

# Somplexity – An Experiment of Posthumanist Platonic Sex

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## Abstract

As cybernetic progress opening more pathway for telematics presence which transcend the boundaries of space-time; there is even more dissolution between corporeal intimacy and virtual intimacy, which ultimately leads to the questioning of the very nature of our being, identity and perception of reality. This paper addresses the neuro and cognitive aspects of tele-intimacy and through discussion of the project Somplexity, examines what now, is the nature of our intimacy? It will address the representational issues and performative aspects of tele-intimacy and develop a context for techno sex that is based on the neurofeedback system that mediates human perception of intimacy.

## Introduction

Some (썸), a trendy word in Korea now, is an abbreviation of something (썸썸). It is used to conjure complexity in a relationship with no less complex than the definition of the word per se. The word has a sexy connotation of desire, intimacy, indeterminacy, and mysteriousness and it is 'something' more than the sum of its attributes. The slipperiness of its definition makes it extremely difficult to pin down what Koreans mean by 'some'. This Korean slang word is synonymous to one of the relationship status that we are opted to declare in Facebook, which can indicate an ambiguous relationship a person is in with someone. The project Somplexity is not only an exhibition but also a social experiment that was set up to explore the complexity of 'some'. On the one hand, Somplexity reflects a broader sexualized culture of our post-modern social world happening in both physical and virtual world. On the other hand, it offers a momentary contract for unknown strangers to experience

permissive intimacy mediated by wired interfaces in a gallery setting. Human's lust, love and attachment, Fisher et al has noted, can and often operate independently and this is validated by the neural independence of these emotion-motivation system. [1] Given this, we can vindicate controversies and moral panics.

## Exhibits

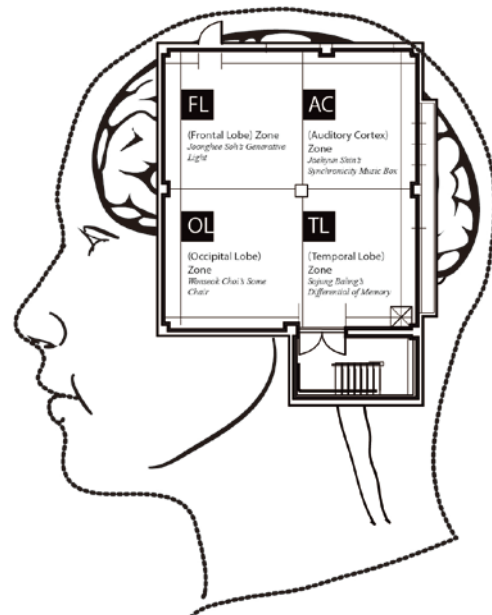


Fig 1. Floor Plan of Somplexity Exhibition.

Project Somplexity was exhibited in Seoul Art Space Seogyo in Seoul, South Korea in September 2015. The project comprises of four interactive installations: SoMe

Chair, Synchronicity Music Box , Differential of Memory and Generative Light, which were respectively placed in different zones in the exhibition space mapped according to anatomical classification of the cerebral cortex in human brain:

- AC: Auditory Cortex;
- OL: Occipital Lobe;
- TL: Temporal Lobe;
- FL: Frontal Lobe.

The mapping of the exhibition space to different anatomical regions of the brain is a curatorial strategy to provide a metaphorical cue to understand the exhibits in neural correlates in different component within intimate relationships: love, lust and memory (Figure 1).

### Tele-intimacy

Two of the interactive installation employed EEG-controlled physical computing interface. Each participants were provided a 4-channel EEG headset to detect their brainwave and heartbeat as non-verbal communicative cues in the interaction process. IJsselsteijn defines interactive systems alike as teleoperator systems that allow users to control and manipulate real-world objects within a remote real environment. [2] This kind of system are being employed to replace human to work in challenging environment but interestingly the real issue of the day is not to distance its user away from hazardous environment but rather to draw people closer by allow them to feel the physical presence of another person connected via network. Intimacy is a sense of closeness and it can be characterized by emotional intimacy (romantic love) or physical intimacy (sexual desire). Cybernetic is allowing both type of intimacy to assume an 'out of body' form to be intimately performed across time and space, hence tele-intimacy. These forms of disembodied intimacy are illusion that requires a powerful imagination which can only be sustained by semiotic processes. Our approach to intimacy is rather tame, underlining a platonic intimate experience that transcends the body but putting obscene at bay. However, we do not discount the possibility that the setup can be appropriated for telesex or sexual arousal alike through apparatus enabled by network communication.

