Vis, The Next Generation: 
Teaching Across the Researcher-Practitioner Gap 

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VIS 2015 Panel 
October 29 2015, Chicago IL 

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VisWeek 2010 Panel 
• Perspectives on Teaching Data Visualization 
  – Jason Dykes, Daniel F. Keefe, Gordon Kindlmann, Alark Joshi, me 
  – I'll aim for minimal repetition! 
  • structure 
    – within CS dept (75%), but other students welcome (25%) 
    – first 8 weeks: reading pre class & lecture/discussion in class 
    – last 4 weeks: presentations in class 
    – they pick topic, I assign paper they read & present to rest of class 
    – last 5+2 weeks: projects, outside class 
      – choices: design study, technique, implementation, analysis, survey 
      – last 2 possible for non-programmers 
    • structure: pitches, meetings, proposal, update, final present, final report 
    – heavily weighted to research over practice 2 

What's new 
• textbook finished! 
  – theoretical foundations & core content under control 
  – reading for each lecture: one chapter and one research paper 
• enrollment higher: from avg 15 to almost 30 
• presentations 
  – earlier: I gave several choices, they picked a few, lots of overlap between years 
  – now: I assign one brand new paper from VIS (preprints online in time!) 
• new pilot module in Journalism 
  – 12 journalism grads, non-programmers 
  – half the time, half the credits 
  – no reading, teach (some of) book material through lecture 
  – Tableau assignment: mix of tutorial and open ended 3 

Active vs passive learning 
• some active flavor 
  – pre-class readings, checked by submitting questions/comments just before class 
  – marked later 
  • pitfalls still not enough in-class design exercises, just one near term start 
    – if it means, what is there time to discuss? do they need it? 
  • pitfalls discussion playing field not level 
    – ESL vs native speakers, shy/reserved vs outgoing, novices vs practiced 
    – over 50% of participation grade on Qs to avoid penalizing 
    » I'm still not satisfied 

Rapid rise of new tools 
• CS class 
  – agnostic, since it's up to them to choose tools 
  – shakeout to a few dominant tools simplifies recommendation 
    • D3, R, Tableau now top of heap 
    • real answers: rely on wisdom of students in my group to stay current 
    • main regret of professor life is that I don't code any more 
      • thanks to Matt Brehmer for his fantastic resource list 
        http://www.cs.ubc.ca/group/infovis/resources.shtml 
  • journalism class 
    – I learned Tableau along with them this fall 
    – last tip to Robert! 
    – a more brutal learning curve than I anticipated... 5 

More Information 
• this talk 
  http://www.cs.ubc.ca/~tmm/talks.html#vis15teach 
• course pages 
  – http://www.cs.ubc.ca/~tmm/courses/547-15 
  – http://www.cs.ubc.ca/~tmm/courses/journ15 
• book page 
  http://www.cs.ubc.ca/~tmm/vadbook 

Visualization Analysis and Design.