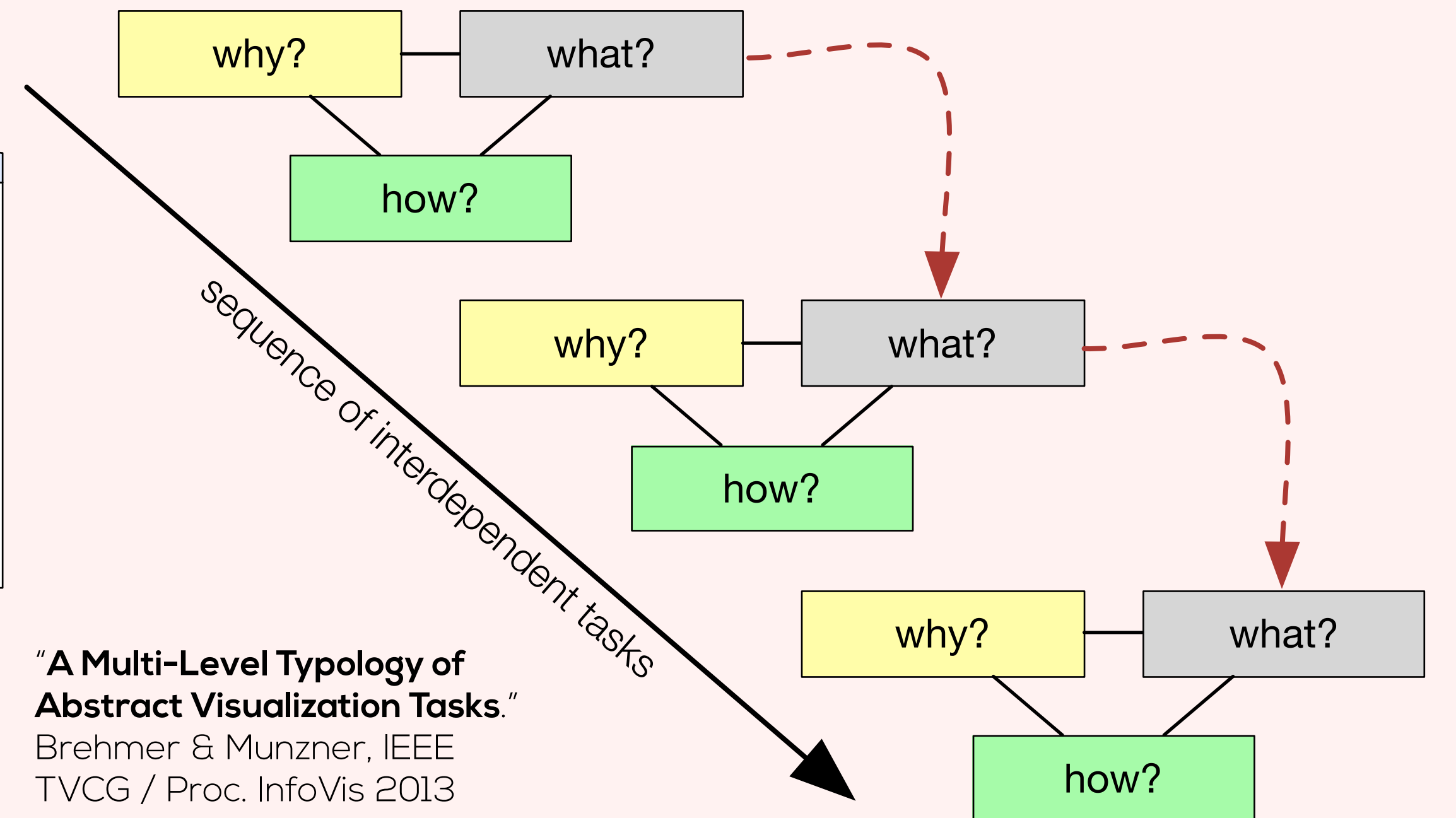
