

Introduction

Beginning with a brief synopsis of the history of Facebook, there is a more detailed discussion of the features and affordances which make Facebook popular as a social media platform. Following is a closer look at the intended and unintended effects of Facebook's features and lastly, discussion regarding solutions to be considered in reducing the harm that often results from the unintended effects of Facebook. In this analysis there are three exploratory questions to keep in mind:

Q1: What are the features of Facebook?

Q2: What have been observed as unintended effects of the features of Facebook?

Q3: What viable solutions exist in mitigating the unintended effects of the features of Facebook?

The aim of this work is not only to add to the literature analyzing the past and current impact that Facebook has on the more than 2.2 billion global users of the application (Wagner & Swisher, 2017), but to offer reasonable solutions for reducing the occurrence of the observable unintended effects of the features of Facebook.

What is Facebook?

Facebook is a social networking site that many people use on a daily basis to connect and share images, videos and text-based messages with family, colleagues, companies and friends online (*Facebook*, n.d.). Facebook was originally designed for college students in 2004 by Mark Zuckerberg while he himself was enrolled at Harvard University (*Facebook*, n.d.). By the year 2006, anyone over the age of 13 with a valid email address could join Facebook and use the site to interact with others (*Facebook*, n.d.). Much has changed since 2004 as Facebook is now the world's largest social network, boasting billions of users worldwide (*Facebook*, n.d.) and reviewing more than 100 million pieces of content each month (Wagner & Swisher, 2017). Exploring the literature regarding Facebook's intended and actual impact on human relationships reveals many anticipated and unanticipated results. Many writings echo the sentiments made by Mark Zuckerberg in his 2012 letter to investors regarding the effect that he'd hoped Facebook would have. For example, the literature reports Facebook is used towards: peer interaction and reintegration into society (Lim et al., 2013), sharing health information and

employee recognition (Kordzadeh & Young, 2018) and community resilience building (Taylor et al., n.d.). Research on the effect of Facebook on undergraduate college students suggests that Facebook allows student users to sustain relationships through bonding, bridging and maintaining social capital types (Ellison et al., 2007). Additionally, via regression analyses, researchers observed Facebook interacts, “with measures of psychological well being, suggesting that it might provide greater benefits for users experiencing low self esteem and low life satisfaction” (Ellison et al., 2007).

As Social media usage has increased dramatically over the past decade and Facebook has dominated the market (Mosquera et al., 2020), thousands of articles detailing the unintended effects of Facebook have been published. For example, A study in France in 2011 considered the effect that Facebook might have on patient - physician relationships (Moubarak et al., 2011). Researchers found that while many medical residents and fellows used Facebook (sharing identifying information such as their name, school affiliations and personal photos) to connect with others and share personal information on the site, the same medical professional would not feel comfortable seeing their patients on the site.

What Makes Facebook Popular?

Facebook users love Facebook. So much so that one 2019 study valued it at \$67 per week (Mosquera et al., 2020) and a separate study from 2019 reported that (based on its current market capitalization) Facebook is valued at roughly \$200 per user, one fifth of the value that users derived from Facebook in just one year (Corrigan & Rousu, 2019). The effects of Facebook are most effective due to addictiveness of the application itself (Mosquera et al., 2020). It is therefore worthwhile to consider why social media platforms such as Facebook reach a level of popularity with users that can be described as “contagion.”

Firstly, I’ll discuss Berger’s contagion theory which explains how people become highly engaged in their environments (2013). Berger argues that this is the case due to six basic principles which drive products and ideas to a level of popularity that can be described as “contagion” (2013). The six principles included in this theory are: social currency, triggers, emotion, public, practical value and stories (Berger, 2013). These six principles are abbreviated by the acronym S.T.E.P.P.S. and encourage people to become attached and engaged in an idea or practice such as seeking out information via social media platforms (Berger, 2013).

S.T.E.P.S. Principles applied to Facebook

Social Currency- “We share things that make us look good”. Facebook features include filters that make users look better than their best, they instill a sense of social comparison in the user (Cramer et al., 2016). Content creators can share whatever they feel comfortable sharing, enhancing the perceived trust factor in these platforms (Gupta & Dhimi, 2015).

Triggers- The saying, “Tip of tongue, top of mind” applies here. Facebook’s growth has made the company and platform a primary provider of social media features (“List of Mergers and Acquisitions by Meta Platforms,” 2022).

Emotion- “When we care, we share”. Facebook is all about sharing content that the content creator and viewers both share opinions about (Kaur et al., 2019).

