Evaluating the Impacts of Social Media on Adolescent and Young Adult Populations in the United States: A Examination of Advocacy Efforts and Legislative Responses

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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STS Research Paper

Introduction

In the 1960s, a network called the Advanced Research Projects Agency Network (ARPANET) was created by the U.S. Department of Defense for researchers from the government to share important information (Leiner et al., 2023). ARPANET paved the way for the creation of TCP/IP communications and the official birth of the Internet. Now the ability to share information over a network is not limited to government researchers, but to anyone around the world. What started as a tool for academic research is now used to rapidly spread information and socially connect from great distances, impacting culture and society at an unprecedented rate. While the Internet is great at providing a platform for people to socialize and connect, the addictive effects it can have on people have only been noticed by a few. Social media addiction and its impact in the U.S. are examined using the STS frameworks politics of technology and technological determinism to determine how advocacies are moving to help teenagers and young adults affected.

Research Question and Methods:

This paper focuses on answering the research question: "How are advocacy groups moving to help teenagers and young adults affected by social media?" This paper utilizes online resources such as online articles, case studies, and case study research journals as its data sources on the effects of social media addiction. This paper also examines the websites of advocacy groups to see the methods these groups use to enact regulatory change regarding social media usage among teenagers and young adults. Keywords guiding the research include: "social media addiction", "social media and mental health", "social media regulation", and "social media advocacy." This paper first provides background on the history of the internet and the impacts it

has had on society in terms of quantitative data. Then, to answer the research question, the analysis utilizes the 3 previously outlined STS frameworks with the support of gathered quantitative data on mental health effects, advocacy groups, and legislation to further analyze and provide discourse on the impact social media as technology has affected the development of society and how society has responded and has begun affecting the development of social media.

Background:

Instagram, FaceBook, and TikTok are all social media apps that anyone with a connection to the Internet can use to post, interact, and chat with friends and strangers all around the globe. Social media use and smartphone ownership have risen exponentially but eventually plateaued, research done by the Child Mind Institute has shown that since 2015, 92% of young adults and teens owned a smartphone (Miller, 2019) with the Pew Research Center finding that 84% of adults aged 18-29 use any social media site (Sidoti, 2024).

While social media can be a great resource to lessen the impact distance has when trying to stay connected with friends and family, it may also have negative side effects on mental health. Some examples of the negative side effects that young adults and teens experience from social media use are anxiety and depression. In the same date range in which the large increase in phone ownership occurred, the Child Mind Institute also observed that there was a 65% increase in 8th-12th grade girls, a 30% increase in university/college counselor visits, and a 13-33% increase in reported depression among teen and young adults who spent extended periods of time on Instagram and Facebook. This information is more correlative than causative however symptoms such as fear of missing out (FOMO), sleep deprivation, and loss of self-esteem could be correlated with the aforementioned increase in depression (Miller, 2019). According to Jena

Hillard, psychologists estimate that 5-10% of Americans suffer from social media addiction (Hilliard, 2024) with 4.5% being at risk of becoming addicted (He et al., 2017).

The information and studies on social media addiction are available to the public, but what has been done to mitigate the negative effects that social media and social media addiction have on young adults and teens? Organizations such as Providence Projects and websites such as Healthshots release informational articles that promote self-regulation and software that helps with social media time regulation. Increasing awareness of the potential side effects of social media has also led to an increase in teens quitting social media platforms of their own volition. 41% of teens have taken a break from social media with 26% of teens quitting completely (Pew Research Center, 2021), researchers say that these teens have quit over concerns of negative side effects suffered from social media addiction such as stress, depression, and sleep deprivation (O'Reilly et al., 2018), indicating that awareness is effectively being spread.

An advocacy group called The Organization for Social Media Safety has also worked to promote awareness of social media addiction as well as advocate for more preventative measures that help protect young adults and teens. OSMS spreads awareness by teaching social media safety at K-12 schools and uploading informative articles and posts on their website and social media platforms (Organization for Social Media Safety 2019). Their methods have been proven effective as their efforts on advocacy have helped Jordan's Law be passed, this law works to prevent violence motivated by media (Organization for Social Media Safety, 2019b).

