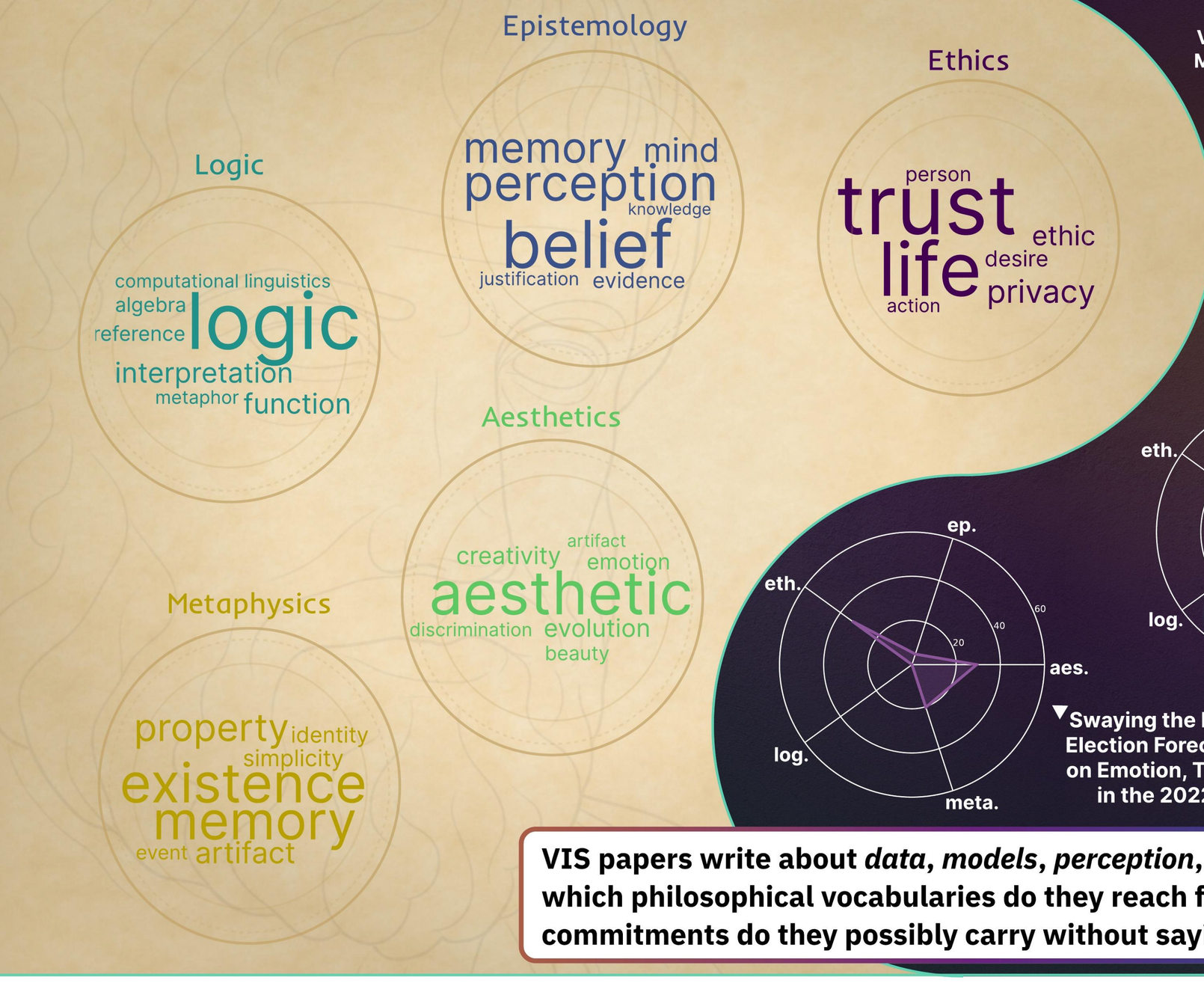
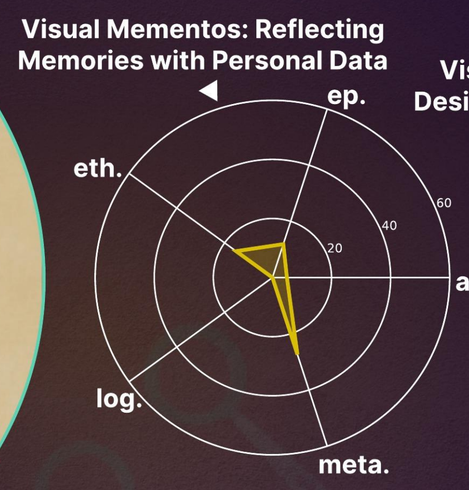
PHILOSOPHICAL LENSES ON DATA VISUALIZATION