Public- “Built to show, built to grow”. Facebook has made 94 acquisitions, making it a vast platform (“List of Mergers and Acquisitions by Meta Platforms,” 2022).

Practical Value- “News you can use”. Various types of content can be shared on Facebook, making it ideal for sharing practical information such as sharing health information (Kordzadeh & Young, 2018)

Stories- “Information travels under the guise of idle chatter”. The interpersonal nature of Facebook allows users to participate in (seemingly) idle chatter that is oftentimes dictated by the desire to conform (Brandtzæg et al., 2010).

The second applicable theory is introduced by Sundar and outlines a series of affordances. These affordances are modality (media presentation as well as the human sense that perceives it), agency (various sources responding or sending media messages), interactivity (allowing for the manipulation of the form and content of a media environment) and navigability (tools on the interface that allow for movement within the media space) (Sundar, 2009). These affordances are abbreviated by the acronym M.A.I.N. and drive user engagement in the Facebook Application.

M.A.I.N. Affordances Applied to Facebook:

Modality- Facebook is harmonious with consumer information seeking wants and is readily accessible via mobile phone or computer for users with varying accessibility needs (Holton, 2015).

Agency- Facebook users have control over what information content they contribute to the community (Posting, Tagging & Likes | Facebook Help Center, n.d.).

Interactivity- Facebook software allows for connection between users via hashtag groupings and algorithm-curated content (Jon Evans, 2019). These groupings support the assertions presented by Cooke which states, "It is now being said that we live in a post-truth era—an era in which audiences are more likely to believe information that appeals to emotions or existing personal beliefs, as opposed to seeking and readily accepting information regarded as factual or objective." Users prefer to interact with information that is familiar (Cooke, 2017).

Navigability- Facebook product design is simplified, inviting users to navigate the entire platform's features with ease (Garrido et al., 2011). Considering the features and affordances that contribute to the contagion of Facebook is a necessary exercise. The three intended and unintended effects of Facebook features were selected based on the three "hopes" outlined in Mark Zuckerberg's 2012 letter to investors:

- "We hope to strengthen how people relate to each other."
- "We hope to improve how people connect to businesses and the economy."
- "We hope to change how people relate to their governments and social institutions."

This context is imperative to completing a thorough review of the specific features of Facebook that lead to its intended and unintended effects as it is directly pulled from the writing of Mark Zuckerberg. The unintended effects of the features related to these three "hopes" are the result of searching the literature made available regarding the topic. As with most technologies, the features of a product do not necessarily align with the use behavior exhibited as intended by the technology creator (Portz et al., 2019). This analysis will explore this phenomenon.

Social Capital

When considering the features of Facebook and the intended and unintended effects they have on users, it is helpful to take note of the existing research on the matter. Social capital as a concept has been often used as a framework through which the relationship between computer use and human behavior has been studied (Galston, 2000). Social capital can be defined as the connections and the associated norms of reciprocity among people (Putnam, 2000). Additionally, the resources derived from such human relationships are also considered to be social capital

(Coleman, 1988). These definitions fit the exchange of information and connection not only described as “hopes” by Mark Zuckerberg (Zuckerberg’s Letter to Investors, 2012), but which is proven to exist via scientific research on Facebook user behaviors related to social capital (Burke et al., 2011, Ellison et al., 2011, Ellison et al., 2007). Referencing Lee et al social capital research offers the language and framework to adequately explain the observable effects of Facebook features (2014). Specifically, the 2014 investigation of the ways in which people use Facebook features to manage social capital provides a comprehensive list of features to compare and contrast in our discussion. The terms of *Wall, Friend, Comment, News, Feed, Like, Message, Photo, Group, Status* and *Chat* will be employed to categorize Facebook features in our analysis as to follow the precedent set in previous research on the subject (Lee et al., 2014, Ryan & Xenos, 2011, Smock et al., 2011, Haythornthwaite, 2005). Additionally, the terms *Video, Post, Tag, Payment, Profile, Pages* and *Reel* were added upon evaluation of the language used by Facebook to describe the features provided by the application. The following definitions are attached to each term:

Wall- Your homepage is what you see when you log into Facebook. (Your Home Page | Facebook Help Center, n.d.)

Friend- Friending on Facebook helps you stay connected with people you care about. (Friending | Facebook Help Centre, n.d.)

Comment- To comment on something: Click Comment below the post or in the white box that says Write a comment. (How Do I Comment on Something I See on Facebook? | Facebook Help Center, n.d.)

