Designing Interactive Systems I
Discussion of A01 and Week 1–2; Introduction to A02 and Week 3
Lab 2

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https://hci.ac/dis
Update: Short-term Memory

• Miller (1956): Estimated short-term memory to contain 7±2 chunks on average.

• In 2001, Cowen showed that this is actually 4±1 chunks

• For details, see https://doi.org/10.1017/S0140525X01003922
Assignment 1: Fitts’ Law
Template-driven validation

To add validation to a template-driven form, you add the same validation attributes as you would with native HTML form validation. Angular uses directives to match these attributes with validator functions in the framework.

Every time the value of a form control changes, Angular runs validation and generates either a list of validation errors, which results in an INVALID status, or null, which results in a VALID status.

You can then inspect the control's state by exporting `ngModel` to a local template variable. The following example exports `ngModel` into a variable called `name`:

```html
<template-hero-form-template-component.html (name)>

<input id="name" name="name" class="form-control"
       required minlength="4" forbiddenName="bob"
       [(ngModel)]="hero.name" #name="ngModel" />

<div *ngIf="name.invalid && (name.dirty || name.touched)"
     class="alert alert-danger">

  <div *ngIf="name.errors.required">
    Name is required.
  </div>

  <div *ngIf="name.errors.minlength">
    Name must be at least 4 characters long.
  </div>

  <div *ngIf="name.errors.forbiddenName">
    Name cannot be Bob.
  </div>

</div>

</template-hero-form-template-component.html (name)>
```
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In-Class Exercise 2: Affordances vs. Signifiers

• Find an example instance for each of the following:
  • affordance
  • false affordance
  • intentional signifier
  • unintentional signifier
  • misleading signifier

• Think about kitchen appliances, electronics, workplace, etc.

• Affordances ‘afford’ a certain action

• Signifiers signal the affordance (how or where or what action needs to be done)
Assignment 2: Design Principles
Etiquette for Answering Questions

• Please do not ramble:
  
  • If the question asks for one argument, provide one argument not two or three. This shows us you are uncertain in your answer and it is unfair to other students who write one answer.

  • Do not write unnecessarily verbose arguments to fill in space: “This screenshot shows an application of the closure Gestalt law. The closed shape around items helps group them. This is the definition of Gestalt law of closure, which states that all items inside a closed shape are grouped together. Therefore this screenshot is an application of the closure Gestalt law.”

• We will deduct points for such instances in assignments, exams, and project submissions.

• Also: Name the files correctly as mentioned in the assignment.
Videos for Assignments and Projects

• For self-made videos, do not upload videos to YouTube and then include them in the presentation.

• Use only MP4 encoding, please!
Use Apps to Scan Submissions, Don’t Take Pictures

Adobe Scan
iOS and Android (free)

Scanbot
iOS and Android (free)

Scanner Mini
iOS and Android (free)
New Assignment Deadlines From Next Week

• Starting from A03, assignments will be made available on Friday afternoon at 1 pm.

• We will email instructions for tasks that need to be done for the studio.

• These assignments will be due the next Friday 1 pm.
Course Content for Week #3
Mappings, Constraints, and the Seven Stages of Actions
DO NOT TURN THIS LIGHT OFF!
How Do People Carry Out a Task?

• A letter or a number is displayed randomly

• User has to press A (left) or press L (right) accordingly

• Remember?
  • Perceive (perceptive processor)
  • Understand & Interpret (cognitive processor)
  • Perform (motor processor)
7 Stages of Action

1. Perceive
2. Interpret
3. 
4. 
5. 
6. 
7. Perform
What Next?

• By next Tuesday (Nov. 5):
  • Watch the videos of week 3 (and 4.1 & 4.1.1)
  • Read chapters 1–3 from the Norman book. Please use the 2nd edition!
  • Submit your solution for A02 via RWTHmoodle by 9 am.

• A03 will be available on RWTHmoodle this Friday at 1 pm.