Stefan Cobeli
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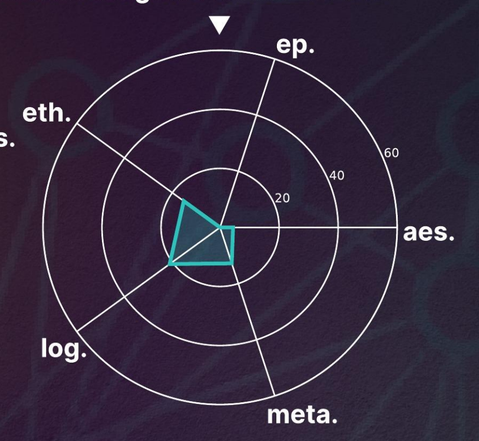
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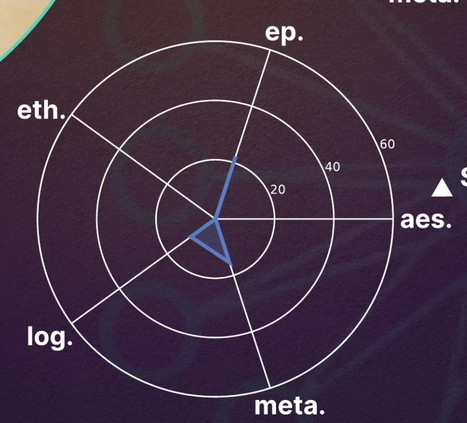




Visual Mementos: Reflecting Memories with Personal Data



Visualization Badges: Communicating Design and Provenance through Graphical Labels Alongside Visualizations



A Deeper Understanding of Sequence in Narrative Visualization

Swaying the Public? Impacts of Election Forecast Visualizations on Emotion, Trust, and Intention in the 2022 U.S. Midterms

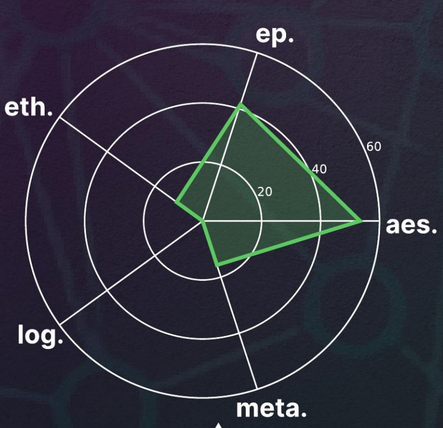


Image or Information? Examining the Nature and Impact of Visualization Perceptual Classification

VIS papers write about *data*, *models*, *perception*, and *value*, which philosophical vocabularies do they reach for, and which commitments do they possibly carry without saying so?

1. Introduction

Data visualization is concerned with knowledge: it turns data into insight people act on. It assumes what data is and how we know by looking, questions long studied in epistemology, metaphysics, and aesthetics. As a first answer to Hege's VIS 2025 keynote which calls for a philosophical foundation to visualization [2], we build a lexicon for the five main branches of philosophy and measure, historically, how extensively each VIS paper share their language.

