Techlash and Public Perceptions of Big Tech:

Analyzing the Differing Perspectives of Techlash Between Scholarly Research and Mass Media

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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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Introduction

We know that within the last few years, the media has begun to highlight issues surrounding big tech companies such as data privacy issues, biased social media censoring, and hostility towards the startup environment. As an article released by The Economist in January of 2018 stated, "America is not the haven it used to be for tech companies" as it has become common for candidates to run on an anti-tech platform with a pledge to "crack down on corporate monopolies" (Eve Smith, p. 2). From what used to be seen as a feeling of validation and success, employees at big tech companies have seen the public perception drastically shift over the last decade. They now find themselves being questioned in all stages of their life, even on dating sites where an interviewee expressed, he now gets asked on dates "how do you feel working for the company" (Su, Lazar, & Irani, 2021, p. 9). This change in public perception of big tech companies is regarded as the techlash movement and the exact definition of techlash varies based on the type of literature in which the information is being presented. Figure 1 showcases this claim in highlighting two differing definitions of techlash.

> A techlash is a strong and widespread negative reaction to the growing power and influence of large technology companies, particular those based in Silicon Valley. (Oxford Dictionary, 2021)

> A techlash is a strong reaction against the major technology companies, as a result of concerns about their power, users' privacy, the possibility of political manipulation, etc. (Macmillan Dictionary, 2021)

Figure 1: Definition of Techlash. Although authors tend to use their own definitions of techlash, Oxford and Macmillan tend to be the most widely used (Created by Author, 2023).

Although most of the dialogue in mass media and scholarly research addresses the positive aspects (in support) of techlash such as the lack of concern these companies operate under regarding data privacy rights, there is a missing piece that is often overlooked in news media. This piece is the negative aspect of (argument against) techlash.

Scholarly research seems to not only address the benefits of techlash but also highlight the common misunderstandings and detrimental effects this movement can have on technological innovation in the years to come. As Atkinson et al. address, "we should not go back to the naïve utopian era as [these big tech companies] as a savior…[but] instead critically examine the impact of new technology" (Atkinson et al., 2019) to hold them accountable for the issues at hand, to address the faults instead of inhibiting innovation. In order to highlight the noticeable differences in the narrative portrayed by mass media versus scholarly articles, a discourse analysis was performed during the literature review to introduce the similarities and more importantly, differences between the types of literature. This research provides lawmakers with information on how to understand the similarities and differences between the two types of literature in order to draft legislation relating to the techlash movement.

Problem Definition: The Shift of Public Perception Surrounding Big Tech Companies

Historical Precedents of Techlash

As Moore, a professor at King's College London exclaimed, "just a few years ago, no one could say a bad word about the tech giants" (Heaven, 2018, p. 28). However, if we fast forward to the 21st century, it is apparent the dramatic turn this perspective took. In January 2018, Donohue, the president, and chief executive officer (CEO) of the United States Chamber of

Commerce, warned that a "backlash against major tech companies is gaining strength – both at home and abroad, and among consumers and governments alike" (Neidig 2018). There exists an overwhelming amount of evidence through previously conducted research studies and archives news articles which highlights the shift in public perception of big tech companies from a cultural and organizational perspective.

A primary reason for this change is due to the monopolistic culture and anti-competitive nature in which these big tech companies operate. As explained by Heaven, these big tech companies such as Meta, Google, Apple, and Amazon "variously avoid tax [and] crush competition," and this has led to an environment that places startups at a significant disadvantage for success due to the quick acquisitions by big tech companies (Heaven, 2018, p. 28). Since the early 2000s, big tech companies have been able to freely acquire hundreds of startups without the threat from antitrust agencies. The lack of jurisdiction and action from these antitrust agencies practically gave big tech companies the key to eliminating any and all competition in the pursuit of promoting their own success (Cabral, 2023, p. 2). Heaven goes on to highlight some of the significant acquisitions over the last decade by these companies:

