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

Oliver Nowak & Krishna Subramanian
Media Computing Group
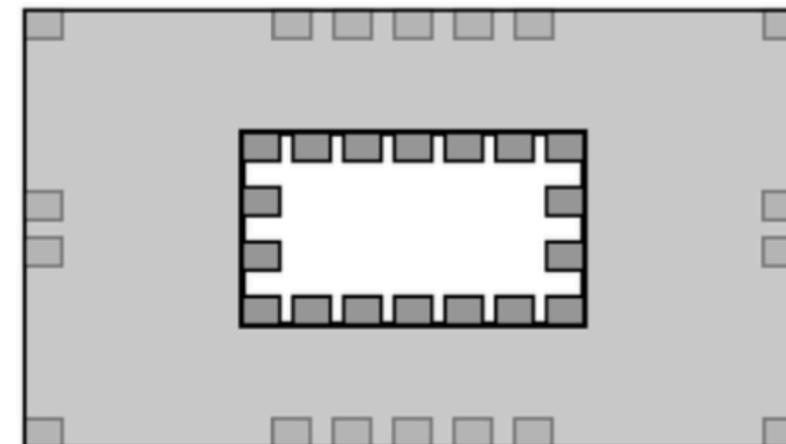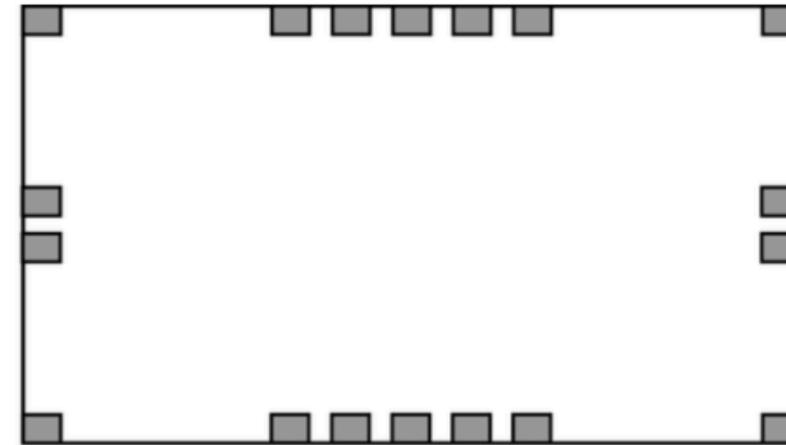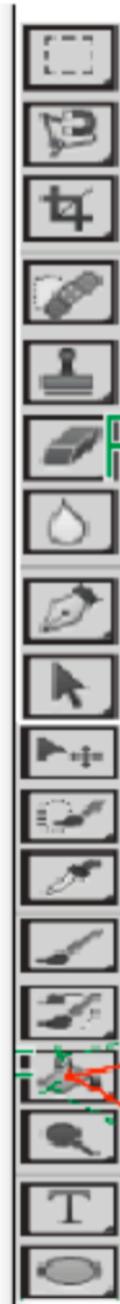RWTH Aachen University

