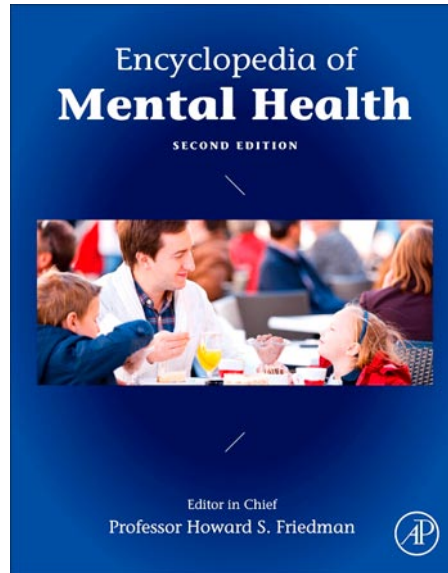


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Ferguson C.J., Social Media, Societal Changes, and Mental Health: You Can Live Online Wholesale. In: Howard S. Friedman (Editor in Chief), *Encyclopedia of Mental Health*, 2nd edition, Vol 4, Waltham, MA: Academic Press, 2016, pp. 179-183.

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Social Media, Societal Changes, and Mental Health: You Can Live Online Wholesale

CJ Ferguson, Stetson University, DeLand, FL, USA

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Glossary

Aggression Behavior intended to increase an individual's social dominance at the expense of another individual or individuals.

Cyberbullying Aggressive acts intended to intimidate or humiliate others in an online context.

Entertainment Software Ratings Board A voluntary industry run ratings system for video games. EC=Children,

E=Everyone, E10+=Everyone 10 and over, T=Teen, M=Mature (similar to the 'R' rating for movies), and AO=Adults Only (similar to NC-17).

Narcissism A tendency to view oneself as better than one's peers.

Social media Media designed to allow individuals to communicate with wider audiences through nontraditional electronic means such as the internet.

We Can Remember it for you Wholesale

–Philip K. Dick, 1966

Introduction

Arguably one of the biggest social innovations of the latter twentieth century was the introduction of the internet as a personal means of communication available on a widespread basis. Since e-mail became widely available in the early 1990s, social media has exploded to include not only websites and message boards, but also online gaming, social networking sites such as Facebook, and sites dedicated to sharing information ranging from Youtube to Pandora (a music sharing program). The genie is, in effect, out of the bottle and this connectivity revolution, such as it is, is unlikely to be undone, only expanded by further technology. But scholars, politicians, advocates, and the general public continue to debate whether these changes to society are net positive or net negative. We have heard numerous frightening claims that social media 'rewires' the brain (which is technically true insofar as everything we learn or experience rewires the brain) or that users of social media may begin experiencing 'Facebook Depression' ([American Academy of Pediatrics, 2011](#)). But what truth is there to these claims? Are fears of social media influence on one's mental and behavioral health well founded, or are they nothing more than a media-based moral panic?

The answer, as it often is in social science is, 'it is complex.' It is hard to say that any form of media, even those associated with moral issues (sex and violence, for instance), are inherently good or bad. Although it is exactly these types of claims along the lines of 'Action games will train your brain to be smarter' or 'online dating will ruin marriage as well know it' that generate headlines. People generally prefer simple answers to these types of questions. 'Should my kid be allowed to play violent video games online, yes or no?' or 'Is it ok to let my infant watch baby videos while I relax for half an hour?' Anyone who gives you a sweeping 'yes' or 'no' to those types of questions is probably functioning more as an advocate than a scientist (PhD regardless) and people tend not to like to hear

'well, it's more complex than that.' However, there is a growing body of research that can address these questions and help us make educated decisions about how we use media (and let those we care about use it).

Generation Me or Generation We?

One thing that is important to understand is that the introduction of new technology tends to stir up generational conflict. New technology is typically embraced to a greater degree by youth than by older adults. This may be clear when it comes to the perennial debate topic of violent video games, where, in a recent [Harris Interactive \(2013\)](#) poll, older adults were more likely to endorse belief in a link between violent games and societal violence than were younger adults. Older adults were also far less knowledgeable about the existing Entertainment Software Ratings Board ratings for video games. There is clearly a generational divide when it comes to new media. Penetration of social media among older adults may be greater than for video games, although arguably younger adults and teens may be comfortable sharing more of themselves online and using online formats for social interactions such as forming friendships and romantic relationships that older adults might consider unusual or undesirable ([Pew Research Center, 2010](#)).

