



# Robotique sociale, Interaction humain-machine

## Introduction historique (séance 1)

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# Déroulement

TH 1

1. Robotique sociale : perspective
2. Question(s) de fonds

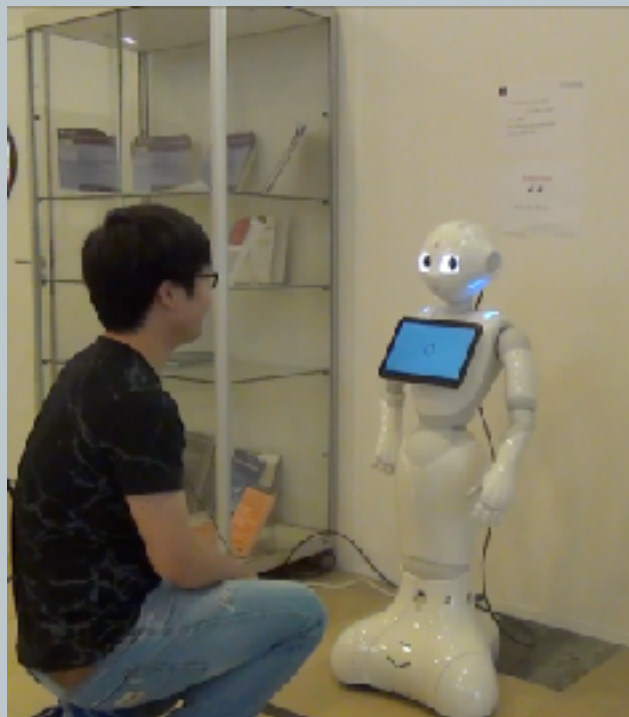
TH 2

1. Terrain, étude et évaluations
2. Exemples

# HRI

Human—Robot Interaction (HRI) is a field of study dedicated to understanding, designing, and evaluating robotic systems for use by or with humans (Dautenhahn 2014).

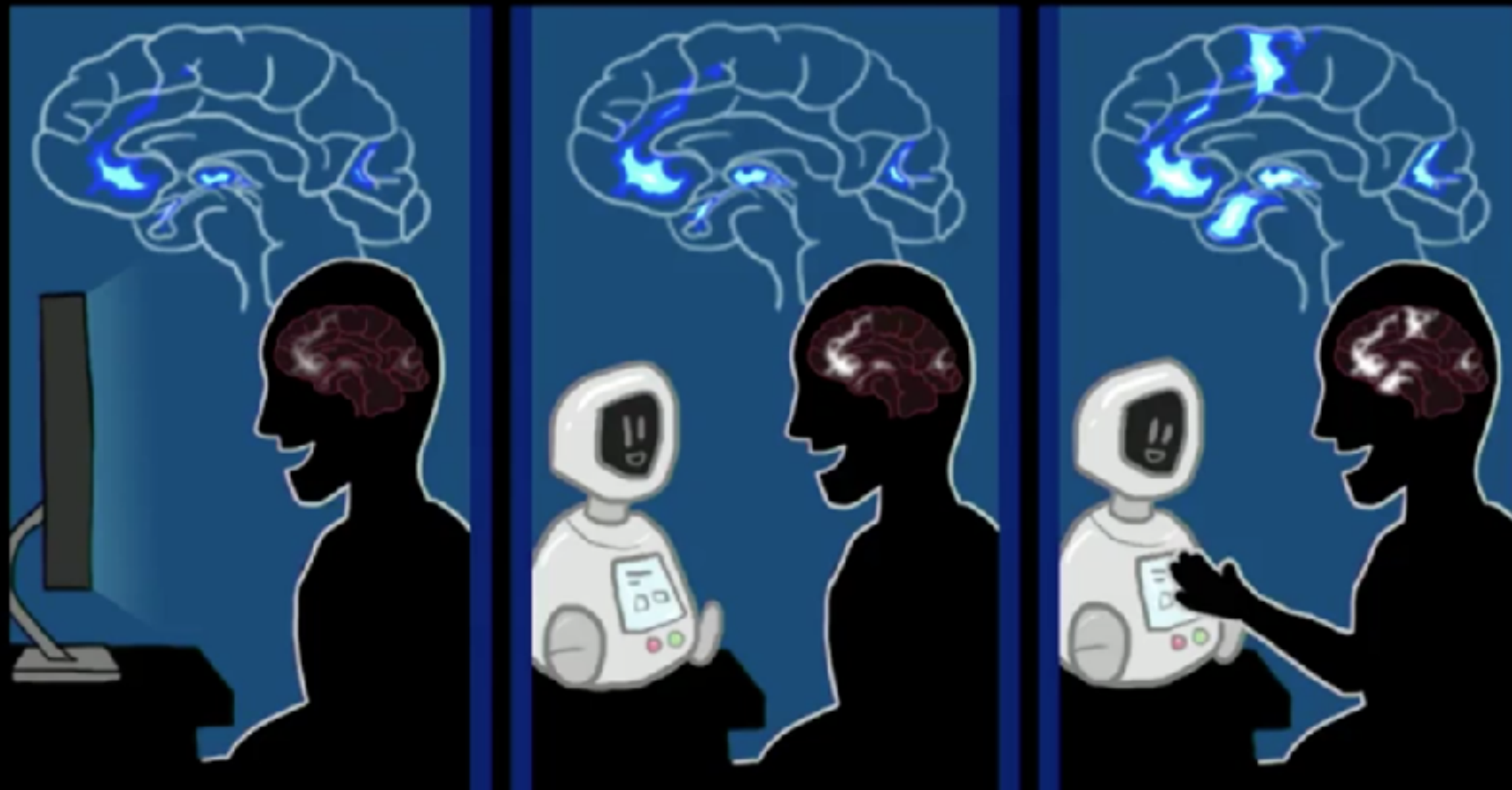
# Robots ?



