

What would design become if digital interaction prioritised the body?

## Research



Ergonomic “Ideal Model” for Mobile Phone Use (based on research)

### 1. Device Position

The phone should be at approximately eye level

Screen distance: 30–40 cm

Purpose: to avoid text neck and maintain a natural viewing angle

### 2. Head and Gaze

Keep the head in a neutral position

Avoid leaning the head forward

### 3. Body Posture

Keep the back upright or supported

Relax the shoulders; avoid hunching

Purpose: to prevent continuous physical strain

### 4. Hand Use

Use both hands

Keep the wrists in a neutral position

Avoid prolonged use of the thumb only

...

# Research

"On Chinese social media, there is a large amount of content about "how to use a phone correctly."



"Four correct postures for using your phone to avoid bad posture"  
"An orthopaedic doctor teaches you how to use your phone properly"

How to lose weight while using your phone:



"Improve hip shape"



"Slim your calves"

## Organization and Classification: Standardized Use of Mobile Phone Operations

[vision system]

- Blink regularly
- Use both eyes(avoid side-lying/single-eye viewing)
- Maintain viewing distance(30-40cm)
- Ensure sufficient lighting

avoid



- dry eyes
- visual fatigue
- reduced vision

[head&neck system]

- keep phone at eye level
- maintain neutral head position
- avoid forward tilt

avoid



- text neck
- neck strain
- muscle tension

[posture system]

- keep back upright or supported
- relax shoulders
- avoid slouching
- some suggested posture

avoid



- back fatigue
- postural stiffness
- sustained strain

[hand&interaction system]

- use both hands
- keep wrists neutral
- avoid prolonged thumb use

avoid



- carpal tunnel syndrome
- finger fatigue
- repetitive strain

[time&pacing system]

- change posture frequently
- take regular breaks
- avoid prolonged continuous use

avoid



- bodily stiffness
- accumulated fatigue
- reduced attention

What happens if these "bodily suggestions" become conditions of interaction?



How can these suggestions be transformed into an interactive rule system?

Body first : Translating advice into rules  
Body suggestions = interaction conditions  
(Determine whether an action can occur)

