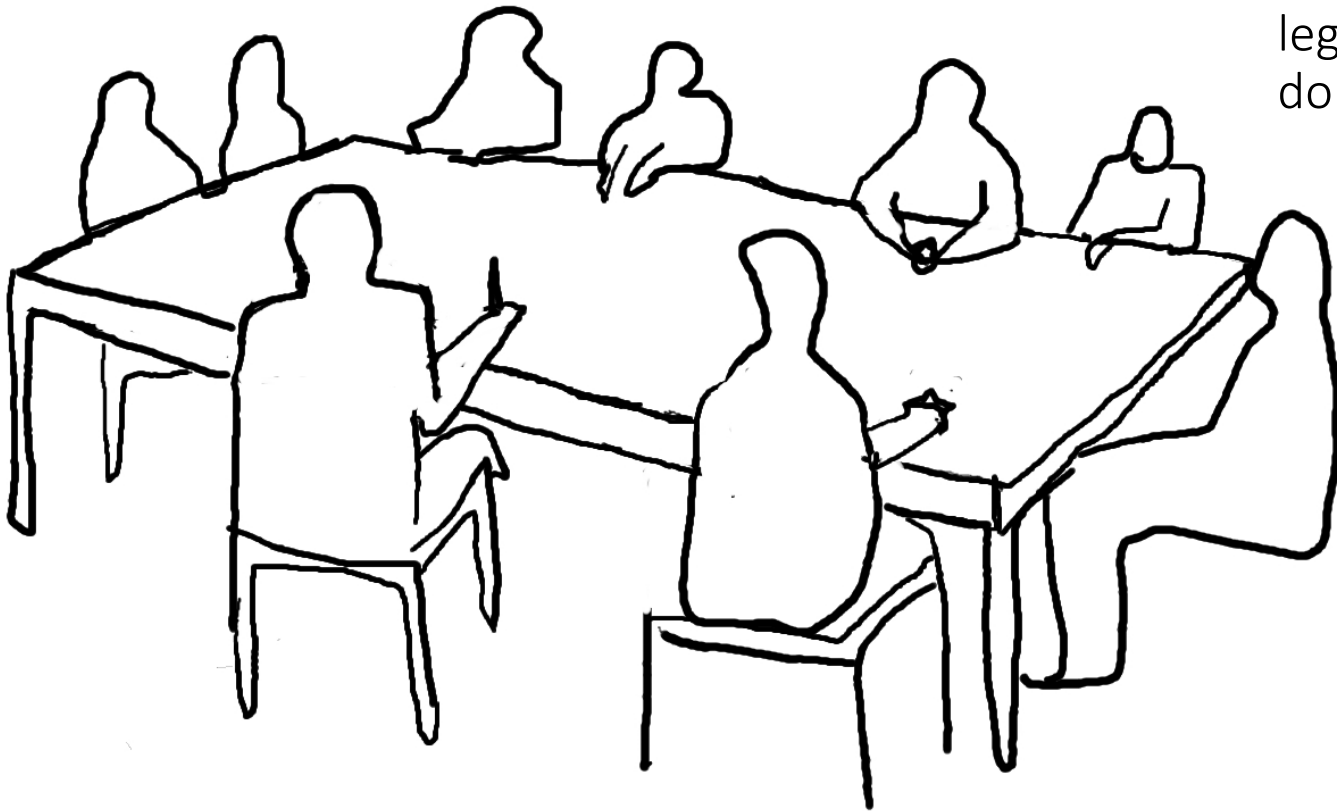# PICT. IO

A Human-Machine Collaborative Game

## Contextualization

Non-human agent study group at TAG.

Research creation projects investigating meaningful interaction between machines and humans.

Discussions about machines as agents with social legitimacy in domestic spaces, and their domestic, social and political consequences.

PICT. IO is a drawing game based on the popular game Pictionary.