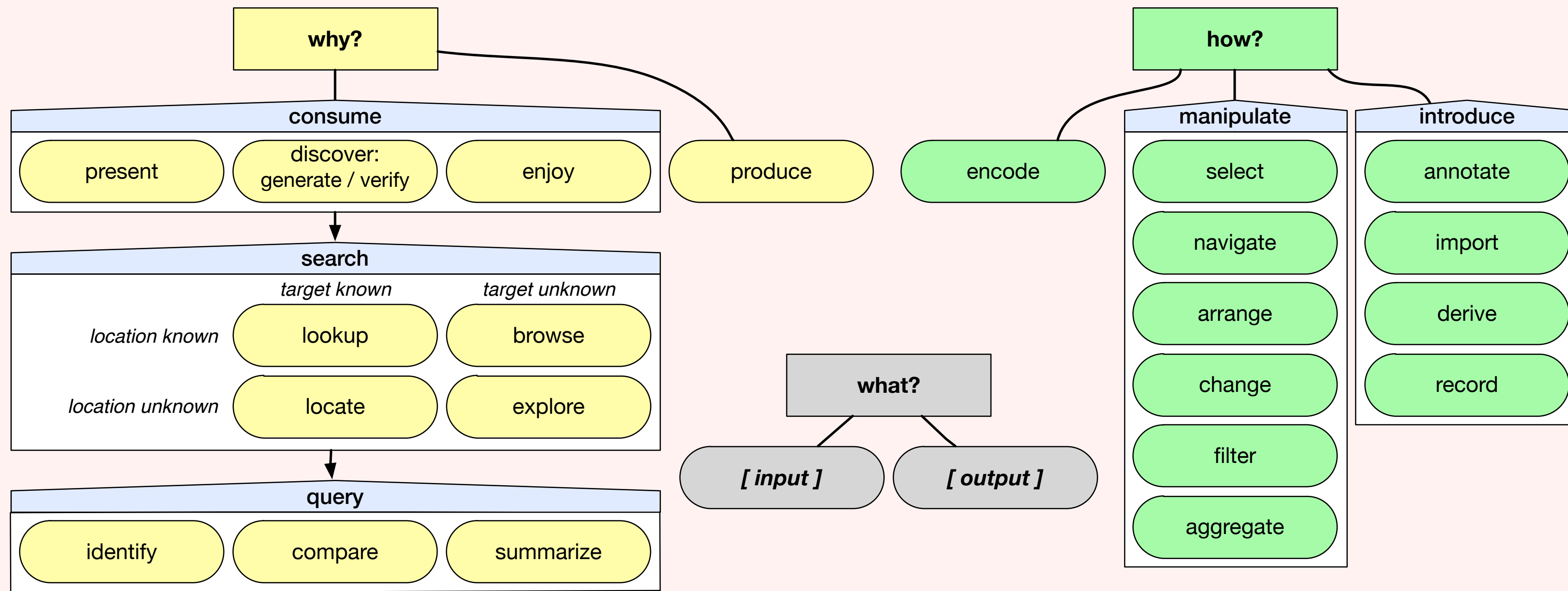