> Take Waze. In 2006, Israeli coder Ehud Shabtai launched this app as a community project to let drivers share traffic information, for example about roadworks or an accident. By 2013, 50 million people were using it around the world, so Google bought it. Similarly, Facebook bought photo-sharing app Instagram and messaging service WhatsApp. When Twitter became a competitor, Facebook made its newsfeed more Twitter-like. And when picture-messaging app Snapchat took off, Facebook added some of its popular features to its own service – so Snapchat is struggling. (p. 30)
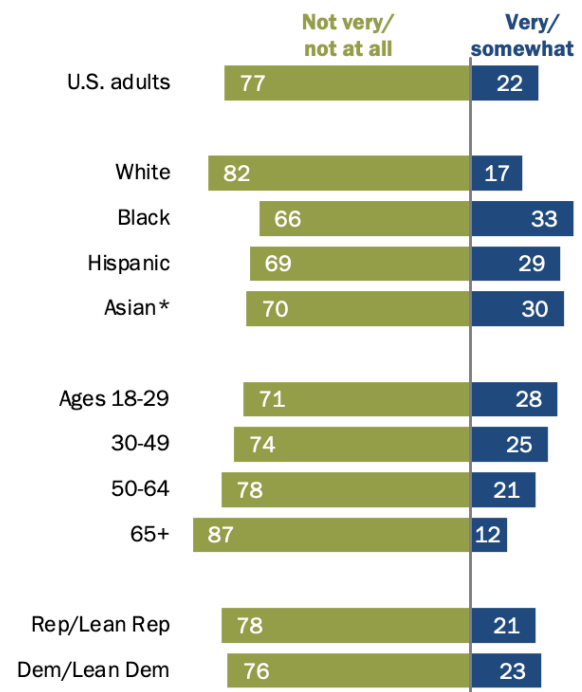
Within the last couple of years, the European Commission has begun making attempts to eliminate anti-competitiveness through a series of investigations into companies such as Microsoft and Amazon (European Commission, 2019).

Additionally, many individuals skeptical of big tech companies have identified social media platforms as the basis of their reasonings due to the inherent bias in censoring and political platforms exhibited by the platforms. In an article published in 2018, the Economist explains that social media platforms such as Instagram and Facebook, which are owned by Meta, have engaged in biased filtering and silencing of certain political ideologies (Eve Smith, p. 4). After the 2016 presidential election, Meta, Google, and Twitter were under fire "over questions about whether they enabled Russia's disinformation campaign" during the presidential race (Neidig, 2018). Even outside of the possible Russian interference, researchers have realized the algorithms that power these social media platforms determine what users see and know which helps to shape powerful opinions and world views starting from the initial user base which has become a point of concern for Americans and politicians alike (Heaven, 2018, p. 28). A poll conducted by the Pew Research Center sought to collect information surrounding

% of U.S. adults who say it is ___ acceptable for social media companies to use data about their users' online activities to show them ads from political campaigns

	Not very/ not at all	Very/ somewhat
U.S. adults	77	22
White	82	17
Black	66	33
Hispanic	69	29
Asian*	70	30
Ages 18-29	71	28
30-49	74	25
50-64	78	21
65+	87	12
Rep/Lean Rep	78	21
Dem/Lean Dem	76	23

*Asian adults were interviewed in English only.
Note: White, Black and Asian adults include those who report only one race and are not Hispanic. Hispanics are of any race. Those who did not give an answer are not shown.
Source: Survey of U.S. adults conducted Sept. 8-13, 2020.

Figure 2: Public Opinion of Social Media Companies on Political Campaigns. Those involved in the poll predominantly believe that user data should not be used to analyze trends in order to show politically affiliated ads (Pew Research Center, 2020).

Americans' perception of social media platforms' influence on political campaigns which is shown in Figure 2. With big tech companies utilizing their social media platforms as avenues for political advertisement and the obvious user distaste of this action as shown in the poll, this aligns closely with my final point of why the public perception of these companies has become so negative, and that is user data.