Advice:  
Keep the phone at eye level



Rule:  
Interaction is only enabled when the phone is at eye level

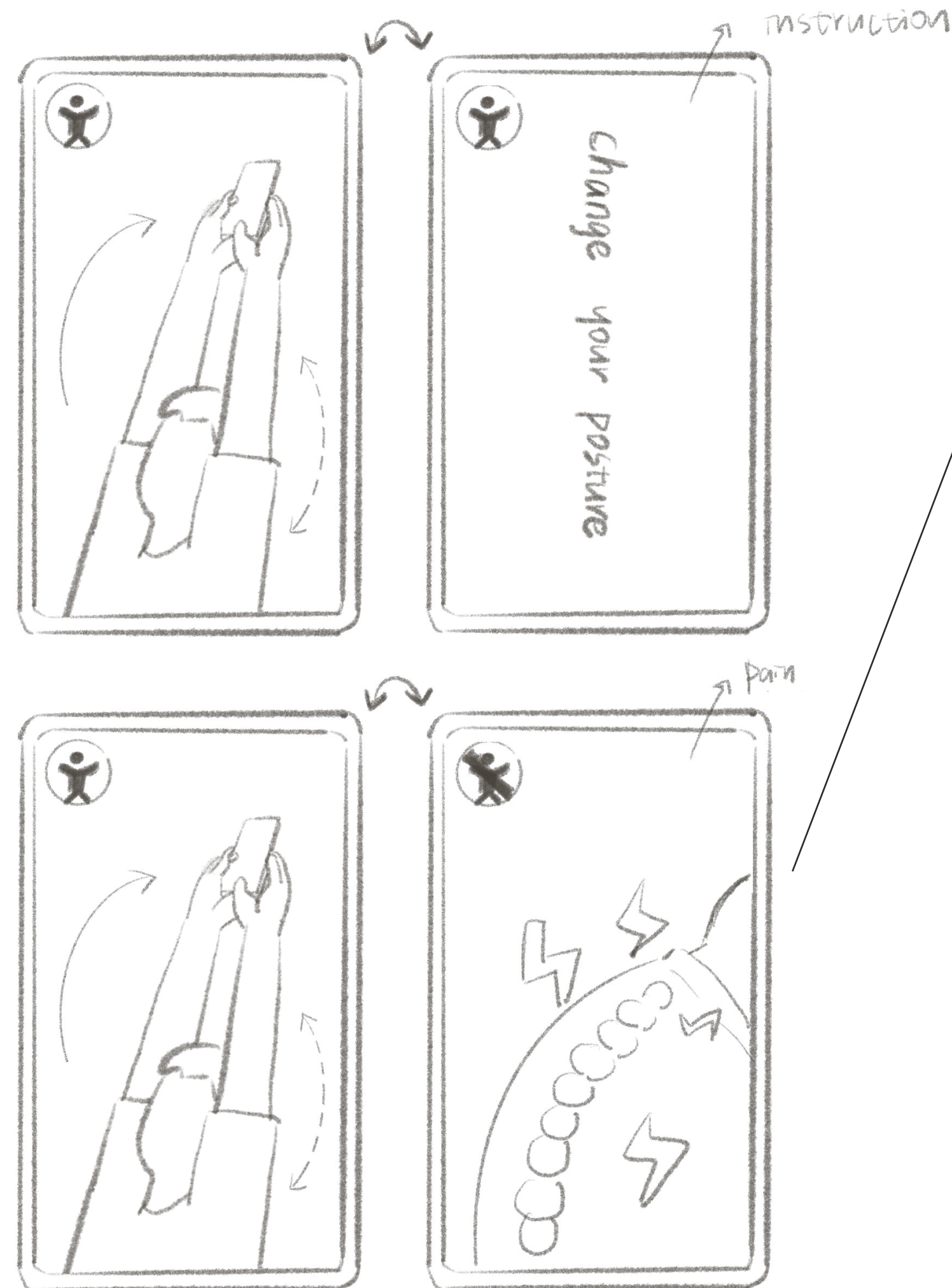
## Direction 1: Body first rule cards

Form: A set of cards, each card corresponding to a specific body rule.