Thus, it is not uncommon to see commentators or social scientists worry that social media may be causing profound generational changes, typically negative, in the generation of youth raised in the era of social media. Of course, it seems that each generation of adults suspects that the subsequent generations of youth are on the precipice of disaster and moral decay. But this historical pattern does not, in and of itself, mean that hypotheses linking social media use to undesirable mental or behavioral outcomes are unreasonable. Is all that connectivity online leading to disconnection from real life or making today's youth miserable or narcissistic?

Obviously, it is impossible to conclude that technological innovations do not affect society at all. In the social media era, lots of things can be done that could not be done before. Many of these are positive. For example consider an individual with

schizotypal personality disorder; a condition that mainly causes an individual to have odd beliefs, odd hobbies, and some impairment of social skills, but is otherwise functional. Such individuals are often rejected by 'normal' people who do not share their eccentric interests and can become lonely. In past generations, being outsiders, finding suitable friends may have been difficult. With social media, such individuals can connect with others with similar interests much more easily in the past (Pew Research Center, 2010). Thus, for some individuals, social media can be a tool that could lead to positive psychological outcomes.

But, what about everybody else? One issue that has come up is the notion that the recent crop of youth constitute a 'Generation Me' punctuated by self-centeredness and narcissism in contrast to prior generations. Generally, advocates of this idea argue that the origins of such a generational shift are complex, including the self-esteem movement, and more child-focused parenting styles, although the ability to thrust oneself into the limelight continuously on social media could be one element (Twenge and Campbell, 2009). Proponents for the Generation Me hypothesis tend to emphasize global and profound differences between this generation and previous generations (e.g., Twenge and Campbell, 2009) including use of the term 'narcissism epidemic.' As stated in the abstract of one recent paper by leading proponent Jean Twenge (2013, p. 66) 'Today's college students are significantly different from previous generations. On average, they are overconfident, have high expectations, report higher narcissism, are lower in creativity, are less interested in civic issues, and are less inclined to read long passages of text. They are highly confident of their abilities and received higher grades in high school despite doing fewer hours of homework than previous generations. They also believe in equality regardless of ethnicity, gender, or sexual orientation.' So it's not all bad (assuming you are of a relatively egalitarian frame of mind).

Twenge (2013) and her colleagues argue that social media provide an opportunity for youth to put themselves on display constantly, endlessly tweeting or posting their every thought with the expectation that countless others should care. These scholars see this as evidence for increased narcissism as opposed to younger generations adopting new technology in the same manner previous generations would have, had it been available. The arguments for the existence of a 'Generation Me' rest largely in changes in responses to a survey called the Narcissism Personality Inventory (NPI) over the past few decades among college students, coupled with some anecdotes (i.e., more tattoos, more people express wanting to be famous, etc.) However, other scholars are not so sure this Generation Me actually exists. Donnellan *et al.* (2009) analyzed data on narcissism across generations and concluded that the evidence for a Generation Me is weak. Further, it is possible that differences in the NPI over generations of college students reflects differences in who goes to college, rather than personality differences across generations. Some data also suggest that civic involvement among youth is rising, suggesting greater empathy rather than narcissism (Girl Scout Research Institute, 2009). So whether recent generations have experienced a 'narcissism epidemic' or if such claims are the result of typical intergenerational conflict is hard to say. As is often the case, the answer may be complex. The notion of a full-blown

narcissism epidemic does not appear to be well supported, but social media may have given the youth of today a better chance of being famous than ever before, if only for 15 min. Defining people as a group, depending on the generation they belong to in terms of sweeping generalizations, seldom looks good with hindsight.

Facebook Depression

Social networking sites such as Facebook have been a relatively new social innovation allowing people to connect, share information, and communicate in unique ways not previously possible. Looking up an old high school friend has never been easier. Although the benefits of this kind of outlet are obvious in terms of easy communication, many users spend considerable time on their social networking pages and may 'friend' hundreds of individuals, most of whom they don't know well at all. This has led to some concerns about the quality and indeed 'addictive' nature of these online communications and how they might influence mental health.

