

The robot as others: A Case Study in Japan and Philosophical Inquiry

Hidekazu Kanemitsu (Kanazawa Institute of Technology)

Structure

- ◆ Technology as “others”
- ◆ Robot as others
 - physical dimension
 - mental dimension
 - personal dimension
- ◆ Concluding remarks

Structure

◆ Technology as “others”

◆ Robot as others

- physical dimension

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◆ Concluding remarks

◆ Don Ihde

embodiment relations

(human-technology)→world

hermeneutic relations

human→(technology-world)

alterity relations

human→technology-(world)

background relations

human→(technology)-world

(Ihde, Don., *Technology and the Lifeworld*, Indiana University Press, 1990)

Human → technology - (world)

Human → technology - (world)



quasi-other

Human → technology - (world)



I care for automobile - (world)

•••but it is far less of an other even than horse, which can also be used to travel but which does not always obey and can even be startled or rear if a rabbit happens to cross its path.

Peter-Paul Verbeek, *What Things Do*, 2005, p. 127



Human → technology - (world)



quasi-other

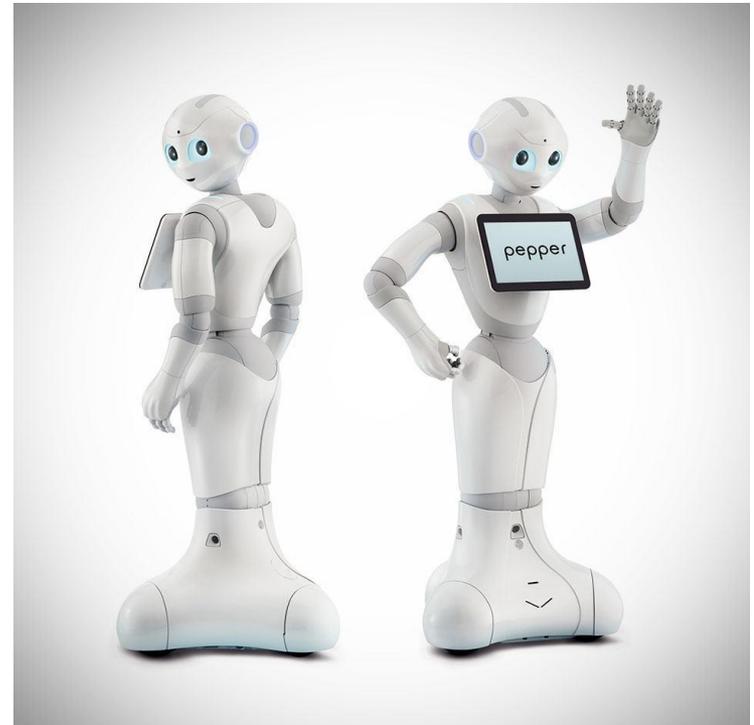
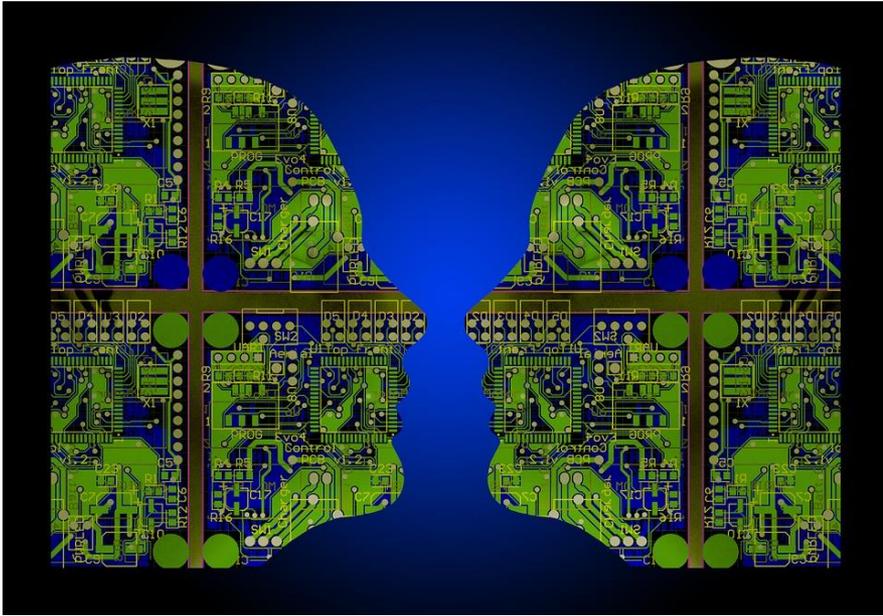


