

Affect(ive)(ed) Design

AARON TARNOWSKI

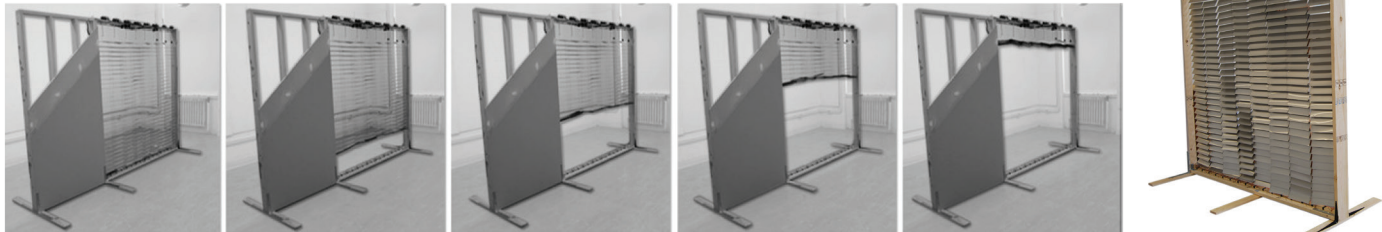
I. EXTENDED ABSTRACT

The advent of smart devices has brought about an age which allows for a great amount of personal control and an unprecedented enhancement of lifestyle based on behaviorally predictive and intuitive technology. Although still in an infant stage, this is beginning to include the environments we live in with a greater amount of controls that allow us to dictate on a personal level the preferences of our surroundings. There is yet another level of interactivity yet to be achieved, and that utilizing sensory and neural based biometrics to interact with a responsive environment capable of learning and adapting to the intrinsic needs and commands of the environment's user.

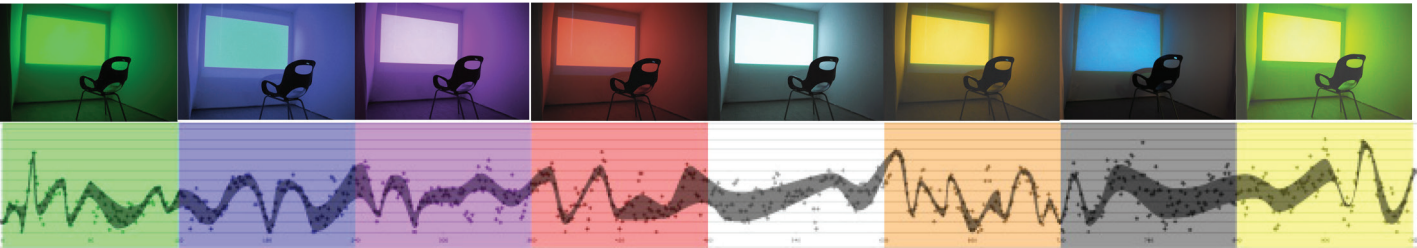
At this time there is a number of different commercially available EEG headsets which allow us to with an acceptable degree of accuracy develop an explorative interactive interface between the environment and our own neural activity. When this interactive neural technology is combined with a programmable environment, a fascinating relationship is developed where we can begin to create spaces which can be controlled not only on a cognitive level, but also can begin to learn our desires, needs and personalities on a far deeper level than behavioral based technology alone.

The goal of this discussion is to present a number of probing experiments conducted by an architectural designer which begin an exploration of this dynamic relationship between the brain and the environment. From the level of environmental cognitive controls to environmental learning based on the brain's electrical activity, these explorations delve into investigating and studying the opportunities and advantages provided by creating a more neural-focused design and responsiveness. The experiments include studies done both in academia at the graduate level (Illustrated) and further pursuits continuing to enhance an understanding of how with the technology available to us today we can already begin having the discussion of bio-responsive design.