In 2011, the American Academy of Pediatrics, a professional advocacy organization, released a policy statement that, in part, expressed concern that a 'Facebook depression' might develop among teens who used social networking sites (American Academy of Pediatrics, 2011). However, it turns out that evidence for the notion of a 'Facebook Depression' seems, at the moment at least, to be relatively thin (Magid, 2011). In one of the most thorough studies of this issue to date, Jelenchick *et al.* (2013) found no evidence to support a link between social media use and depression in adolescence. Similarly Feinstein *et al.* (2012) found no association between time spent on social media and depression, although depressive symptoms did tend to manifest in negative behaviors online. In other words, social media may become a further stage in which mood problems are manifested. A latter study by the same group (Davila *et al.*, 2012) came to similar conclusions, that depressive symptoms are related to the quality of online interactions, not quantity.

But the debate about 'Facebook Depression' aside, there may be risks associated with social media use. The most obvious of these is internet addiction, wherein an individual's internet use becomes so excessive it visibly interferes with the individual's occupation, school or social functioning or health. Like most pleasant activities, internet use can be overdone in some individuals. The phenomenon of internet addiction remains somewhat ambiguous due to lack of agreed upon definitions and measurement scales, and it has, thus far, not been included as an official diagnosis in the Diagnostic and Statistical Manual (DSM-5) of mental diseases aside from as an issue for further study (King *et al.*, 2012). However, as King and colleagues note, most experts in this area suspect that there is some form of internet addiction that can and does occur for some individuals, although the exact prevalence is unknown. It is also important to distinguish individuals addicted to the internet itself versus those who use the internet to further a different addiction such as gambling (Griffith, 2008). Given the fluidity in defining and measuring internet addiction it is difficult to provide definitive features to look for. In essence, however, internet addiction is probably best

defined simply through the interfering nature of internet use. That is to say, if internet use persists despite obvious negative consequences to job, school, family or health, it may become an addiction.

Whether internet addiction is a unique syndrome or simply symptomatic of underlying mental illnesses is another unresolved question. Often it is observed that, just as with illicit drugs such as cocaine or methamphetamine, pleasurable activities such as eating, having sex, or using the internet can release dopamine. Sometimes this fact is used to support claims that such activities can be addictive in the same manner as illegal drugs. However, this tends to ignore that, while it is true these activities release dopamine, the amount of dopamine levels produced by illicit drugs are typically many times greater than for pleasurable behaviors such as internet use or eating (Methinsideout.com, 2013). This makes direct comparisons somewhat misleading.

Social Media Use and Eating Disorders

Whether social media use can bring on other mental illnesses is another matter. One issue that has received attention is content-specific websites such as 'pro-ana' websites. These websites tend to encourage anorexic behaviors in pursuit of thinness. Some studies suggest that viewership of these sites is correlated with eating disorder symptoms ([Juarez et al., 2012](#)). It is probably not the case that such websites cause eating disorders in psychologically healthy girls. However, girls who already struggle with eating issues and body dissatisfaction may be drawn to such websites and their problematic cognitions may be reinforced by the social messages on such sites. Other media in which viewers can respond to ostensibly 'real' women such as reality television, can promote plastic surgery acceptance in women ([Markey and Markey, 2012](#)), so it is certainly conceivable that online peer interactions can promote eating disorder symptoms. That having been said, careful observations of 'pro-ana' social media communities have found them to be complex and characterizing them as simplistically supportive of anorexic behaviors may be too broad ([Brotsky and Giles, 2007](#)).

General social media use in teen girls does not appear to be related to future eating disorder symptoms or body dissatisfaction, although social media may provide alternative environments in which girls may compete ([Ferguson et al., 2014](#)). As such, any risks for eating disorder symptoms appear related directly to sites devoted to promoting negative eating behaviors. However, peer influences tend to be fairly strong promoters of eating disorder symptoms and body dissatisfaction in teen girls, so increased opportunities for competition among peers could be problematic long-term.

Online Gaming

Increasingly video game playing is moving online. Early games such as Space Invaders or Pac Man involved singular play and, although players might take turns, interaction was not necessary nor necessarily the norm. Although many unfamiliar with modern gaming may assume that games are still often played

that way, this is not so. Many, perhaps most, modern games are played socially. Some games such as *World of Warcraft* involve complex integrated fantasy universes in which thousands of people may interact with each other simultaneously. First-person shooter action games are also commonly played socially with players both competing and cooperating toward common goals. Even complex strategy games such as *Europa Universalis* can be played online allowing individuals to pit their wits against one another.