independence

interaction



<http://www.ohno-karakuri.jp/guide/index.html>



In my earlier work, I used the examples of toys, objects that seem animated and with which one can play. **Today, I probably would use robotic example.** In Japan I once encountered a robot in a department store who would answer questions about what to find where. Here I relate to an artifact—although it is likely that the robot becomes simply an amusing way to be referenced to something other than itself, and thus it reverts to a hermeneutic function.

Don Ihde, *Postphenomenology and Technoscience*, 2009, p. 43

Structure

◆ Technology as “others”

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physical dimension



Find us on 

Hiroshi Ishiguro Laboratories were founded to encourage and promote studies based on original and unique ideas from Hiroshi Ishiguro, ATR Fellow, who has remarkable achievements on robotics. We have explored new information media based on humanlike robots that harmonize humans with information-environment beyond existing personal computers, while inquired "what is the essence of human beings?"

Pro. Ishiguro has received "the Sheikh Mohammed Bin Rashid Al Maktoum Knowledge Award" in the presence of Shaikh Mohammed bin Rashid Al Maktoum.

Please visit the link [HERE](#) for more information.

Pro. Ishiguro has received the Prize for Science and Technology (Research Category) by the Minister of Education, Culture, Sports, Science and Technology (MEXT).

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What is human presence?

Can it be communicated or reproduced by technology?

In the presence of Shikata Memorial Shrine Museum...

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NATURE | EDITORIAL



Let's talk about sex robots

Interactions between humans and robots may eventually include sex.

10 July 2017 | Clarified: 13 July 2017

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Johannes Eisele/AFP/Getty

The humanoid robot Jia Jia (centre) was unveiled in Shanghai, China, in January.

physical dimension

◆ Can robots acquire real body like humans?

physical dimension

- ◆ Can robots acquire real body like humans?
- ◆ Leib and Körper

physical dimension

◆ Can robots acquire real body like humans?

◆ Leib and Körper

➤ humans

➤ neomort

➤ robots

mental dimension



KASPAR the social robot

Introducing KASPAR

> **Developing KASPAR**

> **Friends of KASPAR**

Supporting children with autism

Research

News and media

Support the KASPAR project

Contacts and links

[Home](#) > [Introducing KASPAR](#)

Introducing KASPAR

KASPAR is a child-sized humanoid robot designed to help teachers and parents support children with autism.



- KASPAR has been designed for use as a **social mediator**, encouraging and helping children with autism to interact and communicate with adults and other children.
- KASPAR has the ability to engage in a range of **interactive play scenarios**, such as turn-taking or shared-gaze activities, which children with autism often find difficult to understand or perform.
- KASPAR's face is capable of showing a range of **simplified expressions** but with few of the complexities of a real human face.
- KASPAR has **movable arms, head and eyes**, which can be controlled by the teacher or parent but also can respond to the touch of a child.
- KASPAR has been designed to be **inexpensive**, with the aim of making a final model affordable to as many families and schools who might benefit as possible.

The robot was developed by the University of Hertfordshire's [Adaptive Systems Research Group](#). The Principal Investigator is Professor Kerstin Dautenhahn.

Any questions?

Please [contact us](#) if you have queries about the KASPAR project.

KASPAR

- ◆ Kaspar is a child-sized humanoid robot designed for social interactions in order to improve the lives of children with autism spectrum disorder (ASD).
- ◆ It can simulate body movements or gestures using its hands, arms, torso, and head, as well as displaying facial expressions; additionally, it can utter words or sounds.



