

ABSTRACT

Title of Dissertation: SOCIAL MEDIA AND THE EPISTEMIC ENVIRONMENT: HOW INDIVIDUALS NAVIGATE THE IMPACT

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This dissertation investigates three questions related to how individuals can and should navigate the current epistemic environment in the age of social media.

In Chapter 1, “Epistemic Decentralization,” I explore what is philosophically and ethically unique about the current epistemic environment. I propose that with the advent of social media, we are experiencing an epistemic phenomenon called *epistemic decentralization*. I argue that there are several decentralized epistemic resources that profoundly affect our capacity as a knower. Moreover, I argue that epistemic decentralization brings both significant costs and benefits.

In Chapter 2, “Fake News and the Duty to Reserve Reliance,” I investigate the duty individual users have in the face of the challenges arising from the advent of social media, specifically the problem of fake news. I argue that individuals have at least a *pro tanto duty to reserve reliance* on their beliefs concerning important social

news they encounter on social media. More specifically, this duty entails that individuals have one of the two following duties when they share information online. If users can verify the truthfulness, they have *the duty of verification*. If they cannot, they have *the duty of disambiguation*.

In Chapter 3, “Social Media and Open-Mindedness,” I argue that while it is difficult to identify experts and fake news is rampant on social media platforms, open-mindedness should still be regarded as an important virtue for social media platform users for two reasons. First, genuine open-mindedness not only requires an outward-looking willingness to be open and impartial when evaluating new arguments and evidence; it also requires an inward-looking awareness of the arenas within which one is capable of responding to reasons. Moreover, as genuine open-mindedness requires the inward-looking component, it can help them develop other epistemic and non-epistemic virtues, such as intellectual humility and empathy, which can foster a better epistemic environment.

SOCIAL MEDIA AND THE EPISTEMIC ENVIRONMENT: HOW
INDIVIDUALS NAVIGATE THE IMPACT

by

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Introduction

Social media has become one of the main resorts for individuals to consume information. For instance, regarding news consumption, the total estimated circulation of US daily newspapers has decreased from around 60 million in the 1990s to around 20 million.¹ Meanwhile, 86% of surveyed American adults say they get news from a smartphone, computer, or tablet, which is compared to 68% from television, 50% from radio, and 32% from print publications.² As the scope of its influence widens, social media presents unique epistemic challenges and opportunities for individual knowers. On one hand, it grants individuals greater control over resources that can empower them epistemically: easier access to a wide range of information sources, more efficient means of disseminating information to broad audiences, and greater opportunities to become trusted sources themselves. Consider how individual social media accounts have evolved into influential platforms for news sharing and public discourse—phenomena that were rare before the rise of social media.

However, significant challenges—and even crises—have emerged alongside these opportunities. Without caution, users can easily become epistemically compromised. Consider those who embraced conspiracy theories and fake news during elections or the COVID-19 pandemic. Or those who inhabit epistemic bubbles and echo chambers, consuming only information that confirms their existing beliefs while discrediting outside sources. Consider, too, users who engage in debates that lack substantive argumentation, relying instead on name-calling

¹ For more details, see “Newspapers Fact Sheet” compiled by Pew Research Center <https://www.pewresearch.org/journalism/fact-sheet/newspapers/>.

² For more details, see “More than eight-in-ten Americans get news from digital devices” from Pew Research Center. <https://www.pewresearch.org/fact-tank/2021/01/12/more-than-eight-in-ten-americans-get-news-from-digital-devices/>.

and labeling. These are all common behaviors on social media that raise serious concerns about their impact on individuals as knowers.

This dissertation will investigate three questions related to how individual users can and should navigate the current epistemic environment in the age of social media. First, what is philosophically and ethically unique about the current epistemic environment? In Chapter 1, “Epistemic Decentralization,” I will argue that with the advent of social media, we are experiencing a social-epistemic phenomenon called *epistemic decentralization*. Our capacity as knowers is closely tied to how we access and disseminate information. This is the reason why Miranda Fricker suggests that people suffer from epistemic injustice when their capacity to access and disseminate information is undermined due to their social status (2007). I argue that there are several decentralized epistemic resources that profoundly affect our capacity as a knower. Moreover, I argue that epistemic decentralization brings both significant costs and benefits. One might invoke the concept of the marketplace of ideas, suggesting that epistemic decentralization could lead to more truth discovery and more equitable resources for and recognition of epistemic capacities. While this may hold true when individuals are motivated by the pursuit of truth, people often let non-epistemic reasons influence the information they consume and the beliefs they form. When driven by such factors, more epistemic resources can actually lead individuals away from the truth, contributing to the increased prevalence of epistemic phenomena like fake news and epistemic bubbles.

As fake news leads to societal issues, relevant normative questions arise. For instance, are individuals responsible for preventing fake news stories from spreading on social media? Authors including Quassim Cassam (2016) and Lee McIntyre (2018) have argued that individuals need to develop corresponding intellectual and epistemic virtues to better detect fake

news and misinformation. However, other authors including Regina Rini (2017) and Neil Levy (2019) have argued against this approach, suggesting that individuals are not responsible since their beliefs in fake news can be rational.

This debate leads to Chapter 2, “Fake News and the Duty to Reserve Reliance.” Even if individuals can be justified in believing fake news, their ensuing actions based on these beliefs may still be objectionable due to the high moral stakes involved. I argue that in cases where moral stakes are high enough, individuals have a duty to reserve reliance on justified beliefs. This duty can occur in various moral contexts. For instance, Alex Guerrero suggests that in the case of sexual consent, it can be morally objectionable for one to act based on justified belief that another person has given consent when the moral stakes involved are high enough (2021). Given that the moral stakes related to individuals’ actions based on their beliefs about fake news are indeed high, I argue that individuals have at least a *pro tanto* obligation to reserve reliance on their beliefs, even justified ones, concerning important social news they encounter on social media. More specifically, in the case of consuming information on social media platforms, I suggest that the duty to reserve reliance on justified beliefs consists of two parts. If they can verify the truthfulness, they have “the duty of verification,” meaning they are obligated to verify the accuracy of what they want to communicate by sharing. If users cannot verify the truthfulness of the content, due to the ambiguity of sharing as a speech act and the high moral stakes involved, they have “the duty of disambiguation,” meaning they are obligated to disambiguate what kind of speech act they intend to perform by sharing.

Besides managing sharing behavior, there are further efforts individuals could dedicate to address the fake news problem. Authors including Richard Heersmink (2018) have suggested that epistemic virtues can help individuals less inclined to believe fake news or conspiracy

theories and spread them. And it seems common to hear people say that we should be open-minded to combat epistemic bubbles and echo chambers. And yet, authors including Jeremy Fantl (2018) have cautioned that open-mindedness can be counterproductive in retaining knowledge since people are often not experts capable of detecting flaws in the arguments they encounter. Even when it comes to controversial moral and political arguments, individuals who lack the expertise to identify these flaws should not engage with these arguments open-mindedly. These conflicting suggestions raise the question of whether social media users should be open-minded when consuming information on social media platforms. Chapter 3, “Social Media and Open-Mindedness,” addresses this question. While it is difficult to identify experts, and fake news is rampant on social media platforms, I argue that open-mindedness should still be regarded as a virtue for social media platform users. Genuine open-mindedness not only requires an outward-looking willingness to be open and impartial when evaluating arguments and new evidence; it also requires an inward-looking awareness of the arenas within which they are capable of responding to reasons. Moreover, as genuine open-mindedness requires the inward-looking component, it can help them develop other epistemic and non-epistemic virtues, such as intellectual humility and empathy, which can foster a better epistemic environment. Therefore, we should keep encouraging social media platform users to cultivate open-mindedness as an epistemic virtue.

I will close with a brief discussion of how the conclusions in this dissertation might shed light on what other parties—including social media companies and institutions—can do to best respond to the challenges discussed. While this dissertation focuses on what individual users can and should do in response to the impact of social media, this by no means suggests that individual users bear sole responsibility for addressing the challenges it presents. As the

operators and regulators of social media platforms, companies and institutions can—and perhaps should—create an environment that enables and supports users in fulfilling their responsibilities, such as exercising reserved reliance and cultivating open-mindedness when consuming information and engaging with others online.

Chapter 1: Epistemic Decentralization

1.1 Introduction

Think about how we consume news in the digital age. We still watch TV news channels, listen to radio broadcasts, or read newspapers, but it seems that we consume news through these traditional media outlets less and less. On the other hand, we have our phones with us all day. If notable news breaks out, there is no way we will miss it as we check our social media accounts multiple times a day. You may find your friends sharing posts on Facebook; you may find people discussing breaking news under a hashtag on Twitter/X; you may find various channels talking about it on YouTube. All these sources on the internet ensure that you learn about trending topics quickly.

We are experiencing a significant change regarding how the information we consume is distributed. Traditional media outlets no longer control the channels that distribute information and decide what information to distribute. With the emergence of the internet and social media platforms, individuals now participate in creating and spreading content as well. The focus of this paper is to analyze this shift and how it affects people's epistemic lives. I propose that this trend in the media industry leads to a social-epistemic phenomenon called *epistemic decentralization*. Individuals now gain more control over resources that can potentially affect their life as a knower. In Section 1.2, I will first sketch the trend we see in the media industry. In Section 1.3, I will depict what epistemic decentralization is and how the change in the media industry leads to this social-epistemic phenomenon. In Sections 1.4 and 1.5, I will investigate the normative implications of epistemic decentralization and explain why it is a double-edged sword that brings both positive and negative outcomes to our society.

1.2 A Glance at Media History

To give a more vivid picture of what I mean by epistemic decentralization, let me first provide a brief look at what has been going on in the media industry in the United States. Mass media in the United States include print media such as newspapers and magazines, analog media such as radio and television, and digital media such as websites and social media networks. Print media and analog media are typically viewed as “traditional media” while digital media only emerged with the advent of the internet and personal computing.

A notable feature of traditional media is that they tend to be organized hierarchically. As Sandra Braman points out, this hierarchical structure is reflected “through the material design of a system or through which decisions regarding content and distribution were made” (Braman 2004, 135). What information to distribute and how information is distributed is determined by centralized and hierarchical decision-makers. The stream of information only flows to the audience based on these decisions through channels offered by these companies.

Moreover, media ownership is highly concentrated in traditional media. While there were regulations limiting the market share owned by one company, with the introduction of the Telecommunications Act of 1996, many of these limits were lifted.³ In 2001, the FCC further lifted the ban that one company can own no more than one broadcast TV network. Consequently, the media industry in the US became further concentrated due to mergers and acquisitions. In 2011, 90% of media is controlled by only six companies (Comcast, News Corporation, Disney,

³ For instance, in the 1910’s media ownership was restricted due to the fear that RCA would control radio content through direct ownership of local radio stations or through content syndication. In 1970 the Federal Communications Commission had put constraints on the number of radio stations one person or company could own.

Viacom, Time Warner, and CBS), which is compared to the same 90% owned by 50 companies back in 1983.⁴

Nowadays, however, traditional media is no longer the mainstream form of media. The prevalence of the internet and the reduced cost of personal computing has led to a digital transformation in the media industry. New types of digital media including websites and social media gradually became dominant. For instance, regarding news consumption, the total estimated circulation of US daily newspapers has decreased from around 60 million in the 1990s to around 20 million.⁵ Meanwhile, 86% of surveyed American adults say they get news from a smartphone, computer, or tablet, which is compared to 68% from television, 50% from radio, and 32% from print publications.⁶

In contrast to traditional media, digital media is usually organized less hierarchically. On digital media platforms, what content to be distributed is not determined solely by decision-makers in the media companies; instead, individual users play a part in the decision as well. This feature of digital media is especially evident on crowdsourcing websites, forums, and social media platforms. While the owners of these platforms still impose some regulations on what content can be distributed and have filtering algorithms that affect what content can reach audiences, most of the content on these platforms is contributed by individual users and users still have an impact on the algorithms. These are not achievable on traditional media platforms.⁷

⁴ See “These 6 Corporations Control 90% Of The Media In America.” Business Insider. June 14, 2012. <https://www.businessinsider.com/these-6-corporations-control-90-of-the-media-in-america-2012-6>

⁵ For more details, see “Newspapers Fact Sheet” compiled by Pew Research Center <https://www.pewresearch.org/journalism/fact-sheet/newspapers/>.