Winter term 2019/2020

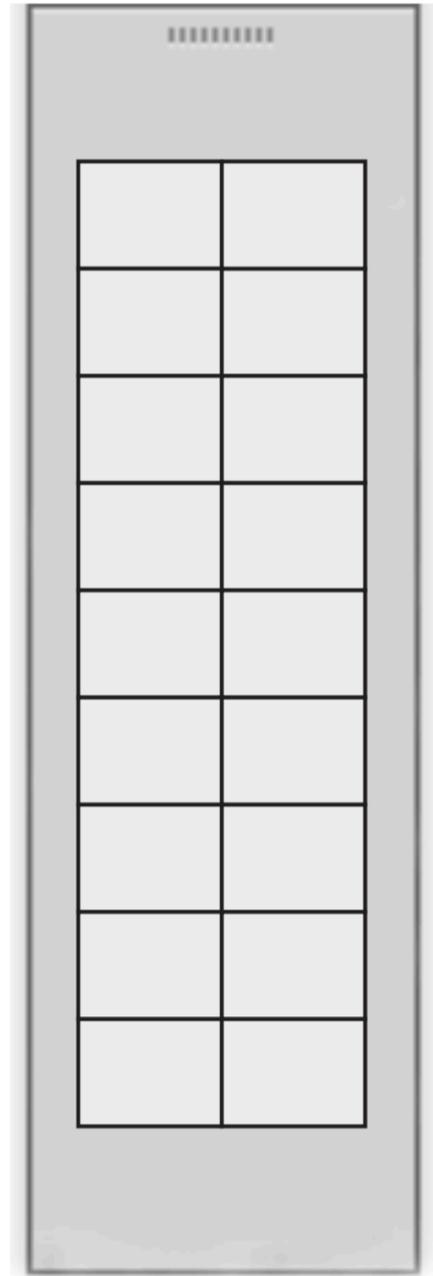https://hci.ac/dis

Update: Short-term Memory

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

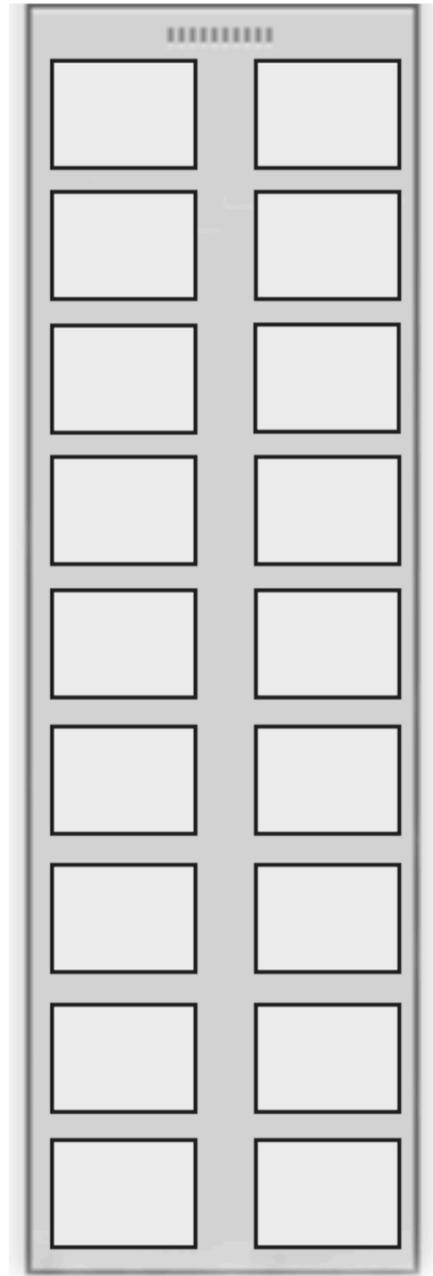- In 2001, Cowen showed that this is actually **4±1 chunks**

- For details, see **https://doi.org/10.1017/S0140525X01003922**

Assignment 1: Fitts' Law

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Oliver's Design　　　**Krishna's Design**

Library
Recently Added
Artists
Albums
Songs
Genres
Music Videos
Downloaded

Apple Music Playlists
A.R. Rahman Essentials
Alia Bhatt Essentials
Animationsfilme
Beethoven and the Roma...
Best of 90s Tamil
Best of the Week
Brain Work: Classical Mus...
Colbie Caillat Essentials
Coldplay Essentials
Contemporary Classical P...
Der Soundtrack zur TV S...
Felix Jaehn Essentials
Hans Zimmer - His Great...
Hans Zimmer: Next Steps
Harris Jayaraj Essentials (...
Harry Gregson-Williams E...
Ilaiyaraaja Essentials
Lazy Morning
Magical Soundtracks
Oscar Gewinner: Beste Fil...
Passenger Essentials
Rajinikanth Essentials
Romantic day out at the B...
Running to the Beats
Sara Bareilles Essentials
Sing Me to Sleep
The A-List: Classical
The Wachowskis
Top Songs of 2016
Video Games
Vijay Essentials
Workout with Tamil