<http://www.herts.ac.uk/kaspar>

PARO

- ◆ PARO is an interactive robot, boasting five kinds of sensors – tactile, light, auditory, temperature, and posture – with which it can perceive people and the surrounding environment.



PARO Therapeutic Robot

PARO is an advanced interactive robot developed by AIST, a leading Japanese industrial automation pioneer. It allows the documented benefits of animal therapy to be administered to patients in environments such as hospitals and extended care facilities where live animals present treatment or logistical difficulties.

- PARO has been found to reduce patient stress and their caregivers
- PARO stimulates interaction between patients and caregivers
- PARO has been shown to have a Psychological effect on patients, improving their relaxation and motivation
- PARO improves the socialization of patients with each other and with caregivers
- World's Most Therapeutic Robot certified by Guinness World Records

PARO is the 8th generation of a design that has been in use in Japan and throughout Europe since 2003.

PARO has five kinds of sensors: tactile, light, audition, temperature, and posture sensors, with which it can perceive people and its environment. With the light sensor, PARO can recognize light and dark. He feels being stroked and beaten by tactile sensor, or being held by the posture sensor. PARO can also recognize the direction of voice and words such as its name, greetings, and praise with its audio sensor.

PARO can learn to behave in a way that the user prefers, and to respond to its new name. For example, if you stroke it every time you touch it, PARO will remember your previous action and try to repeat that action to be stroked. If you hit it, PARO remembers its previous action and tries not to do that action.

By interaction with people, PARO responds as if it is alive, moving its head and legs, making sounds, and showing your preferred behavior. PARO also imitates the voice of a real baby harp seal.

PARO-Certification Classes Available

PARO-Certification Classes by Prof. Sandra Petersen, DNP, APRN, FNP/IGNP-BC, PMHNP-BE, FAANP
University of Texas at Tyler (spetersen@uttyler.edu)

PARO-Certification Classes by Randy Griffin RN MS HNC

camh

The Healing Effects Of A White Seal



KALW

Robotic Seals Comfort Dementia Patients But Raise Ethical Concerns



The Star

Robot Gets Seal Of Approval



PARO

- ◆ PARO can learn to behave in a way that stimulates the user, and can respond to its own name.
- ◆ Interacting with people, PARO reacts as if it is a living being, which has been shown to have a psychological effect on patients, improving their relaxation and motivation.



<http://www.parorobots.com/photogallery.asp>

mental dimension

- ◆ Some people have a feeling of intimacy towards robots
- ◆ Their mental state is affected by robots

personal dimension

Tetsuro Watsuji

◆ Mask and Persona (1935)

Translated by Carl M. Johnson in *Japan Studies Review* 2011.



