What's Next?

Class 36

Agenda

- 3:00-3:15 Final Projects and Presentations

Announcement

- Reading assigned for next Friday
  - Therac 25
- Final report due Friday, December 12
  - CAETE (December 19)

Final Report Questions

- **What do you mean by "Quick prototype quality implementation" in the Final Report?**
  This is your high fidelity mock-up.
- **Do the references have to be in-text? Where does the bibliography go?**
  Yes – in-text citations are required. Bibliography goes at the end of the paper – make sure all bibliographic data is in each citation (e.g., authors, year, conference/journal title, editors (if relevant), pages, volume/series/number (if relevant), DOI (if relevant)

Final Report Questions

- **Do we need appendices? What do I put in appendices? Do we need appendices?**
  Yes! Have an appendix for any data that takes up too much space in your final report. For example, Appendix A would be notes from your expert interview and in the report you would summarize the interview and reference Appendix A. For example,

  > *We met with Dr. Tang for two hours to discuss congestive heart failure. We found… The full set of interview notes are available in Appendix A.*

Appendices I will be looking for:

- *Expert Interview Notes*
- *Prototype Screen shots (could be multiple appendices to show iterative design)*

Final Report Questions

- **Do we need appendices? What do I put in appendices? Do we need appendices?**

Appendices I will be looking for:

- *Portfolio (October 10th class)*
- *Expert Interview Notes*
- *Prototype Screen shots (could be multiple appendices to show iterative design – e.g., paper prototypes before CW, prototypes after CW, prototypes after user study)*
- *Results from Cognitive Walkthrough (previous teams have used arrows, boxes, and circles on screen shots to show problems and itemize possible fixes)*
- *Protocol for User Studies*
- *User Study Notes/Data analysis*

Final Report Questions

- **How long does it have to be?**

Write until completion.

- **Does grammar count?**

YES!

- ***Does presentation count?***

YES!

- ***Really? We're engineers…***

See Challenger explosion lecture…

Final Project Questions

- **How long do we have?**

20 minutes of presentation; 5 minutes of questions.

- **What should we present?**
  - The problem you addressed
  - Show how prototype changed (before & after evaluation methods)
  - What you found from user study (incl. participant data)
  - What you learned
  - What you would change
- **How should we present it? Do we have to use PPT/Google Doc?**
  - Think outside of death by view graph
  - Michael Alley style (http://www.writing.engr.psu.edu/slides.html)
  - Tufte Style (http://www.edwardtufte.com/bboard/q-and-a-fetch-msg?msg_id=0001yB&topic_id=1)

Final Project Questions

- **Does grammar count?**

YES!

- ***Does presentation count?***

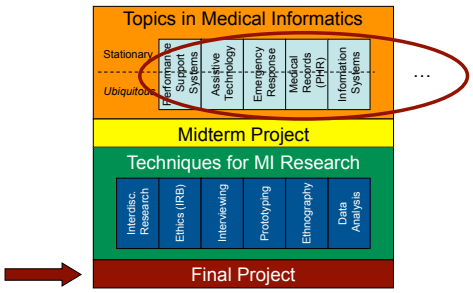
YES!

- ***Really? We're engineers…***

See Challenger explosion lecture…

Project Questions?

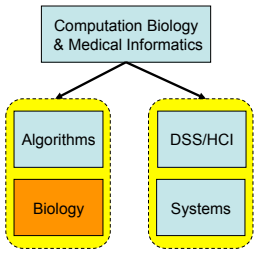
Where are we?



How to continue involvement within CU?

- Classes
- Independent studies
- Masters Thesis
- Ph.D. Program

Note: CU-B does not have a MI/HI program. CU-Denver does - Nursing Informatics and Medical Informatics (but through the medical school)



Potential Faculty: Debra Goldberg

- Computational and molecular biology
- Uses combinatorial and graph algorithms to solve problems in genomics
- http://www.cs.colorado.edu/~debra/

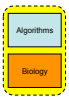
- Courses:
  - CSCI 5314: Algorithms for Molecular Biology
  - CSCI 4810: Seminar in Computational Biology and Health Informatics

Potential Faculty: Larry Hunter

- Computational biology
- Uses statistical and knowledge-base techniques for biomedical data and texts
- http://compbio.uchsc.edu/Hunter/

- Courses:
  - BIOI 7713: Topics in Bioinformatics

Professor on Denver Health Sciences Campus



Potential Faculty: Rob Knight

- Computational and molecular biology
- Sequencing and computational techniques to look at evolutionary changes in biomolecules, genomes, and communities.
- http://www.colorado.edu/chemistry/people/knightr.html

- Courses:
  - Typically biochemistry courses

Professor in CU-B Chemistry Department

Potential Faculty: Leysia Palen

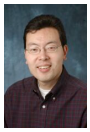
- How people use information and communication technology (*ethnographic)* and CSCW
- ICT impact on disaster contexts (before, during, after)
- http://www.cs.colorado.edu/~palen