TYOLOGY

A **typology** of abstract visualization tasks, describing **why** a visualization task is undertaken, **what** the input and output constraints are, and **how** the task is supported

Thesis research question: can this approach to task abstraction facilitate visualization **analysis, design, and evaluation?**

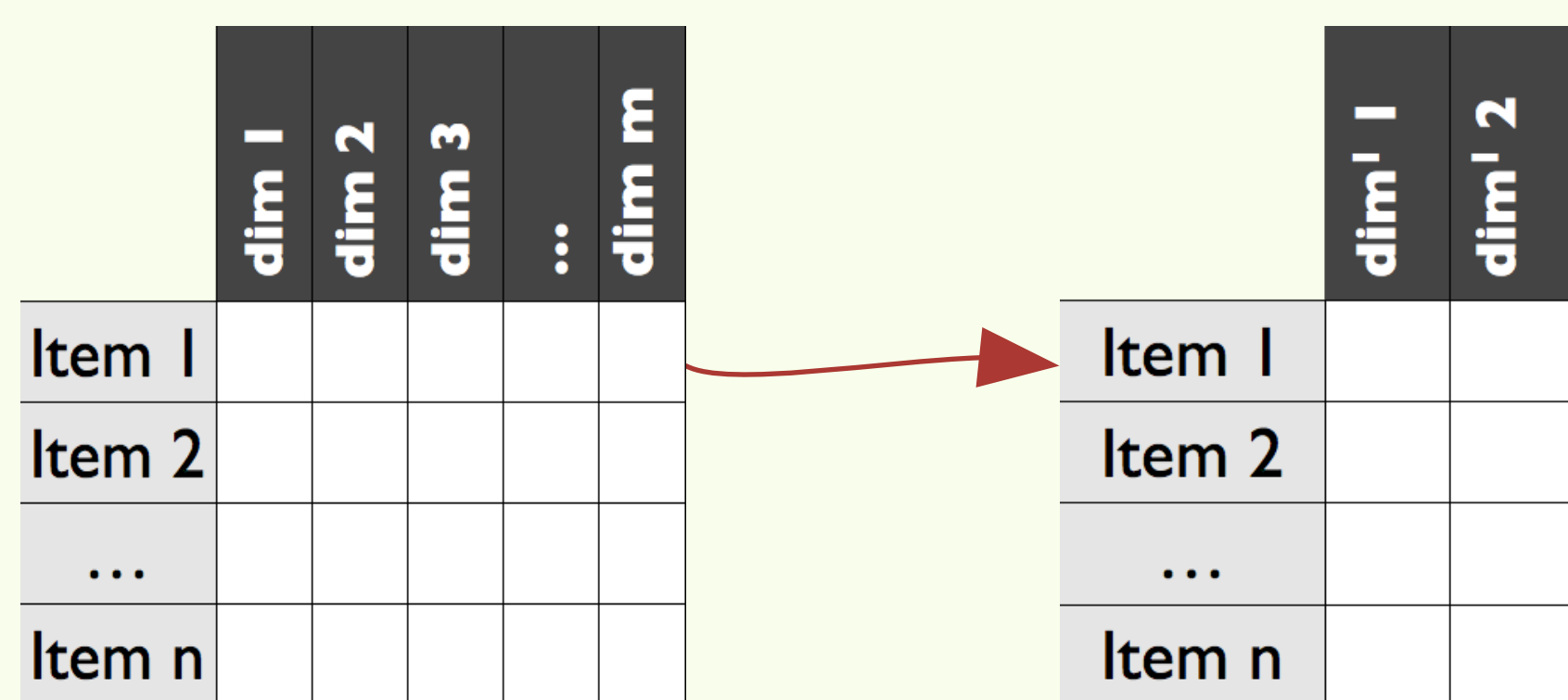


"A Multi-Level Typology of Abstract Visualization Tasks."
Brehmer & Munzner, IEEE TVCG / Proc. InfoVis 2013

