

Toxic technology?

EDUCATION LEADERS SPEND VAST SUMS ON TECHNOLOGY, BUT WITH STUDIES LINKING OVER-USE OF TECHNOLOGY WITH CLINICAL DISORDERS, IS IT MONEY WELL SPENT?

The growth of technology in education places a huge financial burden on managers and leaders who invest heavily to keep up with the latest technologies and kit. Yet there is growing evidence that over-using technology impacts negatively on the health and welfare of learners.

The argument for technology in the earlier grades is often rooted in the fear that children will fall behind. In today's classrooms, from village to inner-city schools, you will find some type of screen. We have accepted tech in the classroom as inevitable, a benign educational evolution, but are we wise?

Findings from ATL's 2016 teachers survey suggest technology in a learning environment has pedagogical benefits, but myriad drawbacks too. Teachers observed that students raised on a high-tech diet appear to struggle more with attention and focus. They become bored, apathetic and uninterested when not plugged in.

In his 2016 book, *Glow Kids: How Screen Addiction is Hijacking our Kids – And How to Break the Trance*, author Dr Nicholas Kardaras says: "Over 200 peer-reviewed studies correlate excessive screen usage with a whole host of clinical disorders, including addiction. Recent brain-imaging research confirms that glowing screens affect the brain's frontal cortex – which controls executive functioning, including impulse control – in exactly the same way that drugs like cocaine and heroin do. Thanks to research from the US military, we also know that screens and video games can literally affect the brain like digital morphine."

How do we keep our children from crossing this line? Developmental psychologists understand that children's healthy development involves social interaction, creative imaginative play and engagement with the real, natural world.

At a recent London conference on technology addiction and adolescent

development, Harley Street rehabilitation clinic specialist Mandy Saligari said screen time was too often overlooked as a potential vehicle for addiction in young people. Saligari argued that greater emphasis was needed on sleep and digital curfews at home, as well as a systematic approach within schools, for example, by introducing a smartphone amnesty at the beginning of the school day.

The key is to prevent young children from getting hooked on screens. That might mean books instead of iPads, nature and sports instead of TV, Lego instead of Minecraft.

Finland, whose school system routinely ranks close to the top of global OECD and PISA rankings, has chosen to skip technology-heavy standardised testing. Instead, students enjoy up to four daily outdoor

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free-play breaks regardless of weather. By comparison, a sedentary Northern Irish child sits glued to a screen, playing edu-games while stressed by standardised testing, on-screen assessment and internet-driven coursework.

Children are vulnerable to an addictive escape if they feel alone, alienated, purposeless or bored. The solution is to help children connect to meaningful real-life experiences and relationships. The creatively engaged child connected to their family is less likely to escape into a matrix-like digital fantasy world.

In Northern Ireland, we have technology companies seeking to persuade schools that screens are the educational panacea. Millions were spent developing our 'c2k' system, with millions required to maintain it. Yet, as schools make teachers redundant and scarce funds are set aside for technology, many educators and parents alike are beginning to ask: do these digital-age hypnotic marvels actually produce better educational outcomes for the kids who use them?

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