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GLOW Kids: How Screen Addiction Is Hijacking Our Kids: And How to Break the Trance (Book)
KARDARAS, Nicholas
NEW: Understanding Our Need for Novelty & Change (Book)
GALLAGHER, Winifred

Abstract: The article presents a discussion of the negative effects of social media to human behavior, adapted from the book "Glow Kids" by Nicholas Kardaras. Topics covered include the development of various psychological problems due to social media and immersion in the digital world, the noted link between the rise of social media and technology and the reported decline in mental health, and the highlights of the book "New: Understanding Our Need for Novelty and Change" by Winifred Gallagher.

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FEATURES

FOR TODAY’S TEENS, MORE FOLLOWERS ONLINE MAY MEAN FEWER FRIENDS IN REAL LIFE—AND A PATH TO BEHAVIORAL AND PSYCHOLOGICAL PROBLEMS LATER ON

“I’m going to kill you while you are both asleep, the wild-eyed 13-year-old girl said as she flailed and kicked her father before biting his arm. This was the second time in less than a week that “Heidi” had flown into a violent rage because her parents had taken away her Chromebook and her access to social media. It would also be the second time that she would have to be taken to the psychiatric emergency room.

When her parents, “John” and “Melanie,” first called me for help, they described Heidi as a sweet, happy, loving girl whose teachers had always declared their favorite student. With a tendency to gravitate toward overachievers, she loved playing soccer, hiking and taking mountain bike rides with her dad—the man she bit.

John and Melanie, supportive suburban New Jersey parents with college degrees and their own tech business, were blindsided by Heidi’s social media addiction. “It all started when she came home in seventh grade with a Chromebook that the school had given her,” they told me. Ostensibly given for school purposes, the Chromebook came loaded with Google Classroom—which also, unfortunately, included Google Chat and various Google Chat communities.

Once this educational Trojan horse entered their home, John and Melanie found that Heidi was more and more preoccupied with its social media chat rooms, spending hours on them every night. Because the chat rooms were part of the Chromebook platform, they were not able to disable them. Then Heidi started becoming preoccupied with raunchy YouTube videos and also began playing Squarelaxy, an addictive progression game similar to Minecraft, which allowed her to be online with other Squarelaxy players.

Over the course of a year John and Melanie saw their daughter transform from a sweet, innocent girl who loved spending time with her parents into a sexualized, foul-mouthed and violent terror. And sadly, she became a girl in need of psychiatric treatment.

Early adolescence is a time of dramatic change for most kids, and arguably, Heidi may have been headed for trouble with or without her Chromebook. It is also true that many kids use social media responsibly and without issue. But a growing body of evidence shows that social media and immersion in the digital world can be contributing factors in the development of an array of psychological problems— from addiction to depression—and young people may be especially vulnerable.

[A Perfect Storm](#)

Social connection is not only the most essential part of being human, it is also a key ingredient in happiness and health. Thanks to social media, we are the most connected society that has ever lived: each second people in the U.S. send more than 7,500 tweets, 1,394 Instagram photographs, and two million e-mails; they also view more than 119,000 YouTube videos. We keep texting as if our lives depended on it: As of 2012, Americans sent about 69,000 texts a second, with more than six billion sent every day. Globally, that number is 23 billion daily texts and 8.3 trillion annually.

Predictably, the younger you are, the more you text. According to a 2011 Pew Research Center poll, cell-phone owners between the ages of 18 and 24 send or receive an average of 109.5 messages on a normal day, whereas all adults (18 and older) exchange a daily average of 41.5 messages, with a median of only 10 texts daily. As for social media, a 2015 report compiled by the marketing agency We Are Social estimated that more than two billion people—over a quarter of the world's population—have active social media accounts.

For a species hardwired for social connection, that should be a wonderful thing. And yet the rise of social media and technology has coincided with an apparent decline in mental health. In 2014 psychologist Jean M. Twenge of San Diego State University analyzed data from nearly seven million teenagers and adults across the U.S. and found that more people reported symptoms of depression in recent years than they did in the 1980s. Teens, in particular, are now 74 percent more likely to have trouble sleeping and twice as likely to see a professional for mental health issues. According to a 2016 fact sheet from the World Health Organization, depression is now the leading cause of disability globally, affecting 350 million people worldwide.