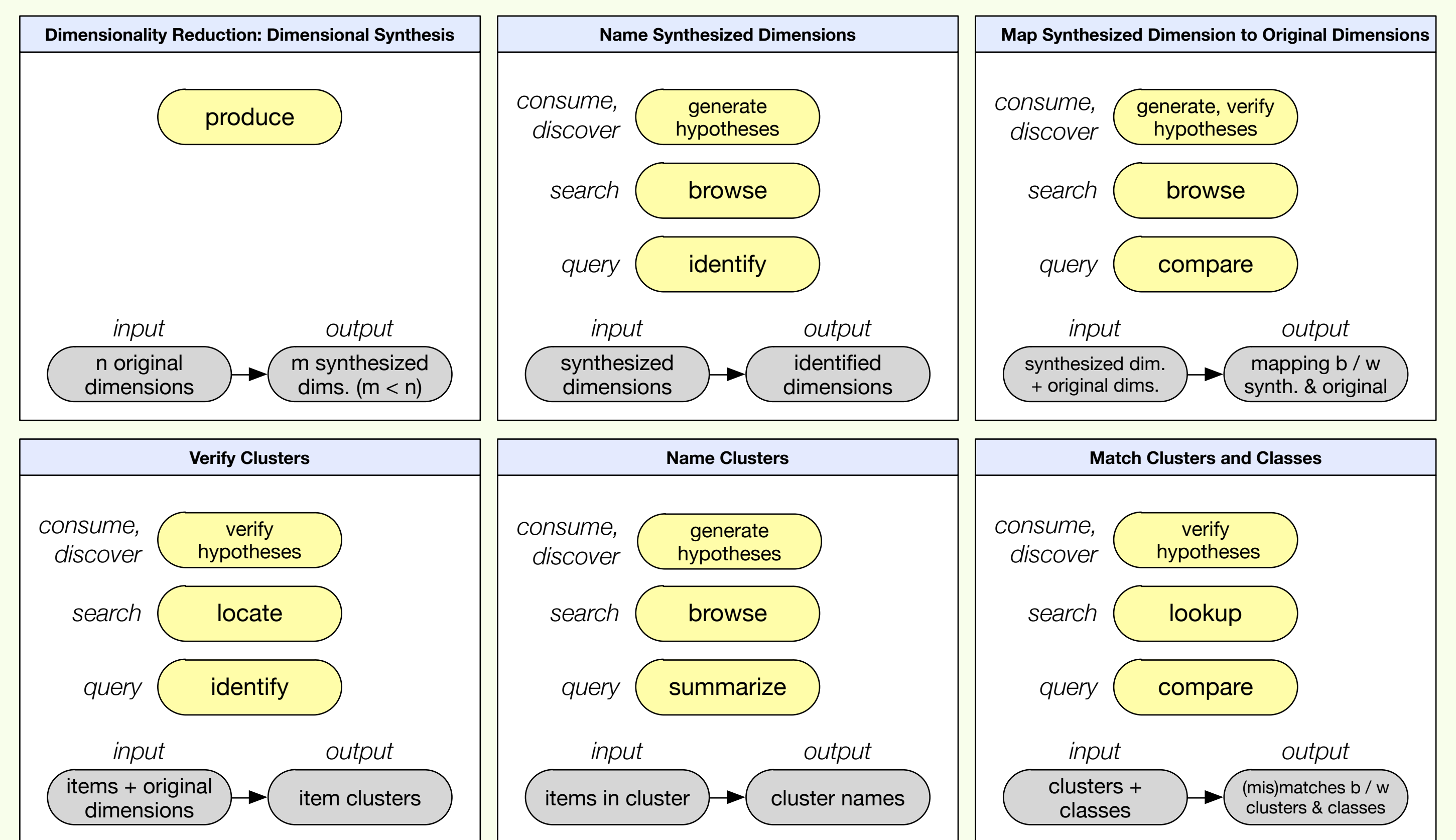
INTERVIEW STUDY

- Use of the task typology to **analyze why** data analysts visualize dimensionally-reduced data
- Interviews with **ten** data analysts working in **six** application domains