⁶ For more details, see “More than eight-in-ten Americans get news from digital devices” from Pew Research Center. <https://www.pewresearch.org/fact-tank/2021/01/12/more-than-eight-in-ten-americans-get-news-from-digital-devices/>.

⁷ Some may worry that as a few big tech companies own the social media platforms, there is centralization nowadays as well. In later sections, I will further explain how the oligopoly of the social media market affects the phenomenon discussed in this chapter. In short, I suggest that while oligopoly does lead to

The less hierarchical structure of digital media leads to two dynamic shifts regarding media content production and consumption. First, the audience now has many more sources of information. Compared to when they only had newspapers, TV channels, and broadcasts whose content is offered by only a few companies, the sources of information audiences have access to nowadays are incredibly diverse.

Moreover, the audience is no longer simply the consumers of media content; they are now producers as well. This change is captured by the term “produser,” introduced by media scholar Axel Bruns. Bruns notes that there is a paradigm shift in media content production. Traditionally, there is a dichotomy between producers and consumers; only producers produce the content and then spread the content to the audience through distributors. And yet, with digital media, we have a more participatory and collaborative environment for content production. Consumers, then, are no longer only involved in content “usage” but also “produsage” – contributing to further improvement of existing content through collaboration and continued building and extending (Bruns 2006). Consumers who participate in “produsage” become “produsers.”

Now as the internet and social media platforms further develop, we enter the era of Web 2.0. Compared to the first state of internet, i.e. Web 1.0, internet users are now more interconnected with one another. Web 2.0 gives rise to self-publishing platforms such as WordPress and Substack, social media platforms such as Facebook, Twitter/X, YouTube, and TikTok and online gaming platforms such as Roblox. Individual users have the opportunity to be a producer as they can start their own channels and upload content for other users to consume. It

centralization in one aspect, it does not mean the decentralization highlighted in this chapter is not worth discussing. Centralized ownership and decentralization both exist.

is clear that individuals, who were once only media content consumers, can now play the role of content producers as well.

In short, in the traditional media industry, media content is solely produced and distributed by media companies, whose ownership is concentrated. Individuals, for the most part, are only content consumers. And yet, with the rise of digital media, there has been a shift from a hierarchical to a collaborative and interconnected approach to media content consumption and production. Nowadays, individuals not only consume content but also have the opportunity to actively participate in its production.

1.3 Epistemic Decentralization

I have briefly described the shift in content production and consumption in the media industry. This shift in turn leads to a phenomenon that is worthy of our attention – *epistemic decentralization*. Before I explain its potential normative significance, in this section, I will first offer a picture of what epistemic decentralization is. Let me begin by providing two examples illustrating how individuals' media consumption behaviors have changed.

Stock Picking: Imagine you as a retail investor want to figure out which stocks to invest in. Let us first suppose you are doing it when there is no internet access, not to mention social media platforms. What can you do to find information for picking stocks? You might watch TV channels such as CNBC for corporate news and expert opinions. You might dig into newspapers to find reports about the companies you are interested in. You might try to find research reports from financial institutions (though they might not be cheap to obtain).

Now imagine you are doing it today. What can you do instead? You can still do all of the above, but there are many other sources you can (or even prefer to) look at as well. You can access individuals' investment analysis websites. You might subscribe to other people's newsletters or Substack for their investment news updates or analysis. You might check out investing channels on YouTube or TikTok. You might follow accounts on Twitter/X that share their views on the market or companies. Moreover, as you proceed, you can take the role of information-spreader or

creator yourself – you can build your own investment site, YouTube or TikTok channel, Twitter/X account, or Substack newsletter.

News Searching: Imagine you are looking for news or updates on a trending political event, say the Russia-Ukraine war. Again, let us first suppose you are doing so when there is no internet access. Where can you find relevant information? You might watch news channels on TV, read newspapers, listen to radio broadcasts, or listen to rumors from people around you.

Now imagine you are doing so today. Where can you find information instead? Besides all the sources mentioned above, you can also (or even prefer to) go with other options: checking out independent news sites, subscribing to independent newsletters for updates, browsing people's Tweets, Facebook stories, YouTube channels, TikTok clips, and so on. Moreover, again, as you proceed, you can be an information-spreader or creator by sharing the information you have on all these platforms.

As these two scenarios demonstrate, how individuals interact with information has changed drastically. Centralized news outlets are no longer the only entities who produce and distribute information to the public. People are also willing to consume information from individual channels. Moreover, people no longer only assign high credence levels to centralized sources such as traditional media outlets. While many still believe that official news from traditional news outlets or expert opinions from institutions are more credible, people are now more willing to trust individuals or self-organized groups on social media platforms, at least in some cases.

What, then, do these observations lead to? It is often argued that an individual's capacity as a knower has important normative significance.⁸ An individual's capacity as a knower is tightly related to two aspects: how individuals access information and how they inform others. This is the reason why, as Miranda Fricker proposes, people suffer from epistemic injustice when

⁸ For instance, see Fricker 2007, Congdon 2018. I will expand on how this idea relates to epistemic decentralization in Section 1.5.

they cannot have a proper grasp of information important to their life experience or when they cannot be deemed as credible as they deserve (Fricker 2007).

The change in the media industry has a profound impact on both aspects of an individual's capacity as a knower. As I have hinted at the end of Section 1.2, what we have noted so far is not only a structural shift in media content production and information distribution; it is also a shift in how the control over resources that could significantly impact an individual's life as a knower is distributed. I call this phenomenon *epistemic decentralization*.

Epistemic Decentralization: The phenomenon that dispersed individuals rather than centralized outlets start to gain control over resources that can potentially affect people's lives as knowers.

When the media industry is dominated by traditional media outlets with a hierarchical structure, centralized outlets decide what to publish and control the channels that distribute information. It is the centralized outlets that possess a significant portion of the resources that can affect an individual's capacity as a knower. With the media industry transitioning to a less hierarchical structure, however, centralized outlets start to lose control over these resources to individual users. This is the epistemic decentralization I want to investigate in this chapter.

To further explain the concept of "epistemic decentralization," I shall specify what the decentralized epistemic resources are. Overall, individuals start to gain more control over three major types of epistemic resources: information access, channels to distribute information, and credibility.

Individuals can now access much more information than they previously could without additional cost. With a simple Google search, they often find the answers they need easily with websites such as Wikipedia and other free online encyclopedias and databases. With free online

tutorial videos, courses, and learning materials, individuals can also learn skills easily. If they cannot find information that fits their interests by themselves, they can turn to social media platforms to find if any other people are sharing relevant information. The range of information individuals can access has been significantly expanded with the development of digital media.

In addition to the access to information, individuals now have more control over the channels that distribute information. Traditional media were once the channels that can distribute information to a mass audience. Nowadays, individuals have the opportunity to start their own accounts to distribute information online. While only a small portion of these accounts may become a popular channel with a very large audience, everyone can compete to be a popular channel. Moreover, becoming a small channel that can spread information to a decent-sized audience is not something to be dismissed. It is not uncommon for anyone to post a video or a tweet and receive thousands of views, becoming a reputable source for a specific topic, without needing millions of viewers or subscribers.

Recall *News Searching* and think about recent concrete events such as the COVID-19 pandemic or the Russia-Ukraine war. To know about the development of these events, there are a wide range of independent news sites and newsletters that fall on different places on the political spectrum. Moreover, on platforms such as Twitter/X, YouTube, and TikTok, we can find various individual accounts and channels that try to keep track of these events. Some post real-time updates, some try to explain what is going on, and some post their own experience of these events.⁹ All these channels, set up by individuals, can distribute information to a vast audience.

⁹ Some relevant statistics: according to a survey conducted Jan 6-20, 2020, 25% of U.S. adults claim that they get news from YouTube. Among them, only 49% watch channels affiliated with news organizations; 42% watch independent channels and 9% watch channels affiliated with other organizations. (See “Many Americans Get News on YouTube, Where News Organizations and Independent Producers Thrive Side by Side” by Pew Research Center <https://www.pewresearch.org/journalism/2020/09/28/many-americans-get-news-on-youtube-where-news-organizations-and-independent-producers-thrive-side-by-side/>).

As individuals now have a wide variety of sources where they can consume information, they have a question to think about: which of these sources do I trust? When traditional media was the only channel that distributes information to a mass audience, the answer was relatively simple: people either trust them or don't, and the former is majority. And yet, with individual channels thriving, the competition for information distribution becomes much more intense. Consequently, while people still assign a higher credence level to reputable news media than social media in general,¹⁰ the credence level they attribute to news media has decreased by a significant amount at the same time. According to Gallup's research, while between 1972-1976 about 68%-72% of Americans express trust in mass media, this figure dipped to 36% in a 2021 survey.¹¹

This is the third kind of decentralized epistemic resource: the trust people assign to various sources is less concentrated nowadays. While centralized outlets received most of the trust when traditional media outlets dominated the media industry, their credibility is questioned more with individual channels entering the competition of spreading information. Meanwhile, individuals can build their channels and, if they do so successfully, these channels can become credible channels that spread information to a mass audience. Recall *Stock Picking* and *News Searching*. Think about how independent news sites, individual YouTube finance channels, and finance Twitter/X (#Fintwit) gained traction in recent years and how different narratives of coronavirus were spread during the pandemic. Setting aside the question of whether these channels are truly reliable or not, people become more willing to look at these channels and even

¹⁰ See, for instance, "Young People Rely on Social Media, but Don't Trust It" by Gallup <https://news.gallup.com/opinion/gallup/357446/young-people-rely-social-media-don-trust.aspx>.

¹¹ See "Americans' Trust in Media Dips to Second Lowest on Record" by Gallup <https://news.gallup.com/poll/355526/americans-trust-media-dips-second-lowest-record.aspx>.

trust them more than mainstream media outlets in some cases. This is not the kind of opportunity individuals had when centralized outlets dominated.

Two things are worth noting before we proceed further. First, historically, there were periods where similar phenomena happened. Johannes Gutenberg's invention of the movable-type printing press in the mid-15th century revolutionized the production and spread of written texts, setting the stage for significant expanded access to information and communication. Building on this groundbreaking technology, Martin Luther took advantage of the printing press to reshape individuals' access to knowledge and ultimately to fuel the Reformation. Luther had his translation of the Bible into the vernacular rapidly reproduced and widely distributed. As individuals could now read and interpret the scriptures themselves, independent of the Church's mediation, this democratization of religious knowledge challenged the existing ecclesiastical hierarchy and helped ignite widespread calls for reform.¹² In this case, with the advent of printing press, epistemic resources we discussed were also decentralized: individual knowers gained democratized access to the Bible, and they could potentially be an influential informant just as the case of Luther illustrates.

There are, however, important features of today's epistemic decentralization that set it apart from earlier periods. The speed at which information spreads through social media is unprecedented. While the printing press drastically expanded the potential audience, dissemination was still relatively slow: books and pamphlets had to be printed, transported, and distributed. By contrast, a viral post on platforms like Twitter/X or Facebook can reach millions of users across the globe within minutes.

¹² For a detailed discussion of this transformation, see, for instance, Chapter 3 of *Free Speech: A History from Socrates to Social Media* by Jacob Mchangama.

Furthermore, although the printing press significantly lowered the cost of spreading information, it still required access to physical presses, materials, and sometimes the approval of printers or authorities. To become an influential informant like Luther, one needed substantial resources and networks. On social media, however, the cost of producing and sharing information has dropped even further. Anyone with access to a connected device can post content instantly, without needing intermediaries.