There are certainly many intervening factors that may be driving this global trend, but we do have preliminary research linking depression with social media usage. In 2014 Mai-Ly Steers of the University of Houston and her colleagues surveyed 180 college students and found that the more time these subjects spent on Facebook, the more likely they were to experience mild depressive symptoms. The researchers attributed the link to the psychological phenomenon known as social comparison—and comparing our lives to others can seem particularly harsh online, where people tend to post only the highlights. In a 2014 study, social psychologists Christina Sagioglou and Tobias Greitemeyer, both at the University of Innsbruck in Austria, found another reason why people can feel down after Facebook sessions: they feel that the time spent is not meaningful.

In addition, online socializing may be interfering with our face-to-face encounters. That is troubling because we know that we can get physically and psychologically ill without real human contact. Indeed, several studies have shown that people can go insane if cut off from human interaction. The reason is that, as social creatures, we find purpose and meaning and bolster our emotional states largely through the social and cultural context created by contact with others. Not getting the right kind of human contact and nurturing support at key developmental periods in childhood can lead to profound emotional and psychological problems.

Social media has an impact on other basic psychological needs—including our need for novelty, called neophilia. As writer Winifred Gallagher points out in *New: Understanding Our Need for Novelty and Change*, our human brain is biologically primed for novelty, which, in turn, has

helped us to survive cataclysmic environmental change. Unfortunately, this hardwired thirst can be overwhelming in the information age, in which every hyperlink, tweet, text, e-mail and Instagram photograph can be an opportunity to experience something new. As with an alcoholic in a liquor store or a chocolate lover at Willy Wonka's, the multitude of opportunities for novelty can be exhaustingly hyperstimulating.

And what about the human need to experience reward? We know that humans like activities that release the neurotransmitter dopamine in the brain—a lot. Evolution has given us incentives via a “dopamine tickle” to pursue certain life-sustaining activities, such as eating and sex, because dopamine made us feel good. But we have discovered that digital stimulation feels pretty good, too, and similarly lights up our dopamine-reward pathways.

So then where does modern digital technology, which plays off these intersecting human needs for connection, reward and novelty, leave us? Short answer: addicted or, at the very least, potentially vulnerable to screen addiction. Many adults and kids have developed compulsive texting and social media habits precisely because such predilections quench our thirst for novelty while tickling our dopamine-reward pathways. And like addicts, they can go into withdrawal without it.

[Teenage Hypertexting](#)

In 2010 journalism professor Susan Moeller and her colleagues at the University of Maryland asked 200 students to give up all media, including texting, for 24 hours. Many showed signs of withdrawal, craving and anxiety. “Texting and IM'ing my friends gives me a constant feeling of comfort,” one student said. “When I did not have those two luxuries, I felt quite alone and secluded in my life.” Another put it in even more direct terms: “I clearly am addicted, and the dependency is sickening.” According to a 2015 study of millennial communication habits by psychologist Kelly Lister-Landman, now at Delaware County Community College, and her colleagues, “text messaging has increased dramatically among adolescents over the past 10 years,” and many teenage texters share addictlike symptoms and behaviors. In fact, the researchers indicated that such teens have a lot in common with compulsive gamblers, including lost sleep because of the activity, problems cutting back and a tendency to lie to cover up the amount of time they spend doing it.

The study clarified that the frequency of texting does not by itself equate to compulsion. The key is its effect on a person and his or her life. As ListerLandman explained in a press release: “Compulsive texting ... involves trying and failing to cut back on texting, becoming defensive when challenged about the behavior, and feeling frustrated when one can't do it.” Based on those criteria, although boys texted with the same frequency as girls, the study determined that girls were four times more likely to have texting-related problems.

Perhaps even more shocking, a 2012 Pew survey by researcher Amanda Lenhart—which involved a nationally representative sample of 799 12- to 17-yearolds—found that only 35 percent said they regularly socialized face-to-face anymore, compared with a whopping 63 percent of teens who said they communicated mostly via text messages and averaged 167 texts a day.

