Adjustment to Discussions & Quizzes

Not required this week! Quiz moved to next week.

Next week is the *last* required discussion+quiz. Focus on your final projects after that!
Final Project
Final Project

Create a visualization system, technique, or study. Many options...
New system for a chosen domain + data set
Novel visualization / interaction technique
Design study or experiment

Deliverables
Share milestone progress
Project results (software, study results, etc.)
Poster presentation (max. 5 min)
Visualizing Galaxy Merger Trees

S. Loebman, J. Ortiz, L. Orr, M. Balazinska, T. Quinn et al. [SIGMOD '14]
Perfopticon - Distributed Query Performance

Dominik Moritz et al. [EuroVis '15]
A browser-based tool for visualization and analysis of diffusion MRI data

Jason D. Yeatman, Adam Richie-Halford, Josh K. Smith, Anisha Keshavan & Ariel Rokem
Bias?
Inadequate Representation?
var army = pd.nest(napoleon.army, "dir", "group");
var vis = new pv.Panel();

var lines = vis.add(pv.Panel).data(army);
lines.add(pv.Line)
  .data(function() army[this.idx])
  .left(lon).top(lat).size(function(d) d.size/8000)
  .strokeStyle(function() color[army[paneIndex][0].dir]);

vis.add(pv.Label).data(napoleon.cities)
  .left(lon).top(lat)
  .text(function(d) d.city).font("italic 10px Georgia")
  .textAlign("center").textBaseline("middle");

vis.add(pv.Label).data(napoleon.temp)
  .left(lon).top(tmp).strokeStyle("#0")
  .add(pv.Label)
  .top(function(d) 5 + tmp(d))
  .text(function(d) d.temp+" °"+d.date.substr(0,6))
  .textBaseline("top").font("italic 10px Georgia");
Visualizing the Republic of Letters

Daniel Chang, Yuankai Ge, Shiwei Song

Republic of Letters
1700
## Final Project Schedule

<table>
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<tr>
<th>Event</th>
<th>Date</th>
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<tr>
<td>Proposal</td>
<td>Wed, May 18</td>
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<tr>
<td>Milestone</td>
<td>Fri, May 27</td>
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<tr>
<td>Poster</td>
<td>Wed, June 1</td>
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<tr>
<td>Deliverables</td>
<td>Tue, June 7</td>
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</tbody>
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## Logistics

- Final project description posted online
- Groups of up to 4 people
- Select topics and form groups now!
- Potential project ideas shared on edstem!
Possible Project Ideas

Advance your **existing research**.

Pick an **open problem** of interest.

Work in a domain with **real stakeholders**.
Tips for a Successful Project

Focus on a compelling real-world problem. How will you gauge success?

Consider multiple design alternatives. Prototype quickly (use Tableau, R, etc...).

Seek feedback (representative users, peers, ...). Even informal usage can provide insights.

Choose appropriate team roles.

Start early (and read the suggested paper!)
Prototype Peer Critiques
Critique Questions

What is the purpose of the visualization?
Does it serve its purpose well?
Does it convey the data honestly?
Does it show the appropriate level of detail?
Are expressive & effective visual encodings used?
Do the interactions aid understanding of the data?
Is the design well-organized? Is it innovative?
What would like to change or refine?
How might things be done differently?
I Like… / I Wish… / What If?

I LIKE…
Praise for design ideas and/or well-executed implementation details. Example: "I like the navigation through time via the slider; the patterns observed as one moves forward are compelling!"

I WISH…
Constructive statements on how the design might be improved or further refined. Example: "I wish moving the slider caused the visualization to update immediately, rather than the current lag."

WHAT IF?
Suggest alternative design directions, or even wacky half-baked ideas. Example: "What if we got rid of the slider and enabled direct manipulation navigation by dragging data points directly?"
A structured display of topics from discussion surrounding the MH370 disappearance. Mouseover to explore, click to zoom in, click the center to zoom out.
I Like... / I Wish... / What If?

I LIKE...
Praise for design ideas and/or well-executed implementation details. *Example: "I like the navigation through time via the slider; the patterns observed as one moves forward are compelling!"

I WISH...
Constructive statements on how the design might be improved or further refined. *Example: "I wish moving the slider caused the visualization to update immediately, rather than the current lag."

WHAT IF?
Suggest alternative design directions, or even wacky half-baked ideas. *Example: "What if we got rid of the slider and enabled direct manipulation navigation by dragging data points directly?"
Critique Categories

Visualization Design
Choice of visual encodings (expressive, effective?)
Is the appropriate information visible by default?

Interaction Design
Choice of interaction techniques
Do they enhance understanding of the data?
Usability, discoverability, performance

Overall Design Quality
Organization, legibility, fitness for chosen goals
Reminders!

Final Project Proposal Due Wed 5/18, 11:59pm  
https://courses.cs.washington.edu/courses/cse512/22sp/fp.html

Three Peer Evaluations Due Tue 5/17, 11:59pm  
https://courses.cs.washington.edu/courses/cse512/22sp/a3-peereval.html