News- With Facebook News, you can catch up on today’s headlines and the stories you care about. (*Facebook News | Facebook Help Center, n.d.*)

Feed- Feed is the constantly updating list of stories in the middle of your home page. (How Feed Works | Facebook Help Center, n.d.)

Like- Clicking Like below a post on Facebook is a way to let people know that you enjoy it without leaving a comment. (Posting, Tagging & Likes | Facebook Help Center, n.d.)

Message- Messaging on Facebook lets you instantly reach people you care about from Facebook chat or facebook.com on your computer. (Messaging | Facebook Help Center, n.d.)

Photo- To share photos on Facebook: At the top of your Feed or timeline, click Photo/Video. Select the photos you want to share. (How Do I Share Photos on Facebook? | Facebook Help Centre, n.d.)

Group- Groups are a place to communicate about shared interests with certain people. (What’s the Difference between a Profile, Page and Group on Facebook? | Facebook Help Center, n.d.)

Chat- To add someone to a conversation and create a group chat: In the top right of your Facebook account, click messenger. Open the conversation you want to add people to. (How Do I Create a Group Chat Conversation on Facebook? | Facebook Help Centre, n.d.)

The following feature terms were additionally added to inform this analysis.

Video- To share photos on Facebook: At the top of your Feed or timeline, click Photo/Video. Select the photos you want to share. (How Do I Share Photos on Facebook? | Facebook Help Centre, n.d.)

Post- To share something on Facebook: From the top of your Feed, click What's on your mind, [Name]? (Posting, Tagging & Likes | Facebook Help Center, n.d.)

Tag- When you tag someone, you create a link to their profile. (Posting, Tagging & Likes | Facebook Help Center, n.d.)

Payment- With payments in Facebook messages, you can securely send and receive money with friends in chats. (Payments in Messages | Facebook Help Center, n.d.)

Profile- A profile is a place on Facebook where you can share information about yourself, such as your interests, photos, videos, current city and hometown. (What's the Difference between a Profile, Page and Group on Facebook? | Facebook Help Center, n.d.)

Pages- Pages are places on Facebook where artists, public figures, businesses, brands, organizations and nonprofits can connect with their fans or customers. (What's the Difference between a Profile, Page and Group on Facebook? | Facebook Help Center, n.d.)

Reel- Reels on Facebook are short-form videos. (Reels on Facebook | Facebook Help Center, n.d.)

Intended Effect of Facebook 1

“We hope to strengthen how people relate to each other.”

Mark Zuckerberg states, “By helping people form these connections, we hope to rewire the way people spread and consume information.” Information is a crucial component of the make-up of Facebook and the way that it is valued by its users (“Zuckerberg’s Letter to Investors,” 2012). The internet, email, and even navigation applications we use have become an indispensable part of the lives we live because of the information conveniences they offer from day to day (Corrigan & Rousu, 2019). The Facebook features of *Wall, Friend, Comment, Feed, Like, Message, Photo, Group, Chat, Video, Post, Tag, Profile, Pages* and *Reel*

afford users the ability to connect, support creators, advocate for worthy causes and share knowledge. User-generated content is vast and immeasurably impacts the access that society has to real-world solutions (Facebook Transparency and Use of Consumer Data, 2018). Research focused on virtual communities members' motivation as a critical factor of active community showed that the majority of the participants viewed their knowledge as a "public good"; and considered their knowledge to be owned by the bigger organization or community rather than to individuals, helping knowledge flow easily (Ardichvili et al., 2003).

Intended Effect of Facebook 2

"We hope to improve how people connect to businesses and the economy."

In addition to allowing users to connect on a "peer to peer level" this goal reaches into the realm of business and economics. The business of money is layered and can be intimidating for many people. The vast amount of user generated content inevitably presents complex information in various forms, enabling "effective information sharing" that relays "information to groups with varied levels of understanding" (Hepworth & Canon, 2018). The Facebook features of *Wall, Friend, Comment, Feed, Like, Message, Photo, Chat, Video, Post, Tag, Payment, Profile, Pages and Reel* afford businesses and potential customers the chance to create commerce-based relationships built on an exchange of knowledge. Additionally, the *Friend, Comment, Like, Message, Video, Post and Reel* features allow for what could be described as, "an ideal environment for brand communities" (Habibi et al., 2014) to showcase why their brand outshines the rest. Facebook does not charge a fee and provides the *Payment* feature within the *Message* feature on the platform to be used when conducting most business types, allowing companies with little start-up capital to grow in a scalable capacity that impacts society's economic stability by the billions (*The Global Economic Impact of Facebook*, n.d.).