Finally, the scale of participation differs markedly between the two contexts. In the age of the printing press, most individual knowers remained largely passive consumers of information, with few having the means to contribute back. In contrast, as discussed in Section 1.2, the advent of social media has largely dissolved the distinction between producer and consumer: anyone can create, comment on, and share content. Individuals now play a much more active and direct role in the circulation of information. In short, the unprecedented speed of information spread, the dramatically reduced cost of participation, and the expanded scale of engagement together characterize the distinctive nature of today's epistemic decentralization in the age of social media.

It is also worth noting that while I want to highlight the phenomenon of epistemic decentralization, it does not mean a specific type of centralization does not exist. People spend a significant amount of time browsing information on social media platforms, and only a few big tech companies (such as Meta, Twitter/X, and Google) own these platforms and their filtering algorithms. Many have discussed how these algorithms affect what people can view on these platforms.¹³ Some worry that these social media companies still have too much control over what

¹³ For instance, see Weinberger 2011, Miller and Record 2013, and Miller and Record 2017.

can be widespread on their platforms.¹⁴ One may question, then, whether there *is* epistemic decentralization given that these social media companies own the algorithms that significantly influence what users consume on their platforms.

I suspect this worry is overstated. While social media platforms play a part in epistemic decentralization, they are not necessary for the phenomenon to occur. There are, for instance, many independent news websites and newsletters that do not operate on social media platforms. Furthermore, on social media platforms, although the platforms own the algorithms, individual users still play a much more significant role compared to the era when traditional media dominated. As mentioned earlier, information people consume on social media platforms is, in many cases, generated by other individual users. And it is not difficult to find cases where individuals or alternative news portals compete successfully against traditional news media for voice over the public agenda (Fletcher and Park 2017).

Moreover, while some may worry the platforms “gatekeep” what content to be spread with filtering algorithms, individual users may gain a strong position to participate in the gatekeeping process as well. Individual users, together with strategic professionals, journalists, and algorithms, can form a typology of gatekeepers and define the process of gatekeeping of news publication on social media platforms (Wallace 2018).¹⁵ In some specific cases, individual users can even work together to successfully make use of the algorithm to spread their words to a wide audience (Shaw 2012).¹⁶

Moreover, internet is likely moving towards a more decentralized future. People are already expressing their discontent with social media platforms dictating what they see. As a

¹⁴ For instance, see Schiffrin 2021.

¹⁵ See also Shaw 2012.

¹⁶ See Donovan 2018, Krafft & Donovan 2020.

response, some platforms are attempting to make changes to offer users options to avoid algorithms' recommendations or to understand how algorithms affect what they see.¹⁷ On the other hand, the development of Web 3.0 could usher in a new wave of decentralization. Hence, while I agree that a form of centralization exists in the sense that a few big tech companies own the social media platforms and filtering algorithms, the phenomenon of “epistemic decentralization” is still a significant trend that deserves further investigation.

1.4 Epistemic Decentralization and the Post-Truth Era

Now that we have a picture of what epistemic decentralization is, what does epistemic decentralization lead to? At first glance, what it brings to individuals might appear positive: individuals have access to more information, more channels of information to check out, and more opportunities to be an influential information spreader. Moreover, since there are more diverse information spreaders and more information in the market, one might appeal to the notion of *the marketplace of ideas* and suggest that epistemic decentralization can lead to more truth discovery.

However, I want to instead argue that epistemic decentralization is a double-edged sword – it leads to both positive and negative outcomes. In this section, I will first explore one major negative of epistemic decentralization. Contrary to what the notion of the marketplace of ideas might suggest, epistemic decentralization can lead us further away from truth discovery. Due to our tendency to value information based on non-epistemic factors in some cases, with all the decentralized epistemic resources, what we choose to believe among various information sources

¹⁷ For instance, Twitter/X offers users the option to decide whether they want to see the content that the platform recommends (“for you”) or see only the content posted by the users they follow (“following”). It also makes (part of) its recommendation algorithms open source on GitHub.

can often turn out to be misinformation. This can further explain why we feel we have entered a post-truth era and why epistemic phenomena such as fake news and epistemic bubbles seem to be magnified in recent years.¹⁸

The marketplace of ideas is a popular metaphor people appeal to, especially in the debates on free speech. The original idea was raised in Milton's *Areopagitica* and John Stuart Mill's *On Liberty* and the analogy first became prominent in *Abrams v. United States* (1919). Roughly, the idea that free speech in a liberal society should be modeled as a "marketplace of ideas" refers to the claim that just as competition between producers yields better products in the economic marketplace, so does competition in the intellectual marketplace lead to "better" (i.e., truer) ideas and information.¹⁹ We should, then, allow more competition in the marketplace of ideas just as we should allow more competition in the economic marketplace – good and true ideas will thrive in the end.

If we turn to discussions about the information market, we can see that scholars have raised similar points. As the internet began to draw readers' attention away from traditional media, some expressed concern that this shift would harm both society and individuals, given the assumption that traditional media is more epistemically beneficial. Alvin Goldman, for instance, argues that the decline of conventional media in the face of the rise of blogging is a "bad sign for the epistemic prospects of the voting public" (Goldman 2008, 113). In response to this worry, several authors contend that the merits of traditional media are overstated. They argue instead

¹⁸ To be clear, I do not intend to offer a full account explaining why we have entered a post-truth era or why misinformation and fake news are more widespread. Many other factors plausibly explain the formation of the post-truth era (see Record & Miller 2022, Nguyen 2020, for instance). My aim is to suggest that epistemic decentralization could be a contributing factor to the epistemic phenomena in the post-truth era.

¹⁹ For a more detailed description of the analogy, see, for instance, Coase 1974, 384-385, Goldman 1999, 209-210 and Sparrow & Goodin 2001, 45-46.

that introducing competition from the blogosphere into the media landscape could benefit individuals' epistemic well-being and strengthen democratic decision-making – the epistemic advantages attributed to the filtering role of conventional media are less clear-cut than Goldman suggests, while the benefits offered by the interactive and deliberative nature of the blogosphere have been largely overlooked.²⁰

The reality, though, does not suggest that the information market works as simply as the analogy indicates. How information is spread in the age of social media might shake our confidence in the analogy. Fake news is one example. Although there is much more information flowing in society, the prevalence of fake news has become increasingly prominent and is now one of the most concerning social phenomena. Voter ignorance is another. Voters do not seem to become more politically informed with the increasing access they have to various relevant information. These phenomena do not fit the idea that more competition in the information market will yield more truth.

As the marketplace of ideas does not seem to reflect how the information market works, what kinds of information will consumers actually choose to believe and what ideas will win in the market? The key here is that information consumers do not always base their judgment of the utility of information on its truth – there are other factors people weigh to determine its utility. Several thinkers have echoed this point. For instance, Daniel Williams in his recent paper “The Marketplace of Rationalization” rejects the typical picture of beliefs that accompanies the traditional framework of rational behavior in microeconomics, where the value of beliefs is only considered instrumental for informing decisions. He argues that people are often motivated to believe information for reasons independent of its accuracy. People care about what he calls

²⁰ See Coady 2011 and Munn 2013.

“belief-based utility;” that is, they can value a belief regardless of its truth. For instance, people want to believe that they are decent people who are in control of their lives and have a promising future. If they have misfortunes, they tend to believe that they are a result of injustice or bad luck. People also tend to form beliefs based on whether these beliefs can elicit social rewards (Williams 2021, 4).

Bryan Caplan also rejects the idea that beliefs are only a means to an end. People are not always motivated by an interest in truth such that they “process information to the best of [their] ability” (Caplan 2011, 2). Rather, people often prefer some beliefs over others regardless of whether they are the more accurate ones. In other words, people have “preferences over beliefs” (Caplan 2011, 14). Non-epistemic factors such as emotion and ideology can sway people’s judgment on what to believe and what information to consume. Truth-seeking is never the only predisposition for us when it comes to forming beliefs.

As people value information not merely based on its accuracy, what epistemic decentralization enables individuals to do can lead to surprisingly bad outcomes. With decentralized epistemic resources, individuals now can pick from an ocean of information sources the one they *want* to listen to or to form beliefs with.²¹ Since the channels that distribute information are no longer only controlled by centralized outlets, all kinds of information that support all kinds of views are available. As people tend to let non-epistemic reasons influence the information they consume and the beliefs they form, such a variety of choices can lead people to further strengthen the belief system they *want* to hold. Furthermore, as individuals can

²¹ Some may argue that the algorithm decides what information is displayed to users. However, as I have suggested, users’ own preferences are also an important input that shape the result of the algorithm. Individual users have a meaningful control over what they want to see.

now also play the role of information spreader with channel decentralization, they can even further spread the information they already believe without considering its accuracy.

Let me use the well-known “Pizzagate” case to illustrate this point. The conspiracy theory originates from speculations on social media platforms. A Twitter/X account posting white supremacist material claimed that the NYPD found a pedophilia ring linked to Democratic Party officials. A Reddit user posted an “evidence” document about the allegation as well. Other online forums such as 4chan also started to pick up the issue. As the rumor emerged on all these online platforms, some pro-Trump fake news websites and individual influencers, many of whom are right-wing, started to spread the story. With the rumor being further spread, the discussion of the event became trending on major social platforms – the topic was widely spread and discussed on Twitter/X with the hashtag #pizzagate, and a new subreddit “/r/pizzagate” was created on Reddit to discuss and further develop the story as well. At this point, “Pizzagate” already became an influential conspiracy theory in society.²²

As we can see, the spread of the story starts with individuals sharing their views on social media networks. Channel decentralization offers them the opportunity to spread the rumor to the public. The information was then picked up by other individuals and organizations as many of them were *motivated to do so due to partisanship*. Channel decentralization again offers them the opportunity to further spread the story. What’s more, because credibility regarding news reporting is no longer only assigned to centralized outlets, people, especially the followers of these influencers and websites, did not automatically discount the accuracy of the story just because it was not spread by major news agencies. Consequently, the story received more

²² For details of the whole event, see, for instance, Gillin, Joshua (December 6, 2016). “How Pizzagate went from fake news to a real problem” PolitiFact. Wendling, Mike (December 2, 2016). “The saga of 'Pizzagate': The fake story that shows how conspiracy theories spread” BBC News.

spotlight on social media. Now more information consumers on social media started to see the “Pizzagate” story. They would decide whether to believe the story or not. In a world where humans only value information based on its accuracy, this should not be a concern.

Unfortunately, as discussed, people value information based on non-epistemic factors as well, especially when it comes to controversial political topics. It is, then, not a surprise that “Pizzagate” gained such traction in society and that many really bought into the narrative.

The “Pizzagate” case illustrates how epistemic decentralization can lead to epistemically and even morally undesirable consequences, despite not appearing to be an undesirable phenomenon in itself. While providing individuals with more epistemic resources is not inherently problematic, when combined with people’s tendency to let non-epistemic reasons influence the information they consume and the beliefs they form, epistemic decentralization can enable fake stories and conspiracy theories to gain traction among the public. Information producers now have easier ways to promote their ideas, and information consumers now have easier ways to access these ideas.

Consequently, epistemic decentralization may contribute to our perception of a post-truth era as social media platforms dominate. It seems that people no longer care about truth and facts in many cases nowadays. Some have suggested that other social-epistemic problem such as the widespread of fake news or the formation of echo chambers explains people’s post-truth attitude.²³ These are all plausible explanations; and yet, I suspect that epistemic decentralization plays a role in explaining the post-truth era as well. As noted above, people tend to let non-epistemic reasons influence the information they consume and the beliefs they form. While it is

²³ Examples of the accounts that plausibly explain the formation of the post-truth era are mentioned in footnote 15.

not the case that people do not have such a tendency until epistemic decentralization occurs, what *has* changed nowadays is that epistemic decentralization magnifies this tendency. With decentralized epistemic resources, we are having an information “buffet” where we can almost always find the information that fits our ideologies, belief systems, emotions, political affiliations, and other non-epistemic factors. It is a comfortable environment for us to stay within our system of beliefs with few motivations to find truths.

