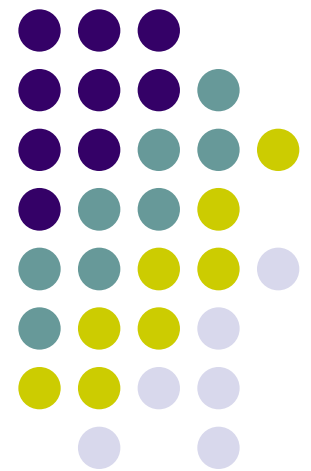
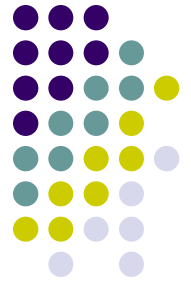


# 440 Midterm Review

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Midterm in-class  
Tuesday, Nov 6





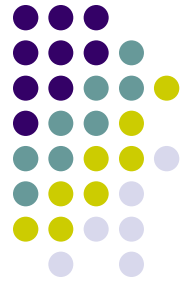
# Midterm Format

- Multiple Choice
- Fill in the Blank
- Short Essay Answer
  - Example interface: Here is an example of an interface – find the flaws
  - Example situations: Here is an example design process – find the flaws, or what concepts does it illustrate?
  - Definitions
  - Compare and contrast
  - Process: Perform a heuristic analysis on the following interface...



# Midterm Content

- You will be expected to know everything, up to the midterm
  - Lecture
  - Individual Homework
  - Readings
  - Project processes
  - (tutorial)



# Tips for Preparation

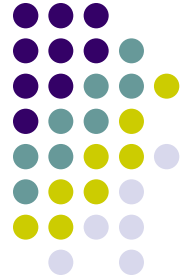
- During the semester
  - Keep up with readings
- Before the exam
  - Review readings and notes → esp “Review” sections
  - List concepts
  - Group similar concepts together
  - Make up exam questions
    - Why is this concept important?
    - How does it fit into the big picture?
    - Can I compare this concept to other similar ones? If so, then how is it different?
    - What is a real world example of this concept?



# Tips for Preparation

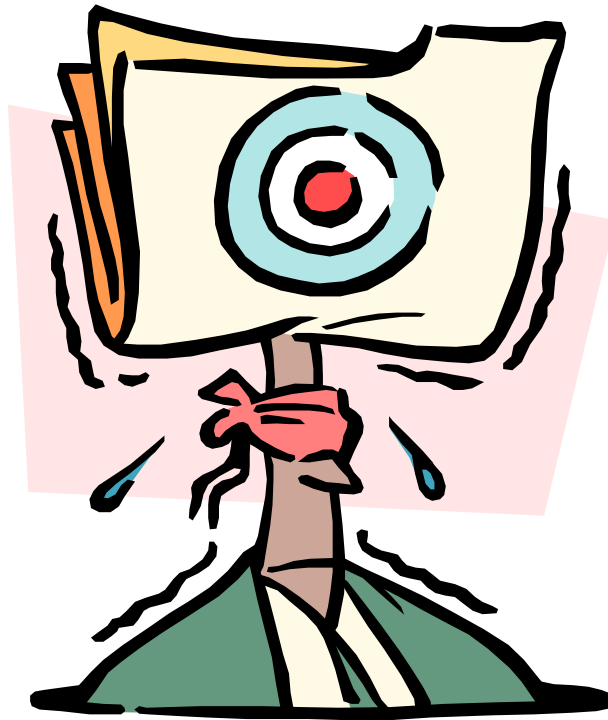
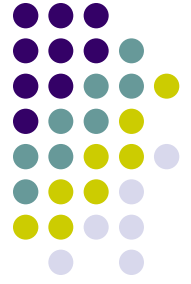
- During the exam
  - Read questions carefully
  - Don't spend too much time on one section

