

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

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<http://www.cs.ubc.ca/~tmm/talks.html#vis15teach>

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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

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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



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Active vs passive learning

- some active flavor
 - pre-class readings, checked by submitting questions/comments just before class
 - marked later
 - during class: less lecture, more questions/discussion
 - pitfall: still not enough in-class design exercises, just one near term start
 - if I do more, when is there time to discuss? do they need it?!
 - pitfall: discussion playing field not level
 - ESL vs native speakers, shy/reserved vs outgoing, novices vs practiced
 - » small set of people doing lots of the talking
 - over 50% of participation grade on Qs to avoid penalizing
 - » I'm still not satisfied

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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 answer: 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
 - hat tip to Robert!
 - a more brutal learning curve than I anticipated...

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More Information

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- 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.
Munzner. A K Peters Visualization Series, CRC Press, Visualization Series, 2014.

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