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Human Computer Interface

Tomasz Kocejko

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Basic principles of HCI design

Why/How to design HCI

Good design involves understanding how users interact with computers, and **enabling them to do so effectively**

Design software/hardware, every day things... **the way not to cause problems** to the user

Design interaction...

Why/How to design HCI

Increase systems **efficiency**

Increase system **effectivnes**

Make system **easy to use**

Make system **pleasant to use**

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Why designing HCI might be difficult

Because of the **people**

Because of the **mathematical complexity**

Because of **social constrains**

...

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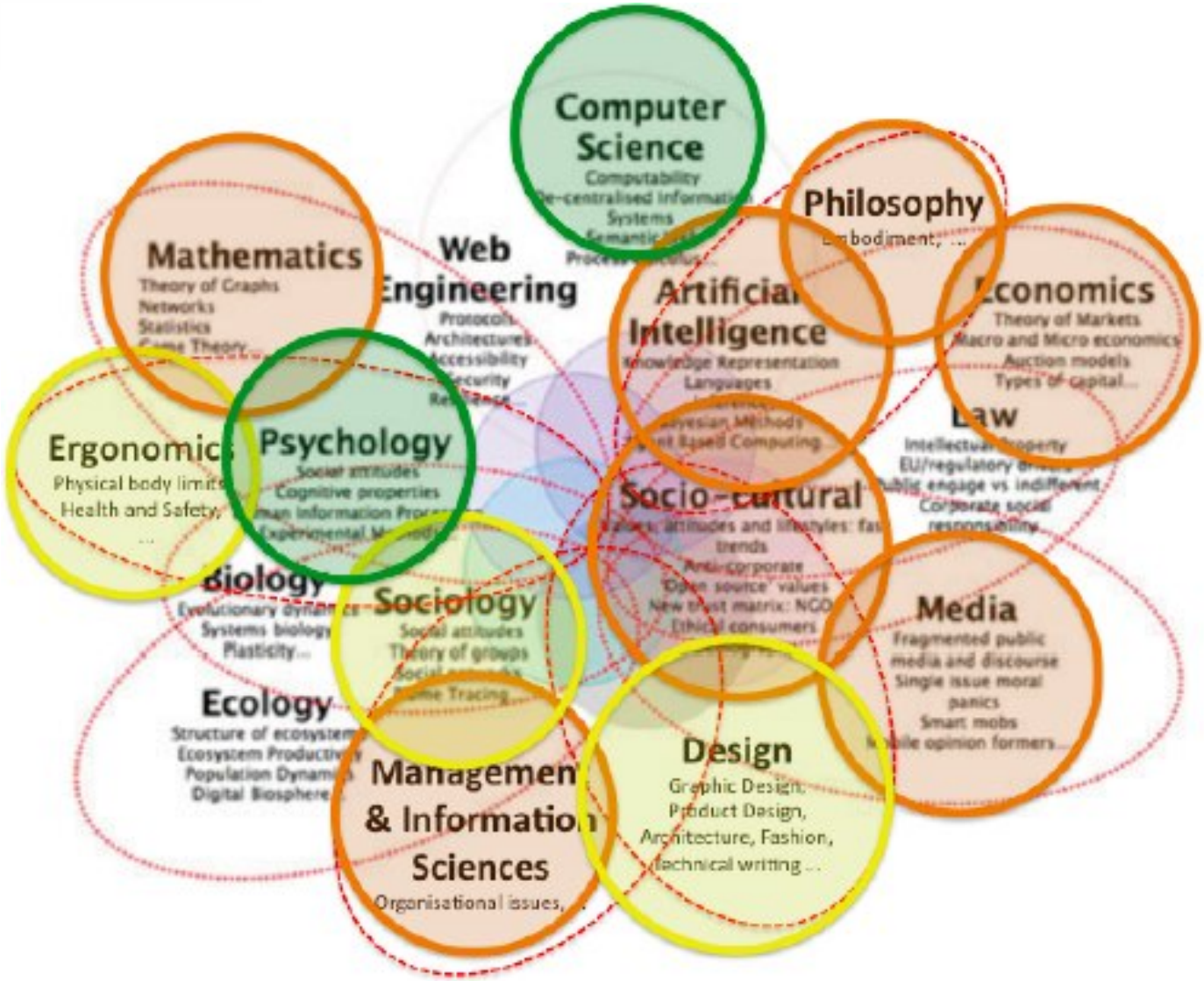
The interdisciplinary character of HCI



