Is Social Media Addictive? Here's What the Science Says.

A major lawsuit against Meta has placed a spotlight on our fraught relationship with online social information.



By Matt Richtel

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A group of 41 states and the District of Columbia filed suit on Tuesday against Meta, the parent company of Facebook, Instagram, WhatsApp and Messenger, contending that the company knowingly used features on its platforms to cause children to use them compulsively, even as the company said that its social media sites were safe for young people.

"Meta has harnessed powerful and unprecedented technologies to entice, engage and ultimately ensnare youth and teens," the states said in their lawsuit filed in federal court. "Its motive is profit."

The accusations in the lawsuit raise a deeper question about behavior: Are young people becoming addicted to social media and the internet? Here's what the research has found.

What Makes Social Media So Compelling?

Experts who study internet use say that the magnetic allure of social media arises from the way the content plays to our neurological impulses and wiring, such that consumers find it hard to turn away from the incoming stream of information.

David Greenfield, a psychologist and founder of the Center for Internet and Technology Addiction in West Hartford, Conn., said the devices lure users with some powerful tactics. One is "intermittent reinforcement," which creates the idea that a user could get a reward at any time. But when the reward comes is unpredictable. "Just like a slot machine," he said. As with a slot machine, users are beckoned with lights and sounds but, even more powerful, information and reward tailored to a user's interests and tastes.

Adults are susceptible, he noted, but young people are particularly at risk, because the brain regions that are involved in resisting temptation and reward are not nearly as developed in children and teenagers as in adults. "They're all about impulse and not a lot about the control of that impulse," Dr. Greenfield said of young consumers.

Moreover, he said, the adolescent brain is especially attuned to social connections, and "social media is all a perfect opportunity to connect with other people."

Meta responded to the lawsuit by saying that it had taken many steps to support families and teenagers. "We're disappointed that instead of working productively with companies across the industry to create clear, age-appropriate standards for the many apps teens use, the attorneys general have chosen this path," the company said in a statement.

Does Compulsion Equal Addiction?

For many years, the scientific community typically defined addiction in relation to substances, such as drugs, and not behaviors, such as gambling or internet use. That has gradually changed. In 2013, the Diagnostic and Statistical Manual of Mental Disorders, the official reference for mental health conditions, introduced the idea of internet gaming addiction but said that more study was warranted before the condition could be formally declared.

A subsequent study explored broadening the definition to "internet addiction." The author suggested further exploring diagnostic criteria and the language, noting, for instance, that terms like "problematic use" and even the word "internet" were open to broad interpretation, given the many forms the information and its delivery can take.

Dr. Michael Rich, the director of the Digital Wellness Lab at Boston Children's Hospital, said he discouraged the use of the word "addiction" because the internet, if used effectively and with limits, was not merely useful but also essential to everyday life. "I prefer the term 'Problematic Internet Media Use," he said, a term that has gained currency in recent years.

Dr. Greenfield agreed that there clearly are valuable uses for the internet and that the definition of how much is too much can vary. But he said there also were clearly cases where excessive use interferes with school, sleep and other vital aspects of a healthy life. Too many young consumers "can't put it down," he said. "The internet is a giant hypodermic, and the content, including social media like Meta, are the psychoactive drugs."

Matt Richtel is a health and science reporter for The Times, based in Boulder, Colo. More about Matt Richtel