Music Playlists ⌄

Library | For You | Browse | Radio | Store

The Da Vinci Code
Hans Zimmer

The Dark Knight Rises
Hans Zimmer

The Dark Knight Ris...
Hans Zimmer

The Dark Knight Ris...
Hans Zimmer

Inception - Soundtr...
Hans Zimmer
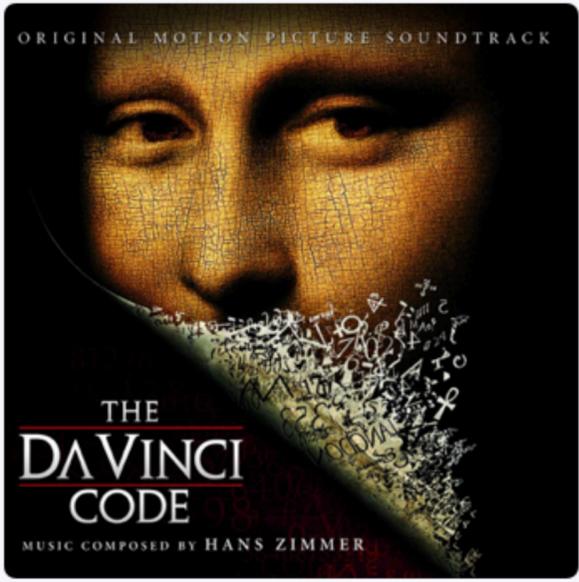
Inferno (Original Mo...
Hans Zimmer

Batman Begins
Hans Zimmer and Ja...

The Dark Knight
Hans Zimmer and Ja...

Aadhavan
Harris Jayaraj

The Da Vinci Code
Hans Zimmer
Soundtrack • 2006

14 songs, 1 hour, 8 minutes   Shuffle ⤨

1	Dies Mercurii I Martius Hans Zimmer & Richard Harvey	6:03
2	L'esprit des Gabriel Hans Zimmer & Richard Harvey	2:49
3	The Paschal Spiral Hans Zimmer & Richard Harvey	2:49
4	Fructus Gravis Hans Zimmer & Richard Harvey	2:50
5	Ad Arcana Hans Zimmer & Richard Harvey	6:07
6	Malleus Maleficarum Hans Zimmer & Richard Harvey	2:19
7	Salvete Virgines Hans Zimmer & Richard Harvey	3:14

8	Daniel's 9th Cipher Hans Zimmer & Richard Harvey	9:31
9	Poisoned Chalice Hans Zimmer & Richard Harvey	6:20
10	The Citrine Cross Hans Zimmer & Richard Harvey	5:22
11	Rose of Arimathea Hans Zimmer & Richard Harvey	8:12
12	Beneath Alrischa Hans Zimmer & Richard Harvey	4:23
13	Chevaliers de Sangreal Hans Zimmer & Richard Harvey	4:07
14	Kyrie for the Magdalene Various Artists & Richard Harvey	3:55

Aadhavan (Original...
Harris Jayaraj
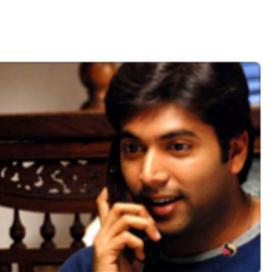
Anegan (Original M...
Harris Jayaraj
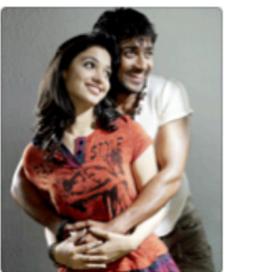
Ayan
Harris Jayaraj

Bheema
Harris Jayaraj

Chellamae
Harris Jayaraj

Dhaam Dhoom
Harris Jayaraj

Endrendrum Harris
Harris Jayaraj

Iru Mugan (Original...
Harris Jayaraj

Kaakha Kaakha
Harris Jayaraj

Search

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`:

template/hero-form-template.component.html (name)

```html
<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>
```