Intended Effect of Facebook 3

"We hope to change how people relate to their governments and social institutions."

Mark Zuckerberg states, "Facebook was not originally created to be a company. It was built to accomplish a social mission - to make the world

more open and connected” (Zuckerberg’s Letter to Investors, 2012). Connection stems beyond friends and relatives and into the realm of representative government and social institutions. Mark Zuckerberg states, “we think the world’s information infrastructure should resemble the social graph - a network built from the bottom up or peer-to-peer, rather than the monolithic, top-down structure that has existed to date” (Zuckerberg’s Letter to Investors, 2012); touching on the often seen disconnect between government and those being governed. The Facebook features of *Wall, Friend, Comment, News, Feed, Like, Message, Photo, Post, Tag, Profile* and *Pages* result in vast amounts of user-generated content affording government officials the opportunity to empathize with the public as the public voice their concerns to government (Reddick et al., 2017).

Unintended Effect of Facebook 1

Toxicity

When discussing the negative impacts of language used on social media the term “toxic” is often used (Azmina Dhrodia, 2018, Joao A. Leite et al., 2020). In the context of social media language, the term “toxic” refers to harmful statements generated by users of social media (Joao A. Leite et al., 2020) and is most supported by the Facebook features, *Wall, Comment, Like, Message, Photo, Video, Post, Tag* and *Reel*. Examples are endless but include specific groups of people such as those of a particular gender (Suzor et al., 2019), teens (Ringrose et al., 2021), race (Matamoros-Fernández & Farkas, 2021), political affiliation (Suarez Estrada et al., 2022) and even individuals of a particular physical build (Sharp & Gerrard, 2022). For instance, online toxicity towards women might include online comments of posts that are, “sexist or misogynistic in nature, and online threats of violence against women can be sexualised and usually include specific references to women's bodies (Azmina Dhrodia, 2018).” The impact of these sentiments is an observably more volatile world for the aforementioned groups and businesses, alike (Kang, 2012).

Unintended Effect of Facebook 2

Data Privacy/ Security Leaks

With the access to limitless amounts of user-generated content created when Facebook users connect, comes ample opportunity for risk (Corrigan & Rousu, 2019). A real world (and non-malicious) example can be found once again in the research conducted by Moubarak et al. in 2011 regarding the patient-physician relationship and how it was impacted by Facebook. The researchers found that there was a need for better security of the information shared on Facebook as residents and fellows often shared sensitive personal information that they would not want their patients to be privy to (Moubarak et al., 2011). Alternatively, cybercriminals work diligently to interfere with application communication channels and pose a constant threat to the security and trustworthiness of businesses (Janakiraman et al., 2018) and the personal and economic privacy of Facebook users (Facebook Transparency and Use of Consumer Data, 2018). These acts effectively create a disconnect between the individual, businesses and the economy that Mark Zuckerberg hoped would be bridged by Facebook.

In the September 2018 data breach, the Facebook feature of *Profile*, and associated feature, *View As* (a feature that lets people see what their own profile looks like to someone else) were used by hackers to steal Facebook access tokens which they used to take over people's accounts ("Facebook Data Breach | Class Action Lawyer," n.d.). Despite the danger that these data safety breaches create for businesses, individuals and the threat to societal well-being at large, the perceived rewards of profit (*The Global Economic Impact of Facebook*, n.d.), connection, acceptance and expression as a result of using the technology outweigh the risks (Corrigan & Rousu, 2019).

Unintended Effect of Facebook 3

Cancel Culture

Cancel culture is most often associated with, "actions people take to hold others accountable" (Vogels et al., 2021). This collective behavior is a method of "withdrawing support for public figures or companies" (Vogels et al., 2021). Cancel culture is often considered a "tactic to punish others unjustly" (Vogels et al., 2021). Cancel culture has become tightly associated with government, politics and political figures and is a deeply contested idea in the nation's political discourse (Vogels et al., 2021). Facebook and similar social media outlets built with the features of *Wall*, *Comment*, *Feed*, *Like*, *Message*, *Photo*, *Video*, *Post*, *Tag* and *Reel* are

prime environments for cancel culture- focused, user- generated content. Cancel culture thrives on the unbridled speech (Dhrodia, 2018, *America Ranks the Most Toxic Social Media Apps - SimpleTexting*, 2022) that these applications encourage. “Free” speech is then coupled with various levels of anonymity- by way of filters, lack of profile information and entextualisation (Bauman & Briggs, 1990, Suzor et al., 2019, Seargeant & Tagg, 2019, Matamoros-Fernández & Farkas, 2021). The effects of cancel culture on society resonate far beyond the computer screen, resulting in actors shying away from roles similar to those criticized in the past (Anderson-Lopez et al., 2021), teachers being fired from their jobs (Griffin & Lake, 2012) and politicians resigning from long- held positions (“Andrew Cuomo on Cancel Culture,” 2022).

