

Improving digital mental health with smart furniture

Residency proposal: Studio10

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“Coronavirus tracked: Internet use hits record high, with people now spending more than a quarter of their life online”

The Independent

The pandemic hasn't created problems; it amplified existing ones. Yet specifically mental health is an overlooked symptom of Coronavirus.

As physical contact is limited and the economy grapples with its survival, we have been digitized by brute force, at unprecedented speeds.

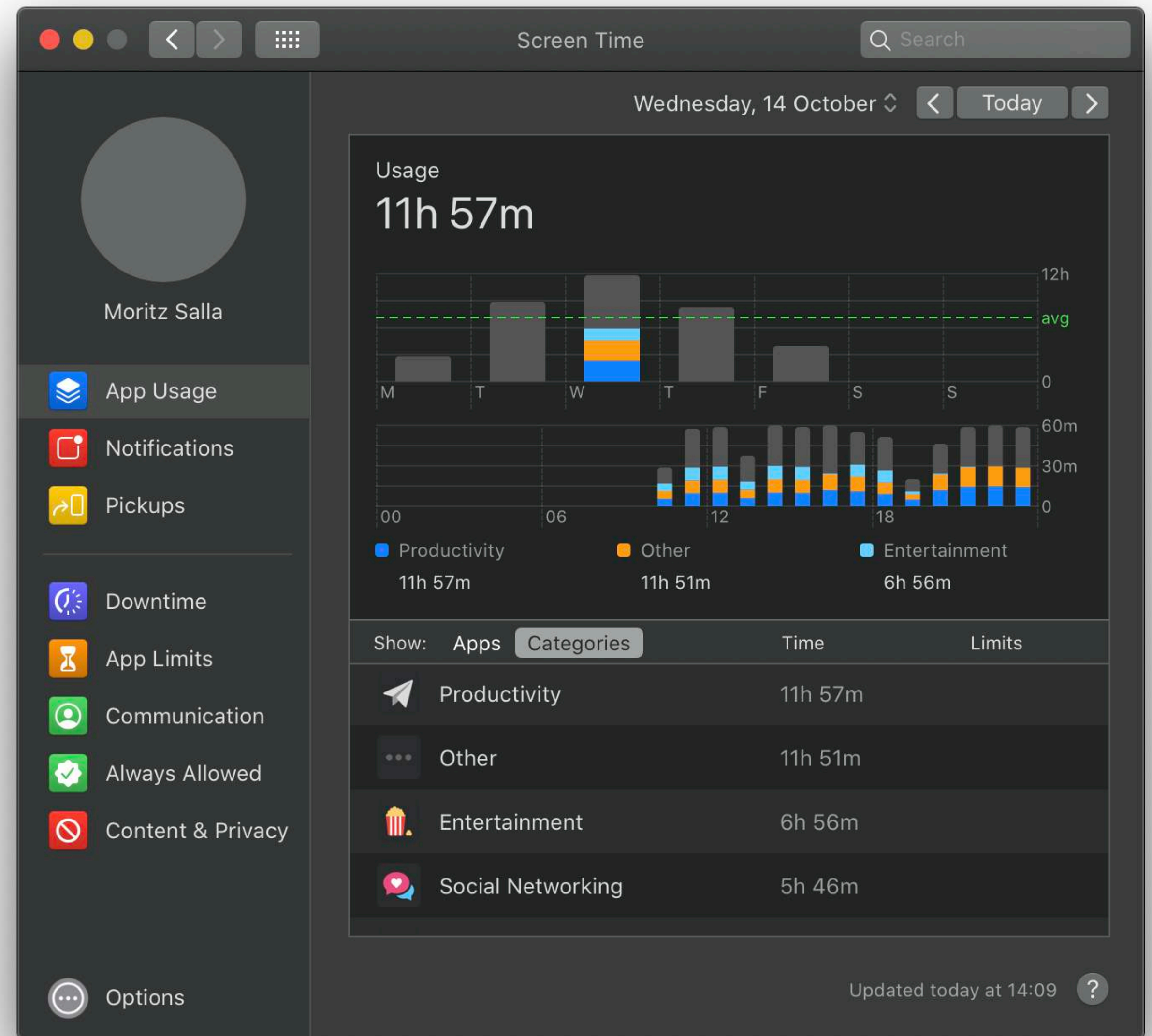
When our social contacts vanish, we increasingly seek leisure, work and social contact online, our lives become virtual.