Before proceeding further, it is important to note that this conclusion does not imply that epistemic centralization—i.e., the control of epistemic resources by centralized groups—is more conducive to truth than decentralization when individuals are motivated by non-epistemic factors. Epistemic centralization comes with its own set of problems that can hinder, rather than promote, the pursuit or dissemination of truth. While a full account of these problems lies beyond the scope of this project, examining one example can help illustrate the concern. Some have argued that centralized control of epistemic resources by dominant social groups can facilitate the spread of ideologies that serve to maintain systems of oppression.²⁴ In such cases, the information disseminated by these groups is clearly not aimed at discovering the truth, but rather at advancing their own interests. This highlights that epistemic centralization, like decentralization, can be deeply problematic, especially when those in control are motivated by non-epistemic factors.

1.5 Benefits of Epistemic Decentralization

I have proposed how epistemic decentralization fuels people’s post-truth tendencies and the widespread of fake news in society. While this problem deserves attention, it does not imply

²⁴ For instance, see Meyerson 1991 and Cudd 2009.

that we should try to prevent epistemic decentralization. As I have suggested, epistemic decentralization is a double-edged sword. In this section, I want to investigate the other side of the story – the benefits epistemic decentralization can bring to our society.

While people are often motivated to consume information and form beliefs that fit their emotions, ideologies, and political affiliations, this surely does not mean they are *always* motivated to do so. There are many cases where people indeed want to know the truth either because they simply want to know it, or they want to know it to make a better decision. For instance, when I want to buy a new laptop, I may look up reviews on online forums and review channels to figure out the specifications of different laptops and people's opinions on them. I do not have any pre-determined conclusion before I look up these kinds of information; what I do instead is trying to find true and accurate information to make a better buying decision.

In these situations, epistemic decentralization can help individuals in several ways. One example is crowdsourcing. Decentralized channels give individuals the platforms to share the information they know with others. Information on similar subjects from different perspectives can then be aggregated on these platforms. When individuals try to look for information about a subject, these kinds of crowdsourced information can benefit them in a significant way.

Wikipedia perhaps illustrates how crowdsourcing works at its best. The free, multilingual and collaborative online encyclopedia was launched in 2001. Basically, anyone who has a computer that has internet access can try to contribute to its content since then. It now has become the world's largest reference website with "more than fifty-eight million articles in more than 300 languages."²⁵ When people want to learn about a new thing they hear, Wikipedia is likely the first website they look at and they will indeed learn something from it.

²⁵ See "Wikipedia: about" <https://en.wikipedia.org/wiki/Wikipedia:About>.

Besides Wikipedia, many other websites can show the power of crowdsourcing as well. Online forums such as Reddit, Quora, and 4chan, review websites such as Yelp, Tripadvisor, and Glassdoor, and even product review videos on YouTube all show us how crowdsourcing can be a powerful way to aggregate and spread useful information to individuals. Using my previous example, suppose I want to figure out which laptop to buy. When there were no online forums and reviews to check out, I could only see a few brands' advertisements. If I am lucky enough, I may find retail stores to try out the products. The options available for me to learn about the products are limited. By contrast, now I can search for a much wider range of information about all kinds of laptops from different groups of people: I can watch tech reviews on YouTube, I can see users' comments on Reddit, I can see customer reviews on Amazon and Best Buy. These kinds of information all help me better decide which laptop to purchase. When people look for accurate information to make better choices, crowdsourced information can offer immense help.

Epistemic decentralization also makes it easier to debunk fake news and misinformation when information consumers *do* care about truth and accurate information. Note that this is not in conflict with what we have discussed in the previous section. Epistemic decentralization does fuel the spread of fake news and misinformation as people are often inclined to value information for non-epistemic reasons. And yet, when people do not fall into these inclinations, epistemic decentralization actually helps true and accurate information to win out in the information market.

Think about, for instance, the confusing mask guidelines issued by the Centers for Disease Control and Prevention (CDC) during the COVID-19 pandemic. At the beginning of the pandemic, CDC discouraged people from buying and wearing masks, saying that they are "not effective in preventing the general public from catching coronavirus," but health care providers

are in need of the masks (Fazio 2021). Later in April 2020, while CDC changed the guideline and urged people to wear masks in the public, Donald J. Trump undermined the message multiple times by saying that wearing masks is voluntary and he would not wear masks. These confusing messages left people wondering whether wearing masks are effective ways to prevent the spread of the virus and whether they should wear masks or not.²⁶

This case shows exactly why epistemic decentralization can be a double-edged sword. On one hand, some consider wearing masks as something closely related to the ideologies, political ideals, and other important non-epistemic values they want to endorse. Consequently, various kinds of misleading narratives and information regarding masks can be found easily on social media platforms. This exemplifies what we have covered in Section 1.4 – how epistemic decentralization can fuel the widespread of fake news and misinformation.

On the other hand, people who really want to know whether masks are effective do the research and post their findings on these platforms as well. Professionals in the fields also share their knowledge. Epistemic decentralization enables these people to put out their efforts to counteract the myths and misleading information posted by other individuals and the confusing messages issued by the government. For people who look for accurate and true information regarding the effectiveness of masks, epistemic decentralization makes sure they have more resources to check out as well.

Besides how epistemic decentralization can help us discover truth, following what I have suggested in Section 1.3, epistemic decentralization can enhance an individual's capacity as a knower. In Fricker's account of epistemic injustice, she proposes how testimonial injustice and

²⁶ To see a more detailed timeline of the mask guidelines, see "How Mask Guidelines Have Evolved" (2021) by Marie Fazio <https://www.nytimes.com/2021/04/27/science/face-mask-guidelines-timeline.html>.

hermeneutical injustice “wrongfully undermine” an agent’s “capacity as a knower” (2007, 17).

An agent’s capacity as a knower includes two aspects. First, as a knower, an agent should be able to participate in the sharing of information. When she informs others and offers testimonies, she should be viewed as credible as she deserves to be; if she is considered less credible due to identity-related prejudice, then she suffers testimonial injustice. Moreover, an agent should also have an appropriate understanding of significant areas of her social experience; if she lacks understanding of some significant areas of her social experience due to “persistent and wide-ranging hermeneutical marginalization,” she suffers hermeneutical injustice (Fricker 2007, 154).

I do not aim to investigate Fricker’s two forms of epistemic injustice here. What is helpful for our purpose is her picture of an agent’s capacity as a knower. Decentralized epistemic resources can benefit individuals in both aspects of their capacity as a knower. As informants, with channel decentralization and credibility decentralization, individuals have more opportunities to be a credible and influential information spreader. Social media gives individuals the platform to share information with others and build their credibility with their content. The prevalence of individual content creators nowadays shows how ordinary people’s capacity as an informant is enhanced by epistemic decentralization.

Admittedly, not every instance of empowering individual informants is beneficial. It is easy to find cases in which individual users gain influence by spreading partisan content designed to provoke emotions and generate controversy, with little or no concern for truth. Such influencers may attract large audiences who take their statements or shared content to be true, even though these individuals do not warrant such trust. Empowering these individuals as informants is therefore not a clear benefit of epistemic decentralization—indeed, it may even be a drawback.

Nevertheless, empowering individuals as informants should still be regarded as a potential benefit of epistemic decentralization. As discussed in Section 1.4, epistemic centralization can give rise to similar problems. In fact, it may be even more troubling when centralized institutions enjoy epistemic trust they do not deserve. In contrast, decentralization opens the possibility that some individual knowers will rightfully earn and receive the trust they deserve, even if others do not. While epistemic decentralization carries risks of letting some individual knowers gain undeserved trust, it also creates important space for some other individuals to be treated as informants justly, which is something that may be more difficult under centralized systems.

Epistemic decentralization can also help individuals make sense of their social experiences. When Fricker explains what hermeneutical injustice is, she uses an example from Brownmiller's memoir. In the memoir, women such as Carmita Wood did not have a grasp of their experience of sexual harassment until they came together and found out that they shared similar experiences; they then figured out they should label these experiences as "sexual harassment" (Fricker 2007, 148-150). Carmita Wood was a victim of hermeneutical injustice as she did not have a proper understanding of "sexual harassment," which was a significant part of her social experience.

With epistemic decentralization, as decentralized channels let everyone who can access the internet and social media platforms share their information, individuals can find other people's testimony more easily. Consequently, it is easier for individuals to find other people who share similar experiences with them. People in minority groups who experience unjust treatment in workplaces might find others who share similar experiences on online forums. A dissident in an authoritarian country might see other dissidents' similar sufferings on social

media platforms. Learning that others who are in the same group have similar experiences and engaging with them can help people realize they are not alone and gain a better grasp of their own experiences. Epistemic decentralization can enhance people's capacity as a knower by enabling to better understand their social experiences.

1.6 Conclusion

I have offered a picture of “epistemic decentralization” and how it can affect our society in both positive and negative ways. When people tend to value information based on non-epistemic factors, epistemic decentralization can magnify such a tendency and lead them astray from discovering truths. On the other hand, when people are motivated to find truths, epistemic decentralization offers significantly more resources that enable people to do so. Epistemic decentralization can also enhance people's capacity as a knower.

One crucial factor determining whether epistemic decentralization leads to positive or negative outcomes is whether individuals are motivated to consume information and form beliefs based on epistemic factors. If people are incentivized to seek out truth and pursue accurate information, we may be able to amplify the positive effects of epistemic decentralization and minimize the negative consequences. While this chapter does not address this issue directly, identifying ways to encourage truth-seeking behavior could be a priority for future research aimed at maximizing the benefits of epistemic decentralization.

Currently, however, many individuals are not sufficiently motivated to seek the truth, particularly in online environments. As I illustrate in Section 1.4 through the “Pizzagate” case, this lack of motivation creates a fertile ground for the spread of fake news on social media platforms. In the next chapter, I turn to the responsibilities of individual users in addressing these

challenges, exploring what they can and should do to mitigate the impact of fake news in the digital age.

Chapter 2: Fake News and the Duty to Reserve Reliance

2.1 Introduction

Many believe that fake news is a serious problem for society. One approach to address the issue can be labeled as *individualist*. The individualist approach places the onus of resolving the problem of fake news on individuals. For instance, individuals can get better at spotting fake news, misinformation, and conspiracy theories. Some, however, have argued against this approach; they suggest that individuals are not responsible for the problem since their belief in fake news or conspiracy theories is rational. In this chapter, I argue that this objection is overstated. In Sections 2.2 through 2.4, I argue that even if individuals are justified in believing fake news, some of their actions based on these beliefs can still be morally objectionable due to the high moral stakes involved. Individuals at least have a *pro tanto* obligation to address the problem.

Furthermore, in Section 2.5, I specifically investigate individuals' responsibility to manage their information-sharing behavior related to major social events on social media platforms. I argue that the standard users currently adopt to manage their sharing behavior is not on par with the high moral stakes tied to sharing. I argue that given the high moral stakes involved and the ambiguity of norms for sharing, social media platform users should be cautious about what actions they take based on their beliefs about the information they encounter online. Users have what I call "the duty to reserve reliance" on their beliefs, even justified ones, of the information. This duty entails two specific duties based on the situation. If users cannot verify the truthfulness of the content, they have "the duty of disambiguation," meaning they are obligated to clarify what they want to communicate by sharing. If they can verify the

truthfulness, they have “the duty of verification,” meaning they are obligated to verify the accuracy of what they want to communicate by sharing. Lastly, in Section 2.6, I respond to potential concerns about my proposal.