Headphones
Speakers
more…

Gift Cards

Apple Store Gift Cards
iTunes Gift Cards
Redeem Gift Card

Special Deals

Refurbished Mac
Refurbished iPod
Refurbished iPad
Clearance

SAVE

Refurbished iPad

Full 1-year warranty

While supplies last

Refurbished 8GB iPod touch

Full 1-year warranty

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Free shipping.
Get fast, free shipping on any order over $50 and on anything in our Holiday Gift Guide. Learn more ▸

Returns made easy.
Ship your items back to us free or take them to an Apple Retail Store. Learn more ▸

their favorite photos into one-of-a-kind books, cards, and calendars — in minutes. Learn more ▸

Special financing.
Financing options for up to 12 months are now available. Learn more ▸
Terms and conditions apply.

Education pricing.
If you're a parent buying a gift for a student, you can save on a new Mac, software and more to help them with their studies. Learn more ▸

Apple Store (U.S.) | Change Country | Education Store | Business Store | Government Store   Help | Account | Returns | Site Map | Security Policy | Contact Us

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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.
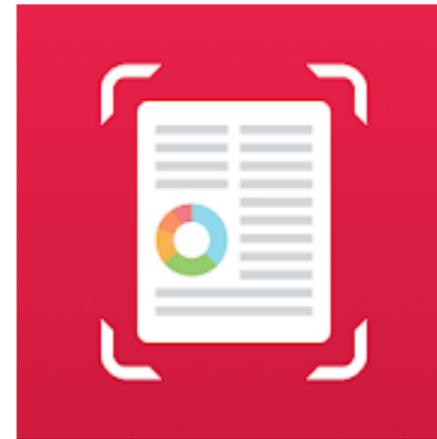
Videos for Assignments and Projects

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

- Use only **MP4** encoding, please!

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Use Apps to Scan Submissions, Don't Take Pictures
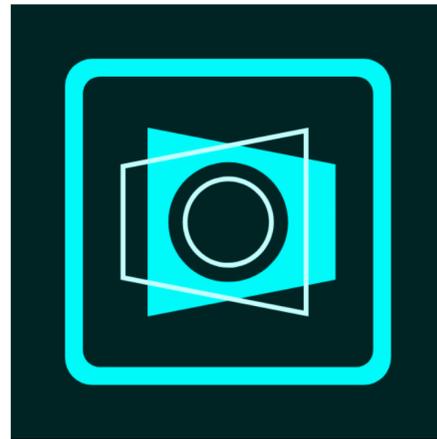
Adobe Scan

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

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verydemotivational.com
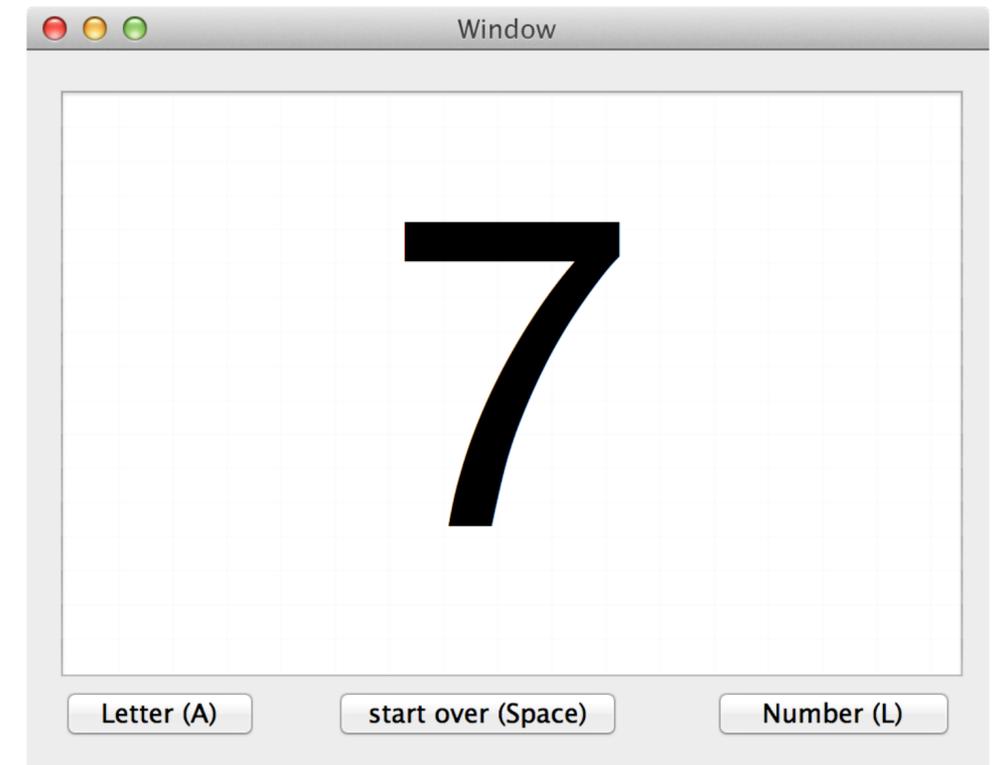
RWTHAACHEN
UNIVERSITY

