PARENT ARTICLE

Your child's brain on screens: the science of digital addiction in plain English

A plain-English look at what algorithmic feeds do to a developing brain.



THE IDEA TO REMEMBER

The screen is not gripping your child because they are weak. It is built to keep the seeking engine running while their braking system is still under construction.

There is no jargon and no scare graphs. It is simply what is actually happening to a developing brain when it is fed an algorithmic feed for hours a day.

If you have ever stood in a doorway and asked your child to come off a game, only to be met with a level of resistance that seemed wildly out of proportion, you have probably wondered the same thing most parents have. Why is this so hard for them? They are not unintelligent. They are not, in the ordinary sense, badly behaved. Yet the screen seems to have a grip that ordinary willpower cannot break.

The answer lies in a feature of the design rather than any flaw in your child.

The chemical that keeps the seeking engine running

The science is often dressed up in jargon that makes it sound either enormously complex or terrifying when it is neither. Inside the brain you find a chemical messenger called dopamine. People tend to describe it as the "pleasure chemical," yet that is not quite accurate. Dopamine is less about the pleasure of getting something and more about the urge to seek it. It is the engine of wanting and the little forward lean of "what happens next." It rises in the anticipation of the reward rather than when the reward arrives.

How the most engaging apps and games use that engine

We can think about how that engine is put to work. The most engaging apps and games are built around a simple, powerful principle that casinos discovered years ago. If a reward comes every single time, the brain relaxes because it can predict the outcome. If the reward comes unpredictably, sometimes yes, sometimes no, sometimes a small win and occasionally a thrilling one, the seeking engine never switches off. The next pull of the lever, the next refresh of the feed or the next loot box might be the big one. Uncertainty is the hook in these products rather than any flaw.

This is why "just five more minutes" so rarely turns out to be five minutes. Your child is not lying to you, or not exactly. They are caught inside a loop engineered to keep the seeking engine running, where every near-miss and every variable reward whispers that the satisfying moment is always one more tap away. The loop has no natural stopping point because it was deliberately designed without one.

The unfinished brakes

There is a second piece, and it is the one that should soften how we judge our children rather than harden it. The part of the brain responsible for impulse control, for weighing long-term consequences and overriding the urge of the moment, sits at the front of the head (prefrontal cortex) and is among the last regions to fully mature. In an adult it is reasonably well developed. In a child or a teenager it is still very much under construction. So you have a powerful seeking engine being deliberately revved, paired with a braking system that is not yet fully functional. Asking a thirteen-year-old to simply resist is a bit like asking them to brake hard in a car whose brakes are only half installed.

How this changes the conversation at home

Understanding this changes the conversation in your home, and it changes it for the better. When you see the meltdown at the doorway as a moral failure, you respond with anger and disappointment, and your child hears that something is wrong with them. When you understand it as a predictable response to a system engineered by very clever adults to be hard to leave, you can stand beside your child against the design rather than against them as individuals. That single shift takes the shame out of it, and shame is the thing that makes children want to hide.

A small thing to try

So here is a small thing to try. Rather than confiscating the device in frustration, sit with your child and let them in on the trick. Tell them, in plain words, that the game is built to make stopping feel impossible, and that this is done on purpose to keep them playing. You can give a simple explanation of what dopamine is. Children, especially older ones, often find this genuinely interesting, even a bit infuriating, because nobody likes being played. Naming the mechanism turns it from a private failing into a shared opponent.

Your child is not weak. Their brakes are simply still being built while someone with a great deal of money is pressing on the accelerator. Once you see that clearly, you stop fighting your child and you start helping them.

FROM THE BOOK

This is the foundation the whole book is built on, because almost everything else makes sense once you understand the machinery. In the science chapters you will see more closely how these loops are constructed, what they do to a developing brain over time, and why understanding the mechanism becomes your first real source of steadiness.