# Robots ?

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## Embodiment Matters

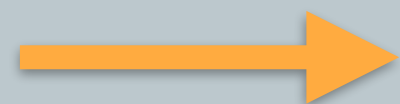


# HRI et Robots sociaux

- Human—Robot Interaction (HRI) is a field of study dedicated to understanding, designing, and evaluating robotic systems for use by or with humans.
- **Social robots** are embodied agents that are part of a heterogeneous group: a society of robots or humans. They are able to recognize each other and engage in social interactions, they possess histories (perceive and interpret the world in terms of their own experience), and they explicitly communicate with and learn from each other. (Fong et alii, 2003)

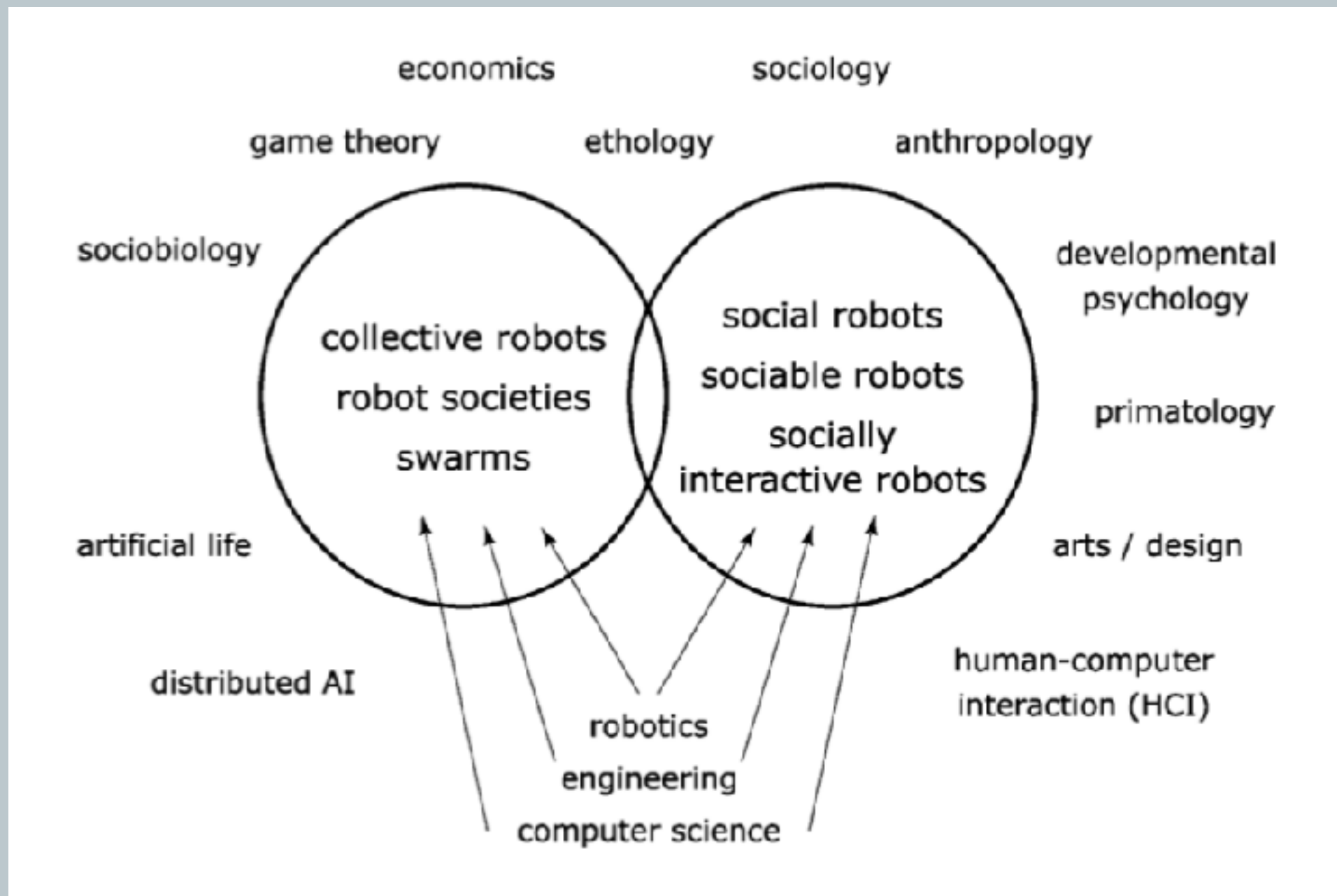


**social ?**



**(tradition) Social Robot ≠ Sociable robot**

# HRI et Robots sociaux





## Robots sociaux (général)

- socially evocative
- social interface
- socially receptive
- sociable
  
- socially situated
- socially embedded
- socially intelligent

## socially interactive robots

- express and/or perceive emotions;
- communicate with high-level dialogue;
- learn/recognize models of other agents;
- establish/maintain social relationships;
- use natural cues (gaze, gestures, etc.);
- exhibit distinctive personality and character;
- may learn/develop social competencies.



# Robotique Sociale

In our perspective : studying people's behaviour and attitudes towards robots in relationship to the physical, technological and interactive features of the robots, with the goal to develop robots that facilitate the emergence of human-robot interactions that are at the same time efficient (according to the original requirements of their envisaged area of use), but are also acceptable to people, and meet the social and emotional needs of their individual users as well as respecting human values.



**What does sociology can provide ? What kind of social interactions can be expected from a social robot?**

# Robotique Sociale

- friends, partners, companion : human words rarely used in an operational sense
- Companion paradigm / Care-taker paradigm
  - A robot companion in a home environment needs to 'do the right things', i.e. it has to be useful and perform tasks around the house, but it also has to 'do the things right', i.e. in a manner that is believable and acceptable to humans.
  - In the caretaker paradigm it is the person's duty to take care of the 'immature' robot.
- Robots as 'relational artifacts' that are designed to encourage people to develop a relationship with them, can lead to misunderstandings concerning the authenticity of the interaction (Turkle, 2007).