As consumers have become more familiar with modern technology and its collection of data for operational use, the focus on data privacy and data security has sparked a debate with big tech companies and the handling of customer data. As stated by Veliz, "it's no surprise initial experiments in data ethics have failed…as they have been led by engineers and businesspeople who have minimal, if any, background in ethics," which I believe is a correct assumption of the current situation these companies are facing with ethics being one of the forefront issues behind techlash (Veliz, 2016, p. 1). Over the last few years, the idea of informed consent, or lack thereof, has begun to gain traction among government entities and consumers. It has become public knowledge that companies such as Apple have used "data collected from users to identify the most successful apps and then engages in practices that favor its own apps over those offered by third parties" (Aridi & Petrovcic, 2019, p. 32). Meta was fined nearly $5 billion in 2019 by the Federal Trade Commission (FTC) for "mishandling user data" (Goldberg, 2020). Examples such as these have fueled the techlash movement and highlighted the necessity for government agencies and users to unite as one to demand accountability from big tech companies as these practices have resulted in misuse and loss of user personal data through corporate wrongdoings and hacks.

New Questions for Better Understanding Techlash

My initial focus of research sought to find the basis behind techlash and understand how different sources such as mass media played a role in the shift of public perception. However, during my literature review, I realized there are noticeable differences in the narrative portrayed by mass media and news outlets versus scholarly articles and government entities. This newfound knowledge made me realize that I needed to shift my focus from understanding the whys to understanding the similarities and differences in the perceptions and how it is presented between scholarly research and mass media. This research will uncover a deeper meaning behind how scholarly research and mass media differ and are similar in their coverage of techlash. To answer this, I incorporated discourse analysis as a framework for understanding the existing literature.

Research Approach: How Research and News Media Vary in the Interpretation of Techlash

Applying "The Power of Analogies for Imagining and Governing Emerging Technologies" by Schwarz-Plascg to existing research and news media representation of techlash will highlight the similarities and differences between the two, and how scholarly research takes an analytical approach to understanding techlash, unlike mass media.

Utilizing Discourse Analysis to Understand Similar and Differing Perspectives

The discourse analysis method showcases how the language of individuals shapes reality and reveals dominant ways of thinking. The following figure is a table that further explains discourse analysis through examples.

Audience	Belief
Big tech companies	The technologies developed by us are used to **benefit** the world and **increase** the quality of living as we enter into a new age of digitalization. Think about the COVID-19 pandemic for example. Our rapid innovation helped to **save** the lives of **millions** around the **world**.
Scholars	The **advancements** brought about by big tech companies have undoubtedly **contributed** to **society**, yet there are **concerns** regarding the **ethical implications** of their data collection and utilization practices. It's crucial to **examine the impact** and **understand** the nuances for **responsible innovation**.
Media	Big tech companies have developed a grasp on society that makes humans feel **obligated** to purchase the newest phone models each and every Christmas and be okay with **unknowingly** giving these companies access to **overwhelming** amounts of personal data. This is something that needs to stop.
Public	Although big tech companies do produce **really cool** products such as Xboxes and smartphones, we have started to realize just how much **money** these companies have made over the last several decades from **stealing** our **personal data** and selling it for large sums of money to third parties.

Figure 3: Example of Discourse Analysis. This table analyzes the perception of Big Tech companies from the perspective of four groups: the companies themselves, scholars, news media, and the public (Created by Author, 2023, based on Excerpt 1 on page 4 from "The Power of Analogies for Imagining and Governing Emerging Technologies" by Schwarz-Plascg).

Using discourse analysis, I set out to better understand the relationship between scholarly research and mass media's narrative on techlash. In order to address this question, it was obvious the two types of evidence that would be needed. Scholarly journal articles and mass media articles that focused on techlash.

