Course Review

CS 7450 - Information Visualization
November 30, 2015
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Promising Trends

- Built-in best practices
  - Banking to 45°, Tableau's guidance
- Integrated support for geo-spatial analysis
  - Learn from cartographers, Google maps
- Integrated support for network analysis
  - Vizster, Social Action, Ploceus
- Integrated support for collaborative analysis
  - Many Eyes, sense.us

Promising Trends

- Custom analytical applications
  - Spotfire, Qlikview
- Illuminating predictive models
  - Risk, uncertainty, opening the black box
- Integrated data mining
  - Friend not foe
- Improved HCI devices
  - Large, multi-touch displays

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Visualization Zoo

Time series data	**Hierarchies**
Index line chart	Node-link diagrams
Stacked graph	Cartesian
Small multiples	Radial (dendogram)
Horizon graph	Indented tree layout
	Adjacency diagrams
Statistical distributions	Icicle plot
Stem-and-leaf plots	SunBurst
Q-Q plots	Enclosure diagrams
Scatter plot matrix	Treemap
Parallel coordinates	Circle packing
Maps	**Networks**
Flow map	Force-directed
Choropleth map	Arc diagram
Graduated symbol map	Matrix views
Cartograms	

Heer, Bostock & Ogievetsky
CACM '10

http://queue.acm.org/detail.cfm?id=1805128

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Syllabus Review

Overview

Week	Dates	Topic	Topic
1	Aug 17, 19	Introduction	InfoVis overview
2	Aug 24, 26	Multivariate data & table/graph design	S. Few's design guidance
3	Aug 31, Sep 2	Multivariate visual representations 1	Multivariate visual representations 2
4	Sep 7, 9	No Class -- Labor Day	Vis programing tutorial
5	Sep 14, 16	InfoVis systems & toolkits	Commercial systems demos
6	Sep 21, 23	Interaction	Overview & detail
7	Sep 28, 30	Tasks and analysis	Storytelling
8	Oct 5, 7	Poster session	Casual InfoVis
9	Oct 12, 14	No Class - Fall break	Tufte's design principles
10	Oct 19, 21	Text & documents 1	Text & documents 2
11	Oct 26, 28	Time series data	Value of visualization (Video)
12	Nov 2, 4	Hierarchies & trees 1	Hierarchies & trees 2
13	Nov 9, 11	Graphs and networks 1	Graphs and networks 2
14	Nov 16, 18	Visual analytics	Visual perception
15	Nov 23, 25	Evaluation	No Class - Thanksgiving break
16	Nov 30, Dec 2	Review	Exam

Exam

- Wednesday's class
- Short answer (~20 questions)
  - Explain something
  - Identify something
  - Critique something
  - Design something
  - …
- Some sample questions

HW 7

- Investigative analysis
- The hidden plot
- Discuss process & your thoughts
- Jigsaw suggestions

Class - Your Reflections

- What were most interesting topics?

- What are key research challenges?

- What should be done in the future?

Final Project

- Demos next Mon-Tue at the Vis Lab (near my office)
  - 20 minutes per session, be on time
  - Sign-ups
  - Show for a little, let us try for a little
  - Important: Bring 3 copies of a summary sheet - member names, paragraph overview, image
- Final exam slot video session on Wednesday @ 2:50pm
  - Room TBA
  - Show your video, then answer questions
  - Give me the file (thumbdrive, web, …) by noon that day
  - Tips (next slide)
- Questions?

Video Advice

- Use Camtasia
- Process
  - 1. Develop script (rehearse timing)
  - 2. Record script
  - 3. Capture video of demo to script
  - 4. Add effects

- You've seen examples all semester
  - eg, http://www.cc.gatech.edu/gvu/ii/videos.html

Team Survey/Self-Assessment

- Coming soon
- Sheet or SurveyMonkey
- Only I will read these

Grades

- Components
  - HWs
  - Project
  - Participation
  - Final exam

- Items will be posted in t-square later next week

- Calculation

Course Survey

- Take a few minutes to complete CIOS/TAOS
  - Info: `http://www.cetl.gatech.edu/cios`
  - Surveys: `http://gatech.smartevals.com`
    (and from t-square homepage)

Potential Projects

- If you're interested in pursuing research in this area, let me know
  - …

InfoVis Gospel

- Hopefully, course has increased your awareness of topic and you can become an advocate

- Keep me posted as your use these ideas in your career