STS Frameworks

The politics of technology framework states that technology will be shaped by a society's politics, culture, and overall environment and the technology in turn will also shape the society it

interacts with, more specifically laws as stated by Prof. Bekler (2022). Langdon Winner is a renowned political theorist who was awarded the Bernel Prize for his contributions to STS with his book discussing political technologies. His book offered two routes of political technologies, the first being that technology is used to further enforce a social structure and the second is that technology, science, and corporate profit are deeply embedded in one another, meaning technology is politicized (Winner, 1980). There are critiques of this framework, many argue that the technology itself is value-neutral and the political nature of technology rests solely on those who wield it and how they wield it (Morrow, 2013). This framework aligns with social media addiction as it has been observed what unfiltered and unregulated use of the internet has had on young adults and teens. This STS research paper observes how politics in the form of advocacies acts and develops to reduce the number of people with social media addiction and how advocacy campaigns develop as a preventative measure.

The Social Construction of Technology (SCOT) framework states that human actions and societal contexts determine the development of technology. Thomas P. Hughes, Wiebe Bijker, and Trevor Pinch are major contributors to the SCOT framework. A critique of the SCOT framework is that the framework focuses too much on the social aspect of society on its influence on technological development and not enough on other factors such as the economy, political groups, and even the technology itself (Winner, 1980). In this paper, the effect that young adults and teens have on social media is closely examined and analyzed using the social construction of technology framework, young adult and teen social groups heavily influence the way social media technology is developed through user data such as likes, comments, and time spent engaging in each app.

The technological determinism framework states that technology is the key governing force for a society and its processes (Roe Smith & Marx, 1994). Major contributors to the framework include Thorstein Veblen, Karl Marx, and Clarence Ayres. A critique of the technological determinism framework would be the overemphasis on the power of technology on the development of a society and not taking into consideration other factors at the societal, cultural, and individual levels (Gil-García et al., 2014). In this paper, technological determinism is used to examine how social media as a technology is a governing force in the development of society.

Technological Determinism

Social Media, in the form of TikTok, Instagram, and Facebook, has had both a positive and negative impact on young adults and teens, indicative of the technological determinism STS framework. While there are two forms of technological determinism, soft technological determinism relates the most to the relationship between social media and society's younger generations as social media influences the development of young adults and teens, the younger generation has in turn also begun taking action to influence the development of social media.

Social media has had a profound impact on young adults and teens, including but not limited to increased correlated levels of depression, anxiety, and FOMO (Miller et al., 2023). Psychological scientists at the American Psychological Association (APA) argue that the effects social media has on young adults and teens are largely dependent on how and what they interact with online ("Health Advisory on Social Media Use in Adolescence," 2023). The scientists further state that adolescents' experiences online are primarily shaped by "how they shape their own social media experiences (e.g., they choose whom to like and follow)" (2023) and "both visible and unknown features built into social media platforms" (2023). The environment of

social media can heavily influence young adults and teens, exposure to maladaptive behavior, online discrimination, and prejudice should be minimized as online exposure to maladaptive behaviors may lead to an increased risk for "serious psychological symptoms and exposure to online discrimination and hate correlates to an increase in depression and anxiety of exposed adolescents (2023). The "soft" aspect of soft technological determinism can be viewed here as the amount that social media can affect an individual is largely dependent on the decisions they make while engaging with the technology.

Quantitative data reported by author Jonathan Haidt further supports the fact that social media has had a negative impact on the younger generation of society. According to Hiadt, there has been a 134% increase in anxiety and a 106% increase in depression among U.S. undergraduates since 2010 (Haidt, 2024). Haidt argues that this is not circumstantial to the idea that America's Gen Z is more willing to talk about mental illness as there is evidence that rises in depression and anxiety have increased internationally (Haidt, 2024). The correlations between social media use and growing numbers of individuals experiencing mental health issues can be viewed as the influential nature of technology in the form of social media on the younger population.

Politics of Technology Framework

The politics of technology framework highlights how social media has become a powerful tool used by political actors and groups to influence voters. The influence that social media, as a technology, has on society provides further evidence in agreement with the soft technological determinism framework.

According to research done by the Pew Research Center, 31% of social media users have used social media to encourage action on political or social issues that the user finds important, 35% have encouraged other users to vote, and 20% directly follow elected officials or political candidates (Rainie et al., 2020). With a population sample of around 1,915 survey responders (Rainie et al., 2020), the influence of social media on politics may seem insignificant due to the small percentages of respondents actively engaging with politics on social media, the influential effect that social media has on spreading political information and views is still prevalent.