2.2 A Defense of the Individualist Approach

Let us first consider the classic example of fake news: the “Pizzagate” conspiracy theory, which I mentioned in Chapter 1. This theory originated from speculation on social media and quickly escalated beyond the digital realm.²⁷ Comet Ping Pong, the pizzeria at the center of the theory, received hundreds of threats from individuals who believed the fabricated story. Alarming, a 28-year-old man from North Carolina—convinced he was acting heroically—fired three shots from an AR-15-style rifle inside the restaurant. Although he expressed regret after surrendering to the police, he still believed the conspiracy. And he was not alone. The Pizzagate theory resurfaced in 2020 and gained renewed attention on TikTok.²⁸

As the case of Pizzagate shows, fake news can pose significant challenges on society. To tackle the problems of fake news, the individualists argue that individuals’ efforts can help undermine the negative impact of fake news and misinformation. For instance, Quassim Cassam suggests that people need to combat their epistemic vices, such as wishful thinking and gullibility, to debunk conspiracy theories (Cassam 2016). Lee McIntyre stresses the important role of “critical thinking” in the proliferation of misinformation (McIntyre 2018). Some also suggest that the lack of media literacy contributes to the widespread nature of fake news (Fritts &

²⁷ For details of the whole event, see, for instance, Gillin, Joshua (December 6, 2016). “How Pizzagate went from fake news to a real problem for a D.C. business” <https://www.politifact.com/article/2016/dec/05/how-pizzagate-went-fake-news-real-problem-dc-busin/>. BBC Trending: “The saga of 'Pizzagate': The fake story that shows how conspiracy theories spread” <https://www.bbc.com/news/blogs-trending-38156985>.

²⁸ See Sommer (2020). “TikTok Teens are Obsessed with Pizzagate.” <https://www.thedailybeast.com/tiktok-teens-are-obsessed-with-pizzagate>

Cabrera, 2022). Individualists often propose that individuals should work on combating their epistemic vices, striving to be epistemically virtuous, and receiving training in critical thinking and media literacy to address the problem of fake news.

The individualist approach, however, faces a notable challenge. Some have argued that since it is reasonable for individuals to believe in fake news, they are not responsible for fixing the problem. Regina Rini, for instance, argues that the testimonial practices that propel fake news are consistent with individual epistemic virtue (Rini 2017, 49-50). People often believe in fake news since they reasonably trust sources that are aligned with their own political affiliation. While this might appear to be a biased way to adopt beliefs, Rini argues that partisan affiliation is “a reasonable proxy for epistemic peerhood in political and normative domains” (Rini 2017, 52). Partisan affiliation reflects a person’s value commitments. When I learn that another person shares my partisan affiliation, I learn that we share a significant number of normative values. My affiliate establishes herself as a more reliable normative judge than I would take her by default. Moreover, partisan affiliation can also be a reasonable proxy for epistemic peerhood in political and normative domains. Hence, Rini concludes that it is at least reasonable for people to decide what testimony to receive based on partisan affiliation in some cases, and we should not expect individuals to fix the fake news problem.

Similarly, Neil Levy suggests that accepting conspiracy theories is “subjectively rational” for many people (Levy 2019). The dispositions that lead people to accept conspiracy theories are often rationally warranted since they are responses to the environment people live in. Some are “the product of mistrust and heightened vigilance” due to the inequality and exploitation people experience, while others are “adaptions for filtering testimony” (Levy 2019, 65). Megan Fritts and Frank Cabrera also point out that if we consider Bayesian confirmation theory, we can find

that people who believe in fake news do not make any formal or logical mistakes (Fritts & Cabrera 2022).

The arguments that individuals are not responsible for fixing the problem of fake news appear compelling. However, in the rest of this section, I argue instead that individuals still have the responsibility to address the fake news problem due to the high moral stakes involved. While it might be epistemically rational for individuals to believe in fake news or conspiracy theories, since the moral consequences of their actions based on these beliefs are significant, individuals should at least be more cautious when it comes to believing certain news pieces or stories and acting upon these beliefs.

2.3 Beliefs, Actions, and Moral Stakes

To motivate my account, consider the following two scenarios:

Ann's Boss (AB): Your friend Ann complains to you about her boss, whom you do not know. You know Ann is not the type of person who says bad things about others for no reason, so you think that when she complains to you in this way, she must be serious. Furthermore, you do not have any relation with Ann's boss, it is very unlikely that you will ever interact with her boss, and you do not know anyone close to her boss except Ann. In the end, you take Ann at her word and start to criticize Ann's boss with Ann.

Blake's Boss (BB): Your friend Blake complains to you about his boss, the CEO of his company, whom you do not know before. You know Blake is not the type of person who says bad things about others for no reason, so you think that when he complains to you in this way, he must be serious. And yet, you realize that you will interact with this CEO soon – you have a startup, and you are trying to do a deal with her. The operation of your company right now is not great, and while your employees love to work for you, you know their quality of life is not good given the current state of the company. You need something to change this situation. This deal with Blake's boss could be a deal that brings a significant boost to your companies' revenue and make your employee's life significantly better. Nevertheless, after listening to Blake's words, you decide to take him at his word and stop the deal with his boss.

If it is reasonable to believe Ann's claims about her boss in *AB*, it may seem reasonable to believe Blake's claims in *BB*. And yet, intuitively, while it is fine to believe Ann's claims and act accordingly, what is done in *BB* seems objectionable; at least some part of the decision made in *BB* seems irresponsible. Either you should not believe Blake's claims without further evidence or testimony, or you should not decide to stop the deal merely based on Blake's claims.

Here is one possible interpretation of this intuition: in *AB*, the moral stakes of acting based on the belief that Ann's boss is a bad person is low. What you will do based on your belief in Ann's claims is only say something bad about the boss with your friend in private. Your action based upon the belief has no chance of influencing how you treat the person. By contrast, in *BB*, if you believe that Blake's boss is a bad person and acts accordingly, it changes how you make a decision that would leave a significant impact on your employee's quality of life. The essential difference between *AB* and *BB* seems to be that the moral stakes in *BB* is high.

In existing literature, *encroachment theories* are used to explain the relationship between beliefs and stakes, and one might use these theories to explain the intuition here. Encroachment theorists argue that the epistemic status of an opinion²⁹ can depend on non-evidential features. Specifically, more relevant to my project is the moral encroachment theory, which, in general, asserts that the epistemic status of an opinion can depend on its moral features.³⁰ As Alex Guerrero puts it, "as the moral stakes increase, the exact same level of evidentiary support can result in different consequences with respect to whether an individual justifiably believes that *p* or whether they know that *p*" (Guerrero 2021, 19). If the moral encroachment theory is true, then

²⁹ Which includes, for instance, whether an opinion is a justified belief or whether it is knowledge.

³⁰ Some forms of moral encroachment include Fritz 2017, Pace 2011, Basu 2019, and Gardiner 2018.

our intuition in *AB* and *BB* can be explained: since the moral stakes in *BB* is significantly higher, it is justified to believe Ann's words while it is not justified to believe Blake's words.

The moral encroachment theory is by no means uncontroversial. However, we do not need to rely on it to demonstrate how differing moral stakes affect our intuitions in the two cases discussed. In *BB*, regardless of whether the *belief* in Blake's words is justified, Blake's *action* based on the belief can still be morally objectionable. We can argue that Blake is justified in believing what Blake said, but it is still morally wrong to stop the deal based solely on Blake's testimony. Therefore, understanding the relationship between beliefs and moral stakes does not need to be the focus of this project. We can instead investigate the relationship between moral stakes and the action taken based on the belief. Maybe it is epistemically unproblematic to form a belief based on the testimony of a trusted and like-minded friend. However, when the stakes are high for others, we owe to others – maybe not to reserve judgment – but to *reserve reliance* on the truth of the testimony. The duty to reserve reliance can be a moral duty and an epistemic duty.

Some authors have tried to investigate how high moral stakes can raise the threshold for responsible actions in other realms of discussions. In his paper discussing consent, for instance, Guerrero proposes two different views as the potential explanation of the cases he raises:

- 1) “Whether (i) it is justifiable for B to believe that A consents to some state of affairs, SA; or (ii) whether B knows that A consents to SA, depends, in part, on the moral context, the moral stakes of the situation, or
- 2) whether it is morally objectionable for B to act based on justified belief or knowledge that A consents to SA—and whether B is non-culpable for acting as if ‘A consents to SA’ is true—depends, in part, on the moral context” (Guerrero 2021, 365-366).

Interpretation 2) suggests that moral stakes can affect what actions we are permitted to take based on certain beliefs, depending on the level or kind of justification we have for those beliefs. In particular, as the moral stakes increase, beliefs that would have been “actionable” for us might become “unactionable” with respect to certain actions—incapable of supporting, justifying, or being the rational ground for those actions—despite nothing changing about the justification with which we hold the beliefs in question (2021, 369).

Kenneth Boyd also mentions the following normative epistemic requirement when discussing the pragmatic encroachment theory: whether one is *acting on* one’s knowledge in an epistemically responsible way (Boyd 2016, 2721). To say one acts on one’s knowledge in an epistemically responsible way suggests that one can provide reasons to believe that one knows what one is doing based on the standard determined by the situation (2016, 2724).

It is not within the scope of this dissertation to discuss whether Guerrero’s or Boyd’s account is correct in their respective discussions. For our purpose, what we can learn from these accounts is that we can differentiate the claim that whether the action based on the belief is objectionable can depend on the moral stakes involved from the claim that the epistemic status of a belief can depend on the moral stakes involved in the situation. Both accounts suggest that when the moral stakes are high for others, we may be obligated to reserve reliance on our justified beliefs. We can apply a similar distinction to explain our intuition regarding *AB* & *BB*: what makes it morally objectionable in *BB* might not be the belief in Blake’s words; instead, it is to act based merely on his words while the moral stakes are high. Whether you are culpable for acting based on a justified belief in Ann’s or Blake’s words are true depends on the moral context. The high stakes in *BB* makes the standards for responsible action based on justified

beliefs higher – rejecting one’s application based only on one person’s testimony seems irresponsible even if it is justified to believe in his testimony.

With the observations so far, whether it is morally objectionable to act based on justified beliefs depends on the moral stakes involved. When the moral stakes are high, even if one acts based on a justified belief, we may still have the duty to reserve reliance on that justified belief. If we fail to follow this duty, our act can still be morally objectionable. The question, then, is whether the problem of fake news involves a high moral stake.

2.4 The Moral Stakes in the Fake News Problem

How high are the moral stakes involved in the fake news problem? To reach an answer to this question, we can first take a look at how widespread fake news affects concrete social events. For instance, one example often discussed in the literature is the fake news spread in December 2016 which claims that Bill and Hilary Clinton were running a child sex trafficking ring in the basement of a pizza shop (labeled with the hashtag “#pizzagate” on social media). Another example is the spread of the short conspiratorial film called “Plandemic” during the COVID-19 pandemic, which falsely claims that elites use the virus and vaccine to gain profits and power. In both events, the spread of fakes did affect a significant amount of people’s perceptions. BuzzFeed reports that the top twenty fake news stories on Facebook had more shares than the top twenty real ones during the 2016 presidential election (McIntyre 2018). Pew Research showed that after “Plandemic” was released at least 25% of Americans think the conspiracy theories of the COVID-19 pandemic are “probably true” (Fritts & Cabrera 2022). The widespread of fake news has indeed influenced a significant portion of the population’s perception, and their choices have undoubtedly led to negative consequences.

Moreover, the spread of fake news can cause problems deeper than an outcome of a specific event. Sarah Wright argues that how social media spreads fake news can make people suffer from misguided trust as an epistemic harm, which hurts their understanding of their epistemic position in the world. As Wright notes, re-posting – a typical behavior in the age of social media – can bend people’s “commitment to the credibility of the source” (Wright 2021, 250). When we see a re-poster share a linked source, if we trust the re-poster, it often increases our trust in the linked source. However, we do not actually have a standard saying that re-posting entails endorsement. The trust we put in the linked source, therefore, is misguided.