It builds on Google's experiment *Quick, Draw!*, which uses a neural network to guess what you're drawing.
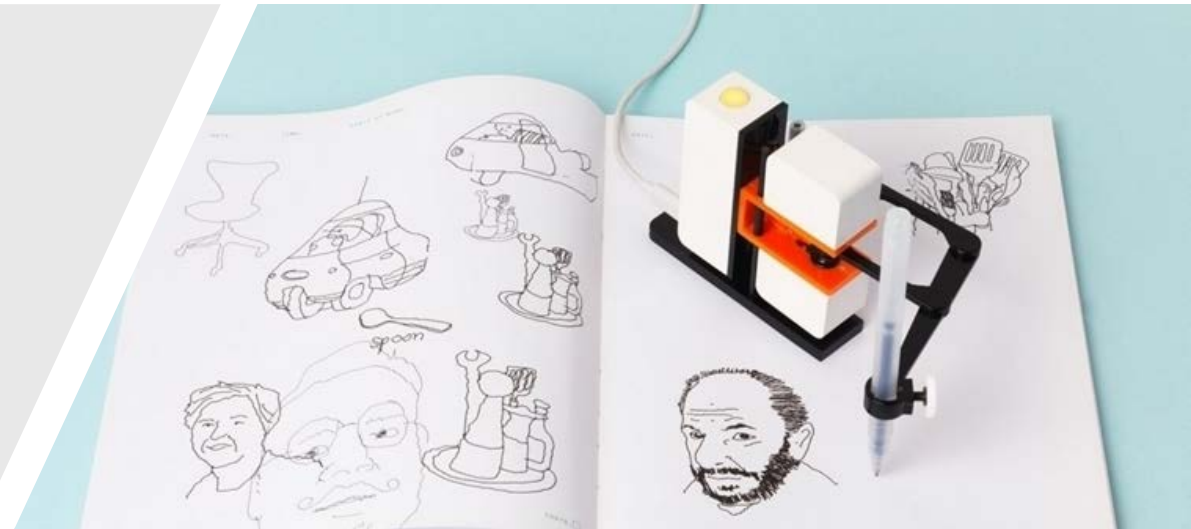
Pict. io

Different than most examples of machine play, in this game machines and humans work collaboratively.
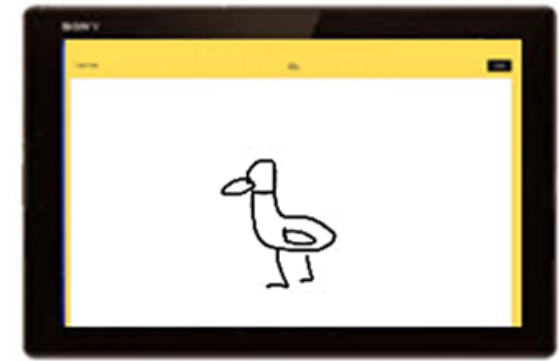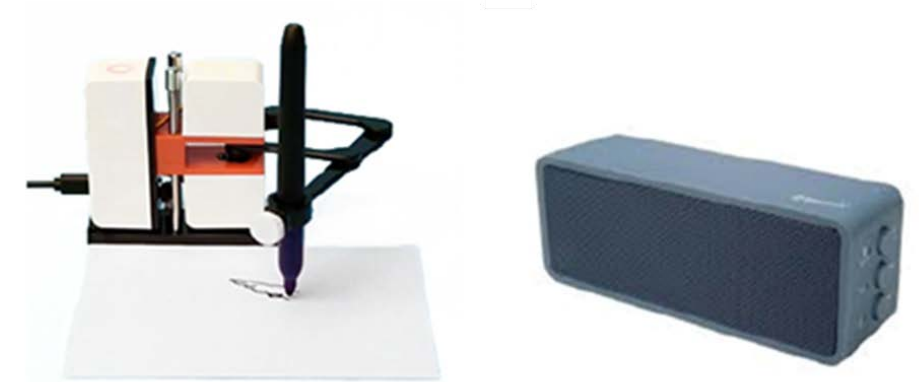
Each team is composed of two humans and one machine, communicating trough drawings and speech, working together to solve challenges

The Machine Player

Our main goal is that the game is engaging, and the machine player appears to play with intentionality

- Embodiment
    - tablet
    - speaker
    - drawing robotic arm, called Line-us.
- Voice (Linguistic and paralinguistic signs)
    - Nationality
    - Gender
- Name
- Collaborative behavior
- Machines making mistakes

How to Play

Each team, identified by colors, is composed of two humans and one machine.

The players throw dice to advance on the board, and each square lead to one drawing challenge.