"Visualizing Dimensionally-Reduced Data: Interviews with Analysts and a Characterization of Task Sequences."
Brehmer, Sedlmair, Ingram, & Munzner, Proc. ACM BELIV 2014



results: characterization of six tasks in terms of **why** and **what**



FIELD STUDY

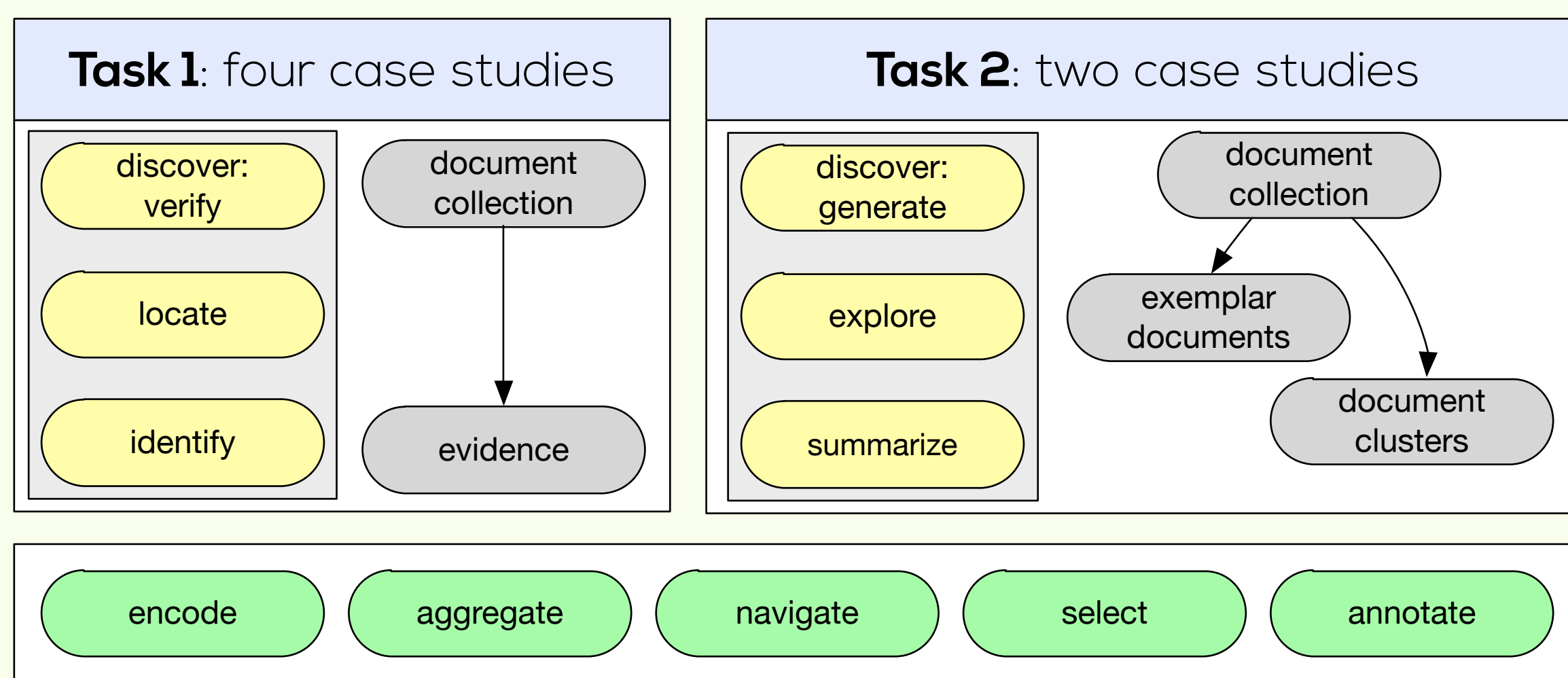
- Use of the task typology to **evaluate Overview**, a visualization tool adopted and appropriated by journalists to investigate large text document collections emanating from leaks or FOIA requests