After determining the necessary types of evidence needed to collect, it was appropriate to begin the process of discourse analysis. As depicted in Figure 4, the first step of discourse analysis is to collect data that is relevant to the research question. To do so, a series of journals that contained scholarly articles focused on techlash were collected. These articles encompassed various parts of the movement ranging from how it will inhibit innovation for years to come, to addressing how the anti-competitive nature under which these big tech companies operate needs to be better monitored. From there the search for evidence continued, but now, more focused on mass media and news representation of techlash. News media coverage was much vaster and more abundant so it was notably easier to find a number of articles that could use for analysis. Upon completion of the data collection phase, the transition into analyzing newly found data began.
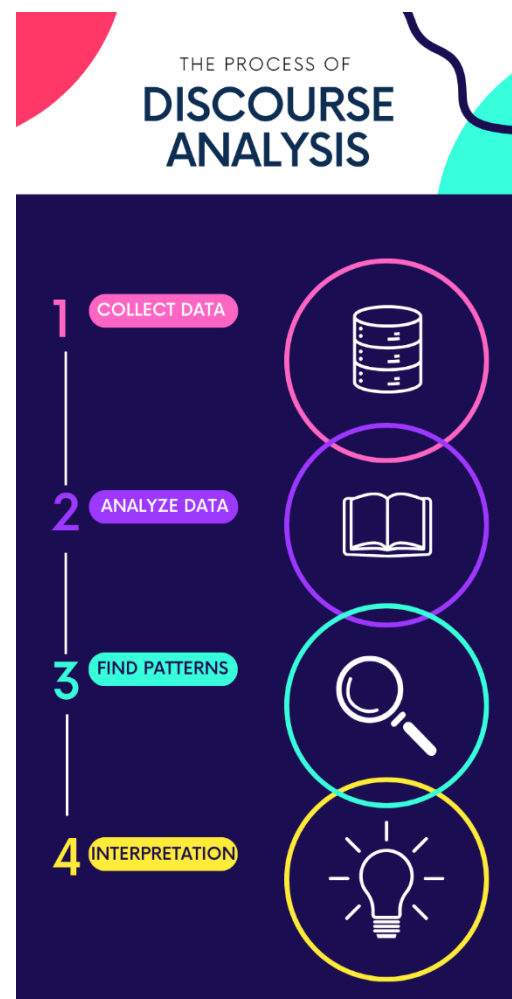

Figure 4: The Process of Discourse Analysis. A graphic developed to show the process of performing discourse analysis during research (Created by Author, 2023).

Before beginning to compare scholarly research on techlash with mass media, it was important to first conduct an in-depth analysis of the data that had previously been collected. This analysis provided the knowledge necessary to begin recognizing patterns among the various sources being read. Words such as "investigation", "threat", "crisis", and "monopolistic" all appeared to be very common in news articles whereas terms such as "anti-competitiveness", "innovation", "data", "privacy", "collaborative", "policymakers" were more common in articles from scholarly research. At first glance, it is obvious that news media tends to stick to a much more negative connotation of techlash that is believed to evoke an emotional response among their audience, whereas the research seems to be much more analytical and uses language with a more balanced, or neutral connotation. Throughout a continued investigation into recognizing patterns within word usage and themes among research and mass media articles, the process slowly transitioned into the final stage of discourse analysis, which is interpretation.

Interpretation is the final stage in the process of discourse analysis, and this is where researchers collect all of the patterns observed during the previous phase and start to determine the similarities and differences between the scholarly research articles and news media articles that I collected. During the interpretation phase, a more focused literature review was conducted to highlight the relevance of the analytical approach employed and the evidence collected in relation to the research question that was trying to be answered. The findings from this stage of discourse analysis form the results of the research which is presented in the following section.

Results: The Differing Perspectives Between Mass Media and Scholarly Research

The application of Schwarz-Plascg's method of discourse analysis highlights how society explains emerging technologies and the companies behind those technologies to connect these new applications to earlier, better-understood historical events. Using that particular method of discourse analysis revealed the differing perspectives between mass media and scholarly research surrounding the topic of techlash.

News platforms typically seem to structure their articles to evoke some sort of an emotional response from the audience that reads these articles as that response is what makes them money. The same is observed in their perspectives of techlash as news outlets such as the New York Times described working for big tech companies as "investment banking, but worse" and that "former Facebook recruiters for Facebook [said] that the acceptance rate for full-time engineering job offers at the company had dropped…as much as 40 percent" as techlash has begun to enter college campuses around the United States (Goldberg, 2020). The Economist went on to explain how big tech companies which are often regarded by a popular acronym, FAANG (Facebook, Apple, Amazon, Netflix, and Google), should now familiarize themselves with a new acronym, "BAADD", which stands for "too big, anti-competitive, addictive, and destructive to democracy" (Eve Smith, p. 3). The same theme remains present in the other articles written by news outlets that I analyzed during the find pattern phase. This theme seems to be of a very negative connotation where these big tech companies are seen as villains who are attempting to destroy the government that Americans have spent centuries constructing. With that being said, it is important to shift the focus and now investigate the themes observed during the analysis of scholarly research.