Excessive digital media use has been linked to various health risks, including:

- Depression
- Anxiety
- Obesity
- Sleeping disorder
- Upset eating habits
- Impact on social behavior
- Impeded brain development in young children

Conventional screen time apps are a good initiative but they have various problems:

1. They only visualise duration and provide little insight into **what** kind of content the user is exposed to
2. They are digital, committing to screen time
3. They are easily ignored
4. They disrupt our digital experience



Proposal

Designing smart furniture that visualizes personal online exposure provides mental health feedback as well as an incentive to have a healthy lifestyle.

The smart furniture I envision has two parts:

① **Software** that runs in the background of your computer and collects usage data

② A wireless **smart device** that visualises said data in meaningful ways

① Software

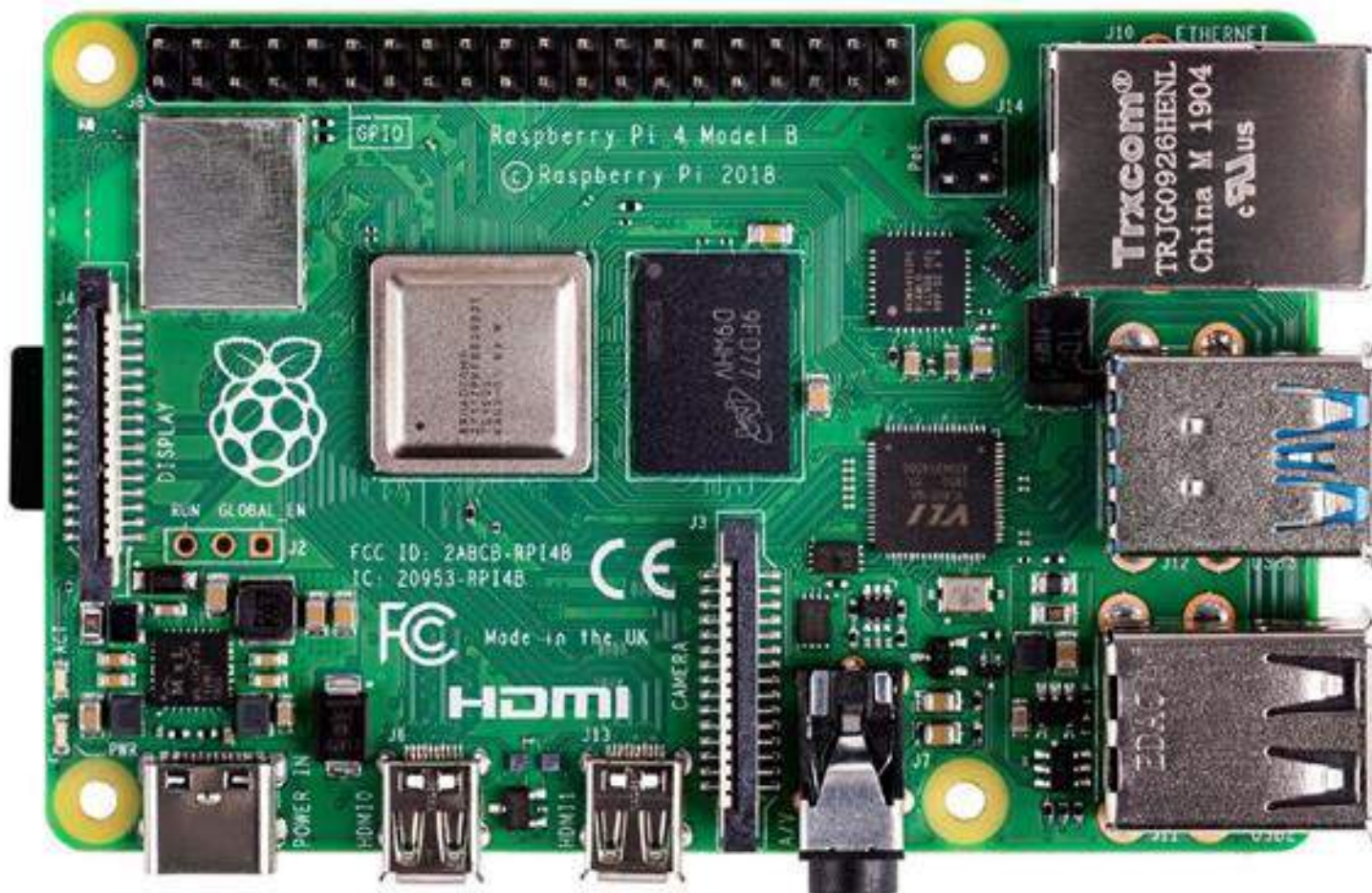
Software running background tasks to get insight into a users online exposure.

E.g. a chrome extension that accesses screen time and site content. **Machine learning models** could classify scraped images and text, providing more in-depth understanding into the content.