### Reference



### Draft -- Visualization of "rules" and "pain"



Front: visualisation of the rule

Back: the body's response

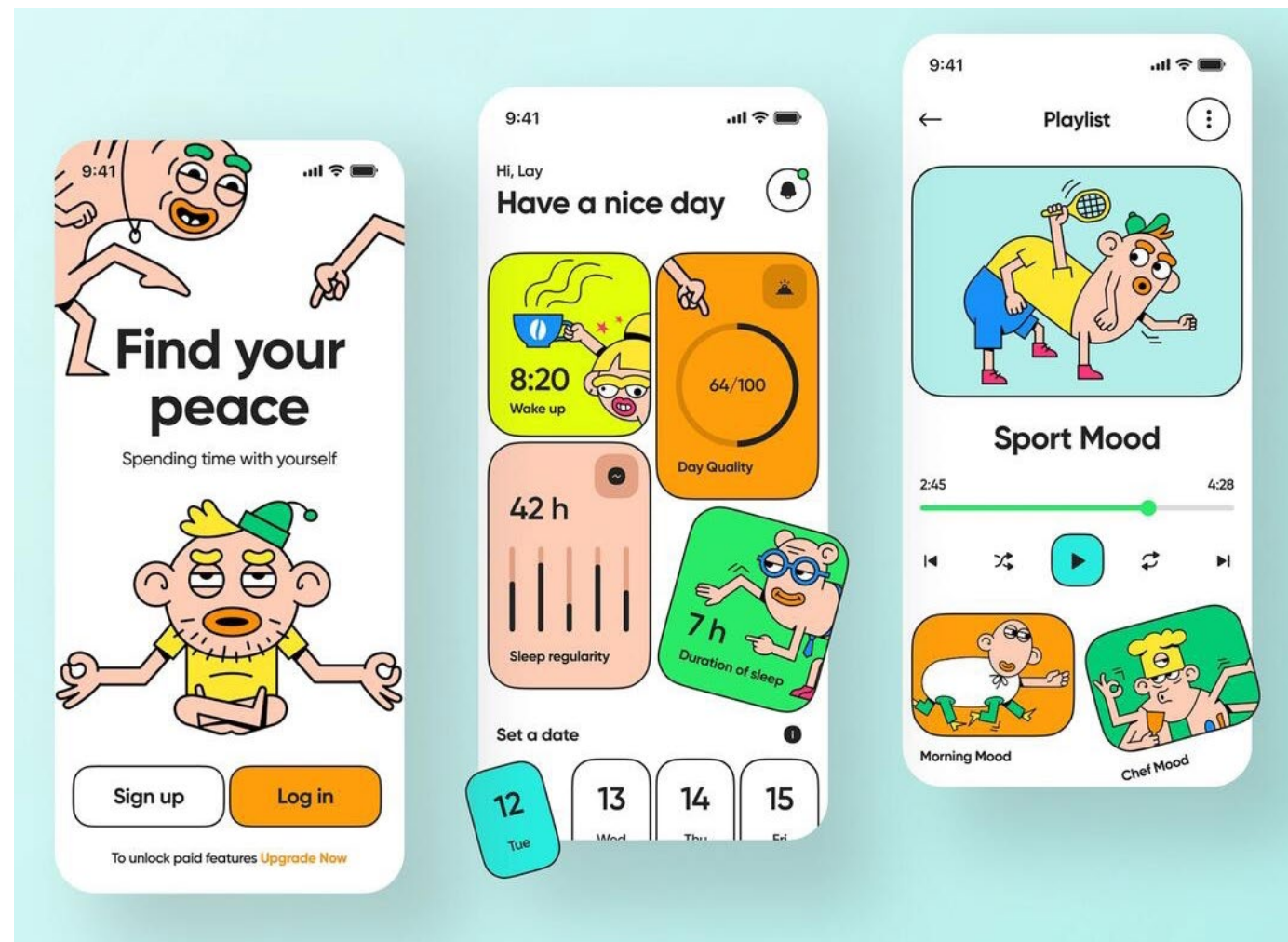
Maybe using plants to represent the body on the back: show how the body is gradually shaped and trained through digital actions and interface rules.