1889-1960

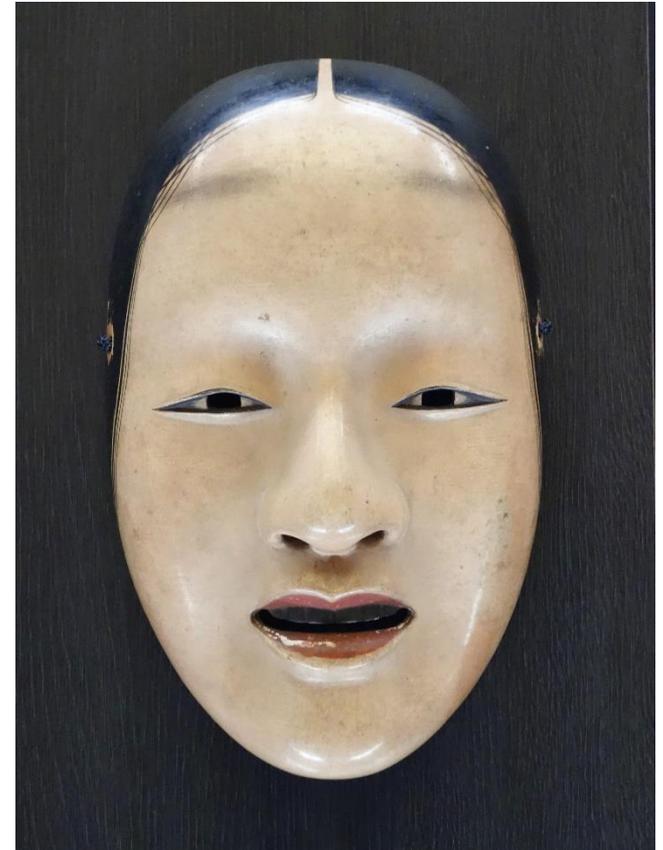
Tetsuro Watsuji

- ◆ In the West, the power of the face is demonstrated by the way in which the term persona shifted in usage from mask to the character portrayed by the mask to personhood itself.
- ◆ Watsuji expands this examination further by extending it to the East, where the power of the face has been demonstrated by the negative use of the blank Noh mask in portraying an endless variety of expressions

(by Carl M. Johnson)

◆ Noh [nō 能] is an indigenous Japanese theater form which is performed by a masked actor with a chorus, similar to ancient Greek theater.

◆ A skilled actor is able to cause his (traditionally, all Noh actors are male) mask to take on a variety of expressions by changing its angle and thus the shadows on its otherwise emotionally blank face.



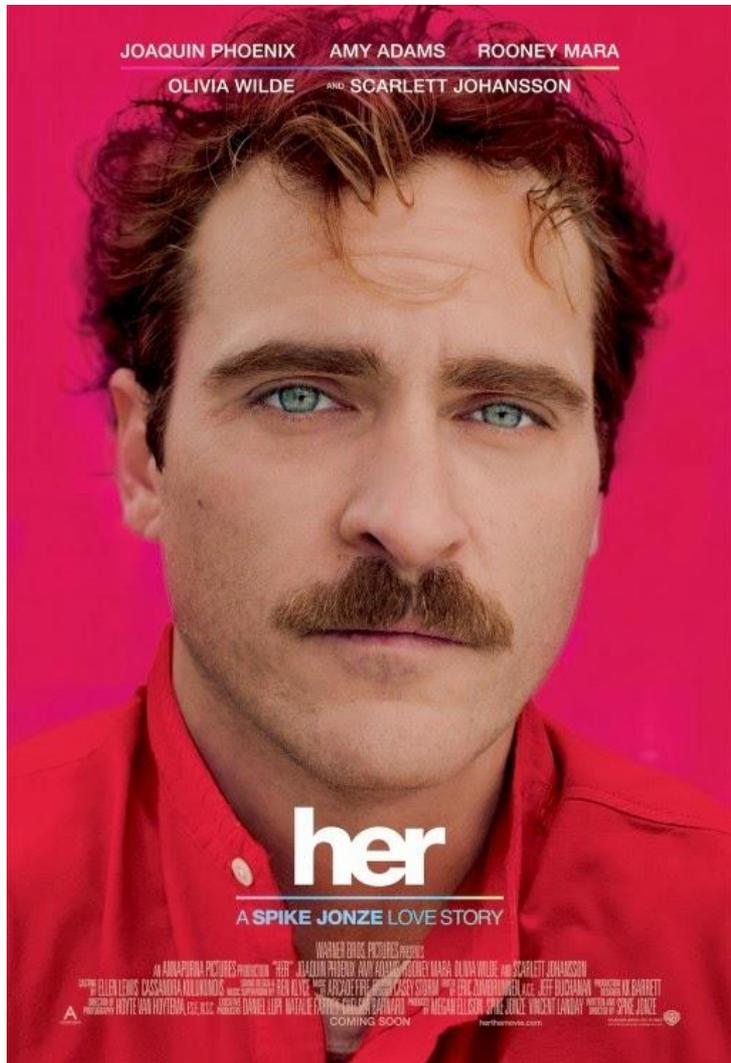
Be that as it may, when a Noh mask appears on the stage and gains a moving body, at that point something surprising occurs. Namely, the Noh mask – from which the look ought to have been stripped away – actually begins to display boundless variety in its looks. When the actor who puts on the mask creates some look through the movements of his hands and feet, what is expressed there has already become the look of the mask. If, for example, his hands move as if to wipe away tears, then the mask has already begun crying.