# Now

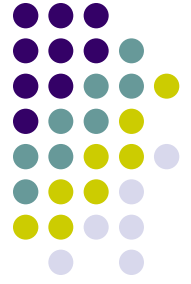


- Take out a sheet of paper, and be ready to answer the mini-quizzes

# So what did we learn, anyway?



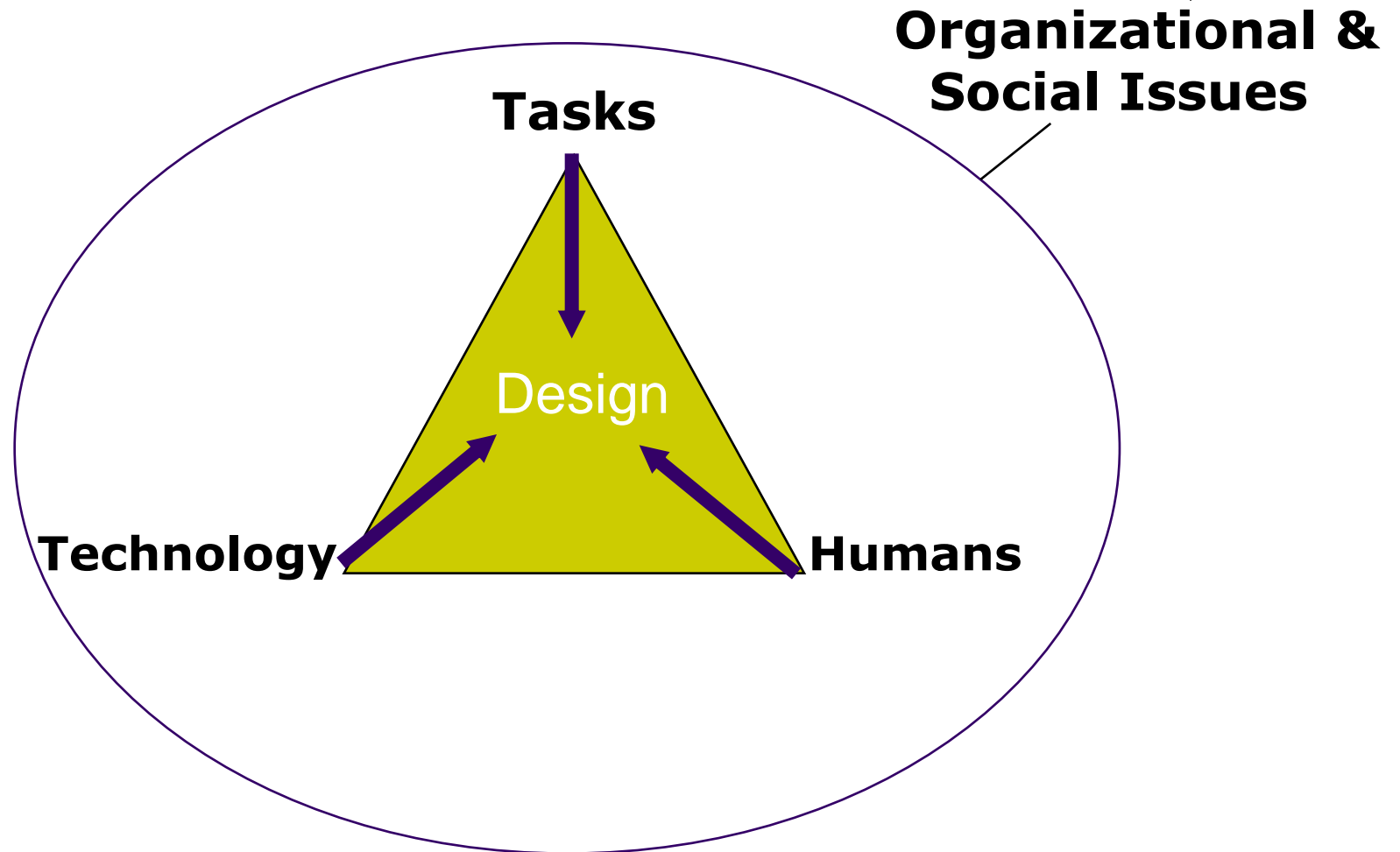
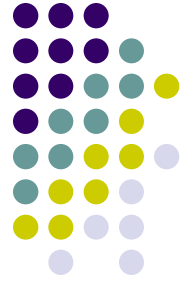
# ?