Another worry is that the spread of fake news could decrease our trust in the epistemic environment around us in general and only adhere to “particularistic trust.” Axel Gelfert has noted that believing conspiracy theories can lead people to detach themselves from the wide knowledge source in their social environment and instead follow a few narrow and personal trust relations. Gelfert suggests that as one enters the world of conspiracy theories, she gradually discards the rules institutions use to identify expertise. Those who are traditionally viewed as experts, such as journalists and scientists, become no longer credible. Moreover, those who trust and tell others to trust claims from institutions, such as one’s family members or friends, appear untrustworthy as well. Instead, one will develop trust in the epistemic competence of those who share her view on these conspiracy theories. These new epistemic trustees then reinforce one’s trust in conspiracy theories and distrust in sources from institutions, which further leads one to develop new trust relations with other who believe in conspiracy theories.

The final result of this vicious spiral is that one is “cut off from the knowledge generated from our society” and only adheres to “particularistic trust” (Gelfert 2021, 346 & 348). The rule of particularistic trust is that one should not trust anyone with the exception of specific cases

(Gelfert 2021, 347-8). This is a dangerous epistemic position since one can be easily manipulated or controlled when they only have particularistic trust in a specific group of people. If fake news and conspiracy further prevail, we might worry that more and more people would be trapped in particularistic trust, which threatens the truth-generating dynamic in an open society. With all these outcomes the spread of fake news has already led to and the worries about the effects it has on both individual and societal levels, I suspect the moral stakes involved in the fake news problem, especially fake news about major social events, is high.

One may suggest, however, that while the moral stakes involved in the fake news problem is high, individuals do not contribute much to the spread of fake news. First, some may argue that it is other parties rather than individual users that are responsible for the dissemination of fake news. For instance, it may be suggested that bots are the ones that actually spread fake news and misinformation on the social media platforms. Indeed, bots are a notable problem on social media platforms, and they indeed contribute to the spread. And yet, studies have shown that human users play a significant role in spreading fake news. Even though bots engage in spreading news, they propagated true and false news roughly equally. As fake news generally spreads faster than true news, it is implied that the faster spread of fake news is due to humans, not bots (Vosoughi et al. 2018; Shao et al. 2018).

Alternatively, some may argue that while users collectively contribute to the spread of fake news, their individual impact remains uncertain. It may seem unclear if any single user significantly contributes to the widespread of fake news, similar to how one vote may not swing the election result and how individuals' action does not contribute much to the environmental crisis. Their harmful actions may only be hurtful in aggregate. Therefore, the level of moral stakes involved in an individual user's actions based on their belief in fake news is unclear.

While it may be true in some cases that actions are only harmful in aggregate, individual users do contribute significantly when it comes to spreading fake news. For instance, individual users' interacting with the posts on social media could significantly boost these posts' visibility. According to the source code X.com opened to the public, each "like" a post receives translates to a 30x boost in reach, and each repost provides a 20x boost.³¹ Therefore, individual user interactions can profoundly influence the spread of a post on social media platforms. While a person not monitoring her carbon footprint or voting for a candidate may themselves only contribute an amount of harm that makes a negligible difference and may not directly affect others' actions, this is not the case in the spread of fake news.

Consequently, even if it might be rational to believe fake news in some cases, since the moral stakes involved are high, the actions based on these beliefs in fake news can still be morally objectionable. In other words, even when individuals' belief in fake news is justified, they should be still very careful about the actions they perform based on their beliefs regarding the news. It is a clear application of the broad duty to reserve reliance.

As mentioned earlier, a common action people do based on their beliefs is sharing other authors' content they read on social media. This is where I want to focus in the next section – while many individualists have proposed different ways to help individuals avoid believing in fake news,³² I suggest that an alternative way for individuals to address the problem of fake news is to manage their sharing behavior on social media platforms.

³¹ See <https://www.yahoo.com/news/twitter-algorithm-works-150803356.html>

³² Individualists usually propose that we can help individuals learn how to differentiate fake news from reliable news by inculcating logic, media literacy, or epistemic virtues. However, these proposals face challenges as some researches put the effectiveness of these efforts in question. Boudry et al. doubt the effectiveness of teaching logic subjects such as the "theory of fallacies," arguing that it can be counter-productive to the goal of producing better thinkers (Boudry et al. 2015). Regarding teaching media literacy, some point out that it could be very difficult to design education of media literacy in a way that will be perceived as non-partisan. As how people question whether the education itself is not biased, the

2.5 The Norms of Sharing on Social Media Platforms

In the previous section, I discussed why we individuals are obligated to be cautious about the actions we take based on the news we read on major social events. And yet, in our daily life, we rarely follow a high standard to manage these actions. In this section, I want to focus on one such behavior, namely sharing on social media platforms. More specifically, I want to focus on sharing information on major social events on social media platforms.³³ While it is only a subset, singling out this subset is worthwhile as it is a significant contributor to the spread of fake news and misinformation. As we have discussed, the spread of fake news and misinformation is especially problematic when it comes to major social events. It should be clear, then, that information sharing regarding major social events involves high moral stakes.

Sharing the content we read on social media platforms is one of the most common actions we take on these platforms. Many of us can recall how often we retweet the stories we read on Twitter/X and share the stories we read on Facebook. In fact, almost 50% of tweets are retweets on Twitter/X (Pew Research Center 2021). However, users do not appear to be very attentive to what they retweet; it is easy to push the retweet button when we find the stories intriguing without even deciding whether we believe the story is true or not, not to mention whether we have confirmed the truthfulness of the story. Some users do not even open the links they retweet – about 15% of the links shared on Twitter/X get retweeted without even being opened, not to mention verifying the truthfulness of the content (Gabiolkov et al. 2016). It seems the standard

effectiveness of such education becomes questionable as a result (Jones-Jang et al. 2019; Fritts & Cabrera 2022).

³³ While I may only say “sharing” for the sake of brevity, the scope of my discussion is always limited to sharing news or information on major social events.

users adopt to manage their retweeting behavior is not on par with the high moral stakes tied to retweeting, which intuitively seems problematic.

But perhaps there are reasons why the epistemic standard for retweeting should not be high. There is an ongoing discussion on what kind of speech act sharing is, and sharing might not be a speech act that the norm requires the speaker to know or verify the content they are going to communicate. If information sharing on social media platforms is a form of assertion and we adopt Timothy Williamson's account of assertion, then a speaker can only assert what she knows to be the case.³⁴ In this context, then, the sharer has to know what she shares; hence, she is obligated to verify what she wants to share. However, if sharing is a form of speech act that has less demanding rules, the sharer might not be required to verify what she wants to share. If I simply quote a story I heard from an Uber driver when I am chatting with my friend, it might seem too demanding to require me to verify the truthfulness of the story beforehand.

However, there are several important reasons why the epistemic standard for sharing should be high. First, as mentioned in the previous section, when users share a post, they significantly amplify its visibility. This sets sharing on social media platforms apart from gossiping with friends: while telling a story to my friend does help spread the story, it does not compare to the 20x visibility boost on a social media platform. It provides a podium for the information to be spread, and the sharer *is* the podium. Moreover, studies have shown that repeated exposure to information can lead to beliefs which they would otherwise not have formed. The increasing visibility, therefore, not only broadens the audience but also (even when it does not broaden the audience) makes individuals more likely to accept the information as true.

³⁴ See Williamson 2020.

Furthermore, it is unclear what kind of speech act sharing on social media platforms is, which makes the norms for sharing unclear. Sharing could be considered as an endorsement; in other words, those who share a post express agreement with the content in the original post.³⁵ This could explain why we often see on Twitter/X some journalists, for instance, add the disclaimer “a retweet is not an endorsement” in their Twitter/X biography as they suppose users might otherwise take their retweets as endorsements of retweeted content.

On the other hand, this kind of disclaimer also suggests that sharing can be a speech act other than endorsing; after all, these journalists can still share news articles without intentions to take a side on the issue. Hence, some may suggest, for instance, that sharing can be a form of quoting. It seems that we could see the sharer as merely showing others that someone posted the original post. Sharing might also be a form of pointing – just as if you point me to something posted on a bulletin board to direct my attention to it. Neri Marsili builds on these ideas and argues that retweeting is a form of digital ostension, analogous to an act of “quoting by indicating” (Marsili 2021, 10471). That is, he thinks the communicative point of sharing is to make the original content of the post available and direct other users’ attention to it (ibid. 10483).

Besides those who claim that sharing is a specific type of speech act, some suggest that it could be a combination of several types of speech acts or that it is uncertain what type of speech act it really is. Emanuele Arielli proposes that sharing is a unique kind of speech act that consists of both asserting shareworthiness or the relevance of content and an “attention-orienting” directive (Arielli 2018, 243). Rini, on the other hand, notes the ambiguity of sharing as a form of speech act as the norms of communication are “disputed;” it is unclear whether we are vouching

³⁵ See more discussions on the view that sharing is a form of endorsement, see Arielli 2018, Marsili 2021.

for the news' truth when we share it or whether we are simply quoting the news just as we embed some quotations in an article (Rini 2017, 47).

As we can see from all these different accounts, no consensus has been reached regarding what kind of speech act sharing is. Moreover, regardless of which of these accounts is accurate, it should not be controversial that different users interpret other users' intention of sharing differently. Different users use social media platforms for different purposes. As C. Thi Nguyen notes, while the majority of users on Twitter/X may think people are making claims about the actual world and their real beliefs on the platform, others might approach Twitter/X as a game by doing whatever it takes to attract the most likes and retweets (Nguyen 2021, 422). After all, even the sharers might not know what their intention of sharing is; the ambiguity gives them excuses to defend themselves against criticisms. As Rini puts it, "people are happy to be understood as asserting the content of shared news stories that turned out accurate...but insist that they meant no such assertion when trouble emerges" (Rini 2017, 48).

When sharers share information without any clarifying comments, then, other users (and, in some cases, even the sharers) have no idea what kind of speech act the sharers are performing. On the one hand, some could interpret the claim that we retweet as true or agree with what is shared, but others could interpret it as mere quoting or pointing to some content. Consequently, the norms assumed by the recipients of the shared post are varied – but the accountability experienced by the sharer aligns with the least accountability-incurring speech act in the array. Given the high moral stakes involved and the ambiguity of norms for sharing, we should either adopt the standard that can most likely prevent the morally bad consequence (i.e. assume that our truth-accountability aligns with the highest accountability-incurring speech act) *or* try to eliminate the ambiguity when we share on the social media platforms. In other words, we should

either 1) verify the truthfulness of the content before we share it, or 2) add comments to disambiguate what we want to communicate by sharing.

The first option is straightforward: given the high moral stakes involved, we should make every effort to ensure the information we share is true. This involves verifying whether the information originates from credible sources or aligns with what credible sources report. Credible sources are typically characterized by their expertise and accountability in reporting information. These are sources that have a reputation for accuracy, provide evidence for their claims, and have a vested interest in truth-telling. This verification should go beyond merely examining the source from which they intend to share. Cross-checking with various sources across different partisan affiliations is a good way to fulfill the duty of verification.

To illustrate the second option on my account, imagine medical staff from different countries working on several critically injured patients. These medical professionals have been trained in different languages and use various gestures during operations. While they can understand each other's languages and gestures to some extent, there is a significant chance of misinterpretation. In this case, given the ambiguities related to language and gestures and the high moral stakes involved, it seems reasonable for every medical staff member to disambiguate anything that the recipients may misinterpret.

Sharing on social media platforms is a similar situation. The ambiguity of norms for sharing is similar to the ambiguity of languages and gestures in the medical case. Furthermore, we have discussed how sharing largely contributes to the spread of fake news and misinformation and how the problem of fake news involves high moral stakes. Both the case of fake news and the medical case, therefore, involve high moral stakes. As a result, if we cannot verify the truthfulness of the information we want to share, we are obligated to disambiguate

anything the recipients may misinterpret in the case of sharing as well. To do so, we should add comments to clarify the exact message we want to communicate to other users. For instance, we can add that while we cannot verify whether the shared content is true or not, we still think the content is shareworthy and other people should try to figure out the truth about the content together.