In analyzing the perception of techlash in scholarly research, although there was similarity to mass media in the material presented, the way in which it was presented was vastly different. Each piece of scholarly research that I collected, addressed the negative aspects of the big tech companies, from the "relentless push to grow and to make profit," to the loss of care for ethical data usage, and the "revelations Russia used social media platforms to interfere with the 2016 U.S. elections" (James, 2021, p. 86; Atkinson et al., 2019). However, unlike news media, this negative aspect was typically only used in the introduction or early parts of the research. Much of the content focused on how these companies can address the issues that are brought about by techlash and the importance of not letting the movement gain too much traction for the sake of technological innovation. As James stated, this "excitement…[of] new technology" that our society has, overlooked the dark cloud that covered these big tech companies in 2020 when the COVID-19 pandemic came to light (James, 2021, p. 87). Through rapid technological innovation, the companies united to reduce and track the spread of the virus. Events such as the pandemic are examples for which scholarly research explains the importance of big tech companies and although there is a series of changes that need to be made, this dark cloud that looms over these companies must not remain permanent.

As it has become apparent, the news media and scholarly research tend to take on two very different themes or discourses regarding techlash. News media is typically the more negative of the two and is more emotionally packed with frequent interviews from individuals who claim to be affected by these big tech companies. Whereas the research observed is much more analytical as it focuses on understanding all sides of the techlash movement and addressing not only the flaws these big tech companies must fix, but also warning against the halt of technological innovation this movement could bring about. Looking back at the literature review

conducted, it is obvious that through the utilization of discourse analysis on scholarly research and news media, I was able to develop a strong understanding of the similarities and differences these two types of sources have in their coverage of techlash. Figure 5 begins to address these similarities and differences observed, with a majority of scholarly research and news media tending to introduce the positive aspects of the techlash movement.
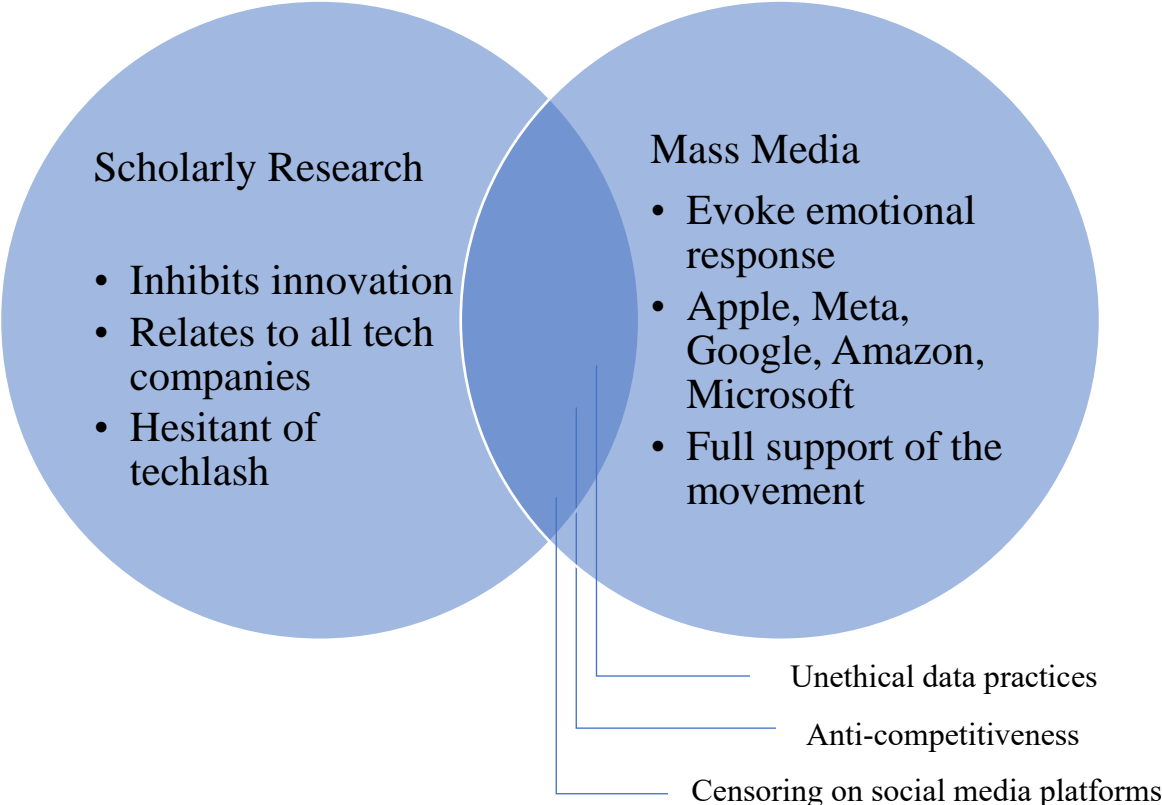

