COGS1
Section A01
Week 10

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Office Hours: Tuesday 2:00-3:00pm @ CSB 229
Announcement

CAPE EC – if 95% (or more) students complete CAPE, the entire class will get 1% course grade 😊.

• Please fill out the CAPE review!
  http://www.cape.ucsd.edu/
• Please help us to improve!
  TA/IA evaluation: tinyurl.com/wi18-cogsci-evals
  Your reviews matter!!
• This Wednesday: Midterm 3 Review
• This Friday: Midterm 3 (covering lectures and readings from Dr. Boyle’s (2/16) Intro to Neural Network to Dr. Voytek’s (3/12) Intro to Data Science)
Brief review for the topic of last week

- A Glimpse of Human Computer Interaction - Dr. Hollan
- HCID jobs - Dr. Guo
- Profanity - Dr. Bergen
A Glimpse of Human Computer Interaction
Review questions

1. According to Dr. Hollan, what differentiates those that make significant contributions from those that don’t?
2. According to Dr. Hollan, for what does computation provide the most plastic medium?
3. What are the benefits of robotic surgery?
4. What is happening to the boundary between the physical and digital worlds as more and more electronic devices are introduced to our life?
5. What does he mean by permeability?
1. According to Dr. Hollan, what differentiates those that make significant contributions from those that don’t?

- Expectations
- Neglect unimportant things
- Do what you love and love what you do
- Be careful about your commitment but when you do commit *really* commit
- Be intentional about the people you spend time with
  - “You’re the average of the 5 people with whom you spend the most time”
    - Jim Roan (some motivational speaker)
- Think important thoughts
2. According to Dr. Hollan, for what does computation provide the most plastic medium?

Computation provides the most plastic meta-medium for representation, interaction, and communication we have ever known. It can be used to:

- Create new media and modify the form of existing media
- Mimic existing media
- Model
- Provide virtual worlds
- Combine the real and the virtual

“The computer is the first meta-medium, and as such it has degrees of freedom for representation and expression never before encountered and as yet barely investigated.” — Alan Kay
3. What are the benefits of robotic surgery?

- Surgery can be done without opening up the body
- Robots can do the surgery in a more precise way
  - Work at extremely small scales by mapping large onto small movements
  - Robots can diminish hand tremors

Note: robotic surgery still requires human involvement!
4. What is happening to the boundary between the physical and digital worlds as more and more electronic devices are introduced to our life?
5. What does he mean by permeability?
HCID jobs
Review questions

1. Human-centered design is the study of what?
2. What are the processes of human centered design? What is the meaning of each step?
3. How should one build a good design portfolio?
1. Human-centered design is the study of what?

**Needfinding**: What should we even build?

**Storyboarding**: How should we *start* to build it?

**Paper Prototyping**: What should it look and feel like?

**Mockups: Visual Design**

**Interactive Prototypes**

**User Testing**

**Online Experiments**

**Final Web/Mobile App**

How can we measure how well it works for real users?

How can we ship a finished product?
2. What are the processes of human centered design? What is the meaning of each step?

Needfinding
Storyboarding
Paper Prototyping
Mockups: Visual Design
Interactive Prototypes
User Testing
Online Experiments
Final Web/Mobile App

Steve Jobs was right: Real Artists Ship!
by Jim Connolly

[Steve Jobs famously said, "Real artists ship." He was referring to the fact that everyone has ideas, but real artists deliver on their ideas, as he put it.]
3. How should one build a good design portfolio?

Basic:
● Personal Website
● Class projects
● Willing to help!
● Part-time job
● Intern

Advance:
● Have a compelling and fresh point-of-view
● Justify and critique your own process
● It's ok to show how you improved a product, not necessary to create one
● Emphasize most relevant projects
Profanity
Review questions

1. The most offensive word in English language belongs to what category? Where did the ranking/data came from (or; how was the ranking/data obtained)?
2. What’s the relationship between profanity and word length?
3. What’s the relationship between profanity and syllable structure
4. What are open words and closed words?
5. Know the described cross-cultural differences with regards to profane words.
6. What physiological effects (e.g. heart rate, sweating, etc.) does swearing have on people? How does this differ for bilingual speakers?
1. The most offensive word in English language belongs to what category? Where did the ranking/data came from (or; how was the ranking/data obtained)?

**WEIRD**

(Western, Educated, Industrialized, Rich, Democratic)

(Henrich, Heine and Norenzayan, 2010)
2. What’s the relationship between profanity and word length?

**English Orthographic Word Length**

Four-letter word acts as a substitution of profane
3. What’s the relationship between profanity and syllable structure
4. What are open words and closed words?

**Open (ends with V)**
- see
- spy
- rue

**Closed (ends with C)**
- sass
- spit
- runt

Only $\approx 5\%$ of profane English monosyllabic words

And $\approx 95\%$ of profane English monosyllabic words
5. Know the described cross-cultural differences with regards to profane words.

Cultural differences
- Profane words are related to cultural relevant taboos
- Can be copulation, social minority, body parts, and religion
- Japanese don't really have a profane word e.g. "Baka" means fool

バカ野郎!!
6. What physiological effects (e.g. heart rate, sweating, etc.) does swearing have on people? How does this differ for bilingual speakers?
Review questions - continued

7. Know the theories of speech errors described by Dr. Bergen.
8. What brain area has been implicated in inhibitory control?
9. What is Automatic Aphasia? What is Coprolalia? Know the symptoms of these deficits.
10. What brain region is thought to be a key player in the production of profanity?
11. What’s the difference between swearing and neutral language with regards to lateralization and vocalization pathways?
7. Know the theories of speech errors described by Dr. Bergen.

