An Investigation into the Representational Suitability of Tree Visualizations

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Summary:

In this poster we present work in progress to develop a more comprehensive understanding of the capabilities of common hierarchical visualization types for representing various structural properties of tree data. Our primary goal is to better inform designers and domain experts about which hierarchical visualization techniques are well suited (or not) for representing particular aspects of tree structure. We describe a design space of the data characteristics of various hierarchical structures and the visual channels of the different visual representation techniques use to represent them, systematically assess first the possibility then the suitability of each technique to represent each kind of structure, then identify important patterns across techniques and structures that both confirm current design wisdom and offer more grounded guidance when selecting a technique for visualizing particular structures of interest.

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