② Smart Furniture

A Raspberry Pi embedded in a physical enclosure, always connected wirelessly

This means it is easy to wirelessly communicate with via the internet, from multiple devices.



② Smart Furniture

My inspiration and research
areas include...

② Smart Furniture

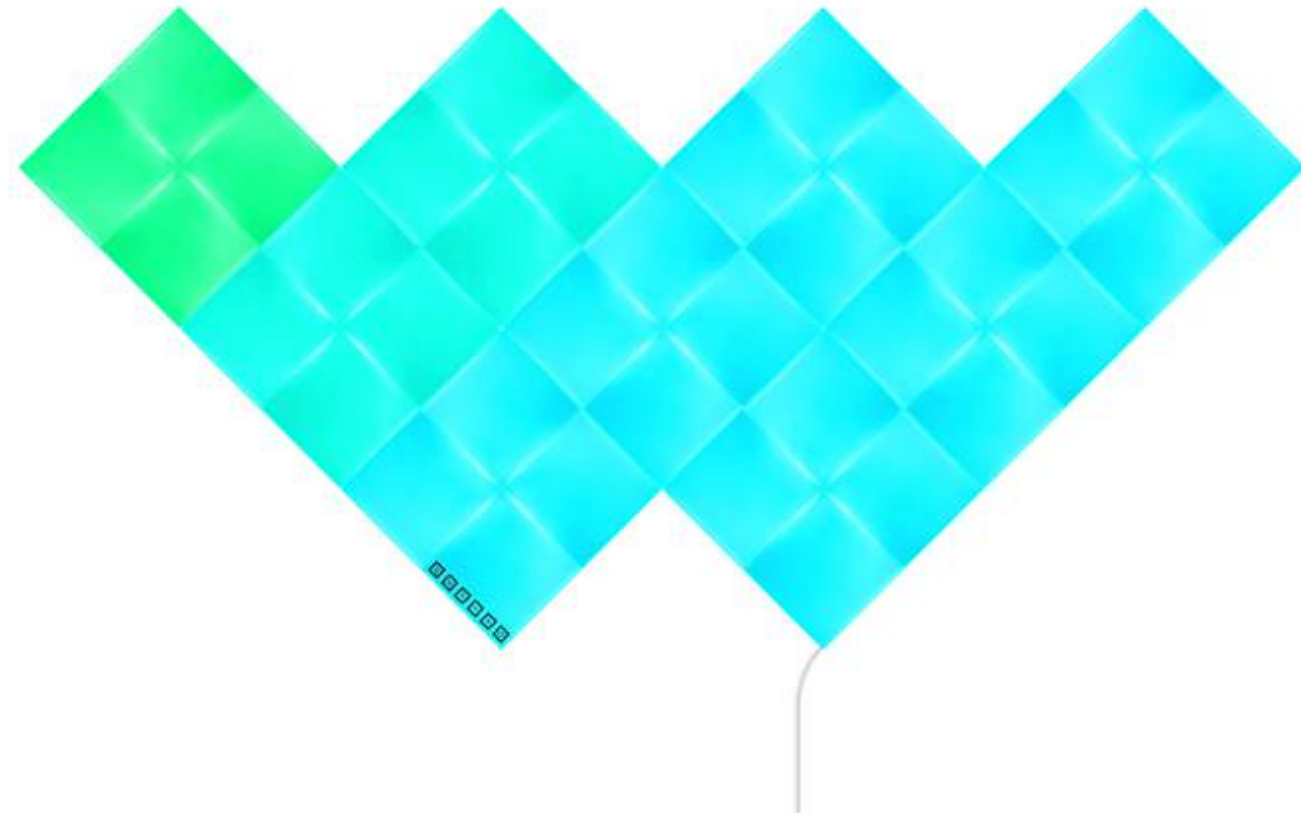


Furniture design

Which kind of object provides practical value and isn't intrinsic?