- **Freudian slip**: Errors may reflect otherwise unstated and repressed thought
- If this is true, speech errors should be more likely to result in taboo language than not.
8. What brain area has been implicated in inhibitory control?

Right inferior frontal gyrus

(implicated in inhibitory control)
9. What is Automatic Aphasia? What is Coprolalia? Know the symptoms of these deficits.

**Automatic aphasia**

“could not provide the correct expletive for situations described to him nor could he complete a curse”

**Coprolalia**

Characteristic, attested phrases (Lancker & Cummings, 1999)

- fuck, shit, cunt, mother-fucker, prick, dick, cocksucker, nigger, cockey, bitch, pregnant-mother, bastard, tits, whore, fu . . ., doody, penis, queer, pussy, coitus, cock, ass, shi . . ., bowel movement, homosexual, screw, fag, faggot, schmuck, blow-me, wop, God damn it, damn fool, fuck my your, fucking, fucking. fucking. cunts, fuck, shit, ass, bitch, cock, fart, suck, you fucking idiot, asshole, fuck you, shit on you, fucka, fu . . .
10. What brain region is thought to be a key player in the production of profanity?

Basal Ganglia
- Situated at the base of the forebrain
- Control of voluntary motor movements, procedural learning, routine behaviors or "habits" such as teeth grinding, eye movements, cognition, and emotion
- Selecting actions based on intense emotions
11. What’s the difference between swearing and neutral language with regards to lateralization and vocalization pathways?

Two pathways to communicate with other humans:
- New pathway: indirect, not primitive, rationale,intentional, left brain language areas (e.g.Broca, Wernicke areas )
- Old pathway: direct, evolutionary old, emotional, a sequence of tones to convey the strong emotion states to others
Readings
Review questions

1. What are ChronoViz and Activity Trails? What were they designed for?
2. What is “ubiquitous capture”?
3. What does “lifelogging” mean?
4. What is a “personal information management system”? What kind of results does the system retrieve? What’s the limitation of the system?
5. How does profanity differ from other words?
6. Recall the function of Broca’s Area and Wernicke’s Area.
1. What are ChronoViz and Activity Trails? What were they designed for?

ChronoViz: Visualize, navigate through, and code data with time from multiple sources.

Can see what was happening in all data streams at any single point in time.

Can be used to re-establish context.
Activity Trails: Used to re-establish context by capturing video of desktop activity.

“Video clip thumbnails index episodes of activity (top).”

“Users can click on these thumbnails to replay activities recorded during the episode in a larger window (bottom).”

1. What are ChronoViz and Activity Trails? What were they designed for?
2. What is “ubiquitous capture”?

“Comprehensive recording of a users’ history across multiple applications, devices and media in a real-world setting.”
3. What does “lifelogging” mean?

The ability to create a digital archive of our activities enabling us to remember everything we have learned and experienced.

*Lifelogging is a specific form of, or means of going about doing, ubiquitous capture*

Ubiquitous capture involves collecting the data, lifelogging involves making it useful once you have it via archiving it
4. What is a “personal information management system”? What kind of results does the system retrieve? What’s the limitation of the system?

Personal information management systems characteristically retrieve the results of what users did (perhaps with some metadata), rather than how they did it.

Search mechanisms focus on semantic (context-free information) rather than episodic (context-rich) information

*Difficult to find specific information by virtue of a lack of cataloguing
5. How does profanity differ from other words?

Profanity is:
- Encoded differently in the brain
- Learned differently
- Articulated/produced differently
  - Typical language -> left hemisphere
  - Broca’s aphasics often continue swearing
- Profane language -> right hemisphere
6. Recall the function of Broca’s Area and Wernicke’s Area.

**Broca’s area:** Coordinating the production of speech sounds (muscle coordination, application of syntax/grammar, etc.)

**Wernicke’s area:** Computing meaning (Word, Sentence, etc.)
Quiz time!

- No talking, signing, or communicating of any kind.
- Put away your books, notes, computers, phones, etc.
- Pen or pencil is okay (just make sure it’s a black pen and you press hard with a pencil).
- Write your name in the “Name” box, write and circle in your PID, and sign the academic integrity agreement.
- Circle this section
- Please have your student ID out when you turn in your quiz!
**ACADEMIC INTEGRITY**

By taking this quiz, you agree that you will follow ALL UCSD ACADEMIC INTEGRITY policies.

It is YOUR responsibility to know and understand all of the policies. Failure to follow all UCSD Academic Integrity policies could result in expulsion from UCSD.

Signature

Date

Your **signature above certifies** that you will follow and that you know that you will suffer the consequence for **ANY** academic integrity violation.

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**Section you are taking this quiz:**

Please Bubble only one!

1. Monday @ 12 Sylvia
2. Monday @ 4 Kevin
3. Wednesday @ 12 Jason
4. Wednesday @ 2 Zoe
5. Friday @ 11 Elena
6. Friday @ 12 Angelica
7. Friday @ 2 Kevin

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**YOUR ANSWERS GO HERE**

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**Quiz will not be graded without Academic Integrity Signature.**

You must sign here, or you would get **ZERO** on your quiz.