

Gamification, a hi-tech antidote for ADHD

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From the US, a new recipe to contain hyperactivity and low attention.

Once again the US wins the gold medal for innovation and this time they do so by breaking the traditional schemes of pedagogy.

The fact that video games could alleviate a behavior disorder aroused my curiosity, and that of many educators, from the very first moment.

In fact, this connection undermines many unfounded clichés, such as “Video games generate violence”, “Video games create addiction and psychological disorders, or” Video games cause asociality”.

It is starting from these widespread beliefs that I would like to highlight the results of an interesting review conducted in America by a group of researchers, very attentive to the changes that the digital society is going through.

[Akili Interactive](#), a Boston-based company, developed the world's first generation of “prescription video games”. Akili is combining scientific and clinical strictness with the ingenuity of the tech and entertainment industries to challenge the status quo of medicine.

It is a video game for the treatment of ADHD disorders (Attention Deficit and Hyperactivity Disorder) whose clinical trial that involved about 400 children. The product developed, the AKL-T01 tablet application, has been approved by the Food and Drug Administration. It could be the first digital therapy delivered through a tablet-based game. The game was designed to improve function in the prefrontal cortex of the brain by engaging the user in active multi-tasks with increasing levels of complexity.

This is just one of the most recent developments that is changing the approach to education policies and learning disabilities. If for a long time video games had been identified as the cause of attention disorders, today they are seen in a different way, even as a means to cure the problem. Tasks involving a gamified approach are particularly interesting for ADHD teens because they provide quick rewards and immediate feedback – in short, they are able to deliver the stimuli that the ADHD brain craves. These are, of course, experimental fields of study that seem to facilitate the release of dopamine (which is present to a greater extent in ADHD) and encourage greater concentration and attention, with an evident improvement in children's performance.

Last June, Akili obtained the Conformité Européenne (CE) mark certification for EndeavorRx (AKL-T01) as digital therapeutic software; this means that, soon, we too will have a new non-drug

treatment option available for children with ADHD.

In the future there will be more and more talk of gamification and development of applications aimed at improving our quality of life. Actually, the use of digital technologies by user communities is one of the research fields of the i3 working group at FBK, which is engaged in the development of innovative technologies to facilitate human-computer interaction, in the creation of intelligent interfaces and in studying the impact of technologies on our lives. All these activities follow an interdisciplinary approach borrowed from cognitive and social sciences for the design of ways to interact with digital technologies. Among the initiatives in the educational field there is Families_Share, a project aimed at developing mutual help solutions between families, with shared childcare services, parental counseling and after-school activities, as well as active participation through the co-design of digital services.

As for EndeavorRx (AKL-T01), what will we do in the classroom? We teachers will be ready to introduce this amazing technological innovation to facilitate the process of inclusion of students with special educational needs. Each innovation is to be studied. Each tool is to be tested. The important thing is to open up to progress, also and above all in the educational field. Living with prejudice is not good for us. Welcoming, experimenting and applying is what improves our task as educators.

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AUTHORS

- Letizia Lacava