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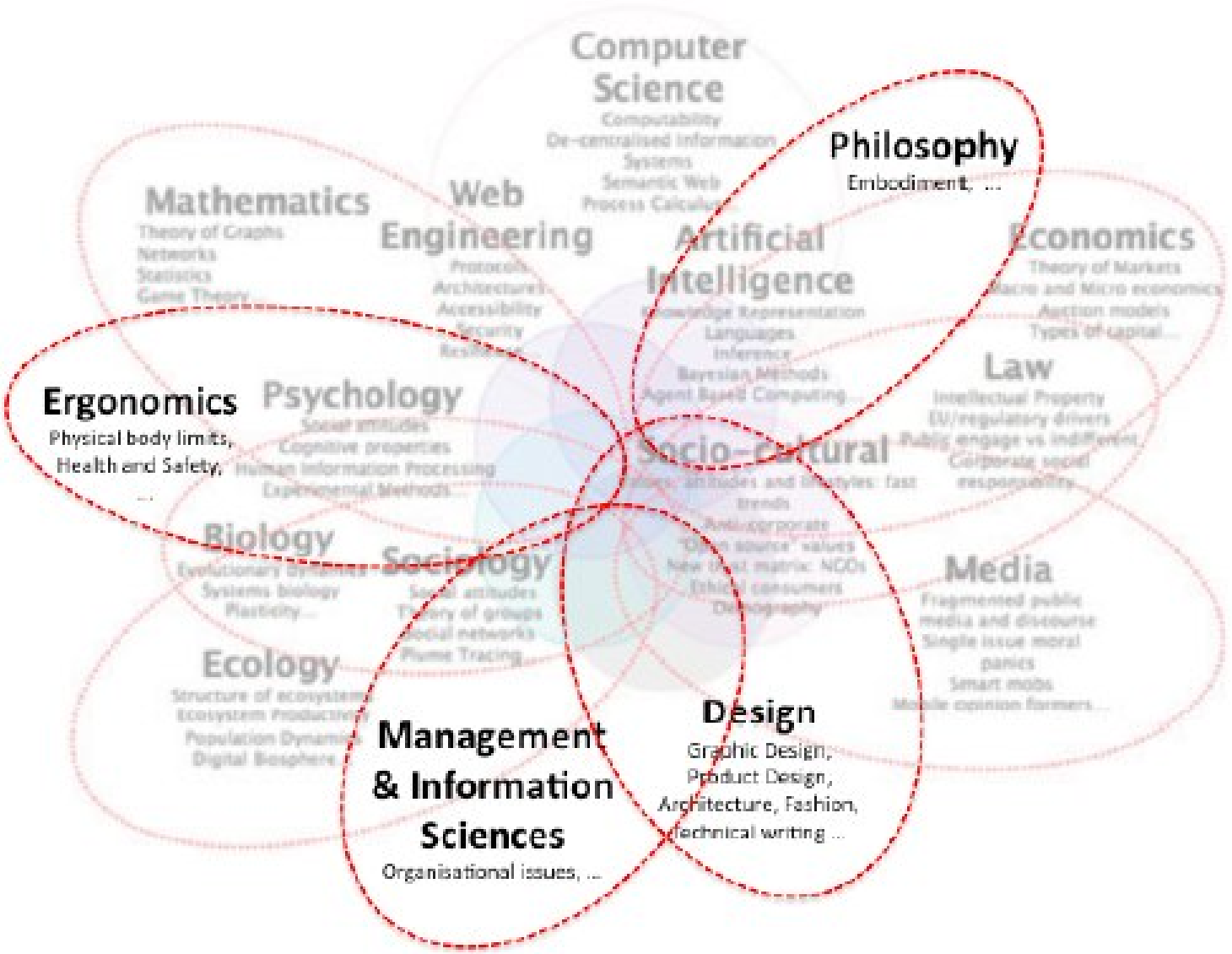
The HCI butterfly



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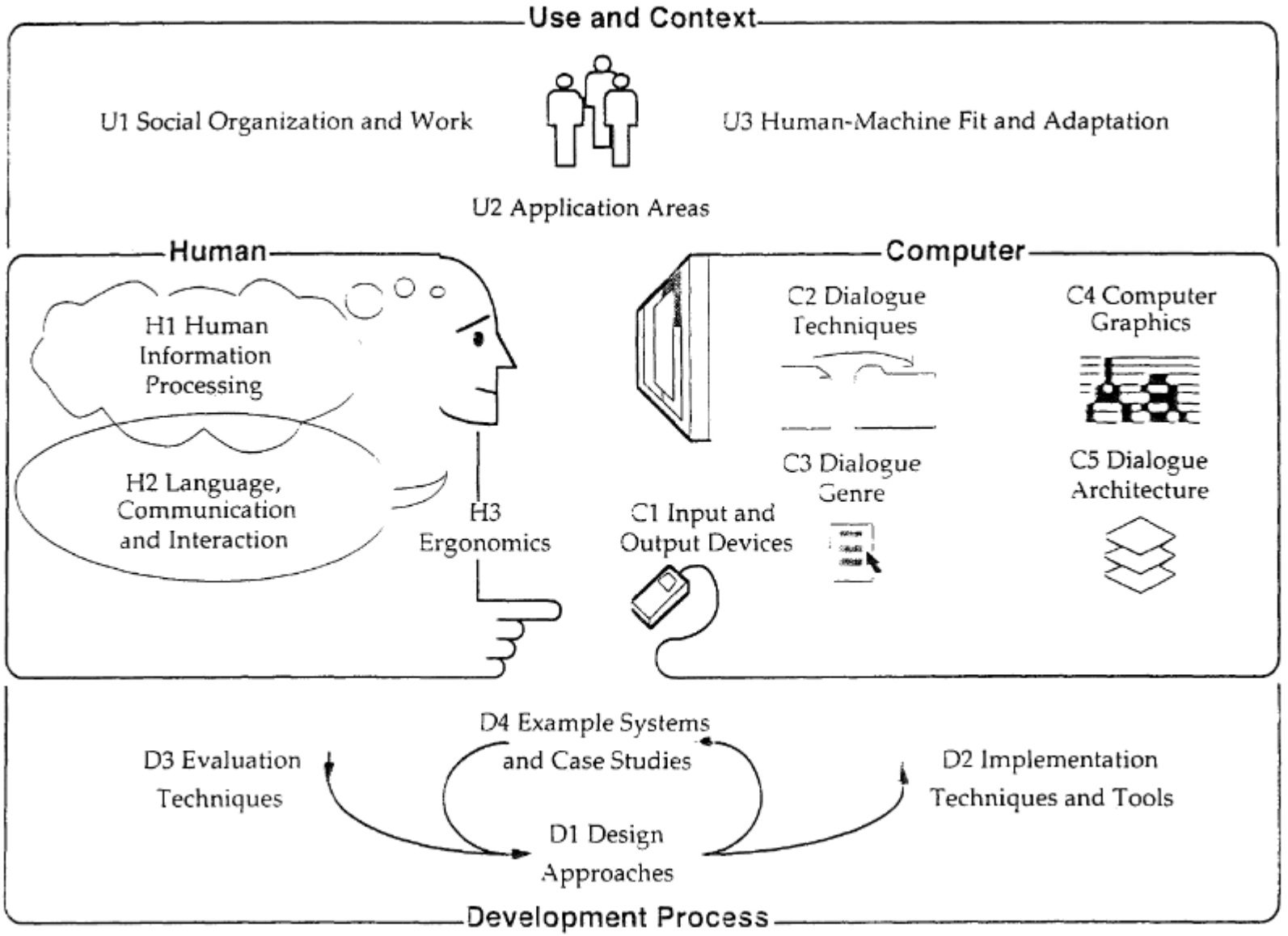
Interrelationship among different disciplines