### Thought:

- What is the interaction mechanism of this card system?
- Science popularization card games
- or: treat each card as a constraint-- each card defines a condition that must be followed during interaction. (Using these bodily rules as the rules of the interactive game)
- Would such a system remain engaging, or would it become restrictive and less meaningful/interesting as an experience?

## Direction1 :Body first rule app/website

### Reference



### APP:

-This app combines a card-based system with an interactive interface. Users can explore body-first rules while experiencing how interaction changes based on their body.

**Interaction:** is no longer triggered by touch alone, but by bodily conditions such as posture, movement, rhythm and duration.

Example:

-Blink to continue

"You have not blinked.  
Please blink to continue."

(The screen will darken and then return to normal after blinking.)

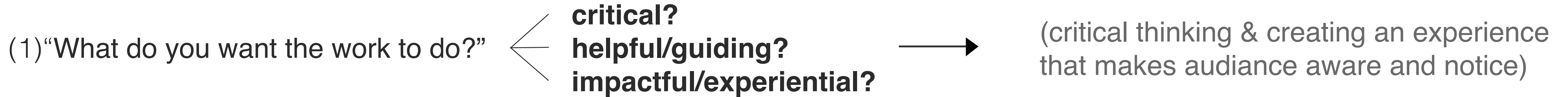
-Posture expired

"This posture has expired.  
Change your position to continue."

(The button disappears and reappears after being moved.)

## ‘production surgeries’

### Feedback



(2) "By designing interactions that make people inevitably blink or adjust their posture (for example, making text extremely small so users have to move closer, or requiring them to raise their device)," [the focus shifts from instructing behaviour to designing behaviour.]

(3) About card system : **can adopt a deck-building logic**, where arranging and combining cards constructs a system. Through this process, users can build a “state of the body”, similar to a tarot-like reading that reveals patterns through accumulation and layering.

(4)Thought:  
why do certain interaction designs make us unable to stop?  
If the most physically harmful interactions are also the most successful and addictive, how can we begin to resist or counteract them?

