Are We in Control of Our Screens?

It was supposed to be a productive Sunday afternoon. I sat at my desk around 3 p.m. thinking I was going to get a head start on this personal essay assignment. I spent the first hour working slowly but surely, brainstorming for times I encountered science in my life. But, by 7 p.m., I had the exact same amount of work done. All I had to show for it were some scattered notes and a title page. What happened? A quick ten-minute break turned into a three-hour Instagram marathon. Reel after reel, story after story, I got sucked in, losing complete track of time. The only thing that pulled me out was the growling of my stomach because it was dinner time.

Unfortunately, this is not the first time this has happened, nor am I the only person to have this terrible habit. Many of my friends at Princeton have also admitted to falling victim to this cycle, getting trapped in the endless doom-scrolling. But this issue extends much farther than just our campus. Young people across the nation suffer from the same issue, so much so that there are companies dedicated to developing solutions to minimize social media use.

Apps like *Freedom* and *Offtime* create virtual barriers, blocking access to Instagram, TikTok, and Twitter, preventing them from even opening on your mobile devices. Others, like *Clearspace*, take a more creative approach by only allowing users limited social media access after the app detects push-ups being done through the phone's camera. For those seeking even more drastic measures, there are physical products like *kSafe*, a time-locking container that essentially puts your phone in "jail" for a set period. The existence of these products highlights just how widespread social media addiction has become. But why is quitting so difficult? The answer lies in the way our brains are wired.

Platforms like Instagram, TikTok, and Twitter are designed to keep us engaged to maximize advertising revenue. They do so through exploiting the brain's reward system by being an easy source of dopamine, the neurotransmitter most associated with pleasure and happiness. Everything from the notifications to the length of posts are carefully engineered to trigger a small hit of dopamine, intending to create a positive feedback loop that keeps you looking for more. These quick, consistent rewards from social media are no different from regular drug use and can lead to compulsive behaviors.

What makes social media so addicting is the unpredictability of these dopamine hits. The next funny meme or reel is right around the corner, making the experience feel like a gamble. This uncertainty of reward is known as "variable rewards" or "intermittent reinforcement," the same principle that keeps people playing the slot machine, according to David Greenfield, a psychologist at the Center for Internet and Technology Addiction. It is this anticipation of engaging content that keeps us scrolling and searching for the next hit of dopamine.

As discovered by researchers at Stanford Medicine, these behaviors are eerily like those of a drug addict. In some extreme cases when examined under an MRI, those with a social media addiction utilize the same neural pathways as those that suffer from substance abuse. This physical change in the brain will not only cause procrastination and a decreased attention span in the short term, but also cause mental illnesses in the long term.

These effects are especially exacerbated in young adults as their brains are still developing. This time of growth makes adolescents extra vulnerable to a constant flow of dopamine, putting them at heightened risk to develop an addiction to social media. "The overuse

of social media can actually rewire a young child or teen's brain to constantly seek out immediate gratification, leading to obsessive, compulsive and addictive behaviors," says Dr. Nancy DeAngelis, the director of behavioral health at CRNP.

Further, social media encourages constant comparison as platforms like Instagram only display the highlights of people's lives. This is especially damaging to young adults since they are just developing a sense of self. The constant comparison chips away at self-esteem, leading to the development or exacerbation of mental health issues such as depression, anxiety, and body dysmorphia.

Given the severe repercussions of extended social media use on our mental health, it is crucial to find ways to gain control over our digital habits. While fully deleting social media is a solution, it is not the most practical one given how integrated it is in everyday life. A good alternative is to set limits on screen time and focus on being more present with the people around us. Redirecting the source of dopamine back to our real, offline relationships will help shift our fulfillment away from the endless digital scroll. As we continue to consume social media content, it's worth asking ourselves: Are we in control of our screens, or are they in control of us?