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Important rules

10 minute rule

Established by Nelson (1980)

If one can overtake system in 10 minutes it is a good system

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What is good designe

Visibility

- Users need to know what all the options are
- Users need to know how to access this options

Feedback

- There is a reaction for every action

Affordance

- If someone notice something, he/she nows how to use it

http://moveableonline.com/blog/2014/11/03/6-principles-design-la-donald-norman/

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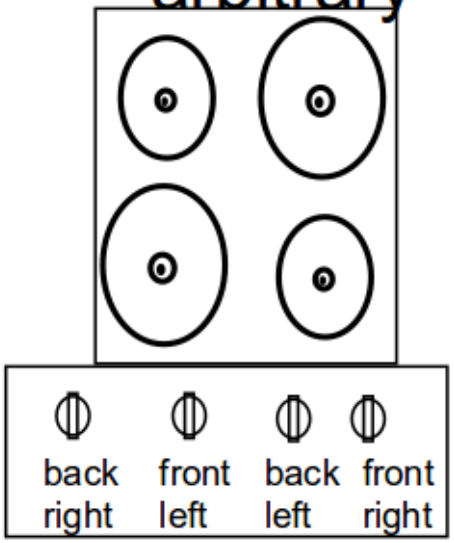
Mapping

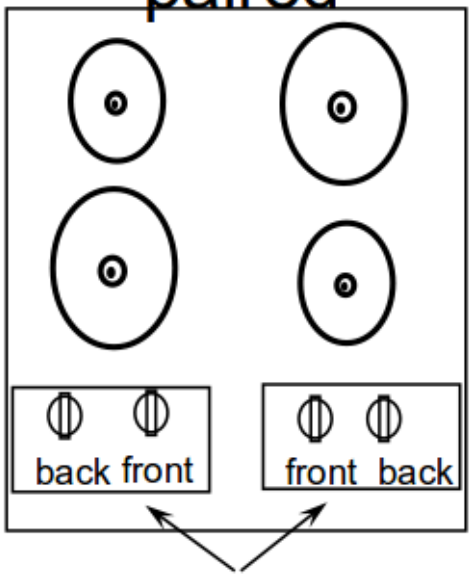
arbitrary



24 possibilities, requires:
-visible labels

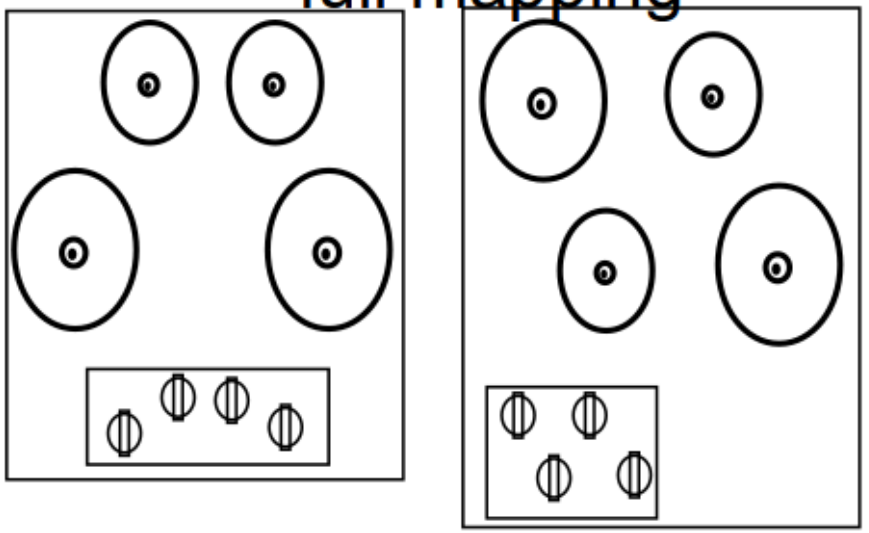
-memory

paired



2 possibilities per side
=4 total possibilities

full mapping



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Bad design

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Bad designe

https://kanrawi.wordpress.com/category/goodbad-interface-design/

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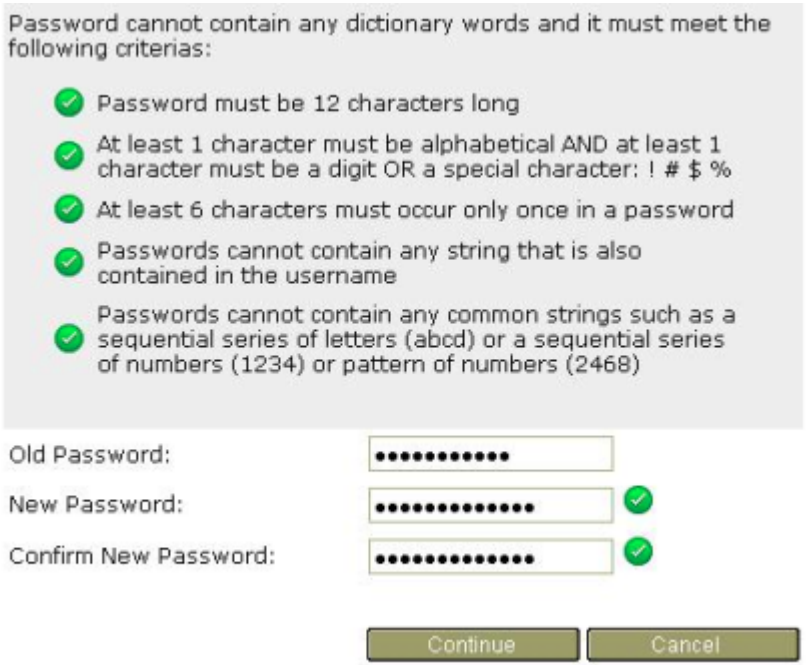
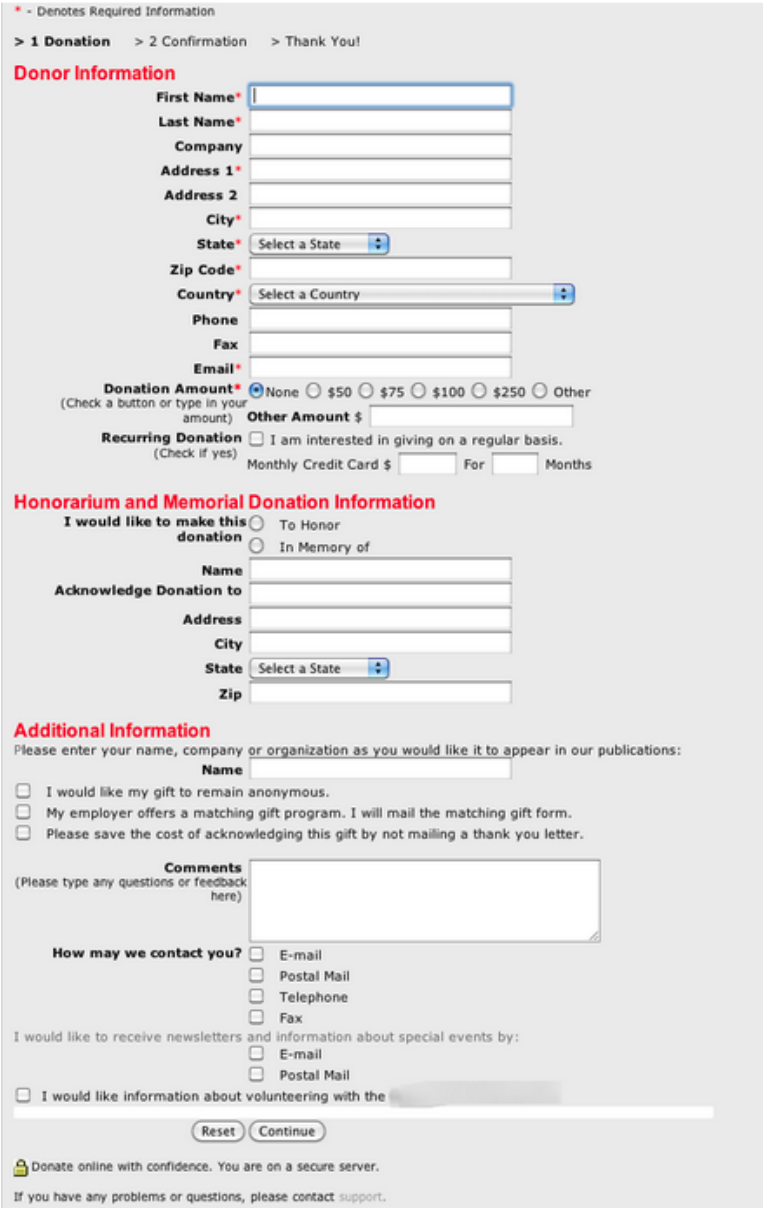
Bad designe





