Julio Falero

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Professor Jennifer Sears

Control Based on Brain-Computer Interface Technology for Video-Gaming with Virtual Reality Techniques

Paszkiel, Szczepati. "Control Based on Brain-Computer Interface Technology for Video-Gaming with Virtual Reality Techniques." Journal of Automation, Mobile Robotics & Intelligent Systems, vol. 10, no. 4, Oct. 2016, pp. 3–7. EBSCOhost, DOI:10.14313/JAMRIS_4-2016/26.

It is worth noting that neurogaming is currently widely used in treating mental disorders such as tension deficit hyperactivity disorder (ADHD), and Post-traumatic stress disorder (PTSD). Increased Interest in neurogaming in the world has resulted from the organization of the periodic conference held in San Francisco, USA, where the topics related to the ones mentioned above are discussed. Neurogaming, us as other practical applications of the brain-computer in terrace technology, raises ethical controversies. There are dilemmas concerning potential gaining / taking control over the human mind by a machine or an individual [9. However, from the perspective of brain fitness, it becomes a promising tool which was confirmed by tests conducted for this paper. There are many practical implemental of technology based on augmented reality among other things in the entertainment industry for the construction of urban games. BCI technology, which develops rapidly for several years, is an excellent example of a technology that is in line with virtual reality. This technology may be an interesting tool among other things for the implementation of control processes including avatars. Controlling utilizing the human mind without the use of evoked potentials is difficult in terms of implementations in everyday conditions as evidenced by the author's studies.

In practice, it is easier to control the output of evoked potential and thus the accuracy is higher. In BCI technology, the classification takes a longer time, so the game is slower. I believe that this claim is legitimate because Szczepati has evidence to back up his claim and that this technology could help everyone. I have questions. can this also help people that have brain damage? Will this change everything in the future in a positive way? And will everyone enjoy this technology? There is one thing I don't understand and it's what are all the requirements for this to become a reality. I will look up other technologies that are either better than this technology or roughly the game that would benefit each other. There could also be others that have been trying to make this into a reality longer which has more experiences. If I could say something to Szczepati it would be that he is doing an excellent job going in-depth is thinking and that he's putting in a lot of information to answer people's questions. This document is telling me that there is a lot of work to do, more than I thought you had to do to make this a reality. Szczepati puts knowledge and understanding in this document for people to be interested in.

Two quotes from this article that I think are important are:

"From a practical perspective, virtual reality can be defined as a combination of specialized equipment and software ."

"Software solutions play a role of supporting hardware accelerators in the scope of transforming the environment into the image, which implies a large amount of mathematical computations."

ANIME

Wilf, Eitan. "The Soul of Anime: Collaborative Creativity and Japan's Media Success Story." *Journal of the Royal Anthropological Institute*, vol. 21, no. 4, Dec. 2015, pp. 935–936. *EBSCOhost*, doi:10.1111/1467-9655.12304.

   The soul of anime is an ethnographic examination of the various contexts underlying Japanese animation. Its goal is to understand the ways in which cultural revolutions thrive, i.e. gain value and go global through collective action forces (p. 1). In the studios, anime output involves storyboards, checklists, deadlines, division of labor, as well as characters that serve as generative outlets that can spread through media channels for potential meanings. As the engine behind anime 's success, they have relationships between corporations, sponsors, fan cultures, and genre conventions, thus questioning more traditional explanations that concentrate on a presumed Japanese national character or on the contribution of an individual genius author. In the context of discussions regarding copyright and intellectual property legislation, they also discuss the reasons behind this practice. The soul of anime offers ample ethnographic information about the various backgrounds of Japanese animation and will therefore be of great interest to scholars of anime. The principle of 'collaborative imagination,' so fundamental to the novel, for example, is glossed throughout as simply the unification of forces, desires, and emotions, which is something new as a result. The definition of 'soul' that Condry describes as 'a kind of energy that emerges from the ways in which anime binds people' (p. 30), and which he introduces as a central explanatory factor in the success of anime, is equally problematic because we are back to a kind of under-theorized but all-explaining Durkheimian effervescence, with the extensive literature on influence and its role in influencing social movements. It is unfortunate that the ethnographic knowledge he has obtained offers an adequate basis for making a genuine contribution to the study of innovation as a collective and dispersed practice.

   I think this point is true because Eitan Wilf has clear proof to back up his assertion. Their companies also work together for the fans. I have two questions, and they are, who earns the most credit from doing this job? What software and, or graphics have the greatest impact? I don't understand that theirs is one thing, how long does it take to make the anime good and how much money do they have to put into the job? What are all the conditions for making this into a major thing is another knowledge I can use to better understand this. What I'd say to Eitan Wilf is that he did a fantastic job of describing this, but that he should add a little more to it. This shows me that people enjoy watching anime very much.

Two quotes from this article that I think are important are: "Chapter 4 looks at the complex, and often contingent, relationship between businesses, sponsors, fan cultures, and genre conventions as the engine behind the success of anime, thus challenging more conventional explanations that focus on a presumed Japanese national character or on the contribution of a genius individual auteur."

"The notion of 'soul', which Condry defines as 'a kind of energy that arises from the ways anime connects people' (p. 30), and which he presents as a key explanatory factor in anime's success, is equally problematic for we are back to a kind of under-theorized but all-explaining Durkheimian effervescence, with the ample existing literature on affect and its role in the shaping of social movements entirely absent."

The influence of action video game playing on eye movement behaviour during visual search in abstract, in-game and natural scenes.

Azizi, Elham, et al. "The Influence of Action Video Game Playing on Eye Movement Behaviour during Visual Search in Abstract, in-Game and Natural Scenes." *Attention, Perception & Psychophysics*, vol. 79, no. 2, Feb. 2017, pp. 484–497. *EBSCOhost*, doi:10.3758/s13414-016-1256-7.

Playing action games has been related to many changes in visual focus tasks. It is not clear, however, how such changes could affect the way we freely select information (i.e. eye movements) from our visual environment. Forty nongamers have been practiced for 10 hours in either an action first person shooter game or a card game (control). As a further control, we reported eye movements on the same assignments of 20 professional action gamers. This may mean learning about the possible distribution of goals. In other words, game training only trained participants to look for game pictures for game-important targets, with no hint of a change to a more natural look for the scene. Taken together, these findings indicate no change in overt attention distribution.

I believe that Azizi Elham's argument is legitimist because Azzi examined the influence video games have on a person. I do have a few questions, why don't you try to observe a person that has never played a video game before? And what I don't understand is why are you only examining people that have experiences with video gaming and have more control of themselves? For a better explanation I might look up what happens when beginners start to play the game. If I could say something to this author, I would ask to look at all the scenarios. This document tells me that when you've been playing a game for a long time you get used to it so you have a better control of yourself most of the time.

Two quotes from this article that I think are important are:

"Either the skills that can be trained with action gaming are not powerful enough to **influence** information selection through eye movements, or action-**game**-learned skills are not used when deciding where to move the eyes."

"The results did not show any change in duration of fixations or saccade amplitude either from before to after the training or between all nongamers (pretraining) and experienced action gamers."