

Our Workshop have the following four speakers.

1: Technology as foundation of human body

Hidekazu KANEMITSU

As many studies have indicated, human society is affected by science and technology. Postphenomenology reveals that our perceptions and actions are mediated by technology in various ways. Don Ihde argues that technology mediates our world by classifying four human-technology relations: Embodiment Relations, Hermeneutic Relations, Alterity Relations, and Background Relations. Peter-Paul Verbeek points out new types of relations, namely Fusion and Immersion, with the understanding that technology has an enormous effect on our daily lives. In this presentation, I will consider how technology defines our body. For example, the infrastructure of roads affects logistics and changes our behavior. As the function of roads changes from a mode of transport for people to one for cars, we can say that the “meaning” of the road to the body has changed—and therefore our bodily sensations have changed. To highlight this phenomenon, I will introduce the concept of “technologically mediated earth” which follows Edmund Husserl’s concept of the earth (Erde). How does the earth define our bodies? What effects does it have across generations? I argue that some kind of archeology is needed to answer these questions. We need a “postphenomenological” archeology to uncover the technologically-mediated earth rather than a “transcendental” archeology (Maurice Merleau-Ponty).

2: Infrastructure and Human Bodily Transformation in Automobility: To the Interdisciplinary Approach of Anthropology and Philosophy

Miki NAMBA

In the exploration of how technology transforms the human body, recent STS- and ANT-inspired anthropological studies have centered on destabilizing human/non-human boundaries (using the concepts like hybrid, cyborg, and assemblage) to diminish human/non-human and subject/object dichotomous implications. The various ways technology transforms and extends human bodies are often affected by the environment in which the hybrid (or cyborg or assemblage) is situated. Examining the capabilities and capacities of key concepts and perspectives around human-technology relations, this paper aims to show what the material environment/infrastructure does for the bodily

transformation of automobility. First, the paper provides an ethnographic case of the driver-car-infrastructure nexus in Vientiane, the capital city of Lao P.D.R. This city is facing a sudden and unprecedented increase in traffic. Unlike highly-motorized developed cities, Vientiane's drivers struggle with unpaved dirt roads and must stay vigilant about road conditions while driving. While considering the Lao driver-car-infrastructure hybrid, which emerges and stabilizes/destabilizes differently than the Intelligent Transport System (ITS) car-driver hybrid, this paper seeks to explore modes of bodily transformation through technology. Finally, this paper attempts to envision how the convergence of anthropology and philosophy can bring us to a better understanding of technoethics and the body-technology nexus.

### 3: Conceptual Tool for Designing Human Extension Technologies

Shigeru WESUGI

Variety of wearable robots, that can enhance power and support physical work, have been devised and widely applied in real worksite. These robots are positioned in so called human extension technologies and have been favorably utilized. Meanwhile, there are several unsolved concerns about declining motor function in long-term use. Most of existing engineering design mainly work on improving machine function such as high output power. Therefore, the speaker considers the existing engineering design can be extended to apply to how humans experience those technologies, and how the technologies present to humans.

In order to suggest a conceptual tool to design human extension technologies, the speaker focused on post-phenomenological view and human extension studies. As for post-phenomenological view, I focused on four fundamental categories of embodiment, hermeneutics, alterity, and background, that were suggested by Ihde and advanced by Verbeek. As for human extension studies, I also focused on the human extension framework comprised of substituting, prolonging and externalizing, that Shibata analyzed McLuhan's extension theory to find out. I extracted four viewpoints in common effective for analyzing human-technology relations.

1. The technology can enhance a function of the user (extension).
2. The technology can be an alterity to the user (alterity, background, substituting).
3. The technology can change the boundary of user's self (embodiment, hermeneutics, prolonging).
4. The technology can demonstrate the difference and homogeneity between humans and

the technology (dialectics, externalizing).

I show our ongoing assistive suits designed based on these viewpoints and discuss design approach for realizing human extension technologies.

4: Smart textile, fashion, and subjects. The introduction of new technologies to change ideas within fashion

Nicola LIBERATI

Digital technologies are becoming pervasive, and they are starting to be intertwined with our everyday activities and in our everyday objects. Even our clothes are becoming digitally embedded by being able to capture and visualize data generated by the user. Fashion is starting to introduce such novelties within its development, but it is not clear the effects this introduction might have. For example, smart textile and wearable computers enable to visualize emotions in real time, and so they thematize emotions as a valuable element within fashion even if the actual praxes related to catwalk and models are designed to hide emotions. Through a postphenomenological analysis, I will show how such a technological introduction generates the possibility to change founding elements within fashion like what a subject is and the praxes related to it like the catwalk. Thus, I will show how technologies shape who we are within praxes and how they have the potentiality to structure novel ways to relate and think of subjects in general.