http://thenextweb.com/dd/2015/09/29/6-examples-of-awful-ux-design/#gref

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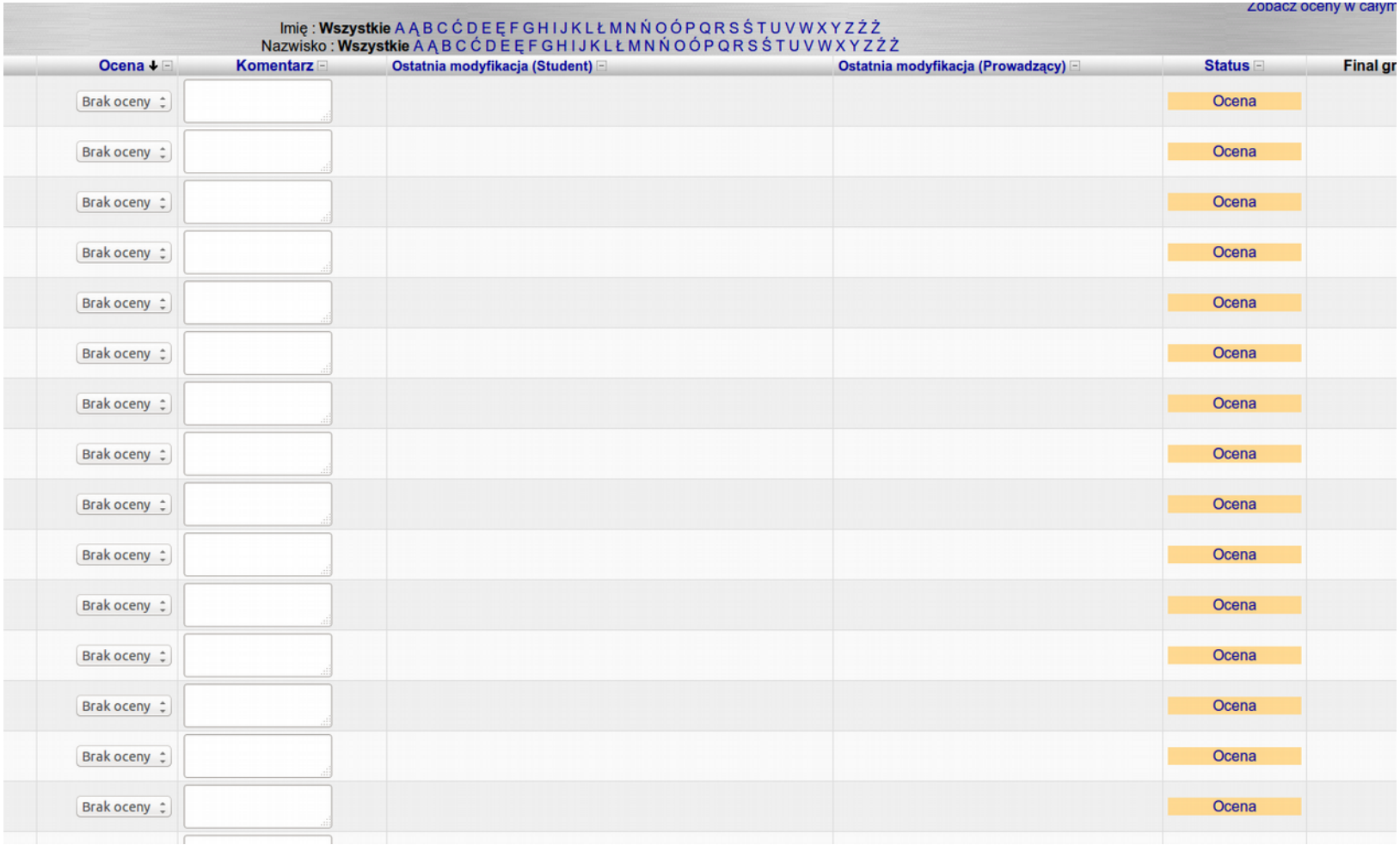
Bad design



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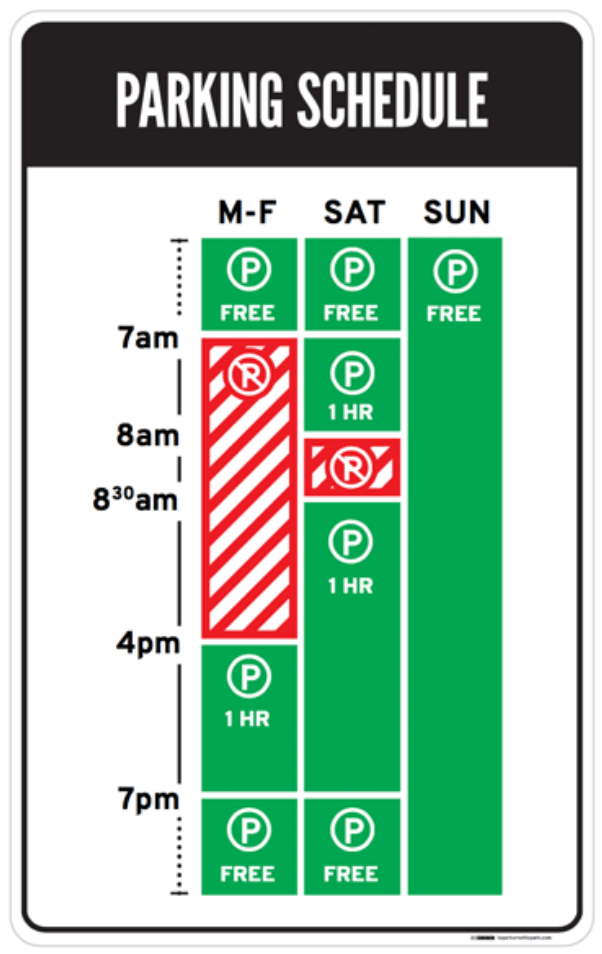
HCI good/bad designe

- Information overload



https://www.interaction-design.org/literature/article/bad-design-vs-good-design-5-examples-we-can-learn-frombad-design-vs-good-design-5-examples-we-can-learn-from-130706

Home work for next week

Touch interface

Tangible interface

Gesture recognition based UI

Voice activated

Eye tracking

Brain Computer Interface

Alternative communication (buttons, knobs, sensors)

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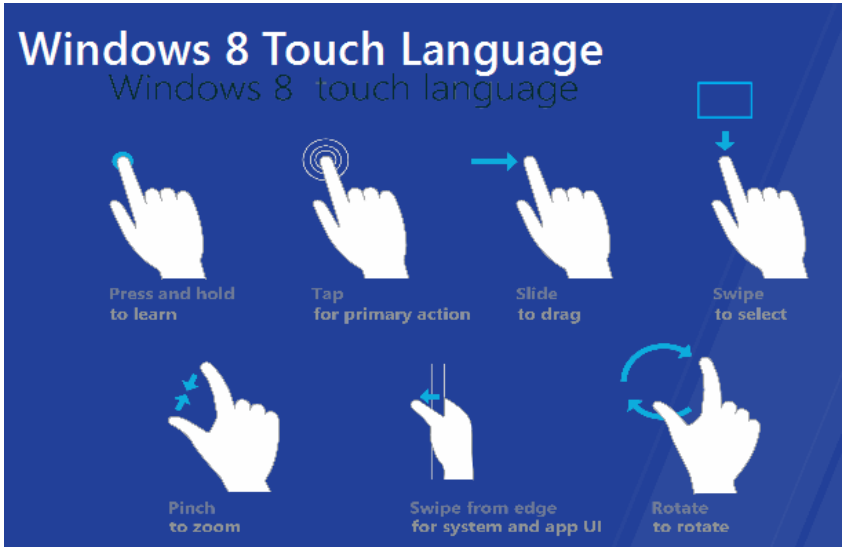
Touch/Tangible