**A body-first interaction system** where bodily states determine whether and how interaction can happen.

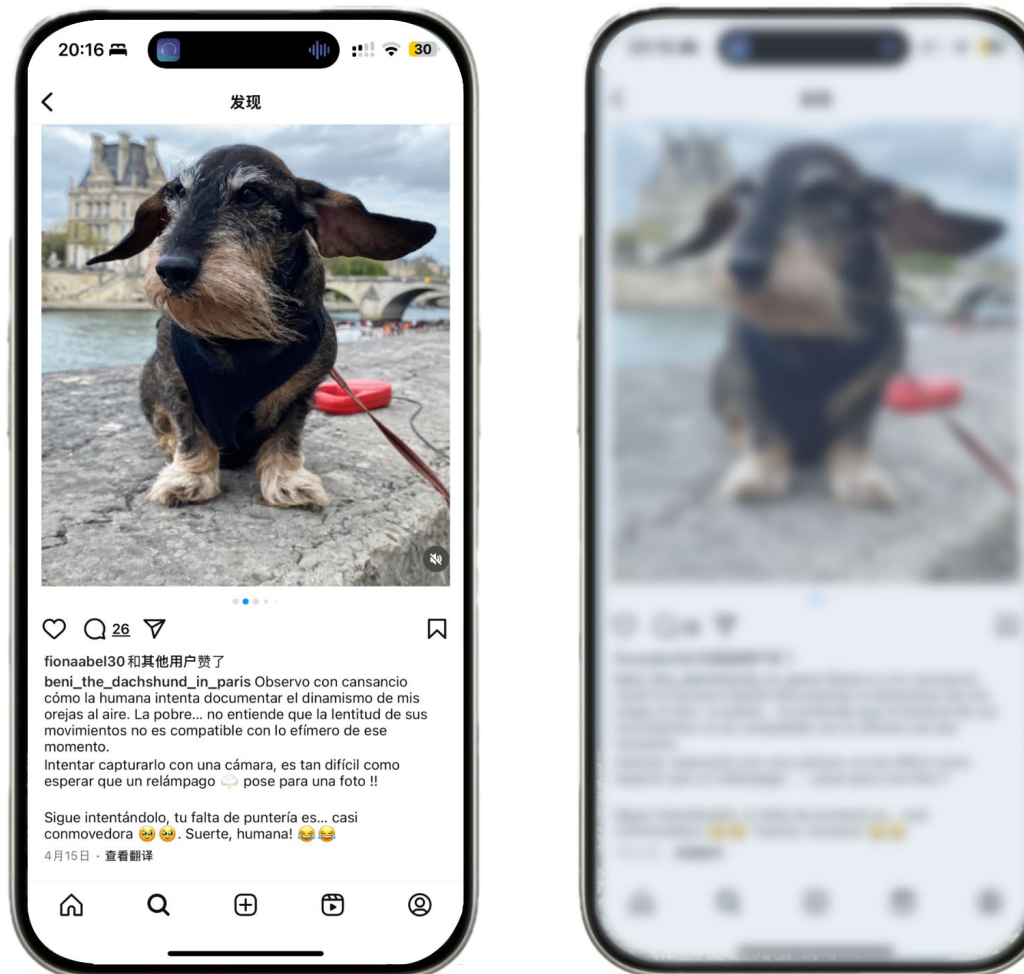
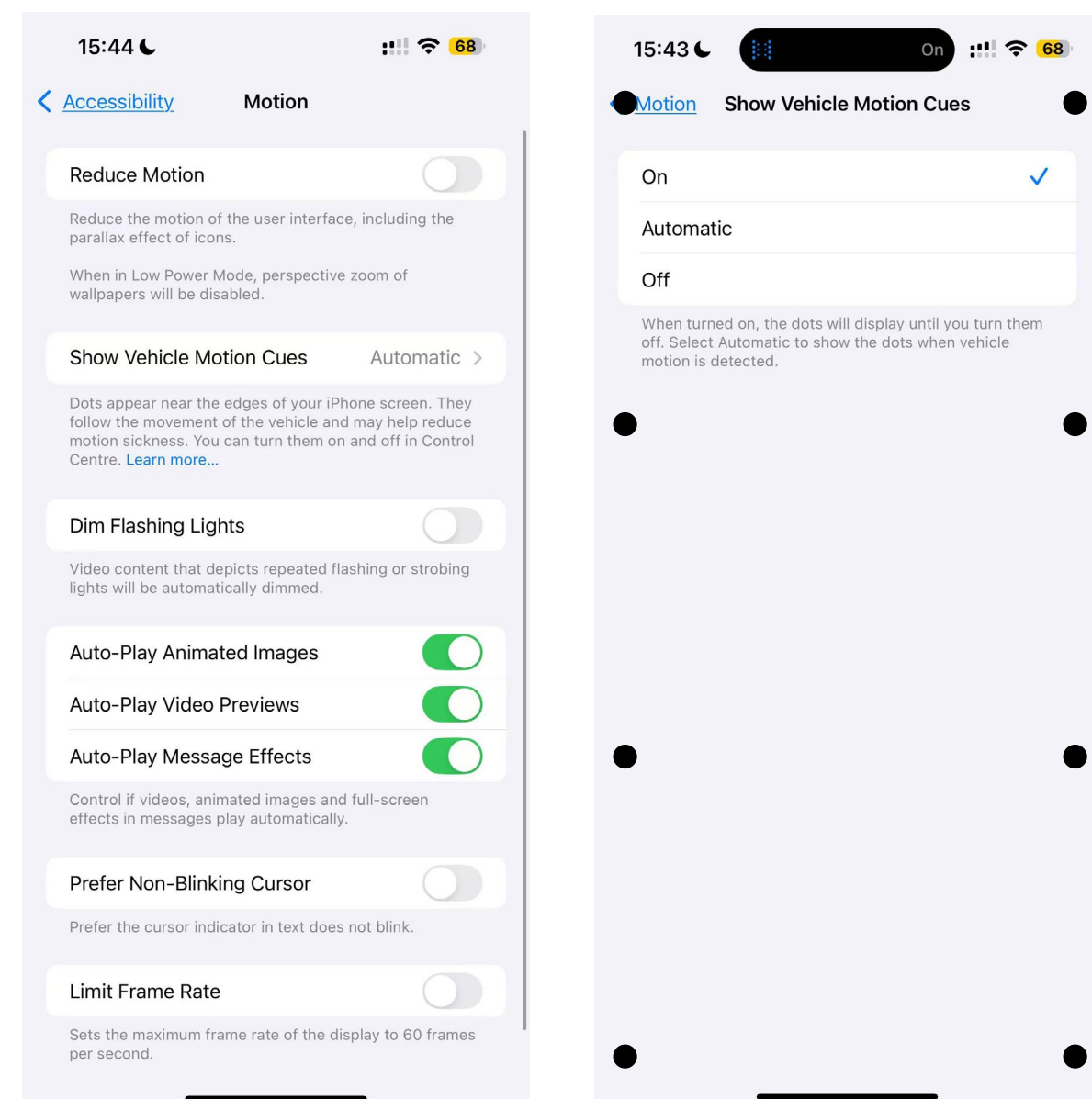
[Instead of reminding users to take care of their bodies, this project proposes an interface that makes the body a condition for interaction.]

