Sketching a Palette of Visualization Theories

Gordon Kindlmann - University of Chicago
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Transmission

Demiralp, Chen & Leitte
"follow my examples"
"follow my maxims"

Tufte

Mackinlay
"follow my theorems"
"follow my proofs"
"run my code"

Oracles

APIs

(?)
Is it mathy?

Not mathy

Munzner’s nested model

Hoffman, Cook, Wickham et al.
Statistical Testing

Chen & Leitte,
Information Theory

Demiralp’s perceptual kernels

Kindlmann + Scheidegger
Hibbard’s Lattice Model

Analysis (quantitative)

Algebra (qualitative)
Actionability

“Vis A is bad”

“Here’s how to improve Vis A”

“F(Vis A) = 3.8”

“Vis A is better than Vis B”
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