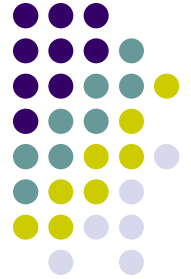


# Topics List

- Intro
  - Design triangle
  - Usability Goals and Metrics
- Design process
  - Discovery, exploration, refinement, production
  - Iterate!
  - Understanding your user

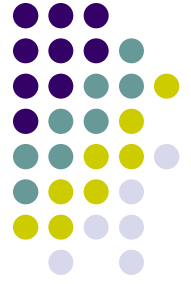
# Quiz: Design Triangle





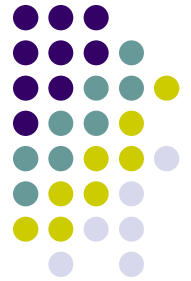
# Quiz: Usability Goals

- Learnable
- Memorable
- Flexible
- Efficient
- Robust
- Pleasing
- Fun



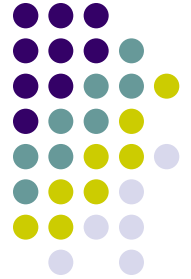
# Topics List

- Contextual Inquiry
  - Context, Partnership, Master/Apprentice model
- Task Analysis
  - Questions
  - Tasks



# Quiz: Task Analysis questions

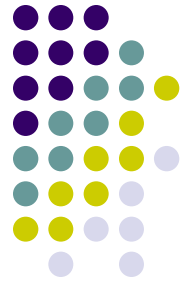
- 1. Who is going to use the system?
- 2. What tasks do they perform now?
- 3. What tasks are desired?
- 4. How are the tasks learned?
- 5. Where are the tasks performed?
- 6. What relationship between the user and data?
- 7. What other tools does the customer have?
- 8. How do customers communicate with each other?
- 9. How often are the tasks performed?
- 10. What are the time constraints on the tasks?
- 11. What happens when things go wrong?



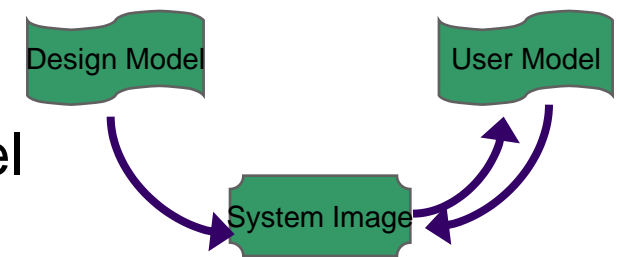
# Topics List

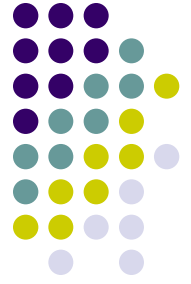
- Design Concepts
  - Conceptual Models (Design, User)
  - Affordances
  - Metaphors
  - Visibility

# Designing / Conceptual Model



- Conceptual model
  - mental representation of how an object works & how interface controls effect it
- Design model should equal user model
  - mismatches lead to errors
  - know the user's likely conceptual model
- Design guides make things visible
  - map interface controls to user's model
  - provide feedback

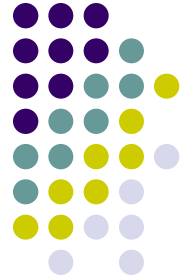




# Quiz: Key Terms

1. Usability
2. User centered Design
3. Task Analysis
4. Contextual Inquiry
5. Rapid Prototyping
6. Evaluation
7. Affordance

# Quiz: History of HCI



- Vannevar Bush

- As we may think:

- Memex,
- wearcam,
- Autospeech

- Grace Hopper

- First Computer Bug

- Doug Englebart

- Augmenting human intellect

- Chorded Keyboard
- Mouse
- Word processing
- Groupware

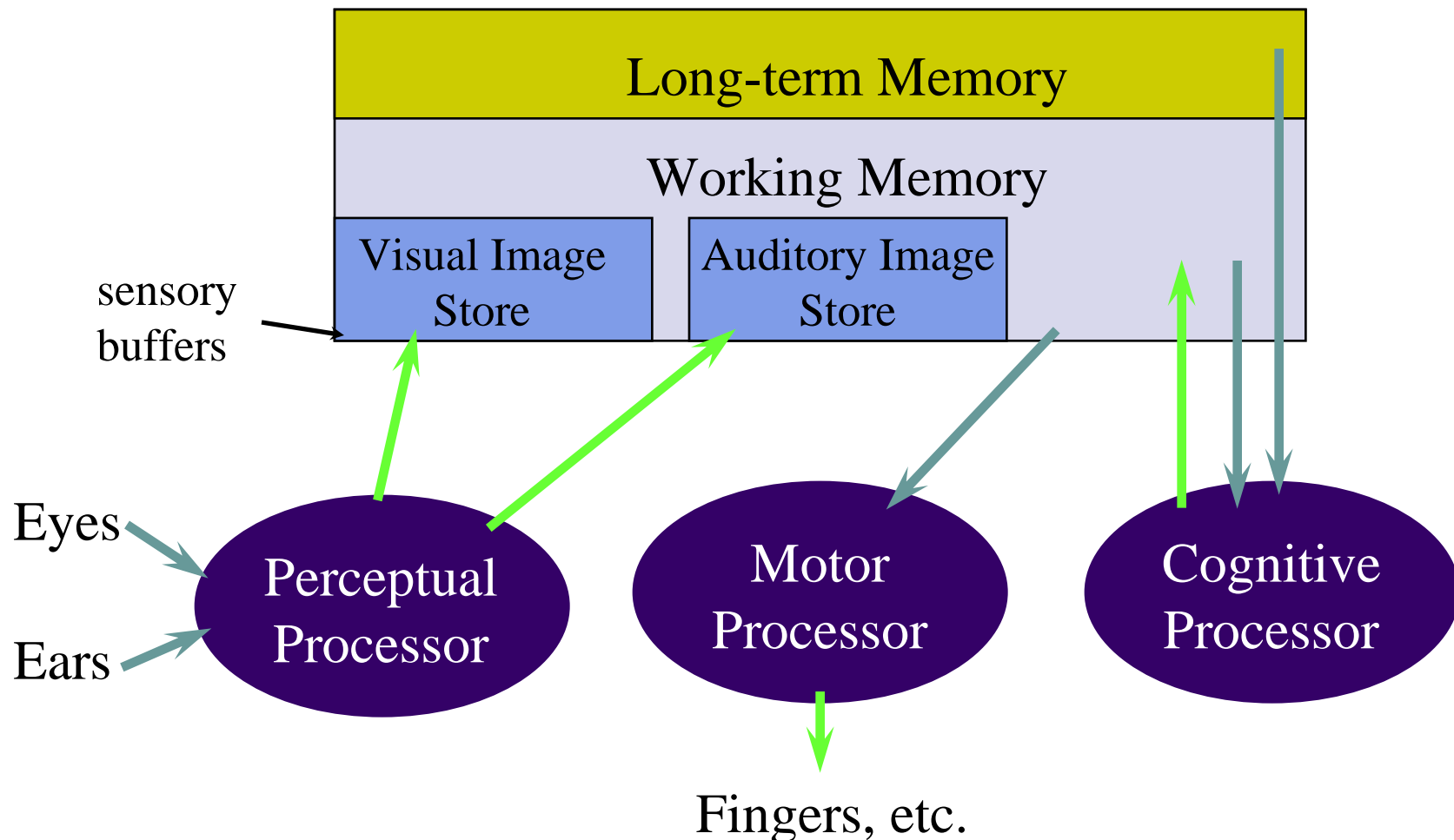
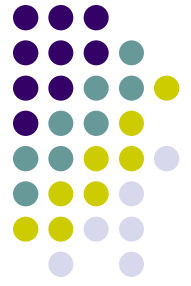


# Topics List

- Human Perception
  - Color sensitivity & physical human eye
  - Hue, Lightness, Saturation
- 100 ms
- Fitt's law
- LTM, STM, Sensory
- Model Human Processor