The players cannot use other means of communication rather than those indicated for each challenge. The game continues this way until one of the pawns completes the course.
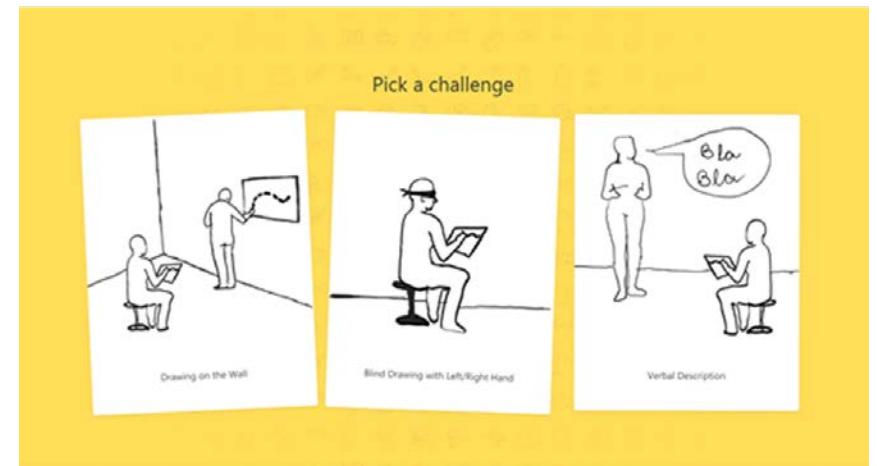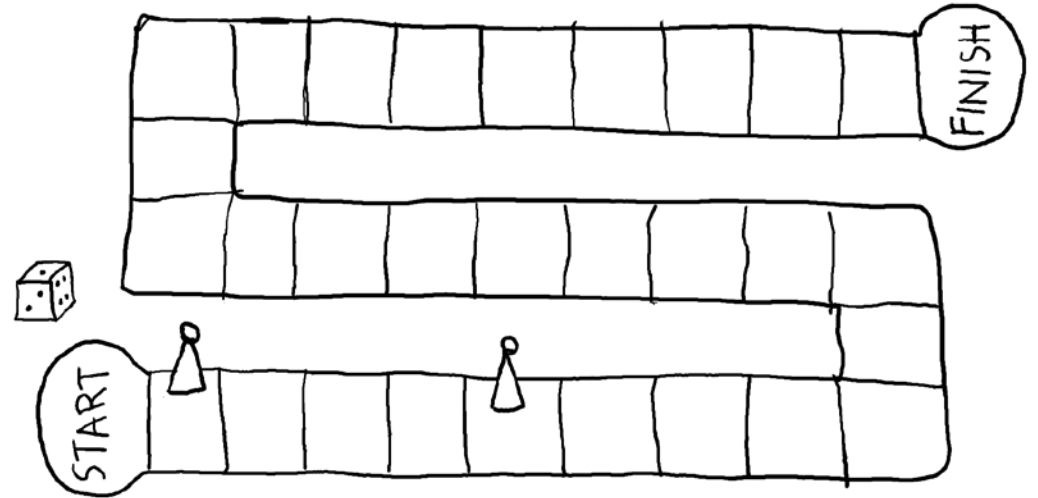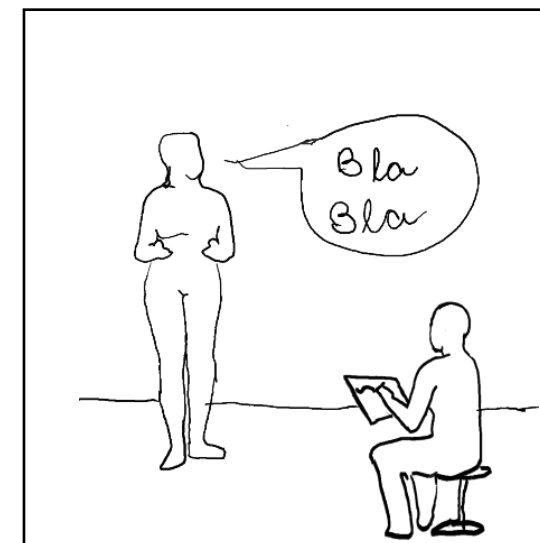
Challenges