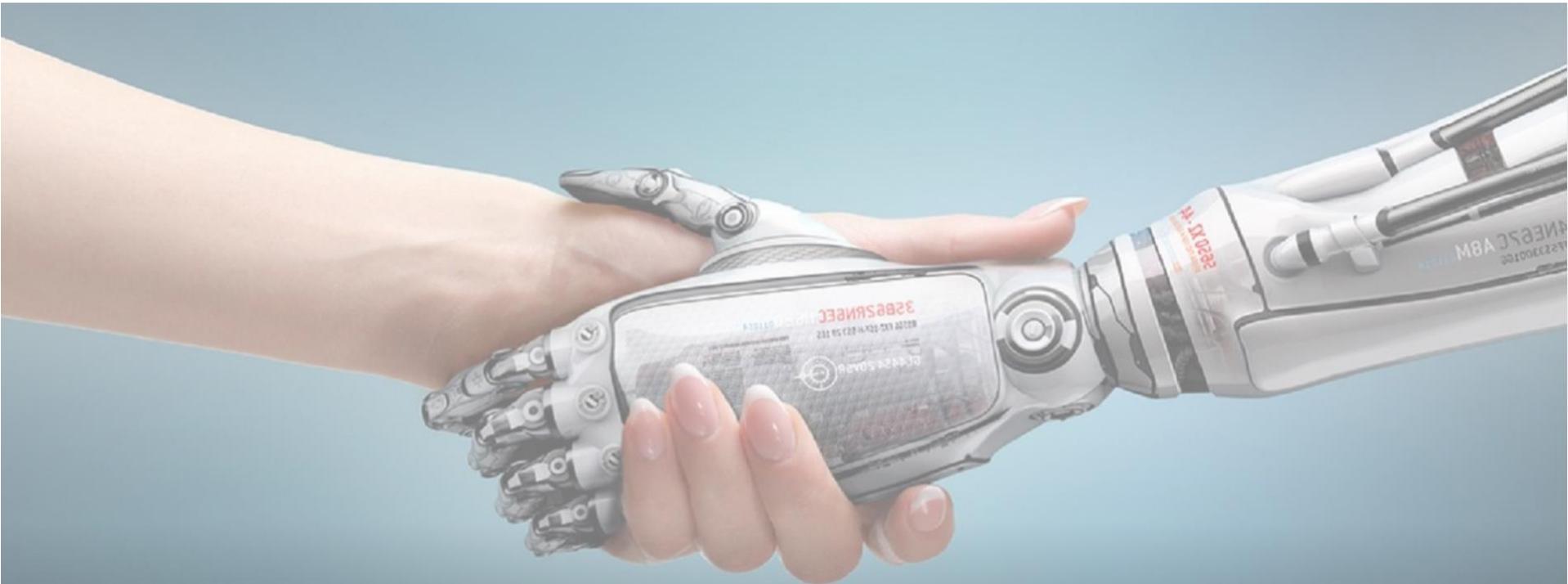


T E L E N O I D

[\[Resources on Telenoid\]](#)

Osaka University and Advanced Telecommunications Research Institute International (ATR) have collaboratively developed a new portable teleoperated android robot, "Telenoid™ R1," that can effectively transfer peoples' presence.





