# SEESAW: An Educational App for Smart Kiosks

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# Motivation

- **Problem**
  - Tasked with the development of an educational app specifically for Research Ethics
  - Target: Increase awareness of medical school students of the complexity of certain research decisions

- **Our approach**
  - Develop interactive content, aiming to place the learner in the decision-making spot.
  - An app designed for and deployed on kiosk-based computers

# Requirements

## General requirements

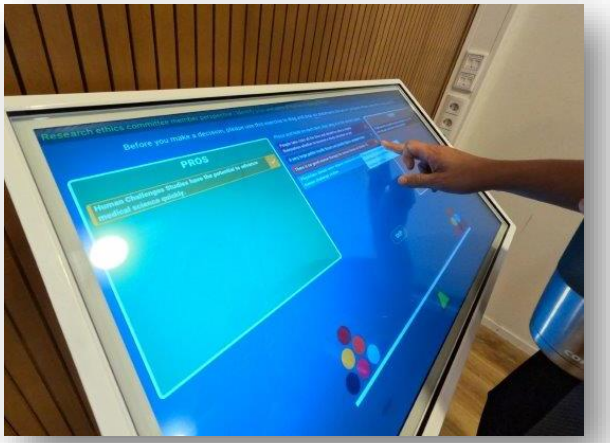
- Target audience: Medical school students
- Deployment: Kiosk computers in public spaces

## App requirements

- Intriguing and engaging
- Running reliably in unsupervised environments
- Intuitive user interface

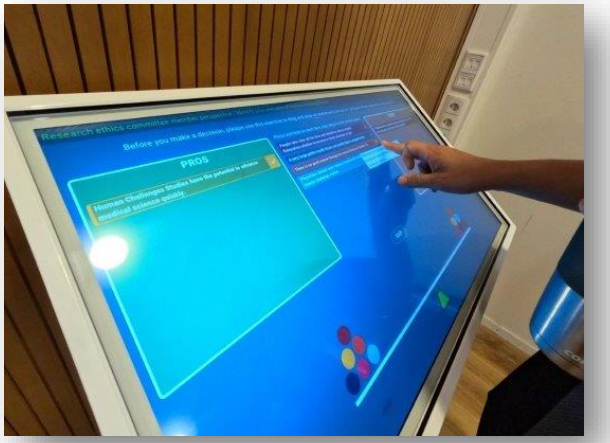
# Design and Implementation

- **App design**
  - Interactive app featuring two scenarios: “prioritising emergencies” and “human challenge studies”
  - Each scenario consists of *Text*, *Pictures*, *Videos*, *Sort-in-buckets* activities, and decision making and feedback in the form of *Polls*