outcome form

-app/interactive prototype/System plugin

Reverse thinking: why do we keep looking at screens?

ios anti-motion sickness settings:



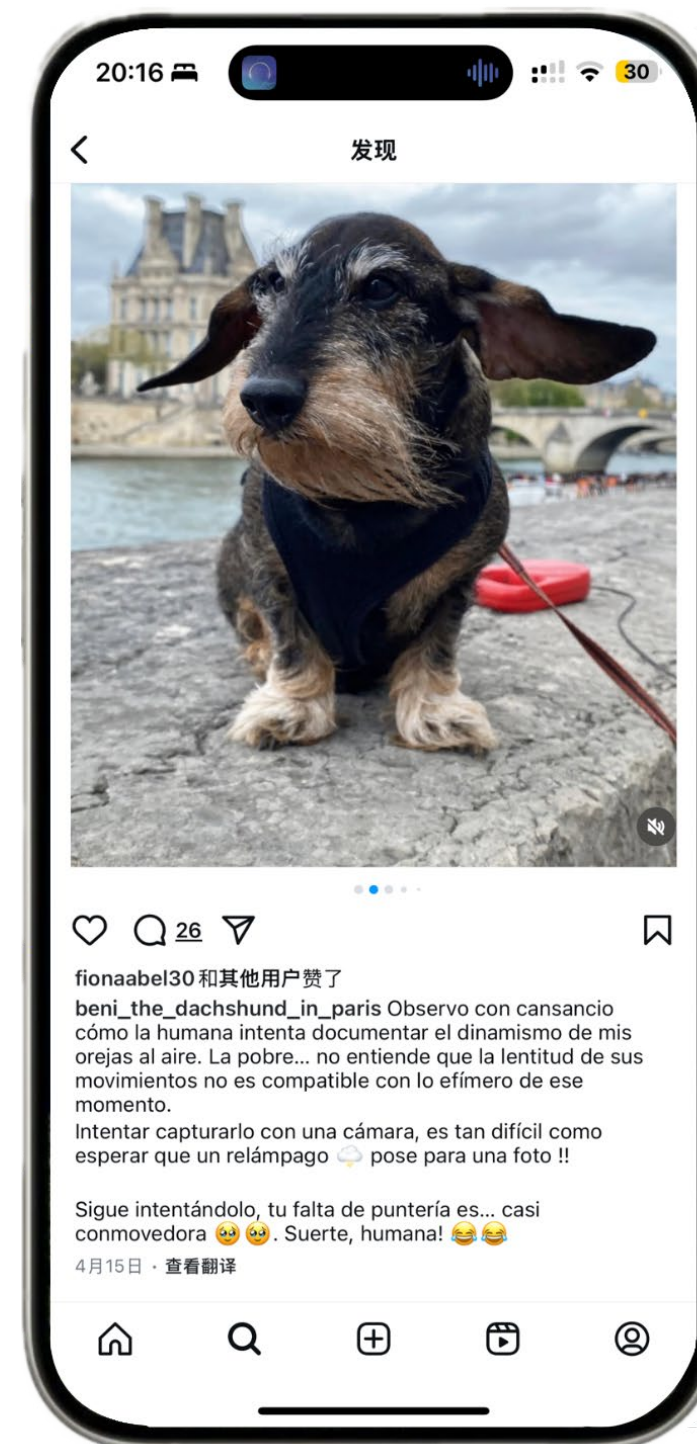