# The Model Human Processor

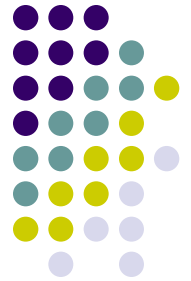
- Developed by Card, Moran, & Newell ('83)
  - based on empirical data





# Topics List

- Design Patterns
  - How to use them
  - Six ways to make a good Home Page
  - Patterns
    - Homepage Portal
    - Personalized Content
    - Inverse Pyramid Writing Style
    - Shopping Cart
- Heuristic Analysis



# Quiz: Heuristic Analysis

- 1. Visibility of system status
- 2. Match between system and the real world
- 3. User control and freedom
- 4. Consistency and standards
- 5. Error prevention
- 6. Recognition rather than recall
- 7. Flexibility and efficiency of use
- 8. Aesthetic and minimalist design
- 9. Help users recognize, diagnose, and recover from errors
- 10. Help and documentation

Your vehicle - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://gui.berkeley.edu/courses/cs160/spring2002/badsite.htm> Go

Links [Salon](#) [NY Times](#) [Hotmail](#) [CNN](#) [Google](#) [M-W](#) [Mail](#) [GUIR JavaDocs](#) [GUIR](#) [JAVAI](#) [JavaDocs](#) [UCB](#) [EECS](#) [Yahoo! Maps](#) [me](#) [InfoViz](#) [Tangible](#)

### Carl's Car Audio and Electronics -- Shopping Bag

what fits my car? [logout](#) [continue shopping](#)

Your vehicle: 1989 Tercel  
To select a different vehicle, click 'What Fits My Car' above

**PLEASE NOTE**

Item #	Message
<b>204EL570</b>	This component is <b>NOT</b> recommended for your vehicle. We suggest removing this item (bolded in red below) from your cart. Please call us toll-free at 1-888-955-6000 and we'll be glad to provide further assistance.

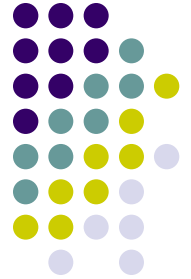
#### Cart

Quantity	Item #	Remove?	Item Description	Price	Total
<input type="text" value="3"/>	#033DVM4800	<input type="checkbox"/>	<a href="#">Denon DVM-4800 DVD Video Changer</a>	\$1,199.95	\$1,199.95
<input type="text" value="1"/>	<b>#204EL570</b>	<input type="checkbox"/>	<b><a href="#">Bazooka EL570 5"x7" 2-way speakers</a></b> Vehicle: 1989 Toyota Tercel Liftback with equalizer or radio delete option ( <a href="#">change</a> )	\$79.95	\$79.95
<input type="text" value="h"/>	#158DSCP50	<input type="checkbox"/>	<b>Special</b> <a href="#">Sony DSC-P50 Digital Still Camera, 2.1 Mega Pixel</a> Save \$100! Was \$399.95, Now: \$299.95	\$299.95	\$299.95
<input type="text" value="1"/>	#133DVDLA95	yes <input type="checkbox"/> no <input type="checkbox"/>	<a href="#">Panasonic DVD-LA95 Portable DVD-A/V Player with 9" Screen</a> -- This item is temporarily out of stock --	\$999.95	\$999.95
<input type="text" value="1"/>	#170GXT160	<input type="checkbox"/>	<a href="#">Maxell GX-Silver T-160 VHS Video Tape</a>	\$2.49	\$2.49
<input type="text" value="1"/>	<input type="text"/>				
<b>Total</b>				Merchandise Total	<b>\$2,582.29</b>
				Standard Shipping Shipping Charge: Alternative shipping options available before final checkout	<b>\$13.95</b>
				Order Total	<b>\$2,596.24</b>

[Update Cart](#) [Clear Cart](#)

- To change an item's quantity, enter the correct number in the **Quantity** column, then press **Update Cart**.
- To remove an item, check the box in the **Remove?** column, then press **Update Cart**.
- To order an item that appears in your printed Crutchfield catalog, enter the item number into the **Cart** and click **Update Cart**.
- International visitors, please [click here](#).

Done Internet



**Good Luck!**