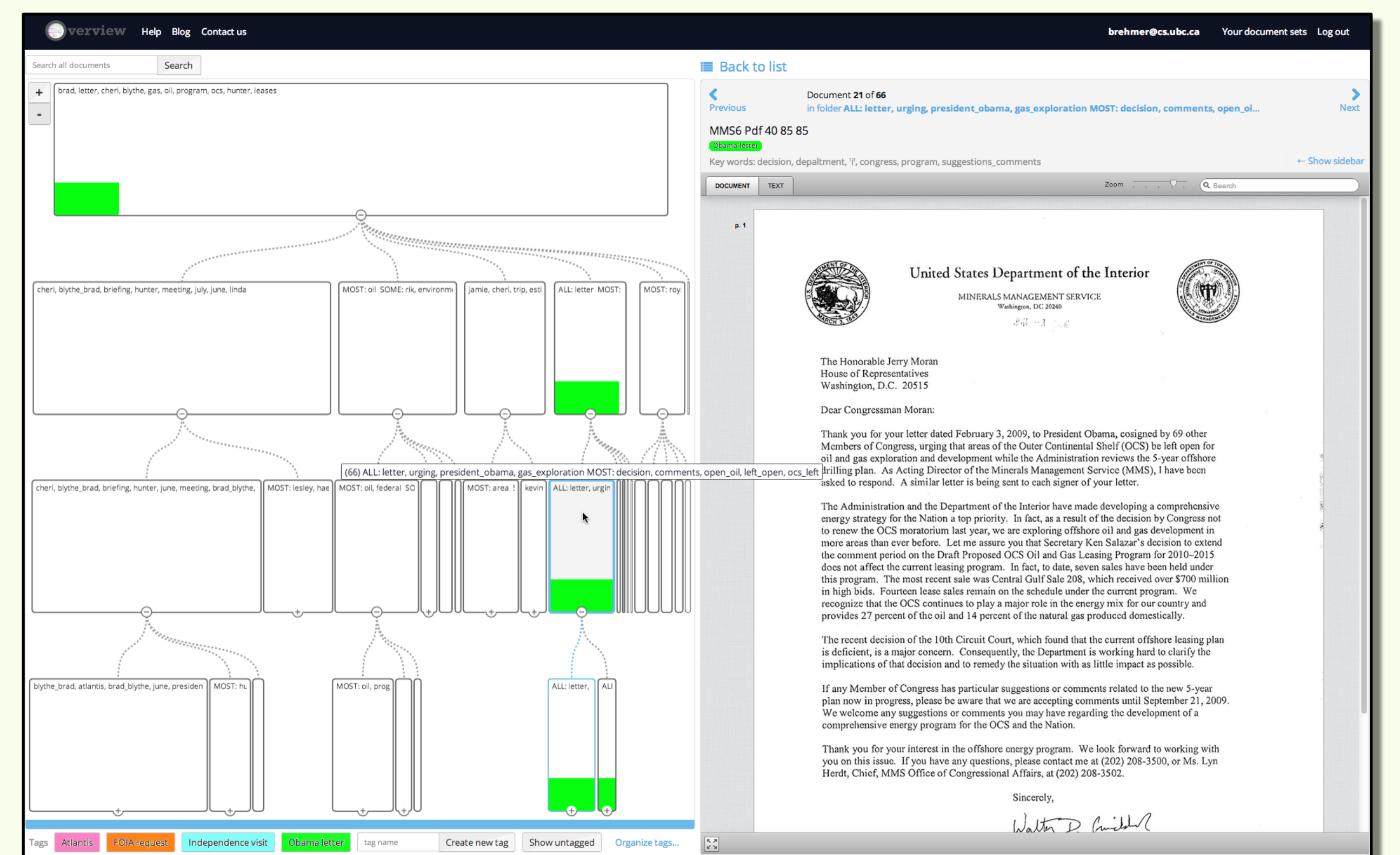
overviewproject.org

"Overview: The Design, Adoption, and Analysis of a Visual Document Mining Tool for Investigative Journalists."
Brehmer, Ingram, Stray, & Munzner, IEEE TVCG / Proc. InfoVis 2014