Beyond addictive tendencies and an erosion of face-to-face socialization, Lister-Landman and her colleagues also found a link between compulsive texting and poor academic behavior. And a 2010 research study at the Case Western Reserve University School of Medicine that looked at the texting habits of 4,257 high school students revealed that 20 percent of those teens engaged in hypertexting, or sending more than 120 daily texts; these hypertexters were twice as likely to have tried alcohol, 41 percent more likely to have used illegal drugs, nearly three and a half times more likely to have had sex, and 90 percent more likely to have had four or more sex partners.

What are we to make of all of these statistics that link more texting with more behavioral problems? I would look at these data a couple of different ways. First of all, if a person is a compulsive or addicted texter, it indicates to me that he or she has an impulse-control problem. People who have a harder time controlling their impulses also naturally tend to be more impulsive in other areas of their lives: trying drugs, drinking excessively, having sex. But here we also have the age-old chicken-or-egg question: Are people who are impulsive to start with gravitating toward digital excess, or is the digital excess creating or reinforcing the impulsivity? Possibly both.

We can also view problematic behavior linked to excessive social media usage through another lens. According to social learning theory, we model our behavior after our peers. What if I have hundreds of peers who text and use social media? I then increase the likelihood of getting exposed to certain problematic behavior. For example, if I hang out with five kids, and one of them smokes marijuana and has multiple sex partners, the influence on my own behavior might be minimal. Now, through social media, I am hanging out with several hundred kids—and what if 30 or 40 of them have multiple sex partners? Or are taking Vicodin or Xanax? The impact of that larger—and potentially more troublesome—group on my own behavior is now greater.

[The Illusion of Real Connection](#)

Apart from the addictive nature of our new digital way of connecting, it does not seem to satisfy our deep-seated need for true human contact. Instead what it seems to have spawned is the illusion of social connection via a medium that has our dopamine receptors on perpetual high alert as we anticipate, like Pavlovian dogs, the next “ping” that promises to offer us the novelty and pleasure of a text, instant message, tweet, Facebook update or Instagram photograph.

More than two decades ago anthropologist and evolutionary psychologist Robin Dunbar, now at the University of Oxford, proposed the theory that a person can maintain about 150 acquaintances but only five or so close relationships—our brain cannot handle more. The figure of 150, also known as Dunbar’s number, was, as he put it, a measurement of the “cognitive limit to the number of individuals with whom any one person can maintain stable relationships.” Amazingly, Dunbar discovered that these numbers have remained more or less constant throughout history.

Social media has not really affected this dynamic. When data scientist Bruno Gonçalves and his colleagues, all then at Indiana University Bloomington, looked at whether Twitter had changed the number of relationships that users could maintain, they found that people could still manage

to follow between 100 and 200 stable connections. But the Dunbar number represents a continuum, with the most intimate, and perhaps most important, figure being five, or the number of truly close friends whom we see often and call in serious situations.

Researchers have attributed the benefits of these face-to-face relationships to the “shared experience” effect: when you laugh or cry with someone, when you go to a social event or have dinner together, when you experience life together, there is a deepening of the social bond that cannot be replicated by social media. In social media, you can “share” and “like” something with your Facebook friends, or you can watch the same hysterical YouTube clip of a dancing chimp, but it is not the same as if you had done something together.

There may also be a physiological aspect of friendship that Facebook friends can never replace. Over the past several years Dunbar and his colleagues have been looking at the importance of physical contact. He already knew that in primate grooming, touch activates the endorphin system; now we know that the same is true for humans. In a series of studies, Dunbar and his colleagues showed that light touch triggers an endorphin response that is important for creating a personal bond. According to Dunbar, our skin has a set of neurons, common to all mammals, that respond to light stroking but not to any other kind of touch.

“We think that’s what they exist for, to trigger endorphin responses as a consequence of grooming,” Dunbar explained in an interview with the New Yorker. Just as dopamine incentivizes eating and procreating, it seems that endorphins released with physical touch encourage human bonding. Facebook friends just cannot replicate that; they cannot pat us on the back, rub our knees or give us hugs.

Dunbar is also concerned about the negative developmental effect that our new digital world will have on children. From past research on social interaction, we know that early childhood experiences are crucial in developing those parts of the brain that are dedicated to social interaction, empathy and other interpersonal skills. If we deprive children of interaction and touch early on because they mostly socially interact via screens, those brain areas may not fully develop.