2. Methods

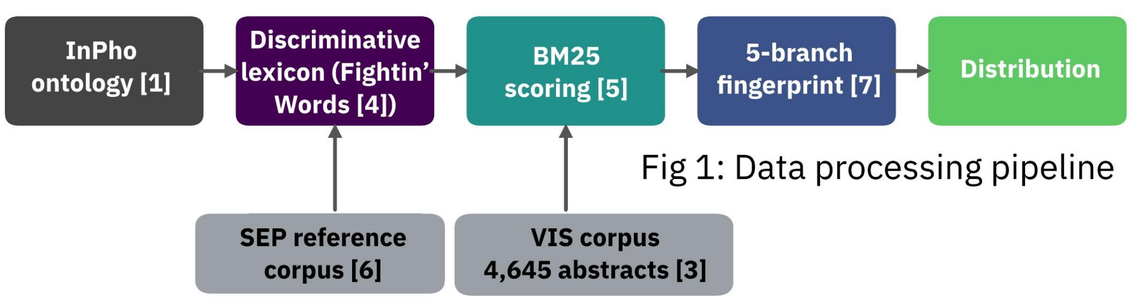


Fig 1: Data processing pipeline

3. Results

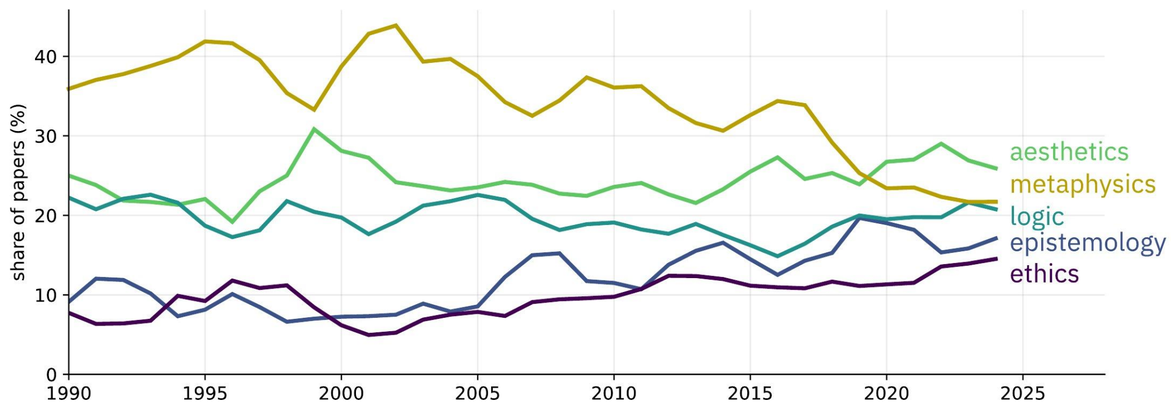
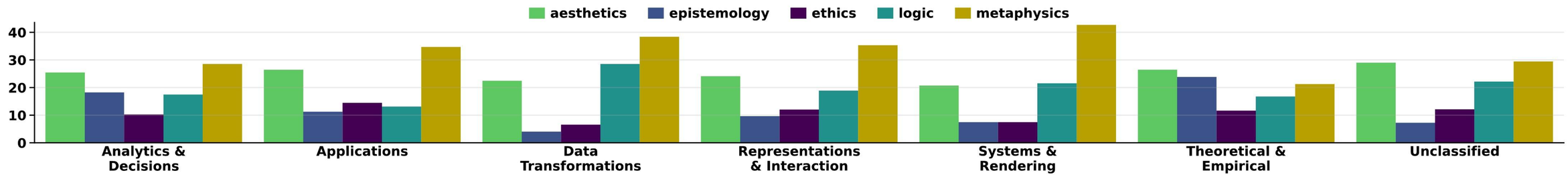


Fig 2: Dominant philosophy branch over time (3-yr avg)

By area, metaphysical and logical terms concentrate in technical work (Systems & Rendering, Data Transformations), while epistemology peaks in reflective work (Theoretical & Empirical, Analytics & Decisions). Over three decades metaphysics recedes (about 40% to 24%) as epistemology and ethics grow. The results suggest that visualization has never been philosophically neutral; its shared vocabulary traces commitments held tacitly.

Fig 3: Share of each VIS area's papers by strongest branch



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