Further Discussion

Facebook Alternatives

Not all social media platforms are seen as equal and some are even considered less toxic or harmless (*America Ranks the Most Toxic Social Media Apps - SimpleTexting*, 2022). To create a balanced argument, it is important to discuss social media sites not often critiqued. There exists social media sites with similar if not the same features as Facebook, but which are also considered less likely to have an unintended effect that leads to the harm of the user or others using the application. The table below summarizes and compares 25 lesser known social media applications (“15 New Social Media Apps & Platforms You Might Not Know About,” 2022, “12 Obscure Social Media Platforms You Didn’t Know Exist,” 2021) to Facebook; providing a overview of the variation and commonalities among the features built into social media platforms used in the United States.

Table 1: Social media platform features as compared to Facebook

Social Media Platform Name	Summary of Features	Primary / Features	Similarities to Facebook	Differences from Facebook
Hasn	Networking	Connection Alerts For Common Users	None	Connection Alerts For Common Users
IMVU	Virtual Reality Platform	Creates 3d Avatars Construct Fantasy World	None	Creates 3d Avatars Construct Fantasy World
Discord	Chat-Focused Social Media Platform	Live Video Chat Audio Chat Text Chat Voice Game Streaming	Live Video Chat Text Chat	Video Game Streaming
BigO LIVE	Live Streaming	Live Video Rooms	Live Video Streaming	Live Video Rooms
Yes	Live Group Video Chats With Other Users Around The World	Live Video Chat	Live Video Chat	Anonymous Chat
7 Cups	Connects Users For Free To Volunteer Listeners For Emotional Support	Networking Anonymous	Networking	Volunteer Listeners Emotional Support Focus Anonymous
Hoop	Connects To Snapchat And Enables Users To Be Matched Up To New 'Snaps' From Friends Or Similar Interests	Networking	Networking	Snapchat Based
Mercio Pub	Video Chat Platform That Doesn't Necessarily Need To Be Live.	Networking Private Video Chat	Networking	Private Video Chat
HOLLA	Live Chat With Anyone Around The World	Networking Swipe Function To Accept Or Reject Chats	Networking	Swipe Function
Plato	Online Games And Chat Rooms	Networking No Pop-Up Advertisements Teen-Age Group Focused	Networking	Teen-Age Group Focused
GroupMe	Group Messaging App With Direct Message Capabilities.	Networking Group Chat Messaging	Networking Group Chat Messaging	None
Livle	Live Video Broadcasting Platform	Networking Live Video Streaming Teen-Age Group Focused	Networking Live Video Streaming	Focus Of Child Celebrity
Cubhouse	Closed Invite Only To Open Access Hosting Of Live Audio Chats	Live Audio Streaming	None	Live Audio Streaming
Twitter Spaces	Open Access Hosting Of Live Audio Chats	Live Audio Streaming Live Audio Sharing Fee Based Content Access	None	Live Audio Streaming Live Audio Sharing Fee Based Content Access
Spotify Greenrooms	Live Audio Conversations	Live Audio Streaming Podcasts	None	Live Audio Streaming Focus On Musical Artists And Advisors
Spotify Live	Live Audio Conversations	Live Audio Streaming Podcasts	None	Live Audio Streaming Focus On Musical Artists And Advisors
Twitch	Video Streaming Platform, Where Creators Stream Live Content To Their Audience	Live Video Streaming Creates Branded Channels Ad Purchases	Live Video Streaming Ad Purchases	Creates Branded Channels
Playwork	Professional Networking Site, Where Users	Networking Personal Feed Professional Collaboration	Networking Personal Feed Freelance Finding	Primary Purpose Of Connecting Individuals For Professional Opportunities
Patreon	Allows Content Creators To Earn Money From Subscriptions.	Paid Subscriptions	Networking	Paid Subscriptions
Substack	Email Newsletter Platform	Publishing Paid Advertisement	Networking Paid Advertisement	Publishing
Tikgram	Messaging Application	Messaging Exchange Videos Exchange Photos Group Chat	Messaging Exchange Videos Exchange Photos Group Chat	Exchange Files Privacy Focused
Public	Networking App And Social Network For Users Interested In Finance, Cryptocurrency, And Investing	Networking	Networking	Investing
Reddit	Issue Interest-Based Community Conversation Platform	Group Chat Open-Forum Conversation	Group Chat	Democratic Discussion-Use And Down-Vote Function Transparency-Iability To Delete Or Hide Comments
Yubo	Creates Video Chats, Where The Streamers Can Interact With Viewers, Users Can Add Each Other As Friends, Which Allow Them To Start Individual Chats.	Video Chat Networking Live Video Streaming	Video Chat Live Streaming Messaging	None
Titter	Video-Sharing App Where Users Can Record And Edit Short Videos, Which Can Be Synchronized To Maps Using Virtual Imagination.	Video Sharing Live Streaming Messaging	Video Sharing	None