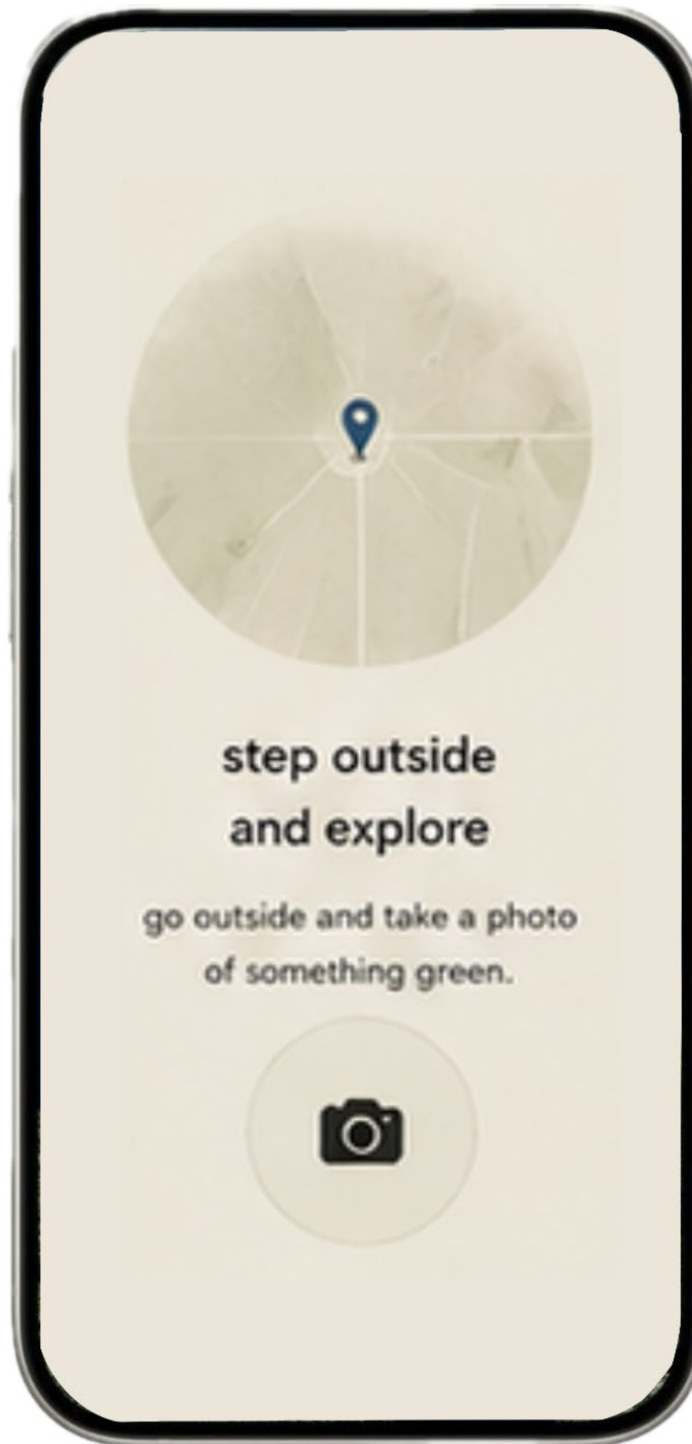
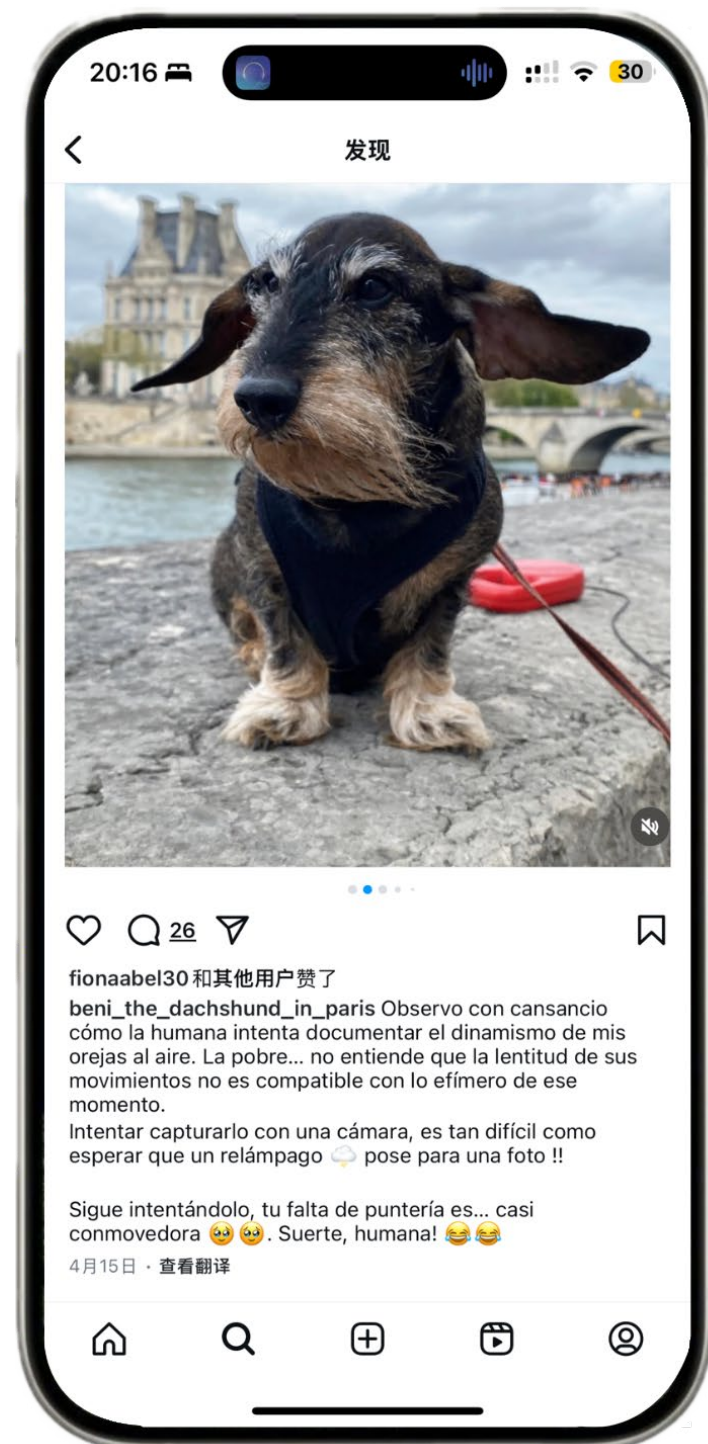
**Temporal intervention**  
-After a certain duration:  
content becomes blurred or less readable



