

Goal1 Realization of a society in which human beings can be free from limitations of body, brain, space, and time by 2050.

Realization of a Society that can Use Cybernetic Avatars Safely and Securely

Project manager

SHIMPO Fumio

Professor, Faculty of Policy Management, Keio University



leader's institution

Keio University

R&D institutions

Osaka University, Gakushuin University, Kyoto University, Keio University, International University of Japan, Shizuoka University, University of Tokyo, Reitaku University.

Summary of the Project

For ensuring safe/ secure use of CA's, (Cybernetic Avatar) in society, we aim to realise an infrastructure for CA safety and security, which will be achieved through CA operator authentication, (user authentication) /proof of operator official CA identity, (CA authentication/notarisation). For resolving social and institutional issues to be overcome for the realisation of an Avatar lifestyle, we will identify Ethical, Economic, Environmental, Legal, and Social Issues, (E³LSI) and develop proposals for the resolution of technical and institutional issues at domestic and international levels. By enhancing the social acceptability of CA's, we aim to open up a world in which CA's become alter egos and interact with other CA's; in other words, a 'New Communication CA Civilisation'.

Milestone by Year 2030

【Building an Infrastructure to Ensure CA Safety and Security】

By building a CA safety and security assurance/social acceptance infrastructure, we aim to realise a society in which everyone can live with extended physical, cognitive and perceptual capabilities. We will deter the impersonation of operators, hijacking of CA's, illegal acquisition of skills and stored CA experience information, (illegal/unauthorised acquisition of skills) and imitation of skills using CA's, and realise a highly reliable CA operating environment.

【E³LSI Issues and Policy Development】

E³LSI will present an institutional framework for balancing the protection of individual rights/interests with systems related to the CA safety/security infrastructure/safe and secure CA social acceptance

infrastructure. We will establish a research system for solving issues necessary for CA research and development and social implementation, and enable immediate and timely responses to E³LSI issues.

Milestone by Year 2025

By proposing user and CA authentication/CA notarisation technologies for the Socio-CA and In-Body CA's developed by other projects, and by accumulating demonstration experiments, the project aims to deter impersonation of operators, CA hijacking and illegal acquisition of technical information stored in CA's, (illegal and unauthorised imitation of skills), we will build the CA safety, security and high-trust infrastructure necessary to realise safe, secure and reliable CA operation. Through examination of the issues necessary for such construction and, accompanied by a comprehensive overview of individual E³LSI issues, efforts will be made to establish a system for comprehensive and sustainable research on such issues, for building a research infrastructure for E³LSI issues and for policy development of CA research and development in Japan and abroad.

R&D Theme Structure of the Project