Figure 5. Scholarly Research vs. Mass Media on Techlash. Venn diagram that highlights the similarities and differences in perspectives of techlash between scholarly research and mass media (Created by Author, 2023).

From the monopolistic anti-competitive nature in which these big tech corporations operate to the unethical use of personal data and censoring of certain ideologies on social media platforms, both scholarly research and mass media unanimously recognize these claims as important issues that these big tech companies must make an effort to repair. However, as seen in the diagram,

mass media tends to prioritize evoking an emotional response, unlike scholarly research which is more focused on the whole aspect of techlash, not just the benefits.

Based on the results of applying discourse analysis to scholarly research and mass media literature on techlash, I conclude that although the two types of writing tend to have much in common in regard to the positives of the movement, scholarly research tends to have some important differing perspectives which set it apart when analyzing the techlash movement. If addressed incorrectly, techlash can lead to a rapid decline in technological innovation which thankfully did not occur before the COVID-19 pandemic. Additionally, scholarly research tends to address hesitance towards the full-fledged support of techlash as researchers acknowledge the existing issues with big tech companies but propose new solutions to fixing these issues rather than simply tearing these companies apart. Policymakers and government entities must consider these factors when drafting legislation regarding big tech companies so that when there becomes a time when these companies are needed more than ever, they have the ability to operate to their full potential.

Fixing Big Tech Without Eliminating Big Tech

Currently, most important question that is centered around the techlash movement is: how can we fix the issues of anti-competitiveness, social media censoring, lack of data privacy, and irresponsible data handling that these big tech companies have for so long seemingly ignored? In an article by the New York Times, Goldberg explains how students at Stanford are "opting out of the Big Tech pipeline" and leading conversations focused on anti-tech activism (Goldberg, 2020). This distaste among students and news media for big tech companies and the technology associated with them is symbolized in Figure 6.

In the visualization, students are protesting Palantir and employment at the company because their data platform is contracted out by the United States Immigrations and Customs Enforcement (U.S. ICE) which is an often-controversial government agency due to its mission. As shown in the article by the New York Times, mass media's perspective on techlash tends to direct attention away from "we can fix the issues with big tech companies" towards "what sells," which is the content that evicts the emotional response such as protests and activism.

Figure 6: Students Protesting Big Tech. This image is a powerful representation of the growing resistance throughout the United States against big tech companies (New York Times, 2020, p. 1).

While performing discourse analysis on the scholarly research, I noticed that many researchers introduce possible solutions for how to fix the issues with big tech companies such as improving content moderation and limiting children's exposure. The hope is to repair the damage that has been done to big tech companies that operate social media platforms and as James explains "issues are bigger than any single person, company, industry, or even technology" and that "innovation is not going to slow down [so] the work to manage it needs to speed up" (James, 2021, p. 90). As mentioned, companies are introducing parental controls and screen-time controls to give parents more control over how children utilize social media (Robertson et al., 2019, p. 14). Specifically, Additionally, Facebook has led initiatives to review its content moderation after allegations that its content policies "suppressed conservative views," and although some may

believe this is biased, it is important that these platforms promote free speech and allow users to express themselves safely and effectively (Robertson et al., 2019, p. 24).