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)
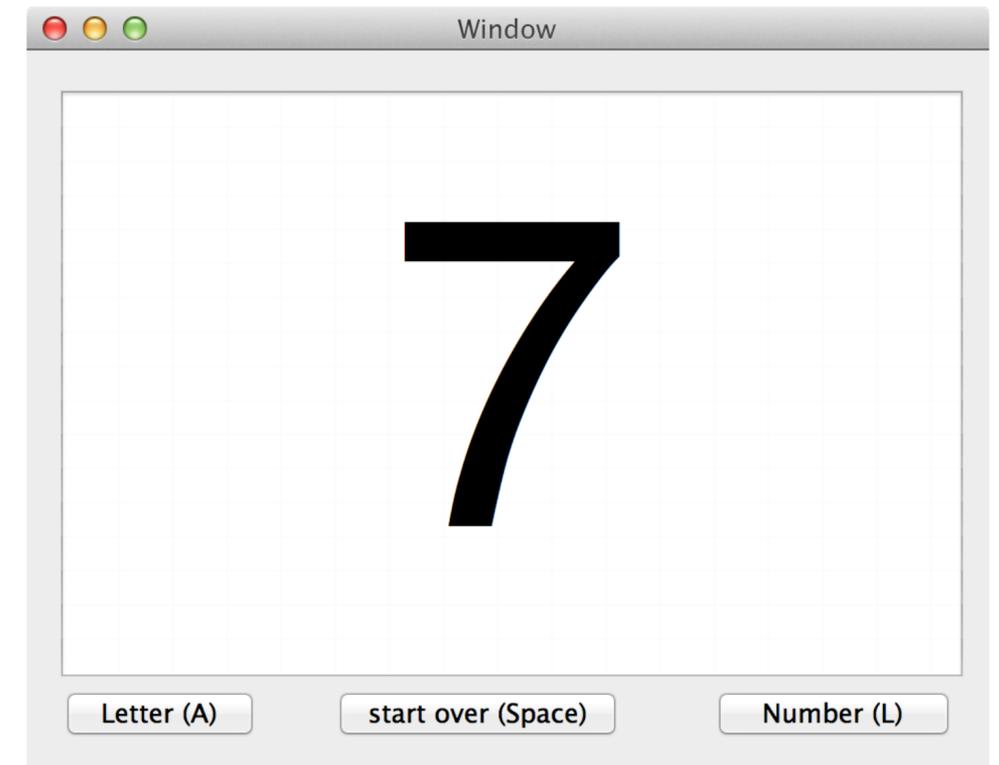
7 Stages of Action

1. Perceive

2. Interpret

3. ☐

4. ☐

5. ☐

6. ☐

7. Perform

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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.