

Working With People

Outline

- Additional Details on Projects
- Working with human subjects

CS 449 Projects

- *Must* design to user needs, not to your whims
- *Must* demonstrate how your proposed system will improve users' lives
- Proof-of-concept prototyping means designs can take many forms...
- Must be possible using current technology

Basketball Scorekeepers

The image displays a basketball scorekeeping application interface. It features two scoreboards on the left and right, and a central control panel.

Left Scoreboard (Score: 5):

- Score: 5
- Last Basket: 2 points at 19:42.9
- Add: 1 Point, 2 Points, 3 Points
- Time Out button
- Last TO: never, TOs remaining: 2
- Total Team Fouls: 0
- Scoreboard grid:

9	13	21	23
67	74	77	81

Right Scoreboard (Score: 8):

- Score: 8
- Last Basket: 2 points at 19:58.2
- Add: 1 Point, 2 Points, 3 Points
- Time Out button
- Last TO: never, TOs remaining: 2
- Total Team Fouls: 0
- Scoreboard grid:

7	14	34	36
45	62	66	69
74	82		

Central Control Panel:

- Edit Mode button
- Next Jump Ball is: Black (Click to toggle)
- Last Jump: 19:51.9
- Timer: 19:42.9 (1st Half)
- Edit Time button
- Start Timer button

Newspaper Section Editors

Photographer View

View or Add Events | View Submitted Photos and Workspace | Upload Photos

Overall Events List:

Event Name	Date & Time of Event	Section	Due Date	Photos S...
HCI Poster Sessi...	2008-04-01 17:00	Science & Tech	2008-04-03	Y
Toronto Auto Show	2008-04-02 17:00	Sports	2008-04-02	Y
Writeup 3	2008-04-02 17:00	Sports	2008-04-02	N

Add Selected Event as an Event of Interest

Your Events of Interest:

Event Name	Date & Time of Event	Section	Due Date	Photos S...
HCI Poster Sessi...	2008-04-01 17:00	Science & Tech	2008-04-03	Y
Toronto Auto Show	2008-04-02 17:00	Sports	2008-04-02	Y
Writeup 3	2008-04-02 17:00	Sports	2008-04-02	N

Remove Event as Event of Interest

Properties for Selected Event:

Description:
Fishbowl, DC 4:00

Event date & time:
2008-04-01 17:00

Due date:
2008-04-03

Section Editor:
User

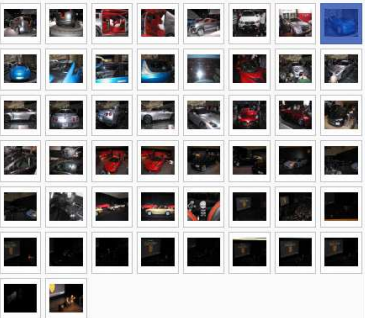
Comments:
I would attend but I have class that day!

Photographer View

View or Add Events | View Submitted Photos and Workspace | Upload Photos

Local Directory:


C:\HCI\Pics\ Browse...



Submitted Photos For:

Toronto Auto Show

Filename: IMG_0208.JPG ★☆☆☆☆



Tags for: Toronto Auto Show (0/10) Nothing selected

By:

Section:

Event:

Date:

Preference: ★☆☆☆☆

Return to Previous Screen

Teachers

Microsoft Excel - mark sheet NEIL

File Edit View Insert Format Tools Data Window Help

v10 =

Upload Data

Auto Check Marks

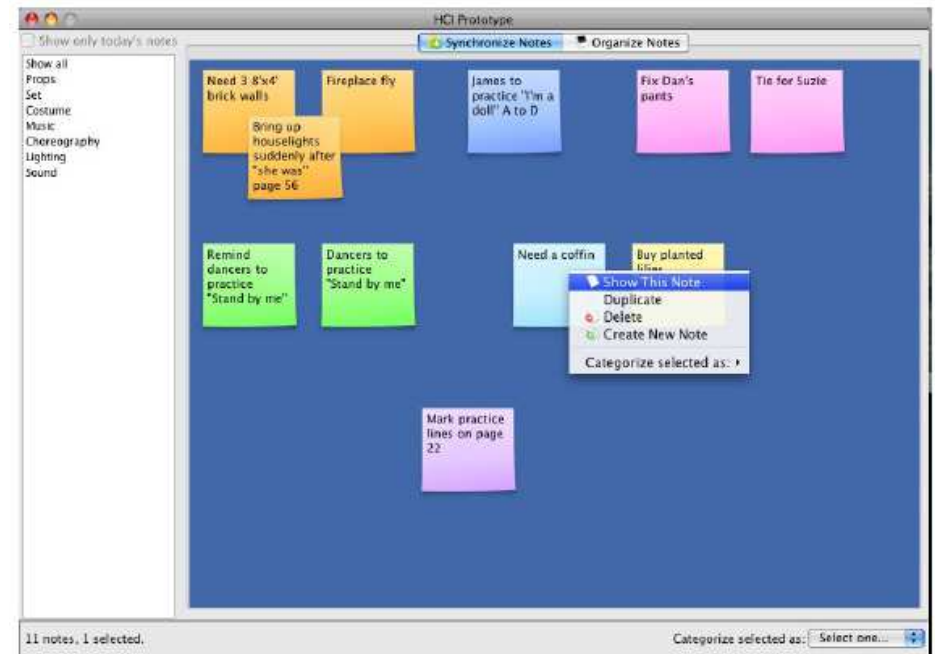
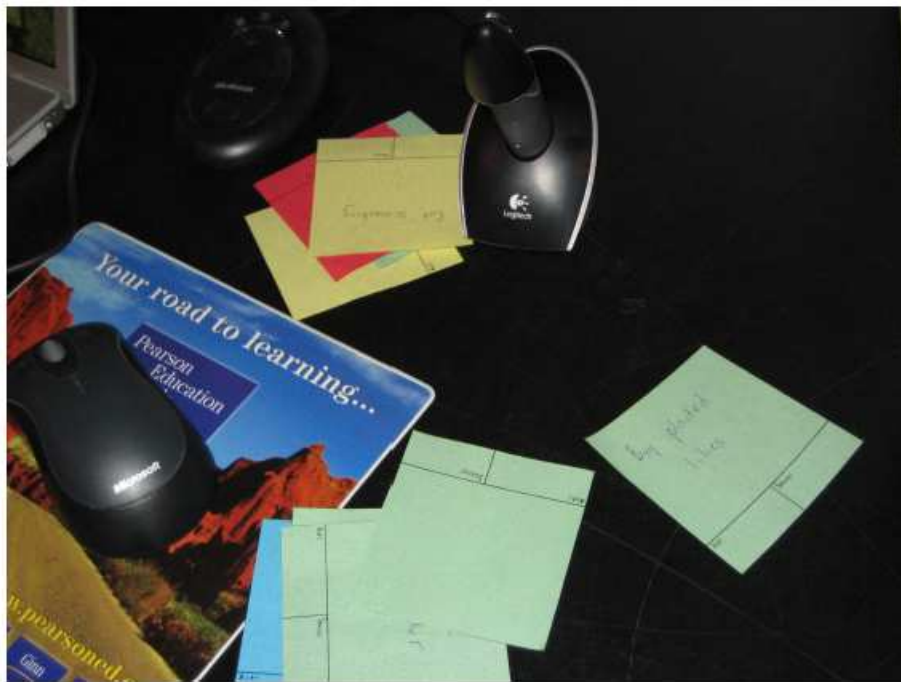
French Gr. 4

Filter Type: Apply

	A	B	C	D	E	F	Questions "Le Petit Nicolas"	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	
							WR	OR	RE	WR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR
1																					
2																					
3																					
4							Ackley, Jonhathan	10	9	10	9	10	9		8		10				
5							Ahmed, Mo	9	9	9	9	7	8		7		10				
6							Avondale, Catherine	4	10	9	2	8	8		7		10				
7							Brea, Sheila	7	10	10	7	9			10		9				
8							Bronze, Michael	8	10	10	7	10			10		9				
9							Brown, Brian	9	8	10	8	9			4		9				
10							Chin, Nicole	2	9	9	9	7			9		8				
11							Dreary, Leanne	7	10	9	10	8			9		7				
12							East, Mary	7	8		8	9			7		8				
13							Ferguson, Jon	8	10	8	8	9			8		9				
14							Flower, Mike	9	8	8	9	10			-		9				
15							Jain, Varun	10	9	10	9	9			8		9				
16							Jehr, Matthew	8	7	10	2	10			9		9				
17							Jeno, Milena	9	8	10	7	10			10		8				
18							Kac, Cristian	7	2	9	7				10		10				
19							Kwan, Laetitia	8	7	8	8	8			10		9				
20							Lae, Ming	8	7	9	9	9			7		9				
21							Lo, Margaret	9	8	10	7	10			2		9				
22							Lu, Jay	7	9	8	7	8			9		8				
23							Man, Daniel	8	10	10	8	9			9		7				
24							Meht, Brock		9	10	9	9			9		7				
25							Mildred, Loona	10	8	7	10	10			10		8				
26							Mock, Sam	10	9	8	9	10			10		9				
27							Newman, Alli	9	7	9	9	10			9		9				
28							Ng, Allan	10	8	9	4	9			9		9				

French Gr. 4 / test -er verbs / Ackley, Jonhathan /

Stage Managers



Other Project Issues

- IP in this course is your own
- You cannot sign:
 - NDAs
 - IP ownership rights
- But, there is some shared aspect to IP
 - Collaboration on publications
 - Start-ups require some discussion

Human Participants

- Why this lecture
- Your recruitment process
- Ethics review and what we had to do
- Consent forms that you must have signed
- Informed consent
- Privacy

Why human participants?