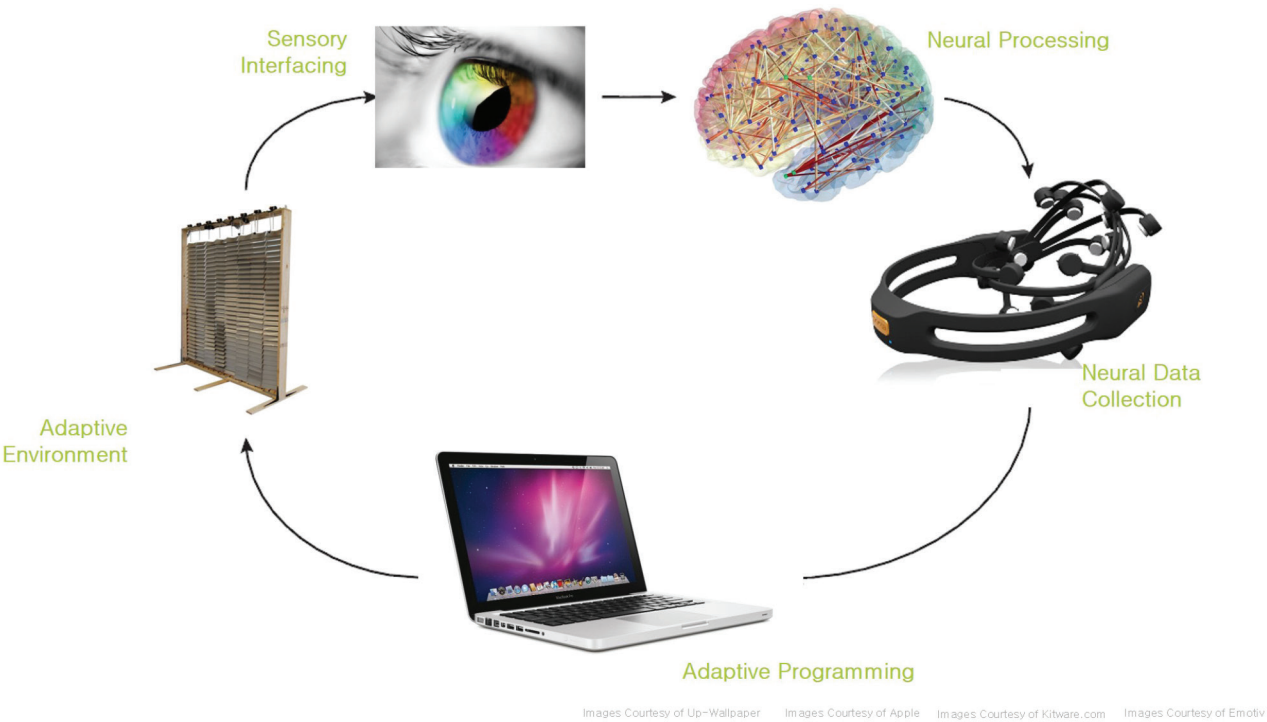
BRAIN(WALL) - COGNITIVE CONTROL



COLOR CUBE - ENVIRONMENT AS INFLUENCER



Cycle of Neural Interactivity



2. AUTHOR BIO

Aaron Tarnowski graduated with his Bachelor's and Master's degrees from the University at Buffalo in 2011. While there he participated in the Situated Technologies Research Graduate Studio with a primary focus on the development of a neuro-responsive environment. Currently, Aaron's profession career includes working at FKP, a firm which specializes on Healthcare and Higher Education. He chose healthcare design as it provides both a unique opportunity and challenge to design an environment which has the ability to significantly affect the wellbeing of its users. Over the course of his career Aaron has been progressing his work on the promotion of a neuro-conscious design approach with a goal of raising awareness and speaking on the benefits of neuroscience in the architecture and interior design fields. Adding to this, he has continued his exploration into the development of neuro-responsive and smart environments pushing the boundaries of our current perceptions on the relationship between the body and the environments we live in.