### Posthuman and Human Desire

Katherine Hayles foregrounds Ihab Hassan's proclamation of the emergence of posthumanist culture that will radically transform humanism including human desire. [3] She considers Turing Test is historically

significant as it implicates the erasure of embodiment by which human intelligence is formalized as symbolic representation. [3] With this in mind, human external representation including sexuality can be dissolved into quantifiable information and reproduced as both a signified and signifier. What is left for our brain to make sense of is symbolic interpretation. Michael Heim equates this to platonic ideal which can only be processed through mental logic, in the realm of pure idea. [4] In speculating the aesthetic aspect of the project, of particular relevance, is Burnham's comparison of software with Duchamp's conceptual art, both are deconstructed into comprehension. [5] Along this line, we speculate on the potential of understanding the neurological functions in different components within intimate relationships.

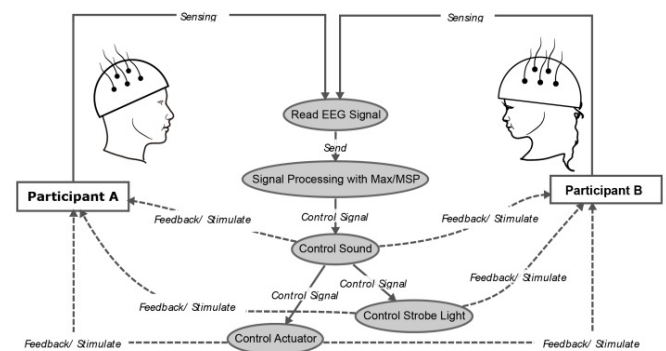


Fig 2. Data Flow Diagram for Wonseok Choi's Some Chair Installation.



Fig 3. *Some Chair*, 2015, Wonseok Choi, interactive installation. It was installed in OL (Occipital Lobe). The occipital lobe is the visual processing center of the human brain containing most of the anatomical region of the visual cortex. Flash or any flicker stimulatory system that contains multiple colors can trigger occipital lobe seizures or flicker stimulations.

In speculating if we can redirect sexual pleasure to some kind of intellectual activities, purely neuron activities, Wonseok Choi's SoMe Chair (Figure 2) puts two strangers to test: participants' brain electrical activity are picked up by EEG reader. Via SoMe Chair, a neuro-feedback process will maintain a focused connection between the participants while amplifying their Alpha, Beta, Gamma and Theta brainwave frequencies (Figure 3). In a reciprocal fashion, one participant's levels of excitement are articulated by different brainwave frequencies and these brainwave amplitude will modulate to the vibration on the chair which his/ her vis-à-vis partner are sitting on, the flashes of the strobe LED light and the soundscapes in the apparatus that enclosed their partner's head. The work suggests that intimacy can be a semiotic process that can be telematized and consequently sensations can be endowed with the brain biochemical functions. This assumption is based on Fisher et al. extensive research on the correlation between brain system and physiological functions associated with a complex human state particularly love. [6] Such attempt can be seen as a deconstruction of sexuality similar to Burnham's interpretation of Duchamp's anti-art gesture, by revealing the semiotic similarity as information processing system. [5]

### Platonic Love and Eros

The best way for us to explain implication of posthumanism on human sexuality is through the notion of platonic. Platonic describes love or intimacy that is free from sensual desire. Platonic love in this original sense rationalizes affection that is not sexual as the ultimate ideal form of love. It is important to note that the concept of platonic love was developed from Socrates's Eros. Micheal Heim's posited that our affinity for virtual world stems from Eros:

*The world rendered as pure information not only fascinates our eyes and minds, but also captures our hearts. We feel augmented and empowered. Our hearts beat in the machines. This is Eros [4].*

However, Heim's proposition is more related to our attraction to intelligent machine particularly those in the cyber world. But the paradox, of course is, how we know that we are in touch with a computerized entity and not with a real person in the network since Alan Turing provided the formulation that we cannot differentiate between human and machine behind the screen. The inference of this is platonic metaphysics bridges the gap between Eros and computerized entities. [4] Even though we have yet to achieve the technological advancement to

realize platonic notion of human nature in the cyber reality but we are, as Heim pointed out, on an ontological continuity connecting the Platonic knowledge of ideal forms to the information systems of the matrix. [4]



Fig 4. *Synchronicity Music Box*, 2015, Jaehyun Shin, interactive installation and performance. It was located in AC (Auditory Cortex). The primary auditory cortex is the part of the temporal lobe that processes auditory information in humans. It is a part of our auditory system, performing basic and higher functions in hearing.

To further validate posthuman are susceptible to platonic love, Jaehyun Shin's *Synchronicity Music Box* (Figure 4) deploys two 4-channels EEG headset to read the brain electrical activity of two participants and extends them to various prosthetic sound making objects with sexual innuendo. In the moment when the brain waves of the two participants are in resonance, harmony in the sound can be heard, producing a synaesthesia performance joining visual and audio. It put the participants in an active role to work towards a neural synchrony, validated by sonically coherent soundscape. With a bit of imagination, this performative piece is a witty simulation of a mutual orgasm of the brain in two participants. In ethology, the attachment with the opposite sex often called "compassionate love" is characterized by mutual behavior and emotional union. [1] The performative nature of the audience looking at the participants attempting to reach the moment of congruent neural activity for the pleasure of looking invokes the notion of a voyeur. In relation to "how subjective perceptual experiences (qualia) can be explained in terms of the firing of neurons" [7], this voyeuristic situation may seem to open a playful perspective to Broadhurst's argument for an intersemiotic signifiatory practice that transcends language to reconcile the first person and third person accounts of the world. [7] The language of nerve impulse that elucidate the neuronal activity that allow the participants perceive a sense of intimacy is communicated

by means of auditory instead of spoken language. However, as Broadhurst noted, “the ‘experience’ of that subjective perception is forever lost in translation” [7], the moment we start to describe a perceptual sensation objectively.

## Neuroanatomy and Intimacy

Sojung Bahng’s *Differential of Memory* is the brain monologue dealing with the phenomena of the mind (Figure 5). Bahng meticulously dissected our integrated perception of reality into fragments of events prerecorded and stored in a video database analogy to the way temporal lobe works in our brain; at the same time, it allows audience’s active participation in the projection of such reality in choosing the micro events they want to make visible in a multilayered video collage. The montage displayed on the screens is generated by a dynamic network model, which utilizes user-defined tags on clips that are stored in a digital library and a tag timeline that can be edited with a simple touch interface. Each montage follows the general flow of the timeline but has underlying stochastic processes that produce new sequences each time a montage is generated. The connections between the tags, clips and timeline are visualized in real-time with a force-directed graph layout that moves nodes to their most comfortable viewing position (Figure 6).



Fig 5. *Differential of Memory*, 2015, Sojung Bahng, interactive installation. It was located in TL (Temporal Lobe). The temporal lobe of the cerebral cortex contains the hippocampus which plays a key role in the formation of explicit long-term memory. It is responsible for processing sensory input into derived meanings for the storage of visual memories, language comprehension, and emotion association, temporal sequencing and the perception of time. [8]