- In general?
- In this course?
- In general:
 - New knowledge and new understanding
 - Benefit to subjects
 - Benefit to society

In this course

- Subjects are your link to data
 - Without subjects, you have no project
 - You will be interviewing them and watching them as they work
 - You will be interrupting and disrupting what they do
- Always respect
 - Subject's time
 - Subject's attitude and environment
 - Subject's desire for privacy

Why lecture on research ethics

- In this course?
 - Process and protections ensure study is done correctly with proper forethought
 - School teachers
 - Nurses
 - ... and you may want to publish
 - ... or you may want to commercialize

University of Waterloo Ethics Requirements

- University has a formal process for ethics
 - Not something you need to deal with
 - I created letters, modified protocol, etc.
- Why would the university have ethics requirements for a course?

Principles

- Respect for human dignity
- Respect for free and informed consent
- Respect for vulnerable persons
- Respect for privacy and confidentiality
- Respect for justice and inclusiveness
- Balancing harms and benefits
- Minimizing harm
- Maximizing benefits

Ethics Review

- All research that involves living human subjects requires review and approval before research is started
- When do projects require review?
 - Whether funded or not
 - Whether subjects are from university or not
 - Whether subjects are paid or not
 - Whether research is conducted inside university or not
 - Whether conducted by faculty or students
 - Whether information is collected from subjects or not
 - Whether published or not
 - Whether focused on the subject or not
 - Whether observation, experimental, or descriptive
 - Whether basic or applied
 - Whether for teaching or training or research
- Even naturalistic observation requires review
 - Especially when staged

Ethics Review (2)

- Research Ethics Board (REB) at Waterloo can:
 - Approve, reject, propose changes, or terminate any work with human subjects by members of the university
 - This includes you.
- REB consists of five members
 - Both men and women
 - One member knowledgeable in ethics
 - Two members have expertise in fields covered by REB
 - One member knowledgeable in biomedical law
 - One member from outside university
 - Goal is breadth – want a balanced perspective on projects being examined

Ethics Review (3)

- Course project is one of *Minimal risk*
 - Probability and magnitude of harm should be no greater than in everyday life
 - This can also be how you test new treatments on people (e.g. experimental surgeries or cancer treatments)
- Greater than minimal risk requires greater corresponding benefits
 - Benefit outweighs risk
 - May need peer review

Ethics Review (4)

- Canadian and UW guidelines
- They consider
 - Recruitment
 - Voluntary participation
 - Confidentiality and anonymity
 - Risks/benefits
 - Fully informed consent

Recruitment

- Use subject consent form
- Gatekeepers permission: use manager's consent form to obtain permission to use subjects
 - I prefer you contact subjects first
 - No on one = no on both

Consent forms

Informed Consent (1)

- Disclosure
- Comprehension
- Voluntariness
- Competence
- Agreement

Informed Consent (2)

- Should normally involve full and frank disclosure
 - Information that it is a research project, on the purpose of the project, on the procedures, and any perceived harms and benefits
 - Assurance subjects are free not to participate
 - Any possibility for commercialization and/or conflict of interest
 - May need to practice some deception, but if so must document that:
 - Minimal risk
 - Change won't affect rights/welfare
 - Research requires the deception
 - Subject informed after
- Must be voluntary
 - Subjects must be free to say yes or no, and can stop at any time
 - Military (for example), my own students
- Subjects must be competent
 - This is why no children
 - This is a risk for healthcare settings
- Typically by a signed statement
 - Can also be implied
 - Filling out a survey

Informed Consent (3)

- Subjects can refuse to answer and can stop participating at any time
- If they say they don't want to participate, their involvement is done
- Never, ever push subjects for information they cannot or do not want to disclose

Informed Consent (4)

- They can consent to all or part of process
 - Consider consent forms
 - Make them aware of selective exclusion
- As a minimum
 - Audio + photos + anonymous quotations are useful, but can say no.

Questions or Problems

- For questions, give subjects my email and office phone number
 - Also supervisors/managers
- If any problems occur, contact me immediately
 - Must be reported

Privacy and Confidentiality

- Any information disclosed must be held confidential
 - Legal and moral requirement
- Best protection is anonymity
 - All data will be anonymized for your studies
 - Use code names (e.g. P1) to refer to people
- Personal Information = need for REB approval
 - Name, age, occupation, etc.
- Secondary data, or re-contact with people who provided data by new researchers also requires approval

Privacy and Confidentiality (2)

- You will
 - Anonymize everything
 - Always refer to subjects by code, even in your notes, labels for tapes, files, etc.
 - Anonymize pictures you plan to use
 - Extends to organizations
 - Do not say ‘the campus theatre group’
 - Say ‘a local theatre company’
 - Regardless, participant always has option to review data and relevant text of report

Take Aways

- You will be working with people in this course
- Must be mindful of their right to privacy and safeguard this
- Must study people in a way that ensures that they understand and agree to everything done

- Next day
 - Collecting data: interviewing participants