

# How Will Future Well-Being Be Impacted By Technology?

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Teenagers today live in an "always-connected" world. They use the Internet to do homework, submit papers through Google Docs, [Snapchat](#) their friends, listen to music via Spotify, watch Netflix instead of television, and scroll through [Instagram](#). Even their college applications are submitted online. At times, it seems that every aspect of their lives has a digital component.

And while all of these gadgets, apps, and technologies have made their lives simpler, more efficient, and more connected, is there such a thing as too much technology or being too digital? Experts are divided on the answer. They also are divided on what this could mean for the future well-being of the nation's young people.

In fact, according to a Pew Research Center [study](#), a third of experts predict that [digital life](#) will be mostly harmful to teens and families in the next decade. Meanwhile, 47 percent of the experts polled disagree. They believe that well-being will be helped rather than harmed. And a small percentage of experts believe there will not be much change in the coming decade.

However, regardless of their views, a whopping 92 percent of the experts polled recommend that government policies, tech company practices, and user behaviors need to change in order to reduce the harmful effects while enhancing the benefits of digital technology.

## A Closer Look at the Study

This non-scientific study included a sampling of views from nearly 1,200 technology experts such as Rob Reich, a professor at Stanford, Sherry

Turkle, a leading researcher in human-computer interaction, and Ethan Zuckerman, director of the Center for Civic Media at MIT, among others. This study is part of the *Future of the Internet Studies* lead by Pew and Elon University's Imagining the Internet Center.

The primary question the researchers asked was: "Over the next decade, how will changes in digital life impact people's [overall well-being](#), physically and mentally?"

Lee Rainie, director of Internet and Technology Studies at Pew Research, says they undertook the study to gauge how industry experts feel about the growing concerns over digital life and the impact it has on a person's health and welfare.

What they discovered is that nearly everyone they polled appreciates the growing benefits of digital life. But many are also worried about the mounting evidence that expanding use of technology may be leading to issues like [distractibility](#), addiction, stress, [cyberbullying](#) and more.

## Common Concerns

Overall, the study uncovered some common themes among the responses. For example, the experts concerned that digital technology will negatively impact well-being predict that we will see more digital deficits over the next decade.

For instance, they anticipate that people's cognitive abilities will be challenged. What this could mean is that their abilities to think analytically, remember information, and focus for long periods of time may be impaired. Overall, they are concerned that people will struggle with mental resilience and be less creative.

Another area of concern for the respondents is [digital addictions](#). They warn that some companies are designing their technology in ways that cause dopamine to be released in the brain.

Dopamine is a chemical the body releases when something is enjoyable. At its most basic level, it is released when a person eats to remind the body to do it over and over again. However, technology companies are learning how

to activate these reward centers in the brain, creating a desire for teens to do something over and over again, like play a particular video game. And industry experts predict that tech companies will continue to study the brain's reward centers in order to develop technology that activates these pleasurable chemicals in the brain. Doing so will cause people to become "hooked" on particular aspects of their digital lives.

Experts also are concerned about the impact digital life will have on [mental health](#). They are concerned that we will see increases in stress, [anxiety](#), and [depression](#) as digital lives expand. Meanwhile, there will be less face-to-face interaction, increased inactivity, poor in-person communication skills, and an overall distrust among people.

Finally, experts are concerned that as more and more aspects of life go digital, that the threats to privacy and security will increase. There also will be greater risks for personal information to be stolen. On a larger scale, they worry that there will be increased threats to democracy, national security, and even jobs. For instance, as artificial intelligence and machine learning grows, this may have a negative impact on the availability for jobs, causing a rise in unemployment. For teens entering the job market in the next decade, this may mean that it is harder to find jobs.

**Related: [How Social Media Negatively Affects the Teen Brain](#)**

## **Predicted Benefits**

Meanwhile, for those who believe technology will enhance well-being in the future, there were some common themes in that area as well. For instance, experts believe technology will be developed that actually helps people attain greater well-being rather than detracting from it. In fact, they predict that technology will continue to connect people and [build relationships](#). Consequently, they believe that people will gain fulfillment from these connections.

They also anticipate people will have easier access to knowledge, information, education, and entertainment that is affordable and easy to attain. This will help level the playing field among different socioeconomic groups.

Another area where they predict digital technology will have positive impact on families is by giving people more opportunities to tap into health, science, and safety resources and tools. Likewise, families should be able to tap into

medical and health information at a moment's notice, which is crucial for personal health. Additionally, this ability will make it easier for parents to get appropriate care and information for their children and their teens.

Experts for Black Dog Institute, a non-profit group dedicated to researching treatments for mental illnesses, agrees that tech could be beneficial to future well-being. For instance, they suggest that [technology is transforming mental health](#) faster than anyone expected and that teens are often the first to embrace it.