[Facebook Depression](#)

What would such a “glow kid”—raised on mostly digital social interactions—look like as an older person? “This is the big imponderable. We haven’t yet seen an entire generation that’s grown up with things like Facebook go through adulthood yet,” Dunbar said in the same New Yorker interview. “It’s quite conceivable that we might end up less social in the future, which would be a disaster because we need to be more social—our world has become so large.” What then happens to a person—particularly a kid—who does not have those real-life connections and is already feeling a bit alienated and sad? In those instances, the illusion of connection created by social media may actually do more harm than good.

Consider the phenomenon known as Facebook depression, whereby the more “friends” one has on Facebook, the higher the likelihood of depression. There is also, as mentioned, the double whammy that the more time spent on social media and the more texting a person does, the higher

the likelihood of not just depression but tech addiction as well. While it is hard to say which way the causality goes (does depression drive more time on social media or the other way around, or both?), this much is clear: more screen time only further amplifies the isolation and disconnection from healthier activities and meaningful face-to-face social contact.

The previously mentioned Case Western hypertexting study also looked at “hypernetworking”—defined as more than three hours per school day on social networking sites. The 11.5 percent of students who met the criteria were subject to higher rates of depression, substance abuse, poor sleep, stress, poor academic performance and suicide. Perhaps not so shockingly, hypernetworkers were also found to have more permissive parents. Just as the hypertexting kids engaged in more risky behavior, hypernetworking teens were also found to be 69 percent more likely to have tried sex, 60 percent more likely to report four or more sexual partners, 84 percent more likely to have used illegal drugs and 94 percent more likely to have been in a physical fight.

“This should be a wake-up call for parents,” warned the study’s lead researcher, epidemiologist Scott Frank, in a Case Western press release. They should “not only help their children stay safe by not texting and driving, but by discouraging excessive use of the cell phone or social websites in general.”

I think that most reasonable people can understand that texting as a way to communicate and social media as a way to stay connected both have a place in our society. But if you want healthy and happy kids, it is vitally important that they have supportive, caring relationships with flesh-and-blood people. If they must have Facebook accounts or phones with texting capability—although some parents now opt for nontexting “dumb” phones—at least wait until the children are far enough along developmentally that they are less vulnerable to tech addiction, Facebook depression or hypertexting. Even then, the research shows that monitoring your child’s digital habits and virtual friends is critical in the new social media and texting landscape.

[FAST FACTS A BIG DISCONNECT?](#)

1 The rise of social media has made us the most connected society to date, but it has also coincided with an apparent decline in our mental health.

2 Social media use is proving addictive for some people, and this new digital way of connecting may not satisfy our deep-seated need for true human contact.

3 Teens may be particularly vulnerable to developing hypertexting habits and what is known as Facebook depression.

[MORE TO EXPLORE](#)

Hyper-Texting and Hyper-Networking: A New Health Risk Category for Teens? Scott Frank et al. Presented at the American Public Health Association’s 138th Annual Meeting and Exposition, Denver, November 6-10, 2010.

Seeing Everyone Else's Highlight Reels: How Facebook Usage is Linked to Depressive Symptoms. Mai-Ly N. Steers et al. in *Journal of Social and Clinical Psychology*, Vol. 33, No. 8, pages 701-731; October 2014.

Time Period and Birth Cohort Differences in Depressive Symptoms in the U.S., 1982-2013. Jean M. Twenge in *Social Indicators Research*, Vol. 121, No. 2, pages 437-454; April 2015.

From Our Archives The Social Power of Touch. Lydia Denworth; July/August 2015.

PHOTO (COLOR): Researchers have found a link between spending time on Facebook and experiencing symptoms of depression, lending support to the idea that social media use may be contributing to rising rates of mood disorders, especially in teens.

PHOTO (COLOR): A 2012 survey found that only 35 percent of 12 to 17-year-olds said they regularly socialized face-to-face, compared with 63 percent who said they communicated mostly via text messages.

PHOTO (COLOR): Girls may struggle more than boys to limit their use of text messaging. Studies have found an association between compulsive texting habits and poor academic behavior.

PHOTO (COLOR)

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