LSR 2017

THIRD INTERNATIONAL CONGRESS ON LOVE AND SEX WITH ROBOTS

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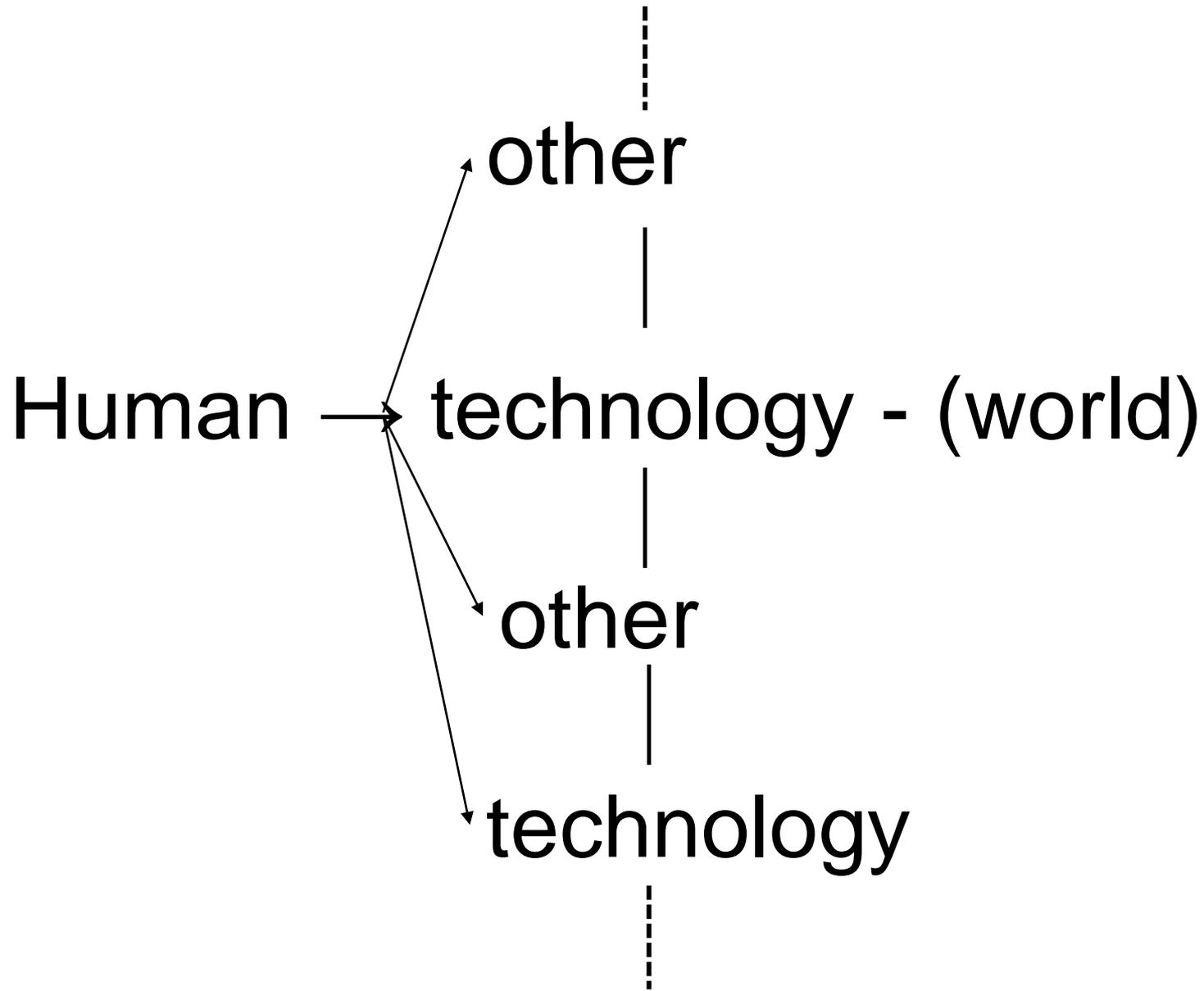
[Speaker](#)