Popular and Positive Social Media Technology

There exists more well-known social media sites that are perceived as positive or at least less toxic than Facebook. These include Tik Tok and Snapchat. Tik Tok is a China-based social media platform where users utilize their cellular and other video-enabled devices for creating, sharing and discovering short videos (“What Is Tik Tok (Formally Musical.Ly)?,” 2019). The app is used primarily by young people as a creative outlet and to express themselves through singing, dancing, comedy, and lip-syncing (“What Is Tik Tok (Formally Musical.Ly)?,” 2019). TikTok is also interactive in that one of its features allows users to create videos and share them across a community (“What Is Tik Tok (Formally Musical.Ly)?,” 2019). Tik Tok users are able to “follow” and “unfollow” other users that they choose to be in community with based on their similar interests (Cavender, 2021). Tik Tok is seen as having less of a negative impact in that it does not have the “trolls” seen on social media sites such as Twitter, Facebook and the like (America Ranks the Most Toxic Social Media Apps - SimpleTexting, 2022). Trolls are agents (some paid) who search for social media posts to leave negative comments under.

This practice has gained visibility with the growth of the internet, but the act of trolling spans decades (Starbird, 2019). Starbird explains that the manipulative act associated with “trolling” was, “laid out most explicitly by Lawrence Martin-Bittman, who defected from Czechoslovakia to the West in 1968 and became a prominent academic (L. Bittman *The KGB and Soviet Disinformation*; 1985). Historically, manipulating journalists was a primary strategy” (Starbird, 2019). In either regard, the negative effects of this manipulative performance very seriously affects the social media experiences of other social media users (America Ranks the Most Toxic Social Media Apps - SimpleTexting, 2022). The follow/ unfollow feature also provides the application with user preferences that are then used to curate their “For You” page (Cavender, 2021). This “For You” page increases the chances that the user will continue to be in community with likeminded people and therefore reducing the likelihood that they’ll encounter negativity from “trolls” while using the social media site.

Lessons to be Learned from Social Media

Popular sites such as Facebook, Twitter, Instagram and Snapchat, coupled with lesser known sites such as IMVU, 7 Cups and Hoop give us a more full understanding of the ways in which a perfectly well-meaning social media application can result in unintended effects for users. Discord, for instance, was relatively unknown by most in 2021. The

application was built by gamers and was primarily used by gamers in 2015 to communicate with one another while gaming (*We Built Discord to Help You Create Belonging.*, n.d.). More recently, Discord has been discovered by innovators to be a potential tool for virtually connecting people during conferences (Gramblin, 2021).

While some continue to push Discord as a harmless professional networking tool, in May, 2022 Discord came under fire for its use to communicate the details of a planned act of violence by a mass shooter in a domestic terrorism event in Buffalo, New York (Hamilton, n.d.). This scenario perfectly exemplifies how a social media application with the goal of being, “an inviting and comfortable home to jump into with your communities and friends” (*We Built Discord to Help You Create Belonging.*, n.d.) can be used for harmful purposes without the appropriate monitoring systems in place.

Solutions to Consider

Section 230 Reform

Legislatively, there has been ample conversation around the application of Section 230 in the censorship of information by social media companies as it is considered the “centerpiece of America's hands-off approach to content-related internet regulation” (Dimitroff, 2021). Some believe that Section 230 can aid in the preservation of free speech rights for citizens of the United States and align it to the United States Constitution’s First Amendment (“SECTION 230 as First Amendment Rule”, 2018), while others are convinced that the law is an inhibitor to free speech on internet information platforms in addition to a gateway for the exploitation and endangerment of children (Carney, 2019).

Section 230 is a component of the Communications Decency Act of 1996 (Ruane, 2018). This legislature provides immunity to online platforms from civil liability based on third-party content but does not remove these corporations “from being held legally responsible for information that they have developed or for activities unrelated to third-party content (Brannon & Holmes, 2021, Newton, 2020). Additionally, online platforms are not liable for wrongdoing claims due to the removal of content in certain circumstances (Section 230, 2020).