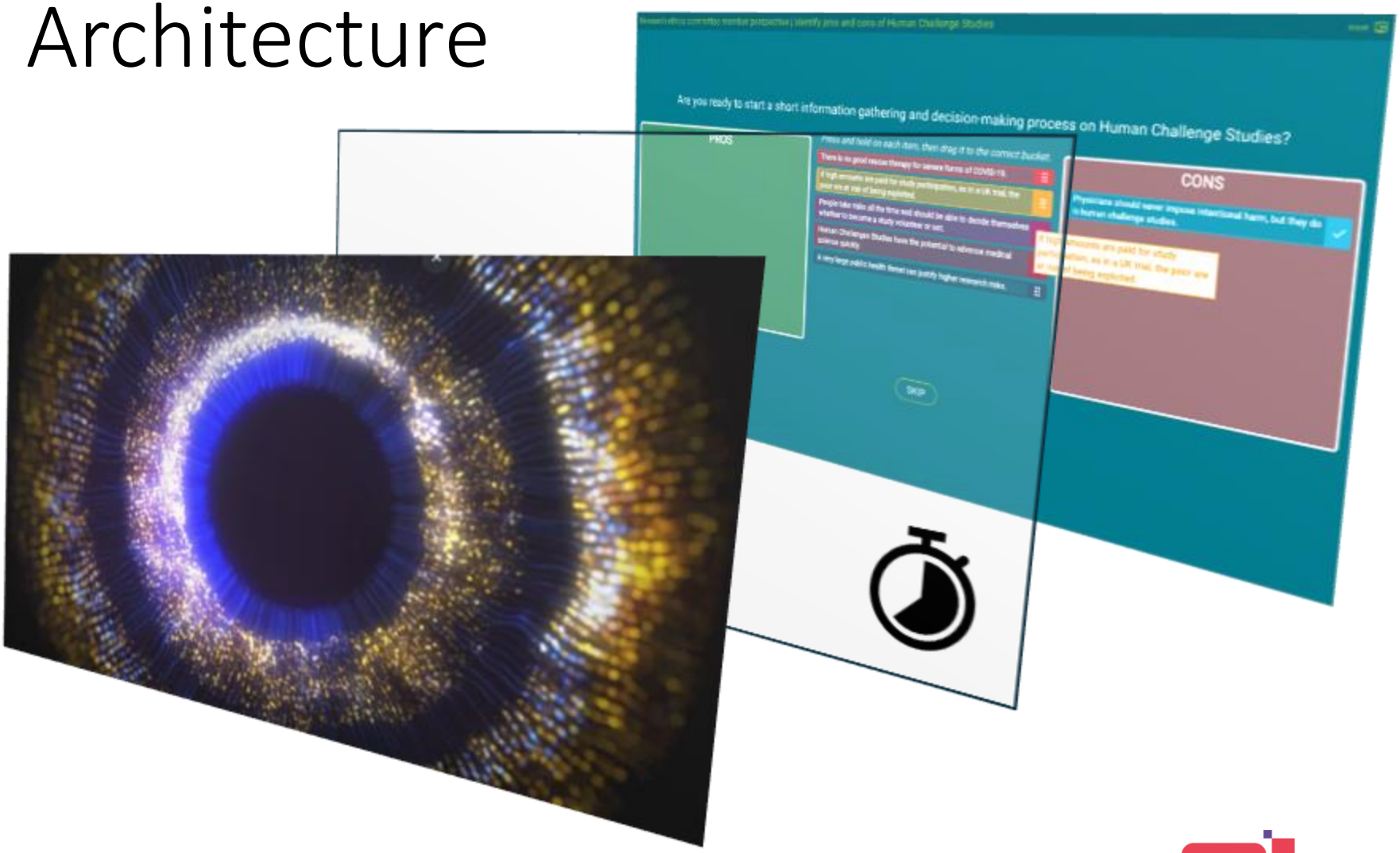


# Design and Implementation

- **Implementation**
  - Hardware: standard commercial kiosk computers (32-inch touch screens, with audio, running Android)
  - Frontend: Web App developed with Flutter
  - Backend: Firebase was used for powering polls and analytics