The stereotype of gamers playing alone in their basements is increasingly called into question as gaming becomes an online social phenomenon ([Lenhart et al., 2008](#)). Overuse of games, called pathological gaming, has considerable overlap with internet addiction. As with internet addiction, pathological gaming occurs when individuals game to excess, causing interference in other areas of their lives. Pathological gaming as a syndrome suffers from some of the same issues as internet addiction; that is to say, a lack of clear standards in diagnosing, defining, and measuring the phenomenon. However, best current estimates suggest perhaps 3% of gamers demonstrate at least some pathological behaviors ([Desai et al., 2010](#)). However, as is often the case for new media, pathological gaming issues may be exaggerated as people adjust to new media and grow comfortable with it ([Barnett and Coulson, 2010](#)).

The issue of violent content in games also receives considerable attention and controversy. At present, probably the best conclusion that can be derived about the link between playing action games with violent content and negative outcomes are mixed ([Ferguson, 2013](#)). As a recent review by the [Australian Government, Attorney General's Department \(2010\)](#) notes, quality issues limit the degree to which many of the existing studies can be interpreted. For example, many studies failed to match games carefully on variables other than violent content. Newer studies suggest it may be competitive play, not violent content, that is associated with aggression in players ([Adachi and Willoughby, 2010](#)). Some scholars have suggested that it might be more valuable to shift to user experiences rather than content as the driving force of media effects ([Sherry, 2007](#)). That is to say, individuals are not passively influenced by the media, but rather shape their own experiences and actively process media in different ways. Given that the explosion in popularity of action video games was associated with a considerable multi-decade decline in youth violence, not an increase, this new approach seems quite reasonable.

Gaming platforms also appear to be changing. Increasingly gaming markets are moving away from, certainly arcades, but also, to some extent PCs and consoles to hand-held devices and cell phones. It is unlikely we'll see the end of traditional console-like games such as *Call of Duty: Modern Warfare 3*, which recently set financial records for an artistic release, but nontraditional games such as *Angry Birds* or *Farmville* are changing the way in which people interact with video games and the platforms for video game use.

The difficulty for research topics that touch upon issues such as violence or sex is that they often tap into concerns about morality and do not focus merely on scientific evidence. That is to say, societal preconceptions about how 'harmful' media with salacious content may be can often drive the political and scientific process. A long history of societal moral panics over new media exists, whether various forms of music

(think Elvis Presley with his wiggling hips) to games like *Dungeons and Dragons* (which was thought to cause psychosis and violence) to comic books (though in the 1950s to cause not only delinquency but also homosexuality as it was believed Batman and Robin were secretly gay). These moral panics often look absurd in hindsight, but we have trouble learning from them when new technology comes around.

Part of this occurs due to the generational divides referred to earlier. Each generation seems to adopt the feeling of media perfection, a kind of Goldilocks Effect. That is to say, each generation thinks the generation that came before it was too conservative, but the generation immediately following is out of control. Each generation thinks it got media *just right*.

Cyberbullying

One issue that has received considerable attention recently is that of cyberbullying. Cyberbullying occurs when traditional bullying spills over into social media, such as Facebook. There have been several high-profile cases of cyberbullying that ended disastrously. In one case (the death of Megan Meier, age 13) an adult woman (Lori Drew), a mom of a rival girl to Megan Meier, pretended to be a boy online and, though some cruel insults, played a role in Meier committing suicide. The motive seemed related to rivalry between her daughter and Meier. It is important to note that Meier was reported to have previous mental health issues, and Drew was later acquitted of criminal responsibility. Nonetheless, cases such as this have prompted increased attention to cyberbullying.

Most cyberbullying is comparatively 'mundane' in the sense that no fatalities result, although the psychological torment can be as bad or worse than traditional bullying. In particular, extending bullying to social media can rob kids and adults of the sanctuary of home as a respite from bullying they may experience in school or the workplace. Nonetheless, it also must be carefully noted that, although cyberbullying represents an extension of bullying into new social environments, there is some evidence that bullying overall among kids has declined, not increased (Finkelhor *et al.*, 2010).

