Format

Pheno-Prototyping: Human Augmentation for Artistic Expression

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1. Objective

This project is aimed at: proposing and exploring a new research field: *Pheno-Prototyping*, which experimentally and artistically investigates *'phenotypes* of human body in the future(s)', which is placed mainly in the context of both augmented human research and interaction design research.

The state-of-art human augmentation research still focuses primarily on "the extensions of (useful) bodily functions." However, as in tribal tattoo and body modification cultures, which can be found all over the world, the human body itself is also a medium of expression.

Hence, we propose the concept of *pheno-protyping* to extend the research on human augmentation also to artistic expressions, by redefining the human augmented research as a research field to 'prototype' the future human body in the age when highly-advanced biotechnology and digital technology allows to create/replace human body as we desire in both its functionality and expressibility. To embody such a research concept, we create a series of unconventional digital devices to extend human body with interactive and artistic expressions.

In this SSP Ph.D. scholarship, the successful candidate is expected to focus on '*symbiotic pheno-prototyping,'* that prototypes symbiotic body environment where a person and an intellectual/non-intellectual agent co-exist in a human body.

We strongly encourage applications both from candidates with artistic backgrounds, especially those who have expert levels design skills and will to study computer science and digital arts, and from candidates with engineering background who have significant interests in artistic practices.

2. Project Outline

To that end, the project will consist of the following phases:
(a) Contextualization of human augmentation in the context of carnal art and body art.
(b) prototyping of *pheno-prototype devices.*
(c) both academic publications and artistic presentations are expected as the project output.

3. Expected Performance

In this project, the successful candidate would be expected to:
(a) to present the research output in top international conferences.
(b) to successfully publish academic publications (at least two Q2 journal papers).
(c) to exhibit their project output in international art exhibitions or competitions.

4. Required Skills and Knowledge

The successful candidate for this project will have the following knowledge and skills:
(a) solid experience in making things. For instance, candidates with the background in engineering (robotics, mechanical engineering, etc.), or in art and design (sculpture, fashion design, product design, etc.).
(b) regardless of their research/artistic background, candidates should have significant interest in extending their research/artistic profile to interaction design and media art.
(c) strong passion to achieve the project goal.

References

https://augmented-humans.org/

Masahiko Inami, et al.. 2022. Cyborgs, Human Augmentation, Cybernetics, and JIZAI Body. In Augmented Humans 2022 (AHs 2022). Association for Computing Machinery , 230–242.
O'bryan, C. Jill. *Carnal art: Orlan's refacing*. U of Minnesota Press, 2005.
Dixon, Dougal. *Man after man: An anthropology of the future*. Singapore Books, 1990.
Dixon, Dougal. *After man: A zoology of the future*. St Martins Pr, 1981.

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