Information Visualization Wrapup

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Week 13 sync class, Jan 2021

https://www.students.cs.ubc.ca/~cs-436v/21Jan/
Today

• Final project endgame
• Midterm survey results
• UBC evals (instructor and both TAs)
• Next steps
Signups

• next week, move Friday TA office hours earlier
  – Fri standard time useless after classes are over and project due
  – shifted to Tue 10am-noon, before deadline
  – see Piazza for URL

• M3 marking demos
  – see Piazza for URL, just released
  – first come first served
  – sign up by group not by individual
M3 Marking Plan

• Procedure
  – TA has 30 min slot for marking each project
  – TA skims writeups before demo
  – your group joins on zoom for (up to) 10 min to give demo
    • attendance from all three members is strongly recommended, if at all possible
  – TA reads writeup more closely after demo and types up marks/comments
  – after TAs have marked everything, I'll do a pass through all projects too

• Signup sheet for demos
  – 10 min slots, spread out over Thu/Fri/Mon
  – check which TA is marking your group

• You just demo the interactive functionality & answer questions on code
  – no expectation of slides or formal presentation covering design decisions
  – that's what the writeup is for
Marking breakdown, reminder

• Milestone 1: 15% (6% of total)
  – Foundations **Design**: 60%
  – Project Management: 15%
  – Writeup: 25%

• Milestone 2: 35% (14% of total)
  – **Programming** Achievement: 80%
  – Project Management: 5%
  – Process Log Writeup: 15%

• Milestone 3: 50% (20% of total)
  – **Programming** Achievement: 40%
  – Foundations **Design**: 40%
  – Process Log Writeup: 20%
Writeups

• no explicit length limits; be concise but be clear
  – do illustrate clearly with screenshots, don't just rely on demo to show things!

• different URL for peer evaluation for M3: https://ubc.ca1.qualtrics.com/jfe/form/SV_0IGImnZEha6NKLk
  (link also posted on Piazza)
Mid-Semester Survey
Summary

• many positive things
  – value of programming assignments and tutorials
  – value of recordings vs live lecture for later review

• some negative things
  – breakouts often awkward: cameras off, lack of engagement
  – isolation of full online mode, difficulty of team formation & communication

• ideas for improvement
  – post async lectures earlier, split into smaller pieces
  – add more TA hours, especially near deadlines
  – avoid "mini scavenger hunt" on Piazza to find assignment clarifications.updates
  – breakouts: enforce designating group speakers beforehand
  – tune ratio of lecture (more) vs exercises/breakouts (less)
UBC Evaluations
Evaluations

• please fill them out now, through Canvas
  – **Professor eval**
    • please do fill out the official eval, important! only 6 / 77 so far :-(
    • they don't have access to what you wrote in the mid-semester evals for me
  – **TA evals**
    • use course "CPSC 436V", section "201"
    • please fill out two times, for each of the two TAs
      Francis Nguyen                Steve Kasica

• poll: say 'done' when you are through all three of them
Next Steps
Beyond D3

- many visualization environments/ecosystems
  - D3
  - R/Shiny
  - python
  - Processing
  - Tableau
  - Excel
  - charting libraries
Beyond D3

• D3.js: interactive browser-based visualization
  – substantial learning curve (but you won't hit a wall)
  – Observable gallery, Viau gallery
  – layer on top: Vega-Lite

• R: scripting & data analysis environment, heavily used in science
  – heavily used in science, especially static graphics
  – R/Shiny: some interaction, but much less flexibility than D3
  – tidyverse & ggplot2: active and welcoming visualization community (RStudio)

• python
  – matplotlib, seaborn, Altair
  – browser-based deployment with Heroku
  – dramatic tour
Beyond D3

• many visualization environments/ecosystems
  – D3, R, python, Processing, Tableau, (Excel), charting libraries

• Processing
  – p5.js, programming for artists

• Tableau: GUI application, drag and drop + macros
  – free one-year license for students
  – powerful, but also substantial learning curve

• Excel: most widely used visualization environment (sigh)

• charting libraries
  – https://lisacharlotterost.de/datavistools-revisited
  – datawrapper, highcharts
Beyond D3

• grad course tools discussion
  https://www.cs.ubc.ca/~tmm/courses/547-20/tools/
Other resources: Andy Kirk's Visualizing Data

http://www.visualisingdata.com/resources/  
https://www.visualisingdata.com/blog/
Learning through Redesign En Masse: **Makeover Mondays**

- easy entry point (Tableau focus)

[Images and tables]

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http://www.makeovermonday.co.uk/blog/
Learning through Redesign En Masse: Tidy Tuesdays

- easy entry point (R focus)

https://www.tidyTuesday.com/
Visual Design Process In Depth: **Dear Data**

- inspiring celebration of data humanism

http://www.dear-data.com/by-week/

Giorgia Lupi and Stefanie Posavec
Visual Design Process In Depth: **Data Sketches**

- detailed process notes, from sketching through coding

http://www.datasketch.es/

Shirley Wu and Nadieh Brehmer
Pathways for more participation: organizations

• join Viz@UBC
  – https://dfp.ubc.ca/initiatives/viz-ubc
  – get on visatubc-announce email list (send mail to vizatubc-info@cs.ubc.ca)
  – talk series (plan to restart after pandemic lifts)

• join Vancouver Visualization meetup (4K+ members)
  – https://www.meetup.com/Vancouver-Data-Visualization/

• join Data Visualization Society
  – https://www.datavisualizationsociety.com/
  – two years old, 17K+ members around the world
  – jobs board: full-time, part-time and contract positions worldwide
    https://groups.google.com/g/data-vis-jobs
  – many other resources, super-active Slack incl local groups, challenges, ...
  – Medium articles: Nightingale
Visualization jobs

• spectrum
  – visualization as main/core focus
  – visualization as occasional task
  – visualization skills add strength to your portfolio even if no immediate duties

• local companies
  – Tableau Vancouver is largest company focused on visualization
  – many smaller ones have visualization / data science needs
Fare well

• last sync class with all of you (although term not over yet)
• best wishes for staying safe and healthy
• enjoy visualization, I hope many of you keep going down this path!