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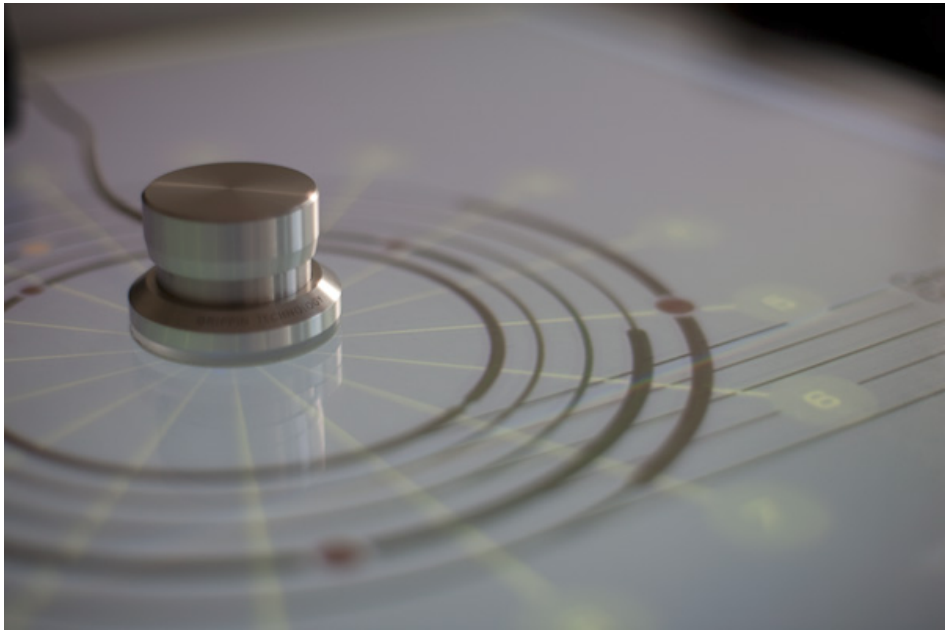
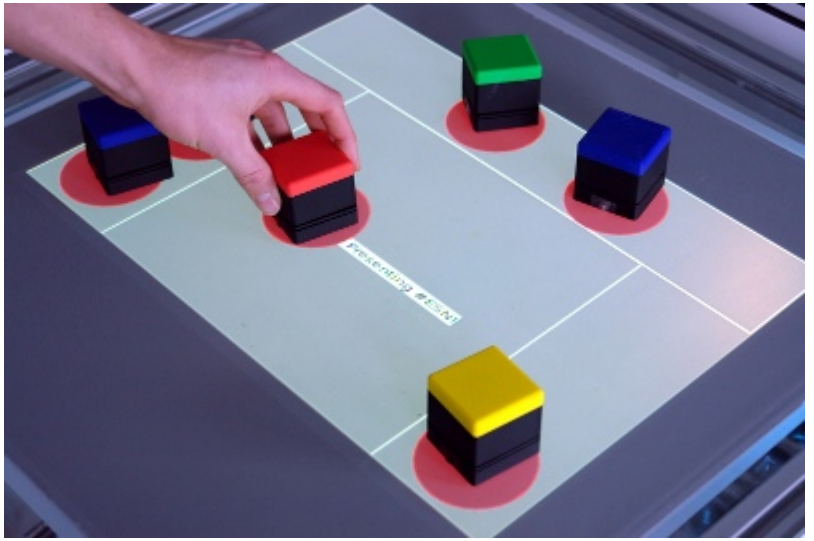
Touch/Tangible





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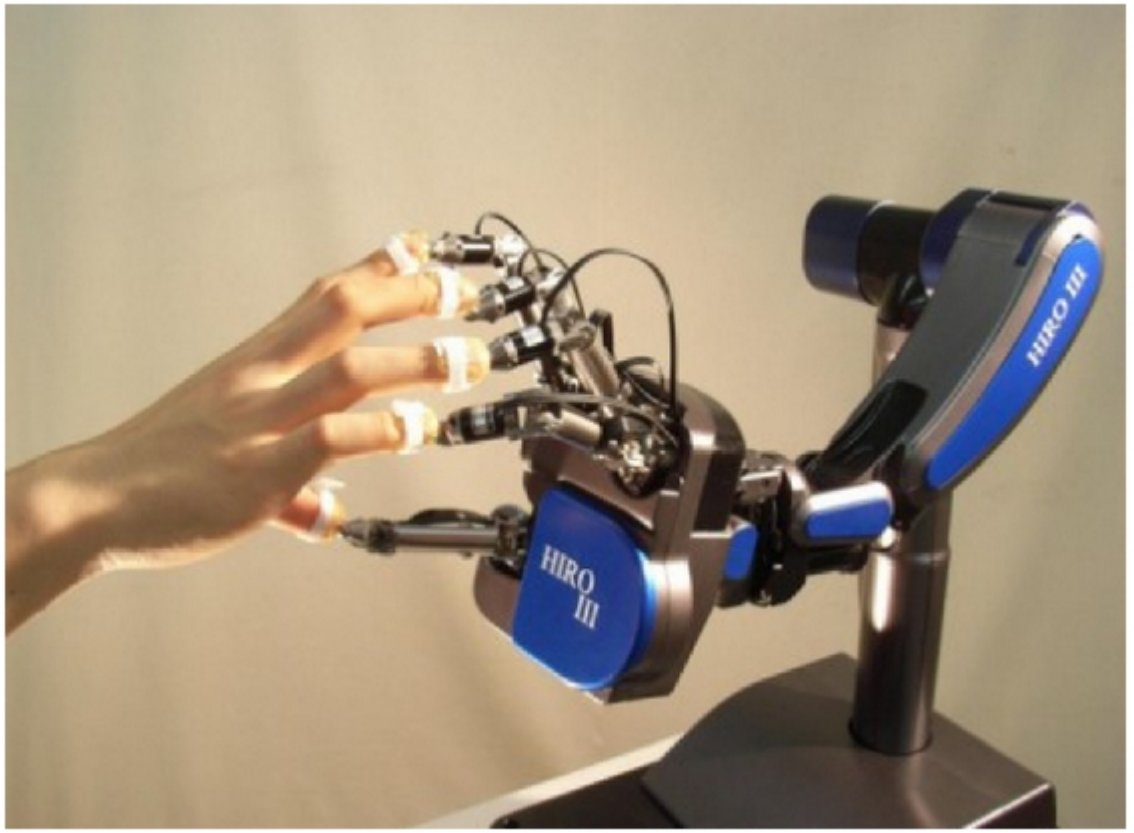
Haptic Interface