To further acknowledge social media's use as a political tool, Laura Bullock's research on 3 separate primary elections shows the relation between a higher rate of social media output and the surprise electoral wins of 3 Democratic primary candidates. Laura Bullock states that women candidates were more engaging than their male Democratic counterparts through careful calculations utilizing Twitter and Facebook interaction data (Bullock, 2019). Laura Bullock argues that due to the heavy online presence the three candidates had, there existed a higher level of personal connection between the candidates and their constituents, fostering personal connections and leading to more established voter support.

Through this evidence, it has been shown how politicians and political actors such as online social media users have utilized social media for political activities. The relationship between social media and its influence on society's political landscape aligns with soft technological determinism's core principle of technology influencing the development of society.

The Social Construction of Technology Framework

To provide additional support for the soft technological determinism framework, the Social Construction of Technology (SCOT) framework further reinforces the influence teens,

young adults, and advocacy groups have on the development of social media. As stated previously, the social media safety advocacy group known as the Organization for Social Media Safety (OSMS) has worked to help pass legislation, educate, and provide resources to promote social media safety. This includes helping pass Jordan's Law, garnering the help of the Los Angeles Council to declare a social media safety day, and sponsoring anti-deepfake legislation (Organization for Social Media Safety, 2019).

Other nonprofit organizations such as Common Sense Media also work to promote social media literacy and advocate for stricter legislation regarding social spaces on the internet. Nelson Reed from Common Sense Media asserts that the update of the 2-decade-old Children and Teens' Online Privacy Protection Act (COPPA), should also be expanded to affect all social spaces on the internet. Some examples include vulnerability to ads "Less than half of 12-to 15-year-olds understand search results are paid for, even if identified as an "ad." And they are much more likely to accept advertisements as truthful, accurate, and unbiased" (Reed, 2022) and lack knowledge regarding their digital footprint "Most teens mistakenly believe they can easily delete information online" (Reed, 2022). Reed also proposes that the already proposed Kids Internet Design and Safety (Kids) Act should apply to Facebook's Metaverse.

The Ethics and Public Policy Center (EPPC) is an online advocacy group working to help pass legislation that increases the safety of children and teens on social media. One method of advocacy that the group partakes in is the offering of potential solutions to reduce social media's negative effects on the younger generation. Such as advocating for a collective government solution, bringing awareness to recent state legislatures taking the first steps towards regulations, as well as their own ideas such as raising the minimum age to 16-18 to use social media (Morell, 2023).

There also exists everyday teens and young adults such as Emma Lembke and Aliza Kopans who have banded together to a youth lobbying advocacy group called "Tech(nically) Politics." Lembke and Kopans influence lawmakers across the country by recording teens as they share stories on how their lives have been affected by social media negatively. Their efforts have had a positive influential impact on legislation as the California Age-Appropriate Design Code Act will be put into effect in 2024, requiring that all online platforms build safety measures to protect users under the age of 18 (Farmer, 2022).

The soft technological determinism and SCOT frameworks both relate and answer how society and its members influence the development of social media. This shows that while social media itself has a large influence on the development of society, society itself is flexible and can influence social media's development through choice.

Future Work

Since there exists large amounts of evidence supporting social media's influence on society as well as evidence supporting how society in turn is starting to exert its influence on social media, further work and research can be done on the politics of technology framework in regards to social media. Due to the political nature of the relationship that social media has with politics, it is important to continue discussion and discourse on the impact that social media has on the political body when used as a tool by political actors and politicians.

Conclusion

By examining how advocacy groups are working to help teenagers and young adults impacted by the negative effects of social media use, this research has shown the importance of analysis of the sociotechnical issue using the politics of technology, SCOT, and soft

technological determinism frameworks. The politics of technology framework works to highlight and detail how social media can be used to influence voting members of society and spread the influence of political candidates. The SCOT framework works to highlight the influence members of society and advocacy groups have on the development of society. Both frameworks help to support the soft technological determinism framework, providing evidence that society and social media have a reciprocal relationship in developing each other. The three frameworks reveal that while social media has a large influence on the development of young adults and teens, young adults and teens also can exert their influence on the development of social media through advocacy and healthy self-made choices.

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