When examining Section 230 as a potential solution to mitigating the unintended effects of toxicity caused by features of Facebook, it is important to consider the current discussion happening around the issue. In October of 2021, former Facebook employee, Frances Haugen told

Congress that she believed, “Facebook continuously places profit above the wellbeing and safety of its users” including children (Canales, n.d.). Mark Zuckerberg is quoted as stating that reforming Section 230 would effectively, “collapse how we communicate on the Internet” (Canales, n.d.). Instead Mark Zuckerberg suggests that Congress “rethink” Section 230; making it a requirement that companies have protections in place as opposed to making companies liable for the posts posted on the platforms or any harmful content which might slip through the protective barriers (*Mark Zuckerberg Proposes a “Thoughtful Reform” of Section 230*, n.d.). Frances Haugen’s suggestion regarding *how* Section 230 is reformed would entail regulations to ensure that posting algorithms are modified so that the content of the post and the effect of the post on children and other vulnerable viewers is prioritized over the potential engagement a post would receive from being amplified by the algorithms and reaching a larger audience (Allyn, 2021).

Algorithm Restructuring

Information processing can be conducted by either algorithmic or cognitive means (Sandra Braman & Ben O’Loughlin, 2007). Algorithmic processing requires a formulaic or mathematical approach due to the fact that an algorithm is a detailed set of instructions about how to solve a problem (Sedgewick & Wayne, 2018). Algorithmic processing can be accomplished using computers or by humans (Sandra Braman & Ben O’Loughlin, 2007). Cognitive processing can only be completed by humans (Sandra Braman & Ben O’Loughlin, 2007). When applied to the issue of the unattended effects of Facebook features, cognitive processing looks like teams of people monitoring content posted onto a platform.

Currently, Facebook and other social media platforms filter out content not in alignment with their community standards (Facebook Community Standards | Transparency Center, n.d.). Facebook specifically monitors content to uphold the values of (Facebook’s Community Standards, n.d.): Authenticity, safety, privacy and dignity.

Content not supported on the platform per the Community Standards includes: Violence and Criminal Behavior, Safety, Objectionable Content, Integrity and Authenticity and Respecting Intellectual Property.

To ensure that the content seen by users of Facebook remains within the parameters of the community standards, both “content-agnostic” algorithms (“Facebook Isn’t Free Speech, It’s Algorithmic Amplification Optimized for Outrage,” n.d.) and commercial content moderation (CCM) (Roberts, 2017) are employed. Both methods have

their flaws. Facebook algorithms prioritize the amplification of paid content over non- paid and that which is most extreme and likely to garner high engagement (Evans, 2019). Additionally, facebook personalization filtering algorithms allow for polarization and the amplification of similar (but not necessarily fact- based) messaging (Seargeant & Tagg, 2019). While, CCM aims to fill in the gaps that computer programming misses CCM entails teams of workers making, “decisions about the appropriateness of images, video, or postings that appear on a given site— material already posted and live on the site, then flagged as inappropriate in some way by members of the user community” (Roberts, 2017). CCM Moderators are faced with a multitude of challenges including, vast amounts of content to moderate, incentives to allow content that is profitable for the platform, insufficient training, complex filtration process, personal bias and high stress work environments (Petricca, 2020). All of these conditions and work organization factors contribute to the decreased efficiency of this so-called last line of defense to mitigate the release of content directly related to the unintended effects of Facebook features.

Algorithm Restructuring for Reducing Toxicity and Cancel Culture

Frances Haugen suggests Section 230 requires companies such as Facebook to modify the algorithms they use in monitoring content posted on their platforms as opposed to the corporation being responsible for the individual posts posted on to the platform (Canales, n.d.). If her suggestions are followed, there is a possibility that the company can achieve all if not most of the goals of Section 230. An algorithm shift could look like this: harmful content is removed based on the age of the user, parental controls set on the device or the severity of the content. More often, sexualized or violent content would be placed behind a sensitive content disclaimer and require additional login information to access it. This solution would allow for less content “slipping” past the protection in place and act as a more concrete solution. Alternative solutions might look like additional community “watchdog” initiatives such as Twitter’s “Birdwatch” program, which works to reduce misinformation on the platform with the help of the community (*Twitter Will Fund Development of an Open Social Media Standard*, n.d.). Finally, developing an open, decentralized social media standard (such as Twitter’s Bluesky project) to be used globally across platforms should be considered (*Twitter Will Fund Development of an Open Social Media Standard*, n.d.).