results: characterization of two tasks based on six case studies

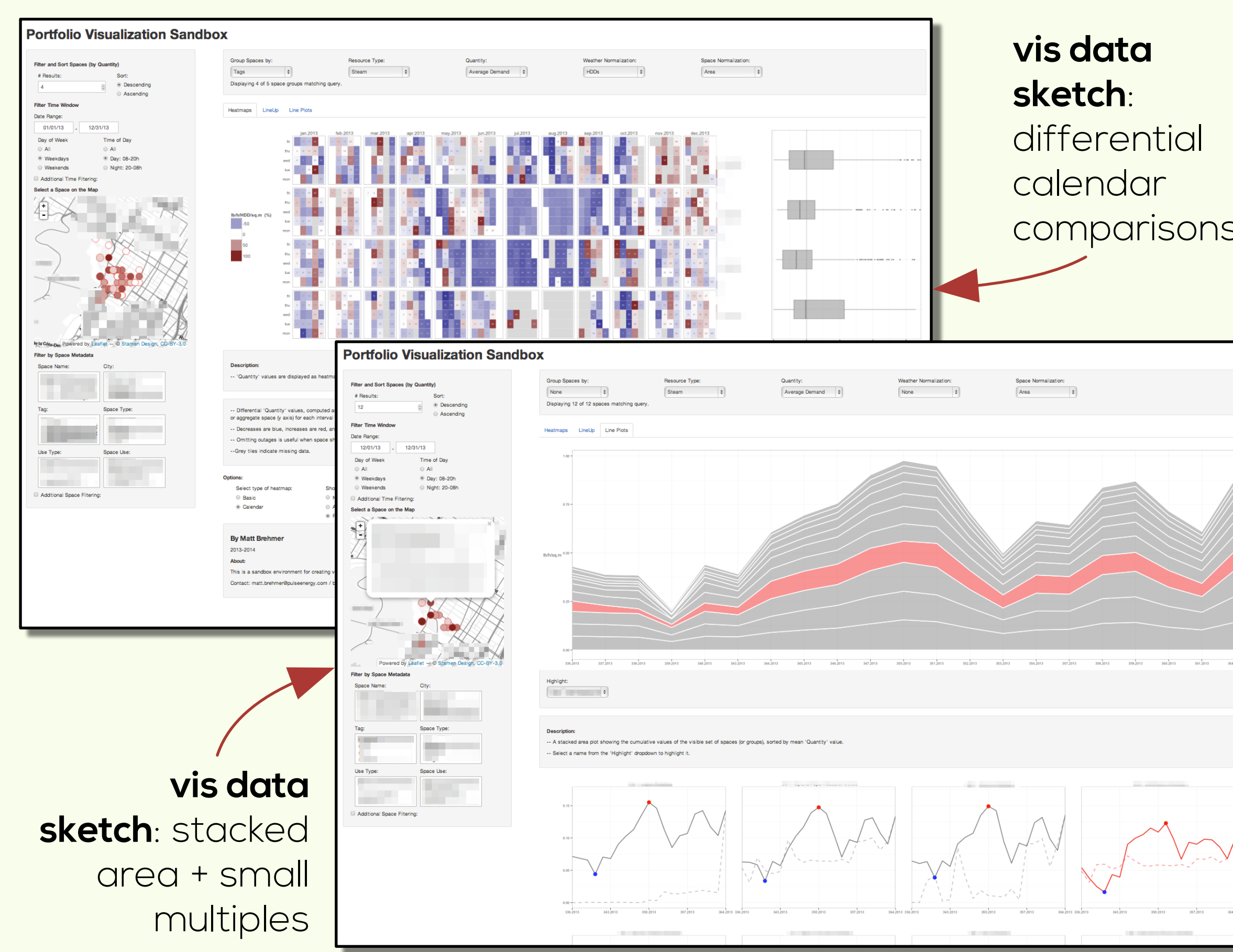
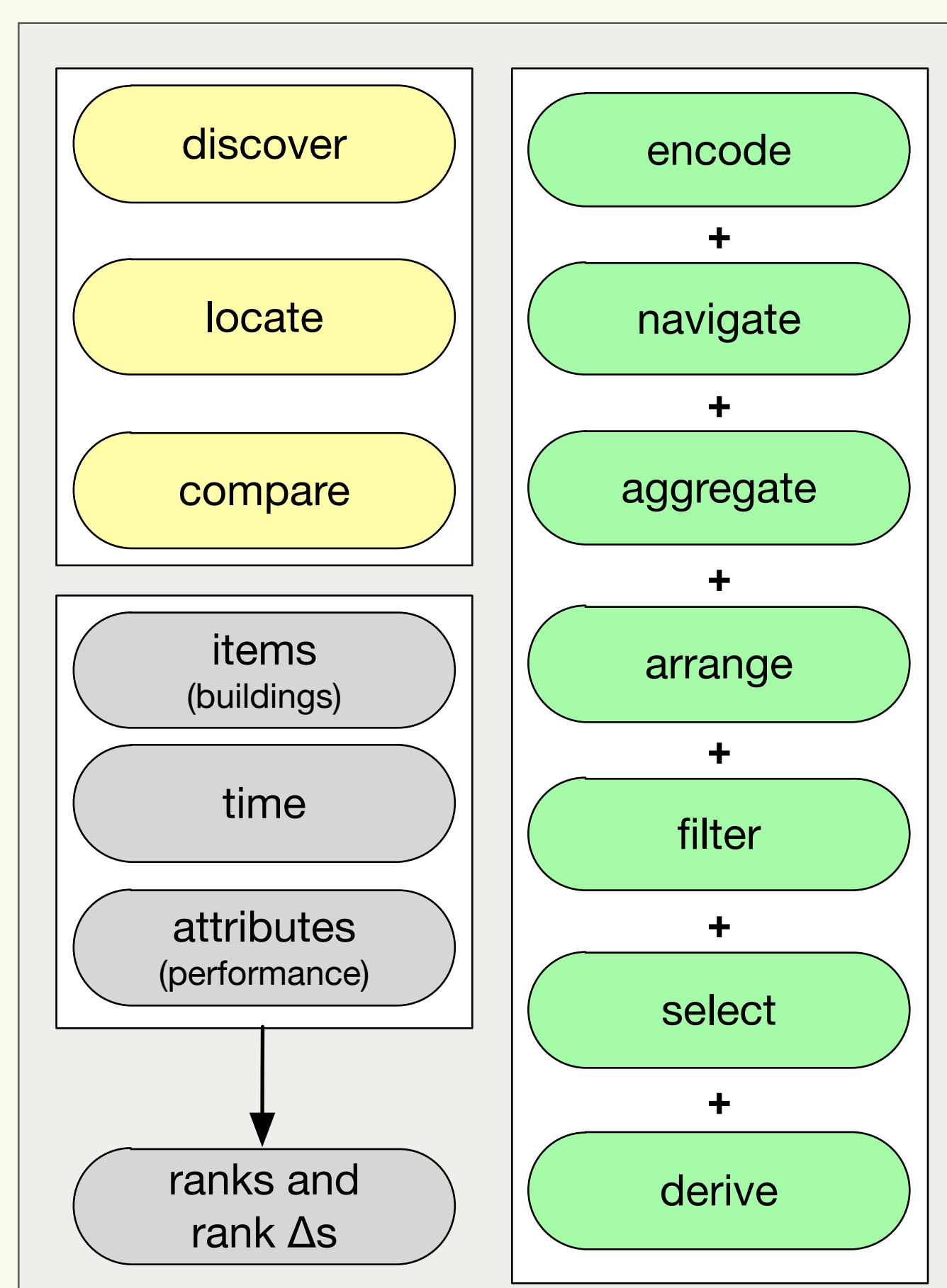


Overview: a web-based visual document mining tool



DESIGN STUDY

- Use of the task typology to **design** and gather requirements for visualizations in the domain of large-scale commercial energy consumption analysis
- Task:** absolute and relative comparisons of individual and grouped buildings over time



cs.ubc.ca/~brehmer