As sharers are obligated to either verify the content they share or let other users know that they do not deem the content as true, these requirements could prevent cases where social media users interpret shared information as verified by the sharer when the sharer has not actually verified it. Moreover, requiring the sharers to remove ambiguity can help users identify when the sharers are responsible for the content they share. Consequently, sharers cannot easily shirk the responsibility they should take. Without the requirements, given the ambiguity of the norm for sharing, it is always unclear when the sharer really endorses the content or what the sharer wants to communicate by sharing the content. As a result, it could be difficult to determine when and how to adjust the credence level we assign to a sharer, and the sharer can excuse herself by claiming that she does not deem the content she shares as true. Once these ambiguities are removed, people can evaluate the credibility of the sharer accordingly. When the sharer intends to communicate to other users that the shared information is true, if the information turns out to be false, other users can justifiably lower the credence they assign to the sharer. When the sharer adds clarification that they share the information for reasons other than believing it to be true, other users then will not lower the credence they assign to the sharer.

It is worth noting that my account is compatible with holding companies or governments accountable for fixing the problem by setting up the norm with regulations or laws. Just as some organizations could still be responsible for setting up the traffic rules in the traffic scenario,

governments or social media companies could be responsible for setting up norms for sharing on social media platforms. They could also implement new functions on social media platforms so that users can follow the practice I propose more easily.

2.6 Objections

What I propose might be a much higher standard than what most social platform users follow. As mentioned earlier, on social media platforms, many of us do not check the content we share without comments, and some even retweet without opening the link they retweet. As a result, one might worry that the norm for sharing I suggest is too demanding. And yet, if we think about similar cases of in-person communication with high moral stakes involved, when there are ambiguities that could lead to a seriously bad consequence, it seems apparent that we have to clear the ambiguity or talk in a way that has the best chance to prevent the seriously bad consequence.

Suppose today is April 1st. You say to your friend: “I am not going to drink for the next two weeks.” Knowing how important alcohol is to you, your friend replies: “you aren’t serious, are you?” You shrug and leave. In this case, while it is not clear whether you are making a sincere commitment or whether you are just speculating, there is nothing wrong with keeping the ambiguity of your words intact as almost no moral stakes are involved. Even if your friends do not interpret your acts and words accurately, nothing bad would happen as a result. However, suppose on the same day you say to your friend: “I will give you a ride to the airport tomorrow.” “Are you serious?” Your friend replies. You know the flight is important to your friend, but still, you shrug and leave. In this case, given that the ambiguity of your words could cause your friend to miss an important flight, it seems reasonable to conclude that you should have clarified what your intention was.

Note that this does not mean sharers are responsible for preventing all possible interpretations their audience could have. It is not uncommon for people to misunderstand or misinterpret others' words when it would be reasonable to expect them not to. For example, imagine you say to your friend, "I will think about it," when she asks if you can lend her some money. If she somehow takes your expression as a promise to lend her money and makes significant financial decisions based on this "promise," resulting in a huge loss, it would not be your responsibility to add further clarification. You can reasonably expect that your friend would not take "I will think about it" as a promise.

One might suggest that if the moral stakes are so high, there seems nothing wrong with adopting an even more conservative approach when we share information. For instance, we could limit the use of social media platforms or even stop using them, which could eliminate the moral risk of spreading fake news. If the lack of traffic rules in an area could easily lead to traffic accidents, shouldn't we avoid driving in the area?

The suggestion might be reasonable if there were no benefits gained from driving in the area. However, I do not suspect social media platforms are intrinsically problematic. When used properly, social media platforms can offer significant value to society. First, social media platforms are useful tools that help people share their experiences and build communities. It is easier for individuals to find other people who share similar experiences with the use of social media platforms. For instance, people in minority groups who experience unjust treatment in workplaces might find others who share similar experiences. A dissident in an authoritarian country might see other dissidents' similar sufferings on social media platforms. Learning that other people who are in the same group have similar experiences and interacting with them can help people learn that they are not alone and better understand what they are experiencing.

Moreover, while social media platforms do augment the spread of fake news and information, it also enables information that can counteract fake news and misinformation to spread as well. Think about, for instance, the information about the COVID-19 pandemic. On one hand, social media platforms do enable the spread of misinformation and fake news as various kinds of misleading narratives and information regarding masks can be found easily on platforms such as Twitter/X, Reddit, and YouTube. On the other hand, however, people who really want to know whether masks are effective do the research and post their findings on these platforms as well. Professionals in the fields share their knowledge on the platforms as well. These social media do offer a platform for these people to put out their efforts to counteract the myths and misleading information posted by individuals and the confusing messages issued by the government.

Alternatively, one may propose that while individual users do not need to refrain from sharing, my account still remains too lenient. If users cannot verify the truthfulness of the post, merely requiring them to clarify what they want to communicate by sharing is insufficient; they also need to determine the share-worthiness of the post before sharing. This proposal seems compelling, as several studies have suggested that repetition can increase the perceived accuracy of information. Even if users clearly communicate the message they want to send by sharing the information with others, as long as they increase the exposure of the shared information by sharing, they contribute to the fake news problem if the information turns out to be false or misleading.

However, one concern about this proposal is that, unlike truthfulness, share-worthiness can be difficult to determine in many cases. For instance, imagine that Chen comes across an article on Facebook raising concerns about a new vaccine that is about to hit the market. Given

her lack of knowledge in the field, it is challenging for Chen to determine whether the information in the article is true. Should Chen consider this article share-worthy? This is a difficult question without knowing the accuracy of the information. If the information turns out to be true, the article is share-worthy as it informs people of a potential risk they should be aware of. If Chen does not share the article, she risks failing to disseminate valuable information. Conversely, if Chen deems the article share-worthy and shares it, she risks spreading false or misleading information and contributing to the fake news problem. It may be too demanding to require individual users to evaluate share-worthiness, whereas verifying truthfulness is a relative easier task.

This response, however, may lead to another potential objection to my account: even if my account is adopted instead, it could still prevent information that should be widespread from getting to the public quickly. For instance, think about a user who sends out a whistleblower message (which turns out to be true) on social media platforms. Based on my account, one might worry that people may decide not to help spread the message from a whistleblower since it may be difficult to verify the truthfulness of the whistleblower's message.

I suspect this should not be a concern. My account does not ask people to share less; it only suggests that people should be careful before they decide to share the information. It does not discourage people from sharing; it only asks people to be more responsible for their sharing behavior by either fact-checking the content or telling the audience what message they want to communicate by sharing the content. When people cannot verify the content of the whistleblower's message but still feel there is a need to share it, they can still do so as long as they clarify what they want to communicate by sharing the message. They cannot claim the message is true, they can still point out why they think the message is shareworthy. In fact, as I

have indicated, when the sharers find the message to be urgent but are not able to verify the content of the message, they can encourage other users on the platforms to work together to find out the truth regarding the message. Hence, I do not suspect people's awareness of the whistleblower message will be affected if my account is adopted. Moreover, if individuals follow these requirements, we might even find out whether the message is indeed true or not early since sharers are more likely to try their best to confirm the truthfulness of the message. As a result, the message can be quickly spread without any concerns if proven true and stopped spreading if proven false, both of which is the right thing to do in the scenario.

2.7 Conclusions

I have argued that concerns about the individualist approach to the problem of fake news are overstated. Even if individuals' belief in fake news can be rational, it does not mean their actions based on these rational beliefs are not morally objectionable. Considering the user behavior of sharing on social media platforms and the moral stakes involved in news sharing, we should conclude that individual users need to be more cautious before they share information related to major social events. More specifically, I have proposed that when we individuals share information related to major social events on social media platforms, we have a duty to reserve reliance on our justified beliefs, which means we should follow either one of the two duties: the duty to verify or the duty to disambiguate. More specifically, we should either 1) verify the truthfulness of the content before we share it, or 2) add comments to clarify what we want to communicate by sharing if we have not verified the truthfulness of the content.

As mentioned earlier, the account I develop is fully compatible with holding companies or governments accountable for addressing the problem of fake news. I will elaborate on this point in the conclusion of the dissertation. Briefly put, although institutional responsibility falls

outside the primary scope of this project, my account does not preclude it. If institutions—such as governments or social media companies—are found to bear responsibility, my framework may in fact require them to take appropriate action. This could include establishing norms for information sharing on social media platforms or implementing new platform features that help users more easily adopt the epistemic practices I propose.

In addition to the duty to reserve reliance on our justified beliefs, there are further steps individual users can take in response to the challenges posed by the rise of social media. In the next chapter, I will argue that cultivating open-mindedness should be a virtue that social media users actively develop—not only to help them better navigate the complex epistemic environment shaped by social media, but also to help counteract some of the toxic phenomena that these platforms tend to foster.

Chapter 3: Social Media and Open-Mindedness

3.1 Introduction

People often think open-mindedness is an epistemic virtue, especially in the age of social media. It is often suggested that open-mindedness helps individual users better navigate social media platforms, potentially preventing them from, for instance, being trapped by epistemic bubbles and echo chambers. However, some scholars have raised concerns that open-mindedness may, in certain contexts, be counterproductive—particularly when individuals lack the necessary expertise to evaluate the new information they encounter or when they operate within epistemically hostile environments. For instance, Jeremy Fantl (2018) warns that open-mindedness could undermine knowledge retention. Since most people are not experts in every field, they are often ill-equipped to recognize the flaws in arguments they engage with. In such cases, approaching all claims with open-mindedness may lead individuals to give undue consideration to misleading or erroneous perspectives. Similarly, Hein Duijf (2024) contends that open-mindedness may be epistemically harmful even when individuals are reasonably competent and operate within relatively friendly epistemic environments.

Given these arguments, it becomes crucial to reassess the presumed epistemic value of open-mindedness in the context of social media. Social media is an epistemic environment where fake news and misinformation are prevalent while accountability mechanism is lacking, which makes it particularly difficult for individual users to reliably identify expertise and assess the credibility of sources. In such an environment, it is worth questioning whether open-mindedness

truly functions as an epistemic virtue or whether, in some cases, it may contribute to the very epistemic challenges it is often thought to combat.³⁶

In this chapter, I argue that being open-minded should still be regarded as a virtue for social media platform users for two main reasons. First, I argue that there is one neglected inward-looking component in existing accounts of open-mindedness: the self-awareness of one's intellectual capabilities as they relate to particular domains. Genuine open-mindedness not only requires people to have an outward-looking willingness to be open and impartial when evaluating new arguments and evidence; it also requires a self-awareness of the arenas within which they are capable of responding to reasons. Moreover, as genuine open-mindedness requires the inward-looking component, it helps people develop other virtues including intellectual humility and empathy, which can foster a better epistemic environment. Hence, we should encourage social media users to develop open-mindedness as an epistemic virtue.

3.2 Open-Mindedness as a Questionable Epistemic Virtue

It is often argued that epistemic vices contribute to the challenges associated with social media platforms while epistemic virtues may offer a means of addressing these issues. Scholars such as Richard Heersmink (2018) have suggested that cultivating epistemic virtues, including open-mindedness, can make individuals less inclined to believe and disseminate fake news and conspiracy theories. Similarly, Marco Meyer, Mark Alfano, and Boudewijn de Bruin (2024) have argued that epistemic vices—particularly closed-mindedness—are strongly linked to susceptibility to misinformation, especially in the context of COVID-19. These arguments

³⁶ This topic may remind some readers of the literature on disagreement. However, I will not address that literature here, as it is often unclear whether the information sources encountered on social media are epistemic peers, inferiors, or superiors relative to the agent.

underscore the crucial role of epistemic virtues—with open-mindedness being one of the important ones—in shaping the epistemic landscape of social media. They suggest that cultivating such virtues could help mitigate issues such as the spread of fake news on these platforms.