Algorithm Restructuring for Reducing Data Breaches

Most data breaches (including the 2018 Facebook breach) are preventable as human negligence often leads to the initial data breach and then more damage as the first indicators of intrusion are ignored (*Examining The Equifax Data Breach, Continuation*, 2017). Existing Facebook regulations can be expanded to decrease the chances of data theft. For instance, algorithms could be tailored to more closely track the Facebook features of *Wall, Payment, Profile and Pages* for suspicious activity. Additionally, the CCM system in place could be expanded; providing more training and larger teams to specifically focus on spotting and quickly mitigating harm signaled by recurring reports of account hacking. Although Facebook chose not to, “notify over 530 million of its users whose personal data was lifted in a breach sometime before August 2019 and was recently made available in a public database” (Bowman, 2021), individuals using the platform are scrupulously held to the community guidelines. The guidelines prohibit “privacy violations”, “fraud and deception” and promote “account Integrity” and “cybersecurity” in the same way Facebook has committed to, but failed at upholding these guidelines and the values of “safety”, “privacy” and “dignity” (Facebook Community Standards | Transparency Center, n.d.).

Corporate Social Responsibility

To further remedy the prevalence of Cancel Culture on Facebook, it is imperative that the appropriate oversight or technological detection features are in place (Grygiel & Brown, 2019). One such strategy is Corporate Social Responsibility (CSR). CSR, also known as “corporate governance” can most easily be described as, “a range of issues relating to the ways in which companies may be directed and controlled. It is, broadly, the systems and processes for ensuring proper accountability, probity, and openness in the conduct of an organization's business” (Turner, 2009). I posit that this concept can be applied to the issue of cancel culture as it used to disrupt government and other business entities. The world of social media is global and seeing as there exists no one global social media law, avoiding the unintended effects of social media applications must be achieved via locally- based solutions (Wu, 2015). Social media companies following the CSR strategy would ensure that there is a guideline in place to inform the decision- making of corporations (or governments) based on the specific cultures and beliefs held by the governing bodies in place (Grygiel & Brown, 2019).

Social media technology companies are often touted as innovation anomalies while their obligation to act as “good corporate citizens” is a conversation less often broached. Corporate social responsibility and social media safety are closely aligned (Grygiel & Brown, 2019) and are an important component in disarming cancel culture as an unintended effect of the social media features of *Wall, Comment, News, Like, Message, Photo, Video, Post and Tag*. Greater voicing of public concern over the activities of political figures and government exacerbate the need for formal systems of transparency. Therefore there now exists a need to demonstrate a corporations' social responsibility in its interactions with consumers and suppliers in order to maintain its social capital and, “as a method for global companies to develop strong links with the local communities in which they operate.” (Burchell & Cook, 2006). Nahapiet and Ghoshal thoroughly analyze the concept of social capital and its effect on the actions of corporations (1998) and make valid points to be applied to government. Nahapiet and Ghoshal reference the works of Baker, Bourdieu, Burt, Coleman, Jacobs and Loury positing that, “analysts of social capital are centrally concerned with the significance of relationships as a resource for social action” (1998).

Saying this, it is in the same spirit that Mark Zuckerberg must consider additional Facebook features specific to cancel culture scenarios. These features would resemble open community forums where government officials are offered opportunities to explain their rationale for the choices they made. Other options would include banners that exemplified nonviolent, anti- hate discourse and which called for greater government transparency.

Conclusions

Mark Zuckerberg's Letter to Investors is a catalyst for deeper questioning. The document is framed as an altruistic plea to investors to support the wholesome vision that Mark Zuckerberg had for Facebook in 2012. Three questions were posed at the start of our analysis: “What are the features of Facebook?”, “What have been observed as unintended effects of the features of Facebook?” and “What viable solutions exist in mitigating the unintended effects of the features of Facebook?” If focusing on these questions, the intended effects of features of Facebook as outlined by the hopes identified in Mark Zuckerberg's letter are met with equally as important unintended effects caused by the features of Facebook. A simple case of the oft- occurring scenario where over time, the intended and actual impact of Facebook (and similar technologies) on

human relationships reveals unanticipated results. Still, with creative solutions and strategizing around existing protections in place--such as algorithm redesign, Section 230 reform, prioritizing community standards, expanding CCM and adopting CSR practices-- Facebook can align with Mark Zuckerberg's hope to "have the biggest impact" by focusing on, "solving the most important problems".

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