② Smart Furniture



Ambient Interfaces

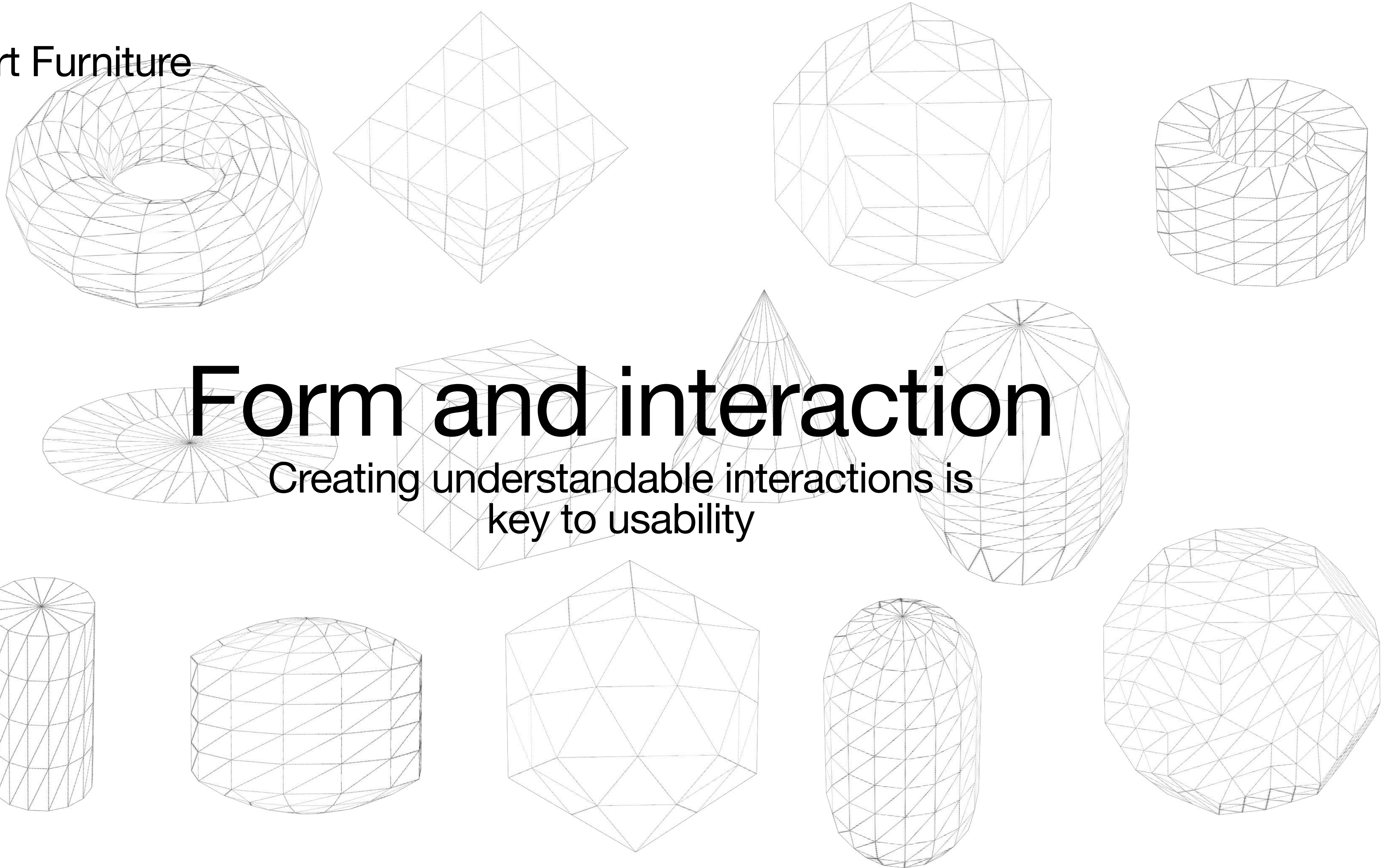
How is technology already being integrated in everyday objects?