# Architecture



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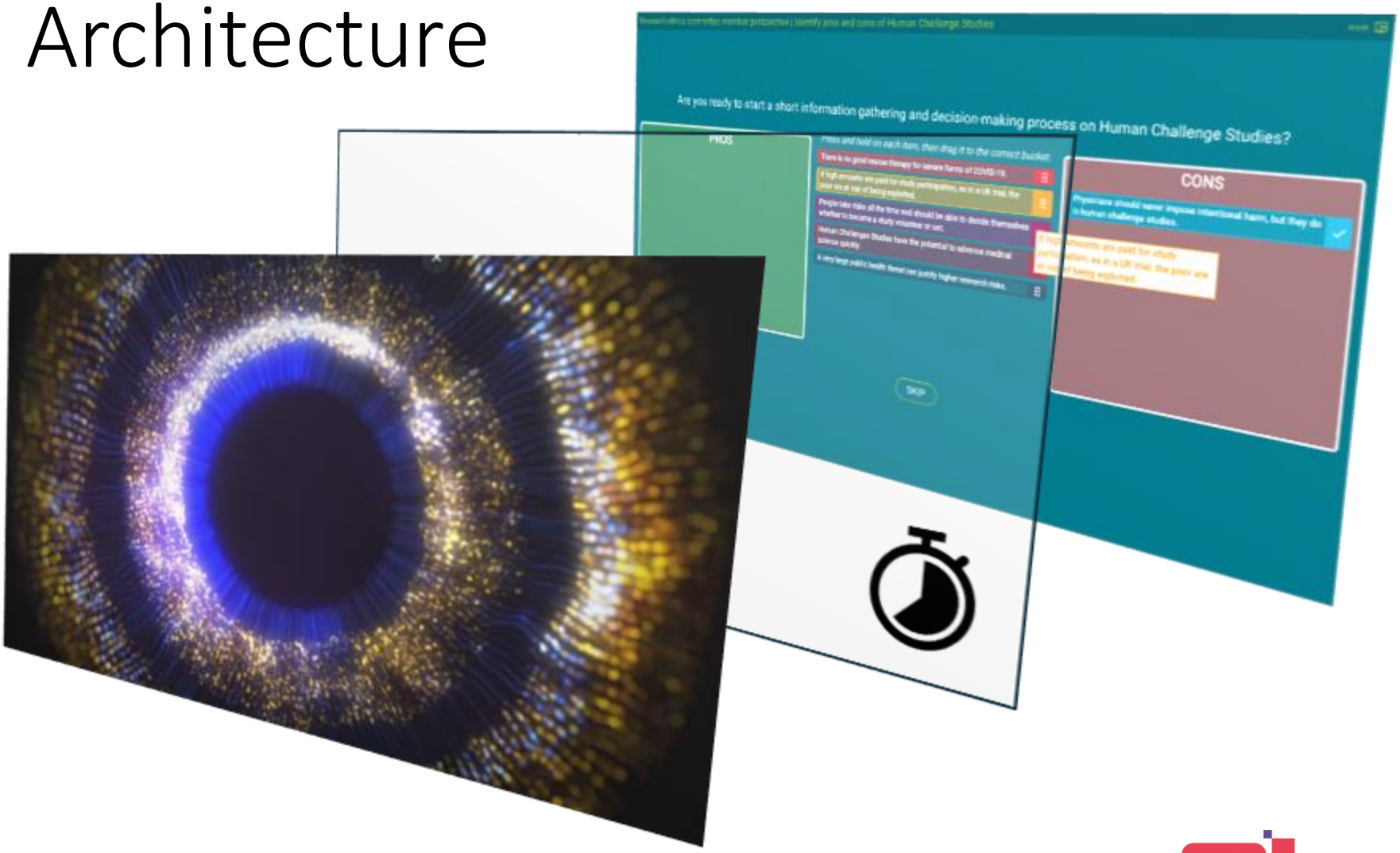

# Evaluation plan

- **Pilot testing (Amsterdam, the Netherlands)**
  - Early version of the app tested on selected kiosk computers
  - Tried out by ~25 ethics specialists
  - Positive feedback: main request make the interactions shorter

- **Early UI evaluation (Cyprus)**
  - Simulated environment (Interactive Boards)
  - Tried out by 22 computing students who provided feeback on the UI using a questionnaire

- **Field-based evaluation (campuses in the Netherlands)**
  - Two kiosk computers touring campuses in the Netherlands

# Conclusions

- **Findings**
  - Only limited literature on using Kiosk based computers
  - Even more scarce information on using them for educational or awareness purposes
  - A limited variety of off-the-shelf commercially available general purpose kiosk computers
  - Android can be a viable choice for powering Kiosk-based apps
  - We will aim to find out in practice how well a Kiosk-based app can intrigue and engage university students to learn

# Questions?

# Thank you!