Lecture 11:
Project/Presentation Discussion

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presentation
paper presentation

- select a paper
- sign up for a presentation slot
- prepare your presentation and activity

see handout for details

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## The Paper

What are the salient features of the paper? (What was novel or significant about it?)

<table>
<thead>
<tr>
<th>What are the drawbacks?</th>
<th>Rating (0-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audience cannot understand the presentation because there is no order to the sequence in which information is presented.</td>
<td>0</td>
</tr>
<tr>
<td>Audience has difficulty following the presentation because the student jumps around without connecting different topics very well.</td>
<td>3</td>
</tr>
<tr>
<td>Student presents information in a logical, interesting order that the audience can easily follow.</td>
<td>7</td>
</tr>
<tr>
<td>Student presents information in a reasonable sequence that the audience can mostly follow, perhaps with some effort.</td>
<td>10</td>
</tr>
</tbody>
</table>

## The Presentation

What did this student do on the reverse side?

### Slides

- Student uses superfluous graphics or no graphics; the slides have many errors in spelling, grammar, and/or legibility; or they are otherwise unprofessional in appearance.
- Student occasionally uses graphics that support the text and presentation, and/or the slides have some problems with spelling, grammar, and/or legibility.
- Student’s graphics relate to text and presentation, but there is room for improvement. Slides have few misspellings, grammatical errors, or illegible areas.

### Subject Knowledge

- Student does not grasp the information in the presented paper and cannot answer questions on the subject.
- Student is uncomfortable with the information and is able to answer only rudimentary questions.
- Student is at ease with the presented topics but cannot elaborate on all issues and does not handle challenging questions smoothly.

### Organization

- Student begins late, poorly allocates time between topics during talk, and/or continues speaking long past the time limit.
- Student does not cover all of the material planned and has to rush, or student fails to present enough information to fill the time.
- Timing is a little off, in that parts of the talk feel rushed or slow, or student does not leave adequate time for questions and activity.

### Timing

- Student turns to notes or slides for prompting and does not use notes.
- Most audience members can hear the presentation, but the student turns to notes or slides for prompting several times.
- Student uses a clear voice and correct, precise pronunciation of technical terms so that all audience members can hear the presentation. Student maintains eye contact and does not use notes.

## What did you learn from the activity?

What is a good direction for future work based on this paper?

How could this student improve his or her presentation?

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### Total

- Audience cannot understand the presentation because there is no order to the sequence in which information is presented.
- Audience has difficulty following the presentation because the student jumps around without connecting different topics very well.
- Student presents information in a logical, interesting order that the audience can easily follow.
- Student presents information in a reasonable sequence that the audience can mostly follow, perhaps with some effort.

### Timing

- Student turns to notes or slides for prompting and does not use notes.
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### Total

- Timing is perfect: the student starts and ends on time, leaving sufficient opportunity for questions and activity.

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### Oral Presentation Evaluation Form

Carolina Department of Public Instruction. This rating table was adapted from materials by the Information Technology Evaluation Services at the North Carolina Department of Public Instruction.
project
**project**

- **decide on team and come up with ideas (due Monday)**
  
  3 people; I encourage diversity in experience!

- **meet with the instructors to review your ideas**
  
  there will be a sign up available for next week — meetings instead of class

- **propose a specific project (due Friday May 17)**
  
  see handout for proposal guidelines

- **do the project: make your device/system/experiment**
  
  with checkpoints along the way

- **present your project at the Haptics Open House**
  
  Tuesday June 4, 9:30 to 10:30 am in 520-145
  
  your peers, faculty, etc., will be in attendance
• checkpoints and **final project report** will be on a wiki page

• this is a good resource for you and others

http://charm.stanford.edu/ME327
your project should

- be clear in its objectives: know how you define success!
- be informed by a thorough literature search
- be easily used by a haptics novice at the demonstration day
- have high “production values”
- be developed with a study/analysis in mind
you may wish to...

• have a real impact on the world by solving a problem (e.g., assistive technology)

• relate the project to your current research

• make a big splash (publicity, start-up company, etc.)
example projects from previous years
(some of these classes had a different focus)
Display of material softness using magnetorheological fluid
Haptic display for science/tech museum
Skin stretch haptic device

Deformable modeling of soft tissues with haptic force feedback

Tactile display for simulating lumps in tissue
Bone screw simulator for orthopedic surgeons

Haptic feedback based on kinect tracking

Haptic feedback of prosthetic hand configuration

Haptic feedback for virtual keyboard/buttons
Haptic paddle juggling

AngryGrads: Haptic feedback for learning a dynamic task
Foot haptics

A 2-DOF Haptic Device for Displaying Forces on an Airfoil
Based on the built-in Chai3D device classes, it implemented such paradigms, where “hard-coded” into the 626 PCI board and specially programmed NeuroTouch in Figure 2.

A screenshot from demo mode can be seen. A keyboard callback function allowed the user like threading, graphics were based in Chai3D. They displayed the frequency of 50 Hz. A keyboard callback function allowed the user to set the force magnitude and experiment mode. The force magnitude depended on either cursor position recorded data (e.g., after an experiment), we used output the current encoder angles. These angles corresponded to the base joints of the linkage and were at the end effector. This force saturated around 3 N.

3.2.2 Graphics

In both BCI and PHANTOM built-in PHANTOM device class. In both BCI and PHANTOM paradigms. Force magnitude depended on either cursor position.

After an hour of training with the Emotiv EPOC, our subject was able to use the device for improved control of brain-computer interfaces. haptic device for improved control of brain-computer interfaces.

Rendering Transient Forces on the Palm Through a Vibrotactile Squeezer

Haptic Device Manipulator with Variable Size and Stiffness

project discussion
and matchmaking