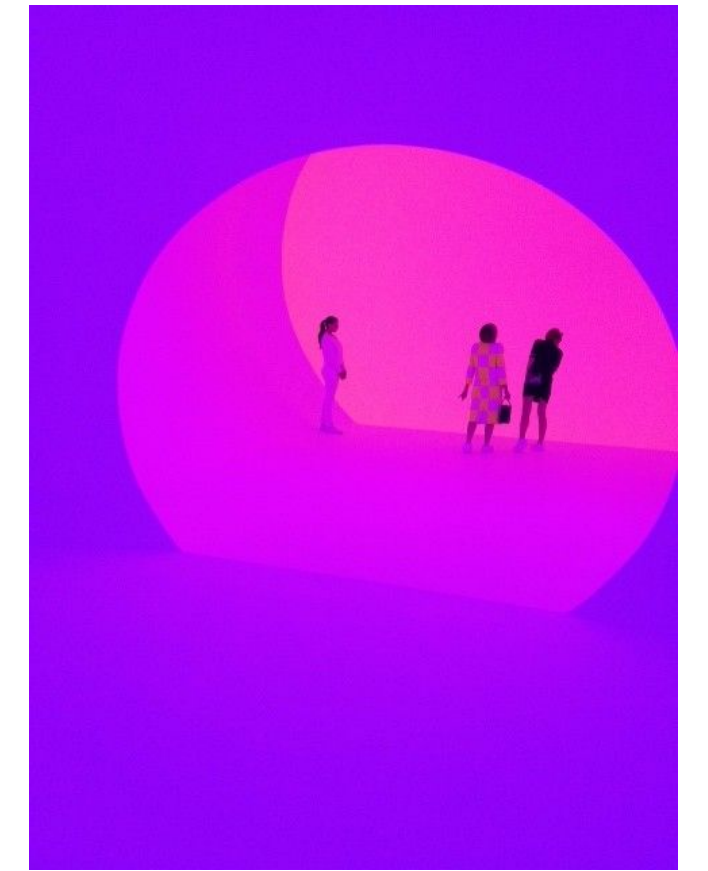
② Smart Furniture

Form and interaction

Creating understandable interactions is
key to usability

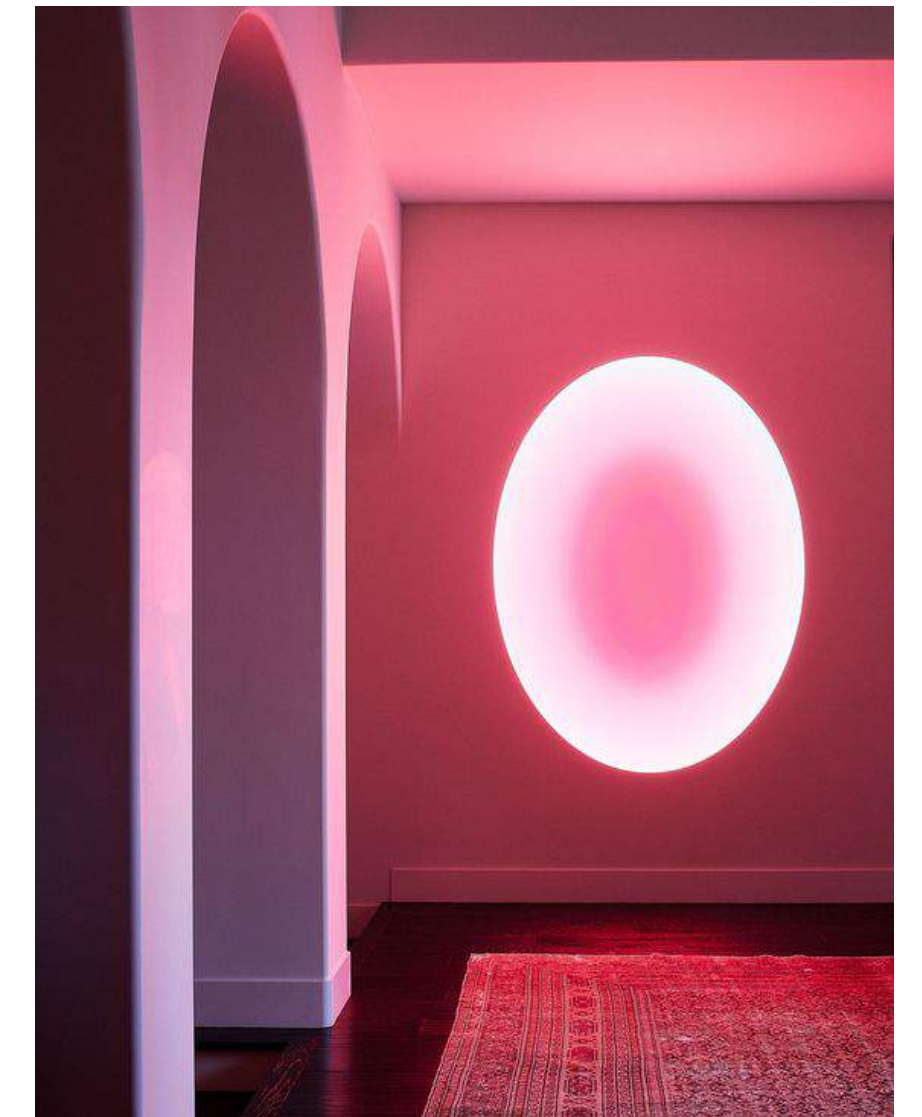


② Smart Furniture



The psychological effect of light and color

How is light and color used in culture?



② Smart Furniture

The psychological effect of light and color

How can it affect our emotions?

② Smart Furniture

The psychological effect of light and color

How can light and color be used in interaction?
How can we adapt concepts like effective triggers
and win states from game theory to create user
engagement?

Timeline

26 October—26 November 2020

Week 1—Specifying form & interaction

Week 2—Prototyping

Week 3—Execution

Week 4—Refining interaction, debugging