Researchers at Black Dog Institute say teens are turning to technology for mental health care and are using machines to manage their psychological well-being. This could be extremely beneficial, they say, considering that depression impacts 300 million people around the world. What's more, the World Health Organization predicts that by 2030, depression will have become the single largest healthcare cost at \$6 trillion globally.

Online behavioral and cognitive therapies can be delivered online as well. And with Black Dog's "my compass" program, people with mild anxiety or depression can easily take charge of their mental health. Right now, the program has 30,000 active users. Researchers at Black Dog predict that technologies like this will continue to grow and have a positive impact on overall well-being, especially for teens who seem more willing to embrace digital products.

## What Other Studies Say

For the most part, there are a number of studies indicating that technology is having a negative impact on our brains, especially for young people. For instance, there are numerous studies linking [attention-deficit/hyperactivity disorder \(ADHD\)](#), as well as behavioral problems, to extensive technology use.

In one study published in the *Journal of American Medical Association*, teens who spend a lot of time using social media show an increase in symptoms of ADHD. In fact, students who used multiple types of digital media multiple times a day were twice as likely to report new symptoms of ADHD than their less digitally-active classmates.

Overall, experts speculate that the instant gratification that teens get from their digital devices makes it hard for them to learn impulse control, patience, and focus, skills that are needed for a healthy well-being in the future.

Meanwhile, other studies have linked social networks to changes in mental health as well. For instance, Facebook use has been linked to drops in well-being. For some people, the more they use social media, the more they become convinced that their life is dull and boring compared to everyone else. This, in turn, can cause anxiety and depression.

In fact, in a study conducted at the [UCLA brain mapping center](#), they found that certain regions of teen brains became activated by "likes" on social media, sometimes causing them to want to use social media more.

During the [study](#), researchers used a fMRI scanner to image the brains of teenagers as they used a fictitious social media app resembling Instagram. The teenagers were shown more than 140 images where "likes" were believed to be from their peers. However, the likes were actually assigned by the research team.

In return, the brain scans revealed that the nucleus accumbens, part of the brain's reward circuitry, was especially active when they saw a large number of likes on their own photos. According to researchers, this area of the brain is the same region that responds when we see pictures of people we love or when we win money. What's more, researchers say that this reward region of the brain is particularly sensitive during the teen years, which could explain why teens are so drawn to social media.

Finally, there also are concerns that cyberbullying, online shaming, sexting, and other harmful behaviors tied to technology will continue to grow and impact the overall well-being of teens now as well as in the future. In fact, there is already some evidence suggesting that the effects of bullying can last well into adulthood. What's more, cyberbullying and other technology-related behaviors are growing in frequency and severity.

A [recent report](#) by Pew Research Center found that the majority of teens today have experienced cyberbullying. In fact, they found that nearly 60 percent of teens have experienced some type of online abuse with [name-calling](#) and [rumor spreading](#) being at the top of the list.

Another issue they face is peer pressure surrounding [sexting](#). Many teens are pressured to send explicit messages when they don't want to, while others receive messages containing inappropriate photos without being asked. Not only are there a number of [emotional and legal consequences related to sexting](#), but it also can significantly impact overall well-being that lasts long after.

What's more, they discovered that the more time these teens spend online, the greater their chances of experiencing some type of cyberbullying. For instance, half of the teens who are "near-constant Internet users" indicate that they have been called offensive names online compared to about a third, or 36 percent, who use the Internet less frequently.

As digital life increases and more time is spent online, many experts feel these types of mean behaviors also will increase and have a negative impact on the future well-being of teens.

**Related: [5 Ways Apps and the Internet Are Impacting Teens Sexually](#)**

## Proposed Solutions

The experts participating in the Pew study did offer some solutions for combatting the ill-effects of digital life on future well-being. Topping the list of suggestions was the need to develop a "digital bill of rights" that places human dignity above all else. This bill of rights would also include any motives to use data collected to manipulate people or make a profit.

They also suggested incorporating digital literacy more deeply into school educational programs and developing "nudge" systems that warn parents and teens when their private data is being collected. They also believe that educating families on how algorithms work to deliver information to them is also important.

**Related: [How Parents Can Set Limits on Their Teen's Technology Use](#)**

## A Word From Verywell

At this point, there is not enough research to know definitively how technology will impact future well-being for certain. But as with any good thing, moderation is always key. Be sure you are talking to your kids about

managing their time spent on devices and using technology wisely. Overall, technology, [social media](#), and digital devices are not bad things. Teens just need to learn how to manage them so that they are not monopolizing their time and impacting their health and wellbeing.

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