Online Pornography

During the 1990s the internet provided a golden age of pornography in that pornography suddenly became widely and easily available, and often free. Barriers between children and pornography were largely shattered. Naturally, this produced considerable concerns among parents and policymakers regarding children's exposure to pornography online.

Legislative efforts to force pornographic websites to monitor the ages of consumers largely failed on constitutional grounds. This was because forcing pornography consumers to prove their age such as by using a credit card potentially left permanent records and thus was considered unconstitutional. Aside from a few protections, such as the requirement that school libraries have filters for pornography, pornography remains largely available and easily accessed even by children.

Although many parents likely imagine innocent children inadvertently exposed to pornography and becoming

emotionally scarred, Ybarra and Mitchell (2005) found that most child exposure to internet pornography was purposeful exposure by teen males. Whether such exposure is 'harmful' or not is more difficult to discern. It is not legal to expose children to pornography; as such laboratory studies cannot be conducted. Laboratory studies of college students, by contrast, have produced only inconsistent results and often experience considerable methodological flaws (Ferguson and Hartley, 2009; Mould, 1988) and it is difficult to separate quality social science from the obvious tendency for moralizing in this area. Further, the explosion of internet pornography was accompanied by a cross-national drop in rape and domestic violence toward women (D'Amato, 2006; Diamond, 2009). Thus, evidence for the belief that wide availability of pornography has precipitated a social or public health crisis is slim.

How are Kids Doing in the Social Media Age?

Debate continues regarding the extent to which social media does or does not contribute to mental health problems among youth in particular. In many ways, this type of concern is typical and can be understood as indicative of cycles of concern that are common over new media. However, this does not, in and of itself, rule out the possibility that new media could be harmful, even if people may prematurely worry about it.

One place we can look to examine whether children are doing better or worse during a new societal phase is at government data on children's health. These data are compiled and tracked over time at the website Childstats.gov (2013). This is only one source of data, but can give us some idea as to whether or not new media are having the types of profound social effects that some people may worry about. Such data should be considered with two caveats. First, if a correlation does exist, this could be due to an ecological fallacy; two events could be correlated in the social environment due simply to random chance, and causal inferences would be spurious. Second, the absence of a correlation does not necessarily eliminate the possibility of some small or idiosyncratic effects, but this sort of analysis can be effective in ruling out global, strong effects.

When we look at kids, during the social media age, we find that, on most measures, today's generation of youth is behaviorally healthy in comparison to past generations. Today's youth are less violent, more civically involved, less likely to commit suicide, less likely to use drugs (aside from marijuana), less likely to use alcohol or cigarettes, less likely to get pregnant, more likely to delay sex (by at least a bit), and more likely to stay in school. The only real negative trend we see is in the vulnerability to obesity. This makes sense. Sedentary activities like television, video games, and social media use on the computer can detract from engagement in exercise. Thus, social media use and all electronic media use should be carefully balanced with appropriate exercise and other activities. Electronic media of all types has probably advanced to such a level as to offer a myriad of exciting opportunities that may be difficult to distract both youth and adults from. However, although electronic media can be a pleasant part of people's social and entertainment lives, people should be encouraged to balance these with physical fitness and attention to real-life work and social responsibilities.

Concluding Statements

New media and new technologies are often exciting and can enact significant changes in the way that we communicate and seek entertainment. Changes in society brought on by communication media and technology can be profound. Yet changes within individuals often seem to be much smaller than we think. People, by and large, continue to be people. What changes to behavior that do occur appear to be small, subtle, and in many ways user directed rather than content directed. The issue of increasing obesity in the United States is one obvious exception.

There are some areas of potential concern, such as the potential for internet addiction or the use of 'pro-ana' websites by teen girls with body image concerns. However, despite the claims of some (such as a largely unproven narcissism epidemic), the social media age has not ushered in a wave of problem behavior among today's youth. This does not necessarily rule out the potential for small, subtle, idiosyncratic effects among some users, but does rule out the view that new media represent large public health crises, or that new media produce reliable, predictable negative effects in users.

See also: Adolescence. Bullying. Culture and Mental Health. Eating Disorders. Video Games and Mental Health

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