Evaluation: broadly interpreted
• methods from many fields, qualitative & quantitative
  – controlled experiments in lab, field studies of deployed systems
  anthropology
  ethnography
design
computer science
HCl
psychology
anthropology
ethnography

Evaluation in the field: Dim. reduction
• Points vs landscapes for dimensionally reduced data
• Taxonomy of cluster separation factors

Design studies
• many other domains
  – SFUI/DO: fisheries
  – BMW: in-car networks
  – Associated Press: large document collections for journalists

Problem-driven work
• design studies
  – in collaboration with target users
  • real data, real tasks
  • intensive requirements analysis
  • iterative refinement
  • deploy tools/systems
  • typical evaluation: field studies
• my strategy: opportunistic collaboration
  – many domains
  – both industrial and academic partners

More info
• book (free through UBC library)
  http://www.cs.ubc.ca/~tmm/vadbook
• papers, videos, software, talks, courses
  http://www.cs.ubc.ca/~tmm/infovis

Why is validation difficult?
• different ways to get it wrong at each level
  – Domain situation
  • You misunderstood their needs
  – Data/task abstraction
  • You're showing them the wrong thing
  – Visual encoding/interaction idiom
  • You're showing them the wrong thing
  – Algorithm
  • Your code is too slow

Grad course: CPSC 547
• teaching now
• final presentations Thu Dec 10
  – 3-7pm
  • you're invited!
  • https://www.cs.ubc.ca/~tmm/courses/547-20/projects.html
  • https://bit.ly/36ufd5T (shortened zoom URL)
547 Projects

- Geographic-Financial.
- UCoD - Simplifying Supply Chain Structures in the Browser.
- Visualizing Linguistic Diversity in Vancouver.
- Visualizing Compiler Passes with FirstPass.
- EnergyFlowVis: Visualizing Energy Use Flows for UBC Campus.
- Disease Outbreak Radar: A Tool for Epidemiologists.
- Bewilder: Handling Web Resource Complexity in Online Learning/Research.
- Visualizing Mobility and COVID-19.
- Android App Similarity Visualization.
- Firest: Visualizing the Current State and Impact of Wildfires Across Canada.
- Smart Intersection Vis.
- Visualizing Simulation of Evolutionary Trend of Language in Color Naming.
- Did We Save Our Tigers?
- README: A Literature Survey Assistant.

Ugrad course: CSPC 436V

- new, second offering is Jan 2022
  - first offering  
    https://www.cs.ubc.ca/~tmm/courses/436V-20/ 
  - substantial changes in the works for online version

- 4th year majors course
  - theory: visualization foundations
  - tooling: D3.js
  - prereq: CPSC 310