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Gesture recognition

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Man Machine Interaction

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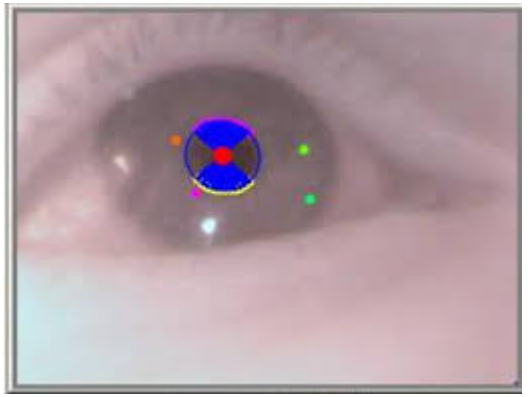
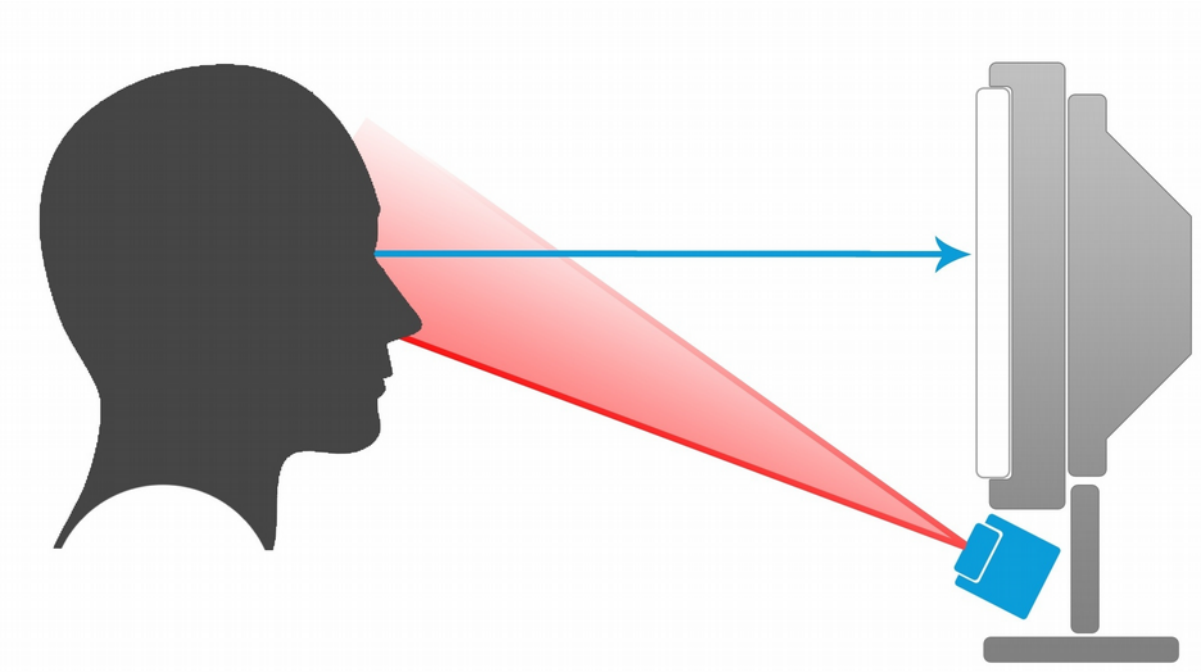
Eye tracking