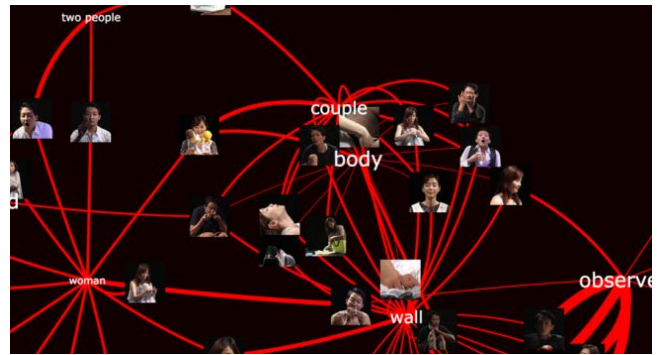


Fig 6. Graphical User Interface for *Differential of Memory* that shows the underlying neural network of the multilayered video montage.

Bahng’s work is acting as a metaphor for the brain itself, demonstrating multilayered nature of the consciousness. The unified whole experience is made up of, in Zeki’s word, microconscious events; each one tied to the activity of different neurons/ nodes at different times and locations, in the processing system of vision. [7] It is this intricate brain’s memory function that is important in the comprehension of her multilayered video installation.

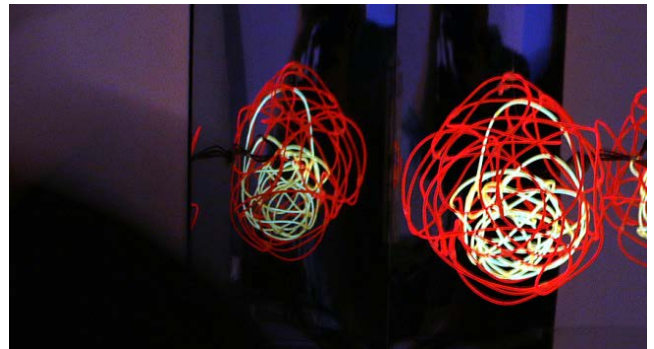


Fig 7. *Generative Light*, 2015, Joonghee Soh, interactive installation. It was located in FL (Frontal Lobe). The frontal lobe contains most of the dopamine-sensitive neurons in the cerebral cortex. The dopamine system is associated with reward, attention, short-term memory tasks, planning, and motivation, and goal-oriented behaviors associated with romantic love. [6]

Joonghee Soh and Sojung Bahng’s *Generative Light* is similar to a confession room, where you come face to face to recursive reflection of yourself with a LED sculpture resembling brain’s network (Figure 7). Data on mate choice among mammals suggest that this behavioral ‘attraction system’ is associated with dopaminergic reward pathways in the brain. It has been proposed that



intense romantic love, a human cross-cultural universal, is a developed form of this attraction system. [6] In tracing the shift from human to posthuman, which both evokes terror and excites pleasure, the pulse detector in Soh's piece acts as an indicator for our posthumanism readiness, signaling the LED sculpture to blink in resonance to your pulse rate, with that being the remnants of your intimate experience you have found in Somplexity. One only has to look inside himself to understand its resonance.

## Conclusion

In Somplexity, the cybernetic setups connect us across distance and time without that memory of skin against skin intimacy, we become, once again, strangers – strangers of no difference from men split half by Zeus's lightning bolts, now spending every waking moment in search of our missing halves, by all means, transcending the boundaries of space-time. Having said that, our bodily existence still stands at the forefront of our perceptual experience. Heim's erotic ontology of cyberspace eventually counters the preference for disembodied intimacy. [4] Riva and colleagues posited that psychological impact of media is conditioned by symbolic representation but the physiological impact of teleoperations is conditioned by tangible interface in the realm of reality. [2] Besides providing a new context for aesthetic interaction, this project furthers our theoretical understanding of the fundamental challenge of mediation which is to engineer a sense of intimacy in a mediated environment. The implication of this is that research in presence design will have to extend beyond the simulation with increasing fidelity but combine cognitive psychology, neuropsychology and socio-cultural issues. For future study, a reliable, valid and robust measure of user psychophysiological responses will be essential for the building-up of perceptual cues to stimulate natural perception and enhance the experience of presence in a computer-mediated environment.

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