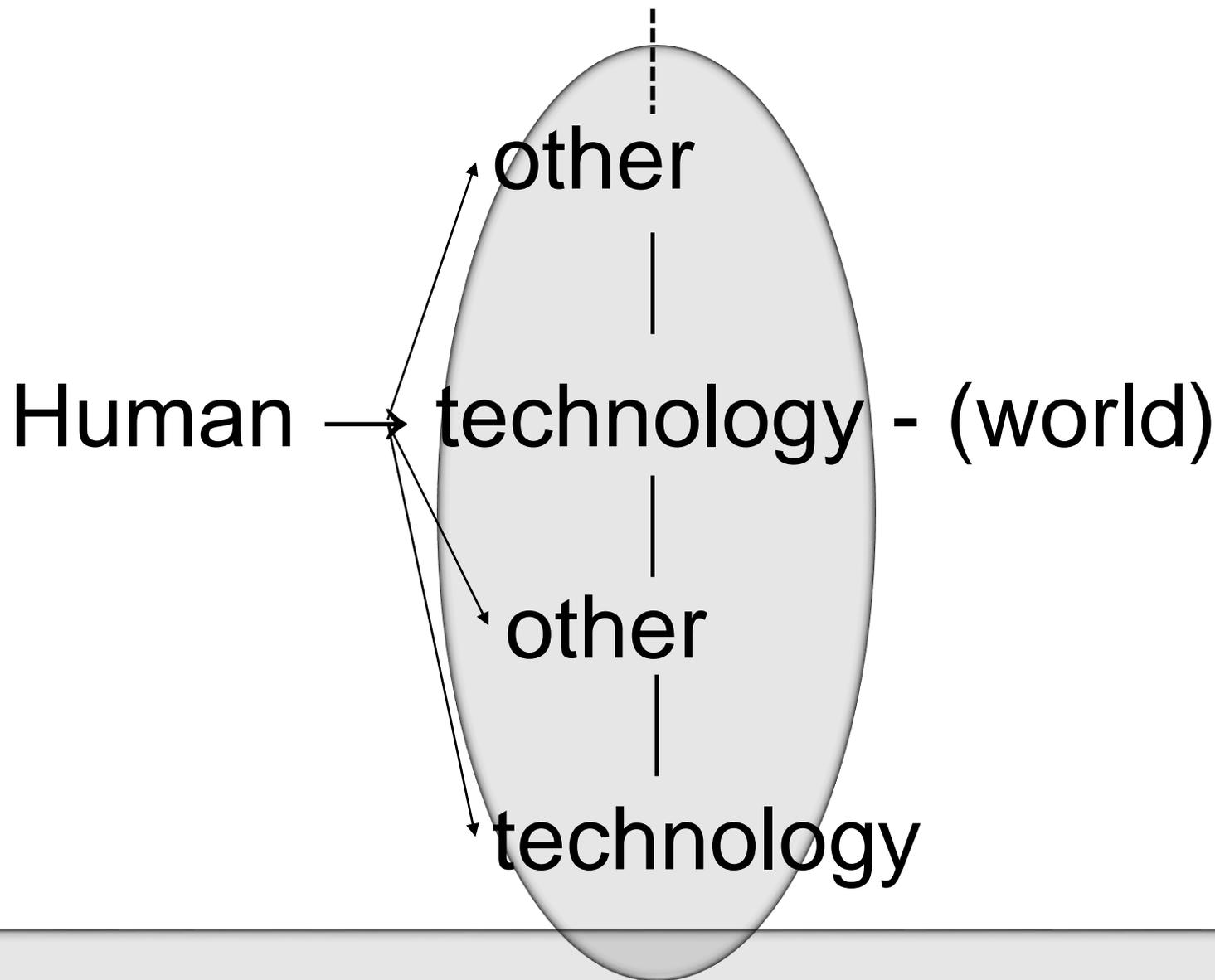
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Technologically mediated Intersubjectivity

◆ Peter-Paul Verbeek

“Rather than working from an external standpoint vis-à-vis technology, aiming only to either reject or accept a new technology, the ethics of technology then aims to accompany technological developments . . . , experimenting with mediations and looking for ways to discuss and assess how these mediations could fit with the way human live.”

(Verbeek, Peter-Paul., *Moralizing Technology*, The University of Chicago Press, 2011, p. 95.)

◆ Peter-Paul Verbeek

“Its[accompanying technological development’s] primary task is equip users and designers with adequate frameworks to understand, anticipate, and assess the quality of social and cultural impacts of technology.”

(Verbeek, Peter-Paul., *Moralizing Technology*, The University of Chicago Press, 2011, p. 165.)

concluding remarks

- ◆ descriptive inquiry of technology
- ◆ dialog among various stakeholders

Thank you

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