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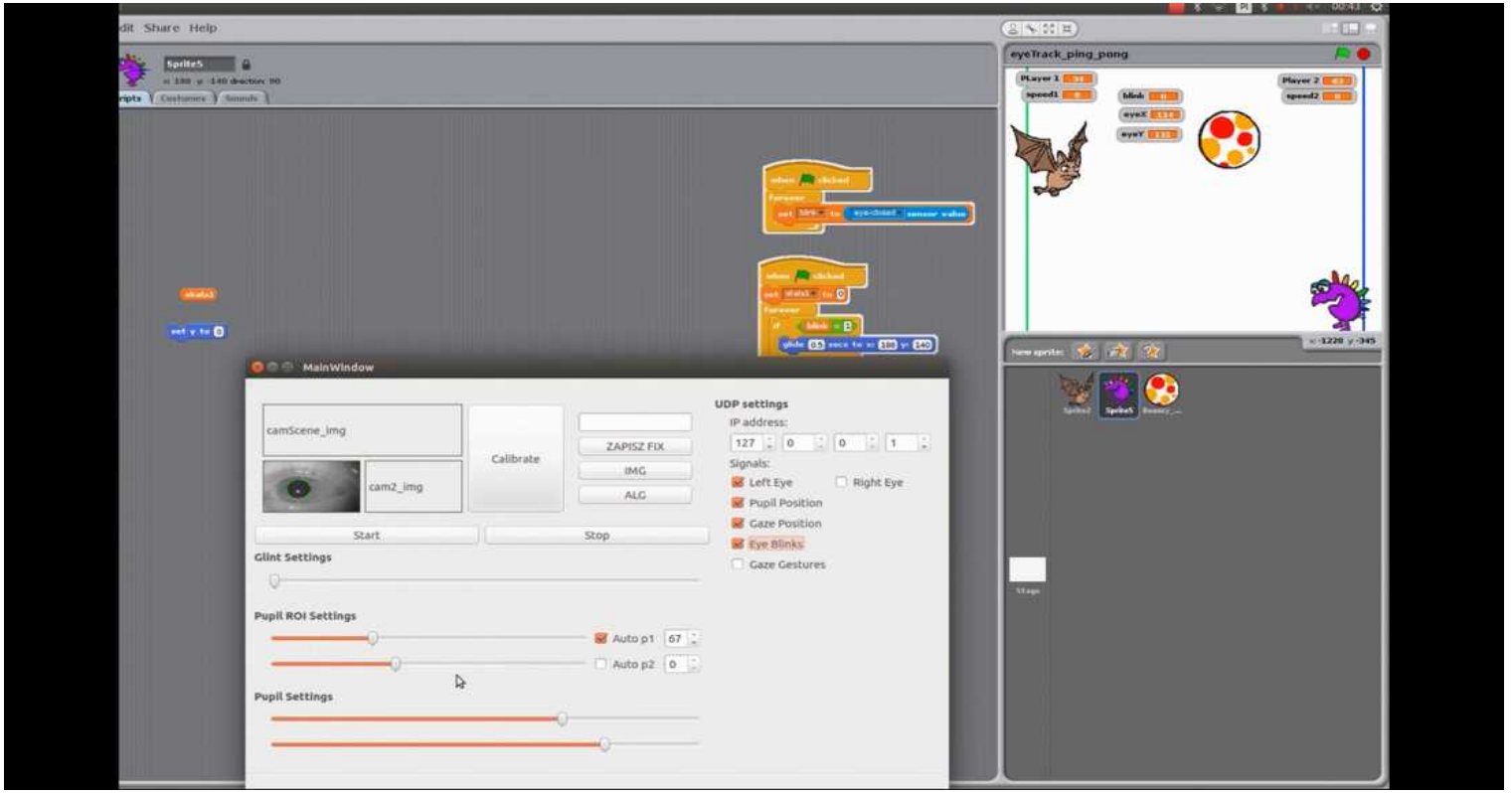
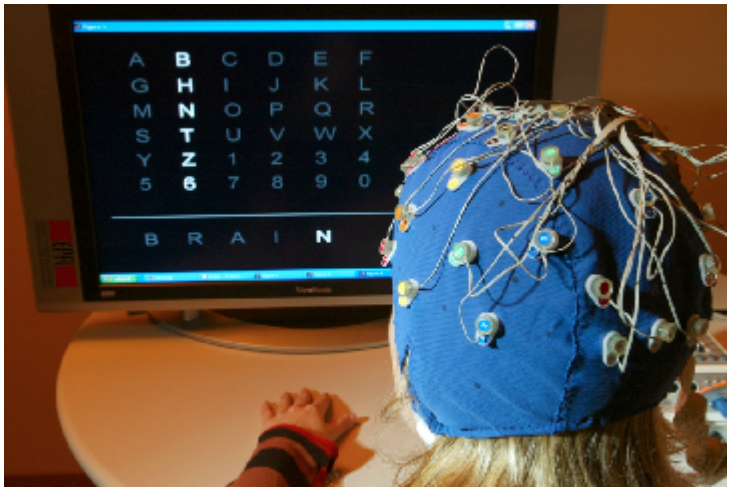
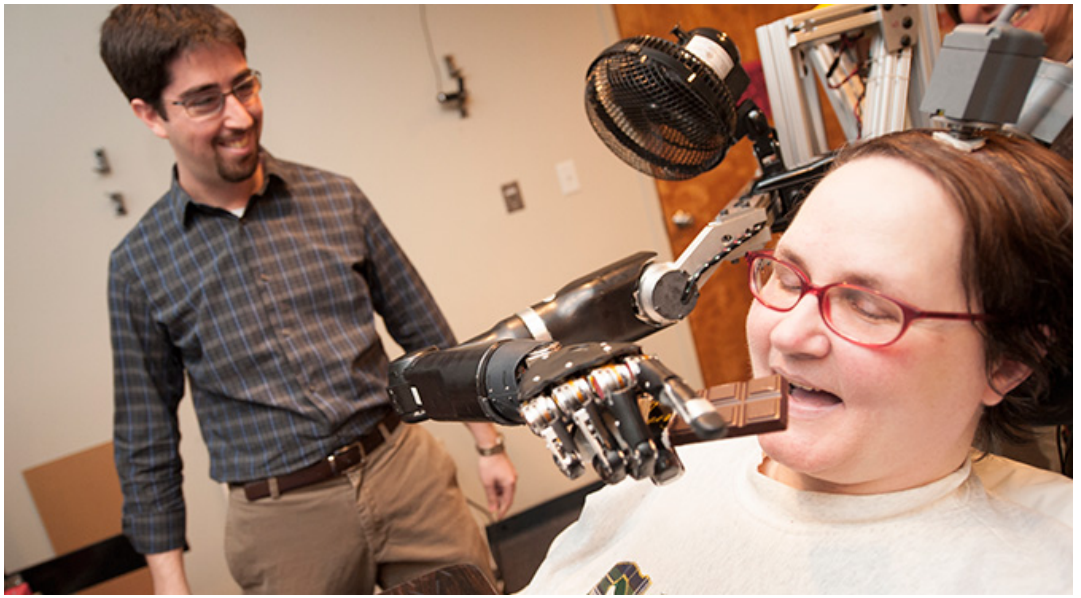
Eye tracking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