Drawing on the Wall

In this challenge, the two human players work together to produce one sketch representing the word given by the tablet. The player who saw the word must draw on a wall, using just their fingers, without leaving any visible mark. The second human acts as a proxy, following the trajectory of the finger and trying to reproduce it on the screen of the tablet. The AI program has one minute to guess what is being drawn.
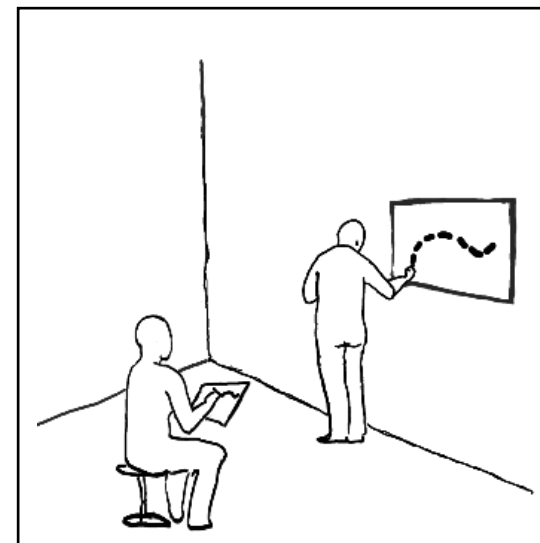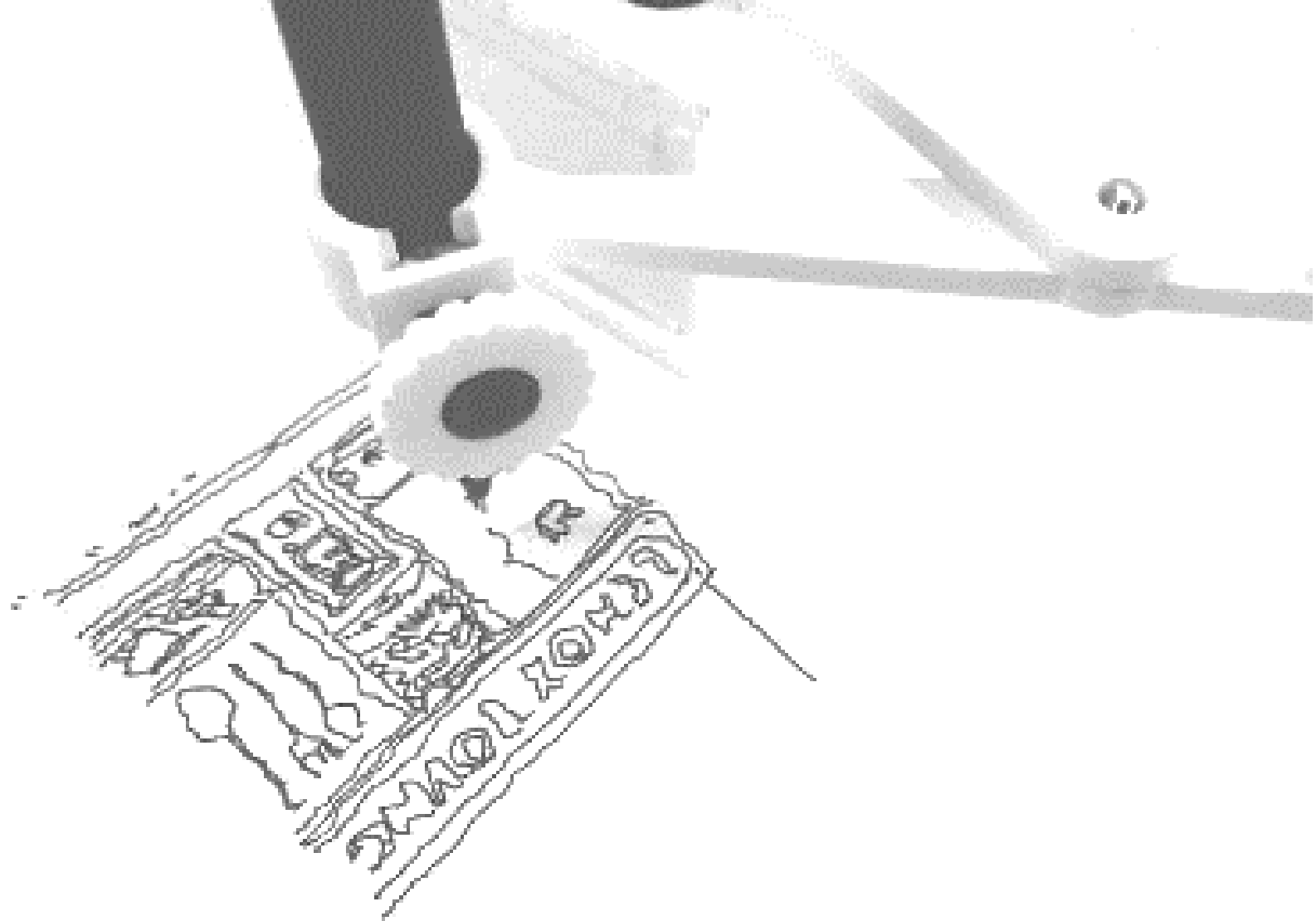

Verbal Description

In this challenge, the two human players work together to produce one sketch representing the word selected. The player who saw the word must verbally describe it, using only geometrical figures and spatial orientation. The second human acts as a proxy, following the instructions and trying to reproduce it on the screen of the tablets. The AI program has one minute to guess what is being drawn.

The Drawing Machine

The team players alternate the drawer at each round. When it is time for the machine to draw, it has its challenge, where the PICT-IO interface tells a human player what she must draw. The human draws it on the tablet which guesses (silently). When the machine guesses, it chooses a drawing of that category and sends to the robot to draw it on a piece of paper. The second person on the team has a limited amount of time to guess the robot's drawing.

THANK YOU