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Teens see social media algorithms as accurate reflections of themselves, study finds

Social media apps regularly present teens with algorithmically selected content often described as “for you,” suggesting, by implication, that the curated content is not just “for you” but also “about you” — a mirror reflecting important signals about the person you are.

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All users of social media are exposed to these signals, but researchers understand that teens are at [an especially malleable stage](#) in the formation of personal identity. Scholars have begun to demonstrate that technology is having [generation-shaping effects](#), not merely in the way it influences cultural outlook, behavior and privacy, but also in the way it can shape personality among those brought up on social media.

The prevalence of the “for you” message raises important questions about the impact of these algorithms on how teens perceive themselves and see the world, and the subtle erosion of their privacy, which they accept in exchange for this view.

Teens like their algorithmic reflection

Inspired by these questions, my colleagues [John Seberger](#) and [Afsaneh Razi](#) of Drexel University and [I](#) asked: How are teens navigating this algorithmically generated milieu, and how do they recognize themselves in the mirror it presents?

In our qualitative interview study of teens 13-17, we found that personalized algorithmic content does seem to present what teens [interpret as a reliable mirror image of themselves](#), and that they very much like the experience of seeing that social media reflection.

Teens we spoke with say they prefer a social media completely customized for them, depicting what they agree with, what they want to see and, thus, who they are.

If I look up something that is important to me that will show up as one of the top posts [and] it'll show, like, people [like me] that are having a nice discussion.

It turns out that the teens we interviewed believe social media algorithms like TikTok's have gotten so good that they see the reflections of themselves in social media as quite accurate. So much so that teens are quick to attribute content inconsistencies with their self-image as anomalies – for instance, the result of inadvertent engagement with past content, or just a glitch.

At some point I saw something about that show, maybe on TikTok, and I interacted with it without actually realizing.

When personalized content is not agreeable or consistent with their self-image, the teens we interviewed say they scroll past it, hoping never to see it again. Even when these perceived anomalies take the form of extreme hypermasculine or “nasty” content, teens do not attribute this to anything about themselves specifically, nor do they claim to look for an explanation in their own behaviors. According to teens in our interviews, the social media mirror does not make them more self-reflective or challenge their sense of self.

One thing that surprised us was that while teens were aware that what they see in their “for you” feed is the product of their scrolling habits on social media platforms, they are largely unaware or unconcerned that that data captured across apps contributes to this self-image. Regardless, they don't see their “for you” feed as a challenge to their sense of self, much less a risk to their self-identity – nor, for that matter, any basis for concern at all.

The human brain continues to develop during adolescence.

Shaping identity

Research on identity has come a long way since sociologist Erving Goffman proposed the “[presentation of self](#)” in 1959. He posited that people manage their identities through social performance to maintain equilibrium between who they think they are and how others perceive them.

When Goffman first proposed his theory, there was no social media interface available to hold up a handy mirror of the self as experienced by others. People were obligated to create their own mosaic image, derived from multiple sources, encounters and impressions. In recent years, social media recommender algorithms have inserted themselves into what is now a three-way negotiation among self, public and social media algorithm.

“For you” offerings create a private-public space through which teens can access what they feel is a largely accurate test of their self-image. At the same time, they say they can easily ignore it if it seems to disagree with that self-image.

The pact teens make with social media, exchanging personal data and relinquishing privacy to secure access to that algorithmic mirror, feels to them like a good bargain. They represent themselves as confidently able to tune out or scroll past recommended content that seems to contradict their sense of self, [but research shows otherwise](#).

They have, in fact, proven themselves highly vulnerable to [self-image distortion and other mental health problems](#) based on social media algorithms explicitly designed to create and reward hypersensitivities, fixations and dysmorphia – a mental health disorder where people fixate on their appearance.

Given what researchers know about the [teen brain](#) and that stage of social development – and given what can reasonably be surmised about the malleability of self-image based on social feedback – teens are wrong to believe that they can scroll past the self-identity risks of algorithms.

U.S. Surgeon General Vivek Murthy discusses the harms teens face from social media.

Interventions

Part of the remedy could be to [build new tools](#) using artificial intelligence to detect unsafe interactions while also protecting

privacy. Another approach is to help teens reflect on these “data doubles” that they have constructed.

My colleagues and I are now exploring more deeply how teens experience algorithmic content and what types of interventions can help them reflect on it. We encourage researchers in our field to design ways to challenge the accuracy of algorithms and expose them as reflecting behavior and not being. Another part of the remedy may involve arming teens with tools to restrict access to their data, including limiting cookies, having different search profiles and turning off location when using certain apps.

We believe that these are all steps that are likely to reduce the accuracy of algorithms, creating much-needed friction between algorithm and self, even if teens are not necessarily happy with the results.

Getting the kids involved

Recently, my colleagues and I conducted a [Gen Z workshop](#) with young people from [Encode Justice](#), a global organization of high school and college students advocating for safe and equitable AI. The aim was to better understand how they are thinking about their lives under algorithms and AI. Gen Zers say they are concerned but also eager to be involved in shaping their future, including mitigating algorithm harms. Part of our workshop goal was to call attention to and foster the need for teen-driven investigations of algorithms and their effects.

What researchers are also confronting is that we don’t actually know what it means to constantly negotiate identity with an algorithm. Many of us who study teens are too old to have grown up in an algorithmically moderated world. For the teens we study, there is no “[before AI](#).”

I believe that it’s perilous to ignore what algorithms are doing. The future for teens can be one in which society acknowledges the unique relationship between teens and social media. This means involving them in the solutions, while still providing guidance.

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