- Courses:
  - CSCI 6838: User Interface Design
  - CSCI 7000: Human Computer Interaction -- Survey and Synthesis

DSS/HCI

Systems

Potential Faculty: Rick Han



- Wireless sensor networks
- Deployed wireless sensor networks in forest to monitor weather conditions surrounding active wild fires
- http://www.cs.colorado.edu/~rhan

- Courses:
  - CSCI 5273: Network Systems

DSS/HCI

Systems

Potential Faculty: Buzz King

- Database interoperability
- Has been looking at HL7 and medical databases
- http://cornerstone.cs.colorado.edu/~roger

- Courses:
  - CSCI 5817: Database Systems

DSS/HCI

Systems

Potential Faculty: Gerhard Fischer

- Lifelong learning, design, meta -design, distributed cognition
- Designs, develops, and evaluates technologies to assist people with cognitive disabilities
- http://l3d.cs.colorado.edu/~gerhard/

- Courses:
  - CSCI 3002/7000 Digital and Social Systems Foundations
  - CSCI 4412/5412 Design, creativity, and New Media

DSS/HCI

Systems

Potential Faculty: Clayton Lewis

- Cognitive assistive technology and human computer interaction
- Design, develops, and evaluates applications to assist people with cognitive disabilities
- http://cs.colorado.edu/~clayton/

- Courses:
  - CSCI 3112: Digital and Social Systems Professional Development
  - CSCI 4332/5332: Game Programming
  - CSCI 4838/7000 Special Topics in Computer Science: Open Source Development of Cognitive Technology on a Mobile Platform

DSS/HCI

Systems

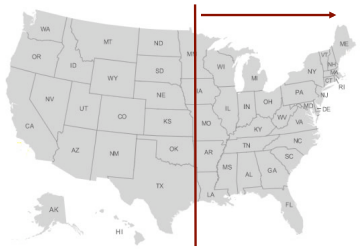
How do you approach a professor?

Medical/Health Informatics Programs Outside of CU

Things to check:

- Who publishes in MI literature and where are they from?
- What School is the degree program in?
- Is this a professional or research oriented program?

Medical Informatics Programs are All over the Country



Eastern Programs

- CU
- Georgia Tech
- Vanderbilt
- Northwestern
- USF
- Ohio State
- CMU
- Penn State
- John Hopkins
- Wisconsin
- Emory
- NJIT
- Harvard

http://www.gradschools.com/programs/medical_informatics.html

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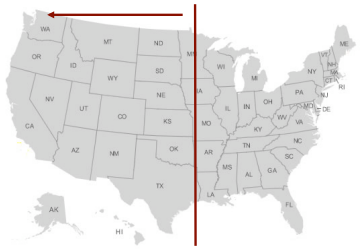


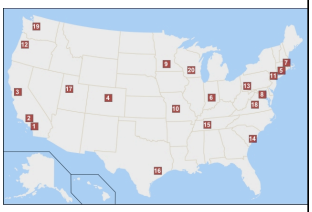
Western Programs

- CU
- Washington
- UC-San Francisco
- UC-Irvine
- UCSD

http://www.gradschools.com/programs/medical_informatics.html

Look at who gets funding: NLM Bioinformatics Programs

1. University of California Irvine
2. University of California Los Angeles
3. Stanford University
4. University of Colorado Denver
5. Yale University
6. Regenstrief/Indiana University
7. Harvard University (Medical School)
8. Johns Hopkins University
9. University of Minnesota Twin Cities
10. University of Missouri-Columbia
11. Columbia University Health Sciences
12. Oregon Health & Science University
13. University of Pittsburgh at Pittsburgh
14. Medical University of South Carolina
15. Vanderbilt University
16. Rice University
17. University of Utah
18. University of Virginia Charlottesville
19. University of Washington
20. University of Wisconsin Madison



http://www.nlm.nih.gov/ep/GrantTrainInstitute.html

MI/HI in the Corporate World

Research
- Intel Research - Seattle
- Microsoft - Seattle
- LG
- Philips - Boston
- IBM - NY

Consulting
- Accenture

How can I do research without a Ph.D.?

Where do you think the future of medical informatics will go?

What technology do we need to make this vision happen?

What changes in the medical system do we need?

What cultural/community changes do we need?

Any other changes (e.g., policy)?

What is the next step?

Feedback on the Course

How can this course be improved?

What should be added/removed from the course?

For each guest lecture (Steve Ross (PHRs), CT Lin (EMR), and Sheana Bull (Social Networks)) please answer the following:

- Presenter (scale of 1-5; 5 highest)
- Presentation (scale of 1-5; 5 highest)
- Invite to next time course is given? Why?
- Interesting thing I learned from presenter?

Send anonymous responses to Pat Warrick with CSCI: Medical Informatics on top of the letter to

Pat Warrick; University of Colorado at Boulder; Department of Computer Science; 430 UCB; Boulder, CO 80309-0430 USA OR Patricia.Warrick@Colorado.EDU
+1-303-492-7514
+1-303-492-2844 (FAX)