Shifting the focus away from social media and focusing more on anti-competitiveness, scholarly research places an emphasis on the need for new legislation and policymaking by government entities. This emphasis is meant to ensure that these companies do not prevent the growth and success of competitors within their industry. However, unlike scholarly research, mass media explains that these companies should be broken apart due to their monopolistic structure. The request for improved legislation has begun to be answered as new policies surrounding anti-competitiveness continue to be drafted. Duan, director of technology and innovation policy at the R Street Institute, states that over the last few months, he has observed "a rapid increase in the revamping of policy departments and hiring of numerous well-respected policy experts in big tech firms" which we can hope is a new beginning for these companies as they start the process of restoring society's trust in them (James, 2021, p. 90).

Following the action by government entities to prioritize new legislation centered around big tech companies, there does seem to be hope for change on the horizon. Companies such as Meta have begun to take action, whether out of conscious goodness or to preserve their reputation, the company has publicly announced its "willingness to be regulated" which suggests the move towards greater policy engagement (James, 2021, p. 90). This push for restoring an open market for startups to coexist with larger companies could represent the next step for big tech companies to strengthen their relationship with consumers. Currently, the topic of interest in the field of technology innovation is generative artificial intelligence (AI). In order to prevent issues that have arisen from past products, most big tech companies have preached data privacy and the ethical development of AI models. As Gerdes explains, this could be a "golden

opportunity for tech companies to renovate business opportunities after the recent years of techlash" which could be the start of a new era of big tech (Gerdes, 2022, p. 3).

Inhibiting Technological Innovation

As shown at the onset of the COVID-19 pandemic, big tech companies came together to engage in a period of rapid innovation. Research and discovery led to mRNA vaccines, tracking applications, PCR tests, UV sanitation technologies, etc. The collaboration and cooperation between technology companies allowed government entities and the public to track and reduce the spread of COVID-19 as well as vaccinate themselves against the virus. The pandemic highlighted just how important these companies can be to human well-being. As Blitz states, "technology is no longer an option – it is a requirement" especially in the event of a widespread virus breakout when employees and students were forced to work and learn from home amid lockdowns around the world (James, 2021, p. 88). As mentioned earlier, mass media tends to call for these same big tech companies to dissolve and cease to exist due to the monopolistic and so-called unethical nature in which they operate. However, scholarly research conflicts with this narrative, as Atkinson et al. explain that instead, "policymakers should…recognize technology [as] a fundamental force for human progress" (2019).

The idea of optimism is a key theme that I noticed in the scholarly research as researchers addressed the issues with big tech companies but also spent time focusing on what can be done. If we wholeheartedly support and follow the techlash movement "it is likely to reduce individual and societal welfare" as it would reduce the level of technological innovation that these companies have thrived upon for the last several decades (Robertson et al., 2019). That level of rapid innovation is what has produced the Internet, smartphones and mobile technology, the Internet of Things (IoT), and artificial intelligence just to name a few. These technologies have

allowed us to expand our social networks, improve medical research and treatment, enhance personal productivity, and hopefully lay the foundation for a more interconnected and sustainable future.

Conclusion

The existing research and coverage of the techlash phenomenon varies significantly in its portrayal of the situation depending on whether the literature originates from scholarly research produced by professors, ethicists, and experts within the technology industry, or mass media. While mass media tends to emphasize the negative aspects in an attempt to evoke an emotional response, scholarly research takes a more analytical and nuanced approach, focusing on the impact of techlash on innovation and proposing solutions for addressing the issues without dismantling the tech industry. In understanding the differences between the two types of literature, it is important to understand the research was completed with a limited sample selection due to the extensive literature focused on the techlash movement which, in turn, can limit the scope and lead to an incomplete representation of the multifaceted movement. In understanding the limitations of the research presented, policymakers can begin to recognize the many perspectives that stem from techlash, besides the prevalent news coverage, in order to develop a proper knowledge basis for introducing legislation to address the known issues within the big tech industry without hindering innovation.

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