

## **For the Governance of Responsible Innovation of Brain-Data Technology: a trial of CiNet case**

**Ryuma Shineha, Ph.D**

**The Research Center on Ethical, Legal, and Social Issues,  
Osaka University**

URL: [https://researchmap.jp/ryuma\\_shineha/](https://researchmap.jp/ryuma_shineha/)

E-mail: shineha@elsi.osaka-u.ac.jp



### **Abstract:**

Recent advancements in neuroscience have enabled more in-depth and rapid exploration of the applications of brain information (BI). Considering these developments, it is crucial to consider their ethical, legal, and social issues (ELSI) and the way of communication with society. However, a lack of knowledge on gaps in attitudes toward brain neuroscience and BI between experts and the public has hindered productive discussions. Thus, we examined these attitudes. While the public holds high expectations for brain neuroscience and BI, they also express concerns about data governance and psychological continuity. In contrast, neuroscientists prioritize scientific content and focus more on ELSI, such as the potential for stigmatization and human enhancement. We used these insights and lessons from comprehensive review to establish “Guideline for Developing and Utilizing AI Technology that Uses Brain Data to Estimate Perceptual Information” of CiNet.

### **Biographical information:**

Ryuma Shineha is an associate professor at the Research Center on Ethical, Legal, and Social Issues, Osaka University. His major is Science & Technology Studies (STS) and Science & Technology Policy Studies. He received a BSc in Agriculture in 2006, and then a Ph.D from Kyoto University in 2011. His current research theme is assessment on social and ethical aspects and broad impacts of science and technology with perspectives on responsible research and innovation (RRI) and co-creating public dialogue among various actors, particularly focusing on emerging biotechnology such as stem cell science, genome edited food, neuroscience, synthetic biology, molecular robotics, and etc. He also considers structural issues of science and technology policies. After the 3.11 triple disaster in 2011 in East Japan, he continued his studies on media discourses, structural issues, and social vulnerabilities behind the disasters as his life work.