

Speech Title: Empowering the End-User in the Development and Operation of Brain Implant Technologies: The Case for Co-Design

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Abstract

Co-designing brain implants with end-users means that the end-user is not simply “participating” in the biomedical development process, they are integral to defining the requirements and design of the implant, and then providing qualitative feedback related to usability. Once the device is embedded in the end-user’s body and the device is in the clinical testing phase or operation, communications between the supplier and end-user must remain open, beyond the quantitative data gathered from the implant automatically. Thus co-design emphasises that in this context implant recipients work hand-in-hand with biomedical developers, engineers, and associated stakeholders to build more robust products. When end-users are ignored, there are demonstrated examples that they take matters into their own hands. We focus here on the need for open source code, consumer protection, access to the embedded device and its corresponding data streams, among other issues.