**Vision-based intervention**  
-The interface changes visual clarity and readability based on viewing conditions: Variations in font size & Shifts in layout structure & Reduced contrast or lighter colours

**A body-first interaction system** where bodily states determine whether and how interaction can happen.

[Instead of reminding users to take care of their bodies, this project proposes an interface that makes the body a condition for interaction.]



### Posture& movement intervention

-changes in spatial position(gps or need to take photo of greens to unlock and use)

### Hands intervention

-scrolling or actions require two fingers

### Vision-based intervention

-Use of blinking-like animations & Visual patterns similar to videos that naturally trigger eye blinking

**A body-first interaction system** where bodily states determine whether and how interaction can happen.

[Instead of reminding users to take care of their bodies, this project proposes an interface that makes the body a condition for interaction.]

### Temporal intervention

-After a certain duration:

- a.the interface gradually slows down;
- b.content becomes blurred or less readable
- c.temporary pauses or interruptions occur
- d.forced stop / black screen after extended use
- e.loading states ( instructions : “rest your eyes”)

...

### Vision-based intervention

-The interface changes visual clarity and readability based on viewing conditions:

Variations in font size & Shifts in layout structure & Reduced contrast or lighter colours & Blurred visual output

-Visual elements that subtly encourage blinking through screen behaviour.:

Use of blinking-like animations & Visual patterns similar to videos that naturally trigger eye blinking

...

### Posture& movement intervention

- need to move or shake the phone periodically
- changes in spatial position (gps or need to take photo of greens to unlock and use)

### Hands intervention

- scrolling or actions require two fingers

### Audience experience:

become aware of their body through interaction

position:

If the most successful digital systems are also the most addictive and physically harmful, how can design propose an alternative? (expose and challenge the existing interaction logic.)

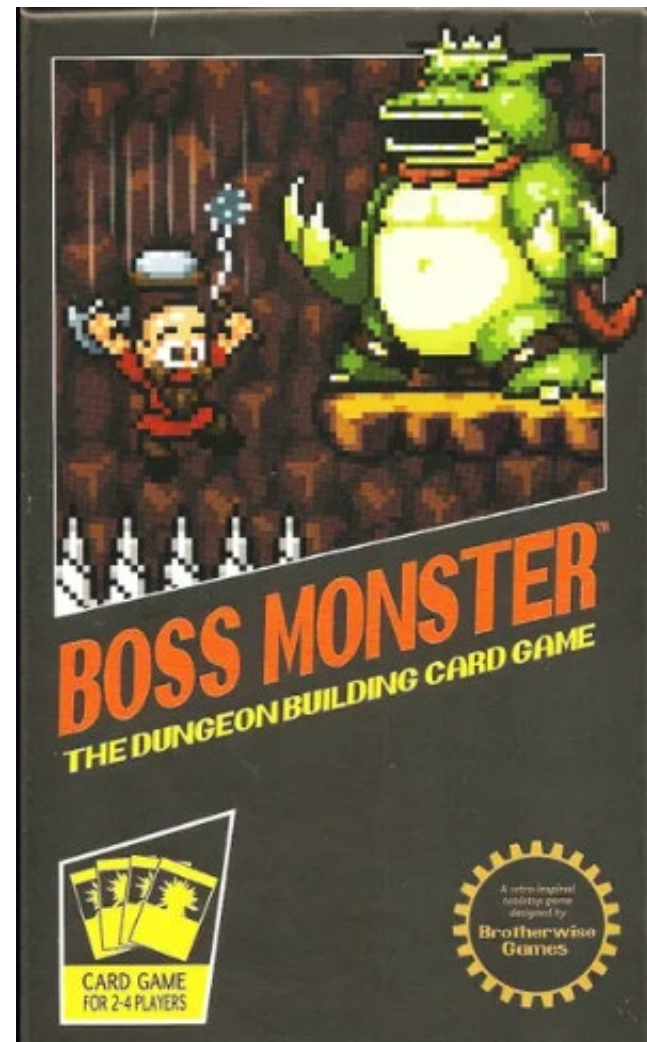
**A card-based system** that reads and interprets the user's bodily state through digital behaviour.

Intention: reveal what the body has already become through everyday interactions with devices.

## Reference

### The Deck-building card

A deck-building system is a game structure where players construct meaning or outcomes by selecting, combining, and arranging cards over time.



### Tarot cards

uses symbolic cards to generate meaning through interpretation and the relationships between the drawn cards.



**A card-based system** that reads and interprets the user's bodily state through digital behaviour.

Intention: reveal what the body has already become through everyday interactions with devices.

outcome form  
A deck-building card

[Mechanism]

Draw -- Combine -- Interpret

- (1) **draw cards** (based on their digital behaviour)
- (2) combine different conditions
- (3) receive an interpretation of their bodily state

Through stacking, arranging, and combining cards, these fragments gradually form a constructed reading of the body.

**Cards are drawn** based on the user's current actions or responses to prompts, such as:  
"What have you mainly been using today?"  
"How do you use your phone?"  
"What is your most frequently used app?"  
"What is your screen time?"

Thought: translate users' actual phone data into this card system?

[Card Categories]

- Body Cards** (physical postures, gestures, and potential bodily strain or damage caused by phone use)
- Environment Cards** (how digital environments (interfaces, usage contexts, habits) shape bodily behaviour)

Intensity level (icon-based)