And yet, some have challenged the assumption that open-mindedness is always epistemically beneficial when it is understood as a willingness to revise one's original beliefs and remain impartial to new arguments and evidence. They argue that open-mindedness, understood in this way, can sometimes be counterproductive for knowledge retention and acquisition. As a result, it is questionable whether open-mindedness should be considered an epistemic virtue in all contexts. Levy (2006) contends that individuals should actually refrain from seeking out evidence from both sides of controversial moral and political debates, as they are not experts in these areas and may struggle to properly assess the quality of the arguments presented. Similarly, Fantl (2018) cautions that open-mindedness can be detrimental to knowledge retention, particularly because most people lack the expertise necessary to detect flaws in the arguments they encounter. Even when it comes to controversial moral and political debates, people who lack the expertise to identify the flaws should not engage with these arguments open-mindedly. Duijf (2024) employs a mathematical model of open-minded decision-making to demonstrate that the epistemic value of open-mindedness is more restricted than commonly assumed. He concludes that open-mindedness “may even be epistemically harmful to reasonably competent agents and in reasonably friendly epistemic environments when agents are incapable of accurately evaluating the trustworthiness of the sources or the content of received information” (2024, 1290). In short, these arguments suggest a similar view: open-mindedness is not

necessarily truth-conducive when individuals lack the expertise to assess the credibility of sources or identify flaws in arguments.

Considering these arguments, given certain features of social media platforms, one may conclude that individual users should actually refrain from being open-minded on these platforms. For instance, research has suggested that it is difficult to identify experts and assess authenticity on social media platforms (Dallas Amico-Korby et al., 2024). Moreover, it is well-documented that social media presents a highly mixed informational landscape, where reliable sources coexist with a flood of misinformation and fake news. The prevalence of fake news has become a major concern among researchers studying the epistemic challenges of digital platforms, highlighting the extent to which social media fosters environments that can be epistemically hostile—places where users are not only exposed to unreliable information but may also struggle to filter truth from falsehood. If open-mindedness is epistemically harmful in environments where individuals are neither experts themselves nor equipped to reliably identify experts, then it follows that users should exercise extreme caution rather than indiscriminately adopting an open-minded stance when engaging with information on these platforms. In some cases, the most epistemically responsible approach may be to resist engagement altogether, particularly when one lacks the necessary tools to evaluate the credibility of a claim.

This conclusion appears to contradict the conventional wisdom that encourages individuals to “remain open-minded.” However, I believe it would be premature to dismiss this traditional advice, particularly in the context of social media users. First, as I will argue in the next section, genuine open-mindedness involves more than just a willingness to change one’s beliefs and an impartial evaluation of new arguments and evidence. It also requires a critical self-awareness of one’s own intellectual capabilities. This self-awareness enables individuals to

discern when it is appropriate to remain open-minded and when a more reserved stance should be adopted. In practice, open-minded individuals would exercise caution when engaging with new evidence when they recognize the limitations of their own knowledge on a given topic.

Furthermore, as I will argue in Section 3.4, even if open-mindedness could result in loss of certain knowledge, its potential benefits on social media outweigh this risk. One of the key advantages of open-mindedness is how it can foster the development of other virtues, particularly empathy. Empathy is not only valuable on an individual level but also plays a crucial role in mitigating toxic phenomena on social media platforms—phenomena often exacerbated by a lack of empathy among users. Scholars such as C. Thi Nguyen have argued that issues like polarization and echo chambers on social media may arise due to a fundamental lack of trust and understanding among users with differing worldviews. By cultivating empathy, individuals become more open to understanding others' perspectives, which in turn helps build trust and fosters a healthier epistemic environment on social media. Below is a summary of the argument I will lay out in the remainder of the chapter:

- 1) Given the reasons critics of open-mindedness offer, one of the worst places to be open-minded, by their lights, should be social media.
- 2) If being open-minded on social media is better than not being open-minded, then the critics' objections are less significant than they suggest, and do not support rejecting the cultivation of open-mindedness.
- 3) When open-mindedness is understood to include not only an outward-looking willingness to reconsider one's beliefs about the world, but also an inward-looking reflection on one's intellectual capabilities as they relate to particular domains, being open-minded on social media is better than not being open-minded, which is not only

because the inward reflection helps protect agents from the described harms of open-mindedness, but also because of the epistemic value of empathy-building, which relies on the outward-looking features of open-mindedness.

- 4) Thus, the critics' objections do not support a case against cultivating open-mindedness, so characterized.

3.3 Essential Components of Open-Mindedness

There are various accounts of open-mindedness in the existing literature. While no consensus has been reached on what constitutes open-mindedness, the current discussion focuses on how it involves responding to new evidence or arguments. Some scholars emphasize that open-mindedness entails a willingness to revise one's original stance, often reflected in how one engages with new information. Fantl (2018) suggests that being open-minded requires a readiness to be significantly persuaded, provided that one spends considerable time engaging with an argument, finds its reasoning compelling, and cannot identify any flaws. Similarly, Hare (1985) underscores the importance of forming and revising one's views as impartially and objectively as possible in light of available evidence and arguments. Others argue that open-mindedness primarily involves impartiality. For example, Jason Baehr (2011, 143–144) characterizes an open-minded person as an honest and impartial judge who is willing to consider opposing arguments. Kasim Khorasane (2024) takes a procedural approach, defining open-mindedness as a three-step process: refraining from screening out new claims, assessing them impartially, and updating one's beliefs accordingly. Taken together, these perspectives highlight that open-mindedness involves specific approaches to engaging with new evidence and arguments, including being impartial when evaluating them and demonstrating a willingness to revise one's original beliefs in light of new information.

While the way one handles new evidence and arguments is an important component of open-mindedness, I suspect that another critical aspect of open-mindedness is the ability to decide when to be open-minded. One might respond to this suggestion by asking: doesn't this mean that open-mindedness is simply more valuable or less harmful when paired with discretion? I think not. Consider how discretion can actually be a part of meaningfully manifesting a virtue – one like bravery. Some soldiers may know *how* to confront their opponents bravely, and have the will to do so, but those who do not know when to exercise bravery might ultimately be overly risk-averse (if they mistakenly decide to retreat when they should confront their opponents) or reckless (if they mistakenly decide to confront when they should retreat). Neither of these behaviors is bravery. Similarly, people who know how to handle new evidence and arguments might ultimately be closed-minded if they mistakenly decide to refrain too much from seeking or engaging with new evidence and arguments, or unmindful if they engage too actively with debates outside the scope of their understanding. Neither of these behaviors manifest open-mindedness.

Let's consider a couple of cases to illustrate this. Suppose Ann and Britney both respond well to new evidence and arguments: they do not dismiss evidence that contradicts their original stance, and they are willing to revise their views if opposing evidence or arguments provide sufficient reason to change their minds. However, Ann tends to overestimate her expertise in unfamiliar areas and her ability to identify trustworthy sources. As a result, after evaluating new evidence and arguments, she may give too much credit to sources that she should not trust. For instance, Ann is an amateur investor who prides herself on being open to new financial strategies. While she has studied well-established financial principles, when she hears about a new stock-picking method or investment trend, she always seriously considers it, believing that

true open-mindedness means entertaining every possibility. As a result, she frequently gets swayed by speculative, unproven, or outright fraudulent investment schemes instead of following the well-established financial principles she learned. Ann overestimates her ability to identify experts in the field she is not familiar with, which leads her to be open-minded when she should not and makes her vulnerable to poor financial decisions.

Britney, on the other hand, tends to underestimate her knowledge even in areas where she has expertise and doubts her ability to identify experts. Consequently, she frequently refrains from engaging with new evidence and arguments, worrying that she might lose confidence in the knowledge she already possesses, especially since she knows she might give too much credit to counterarguments, even when she has a strong grasp of the subject, or the capacity to learn about it. For example, suppose Britney once studied nutrition and has long believed that a strict low-fat diet is the healthiest way to eat. She originally formed this belief during her early studies when low-fat diets were widely promoted. However, in recent years, more research has emerged suggesting that certain fats, like those in nuts and olive oil, are actually beneficial and that excessive carbohydrate intake—often a consequence of low-fat dieting—can have negative health effects. If Britney were to fully engage with this new research, given her training in the field, she would recognize that her beliefs need to be updated. However, as she worries that engaging too deeply might undermine her knowledge, she avoids reading the latest nutritional studies or attending conferences where new dietary guidelines are discussed. As a result, she misses an opportunity to refine her understanding of nutrition and provide better guidance to her clients.

The cases of Ann and Britney reflect why some argue that open-mindedness can be counterproductive in acquiring knowledge. If we define open-mindedness solely by how one

responds to new evidence and arguments or by one's willingness to revise their beliefs, without considering when one should engage with new information, open-mindedness indeed could lead to the loss of previously held knowledge—even when one responds “open-mindedly” to new evidence. However, it seems counterintuitive to call Ann or Britney an open-minded person, as they may refrain from seeking new evidence and arguments when they should in certain cases. Even if they are impartial and willing to revise their original stance when confronted with specific new evidence and arguments, their broader approach to engaging with evidence falls short of genuine open-mindedness. Therefore, I suspect the extant accounts of open-mindedness are not satisfactory.

What, then, is required for genuine open-mindedness? The cases of Ann and Britney illustrate that open-mindedness is not just about how one engages with evidence and arguments—it is also about knowing when and whether to engage at all. A crucial factor in this decision-making process is one's self-awareness of their own intellectual capabilities. Both excessive arrogance and excessive humility can lead to dismissing valuable evidence too quickly, prematurely stopping the search for new information, or showing undue deference to weak or flawed arguments. This is similar to what Dennis Whitcomb et al. describe as “being properly attentive to one's limitations”—excessive attention to one's limitations can lead to diffidence and self-deprecation, while insufficient attention can lead to arrogance (2017, 23). If Ann were less overconfident in her ability to identify experts, she would be more cautious in trusting random sources on social media and less likely to let them sway her initial position. If Britney had greater confidence in her ability to process and evaluate new evidence, she would be more willing to seek out information that could challenge and ultimately correct her long-held false belief.

Thus, I argue an inward-looking self-awareness of the arenas within which they are capable of responding to reasons is an essential component of open-mindedness. This self-awareness helps individuals determine when and how to engage with new evidence and arguments. Open-mindedness, then, involves striking a balance: being receptive to new evidence while critically evaluating both its quality and one's own capacity to meaningfully engage with it. This balance helps prevent two pitfalls: on one hand, rejecting new insights prematurely due to excessive skepticism, and on the other, being susceptible to weak or deceptive arguments due to an uncritical openness.

Consequently, advocating for open-mindedness among social media users does not mean they should always engage with new views and arguments and keep questioning every belief they originally have. Such an approach could indeed risk undermining the knowledge they already possess by exposing them to misleading information. Instead, genuine open-mindedness requires a more nuanced approach, which balances active engagement with new information with an awareness of one's ability to critically assess it. To be a truly open-minded user, it is not enough to be impartial toward new evidence and arguments or to be willing to revise one's beliefs accordingly. One must also recognize whether they are competent enough to evaluate the quality of the arguments and sources they encounter. Social media platforms are rife with misinformation, biased content, and unverified claims, making discernment crucial. Users must develop the ability to determine when engagement with new information is warranted and when it is more prudent to refrain from doing so, particularly if they lack the necessary expertise to assess an argument's validity.³⁷

³⁷ Some may worry that my argument reveals a potentially problematic asymmetry: while I appear pessimistic about our ability to assess others' expertise, I seem more optimistic about our ability to assess our own. This asymmetry may seem unwarranted and therefore calls for further clarification. To clarify, although I propose that open-mindedness is a virtue that includes inward-looking self-awareness of one's

Before proceeding further, it is important to clarify a key distinction between my account of open-mindedness and others. Some existing accounts view open-mindedness as a *second-order attitude*—a stance not merely toward specific propositions but toward one’s beliefs as beliefs. For example, Jonathan Adler (2004) argues that “open-mindedness is... a second-order (or ‘meta’) attitude toward one’s beliefs as believed, and not just toward the specific propositions believed” (130). On Adler’s view, being open-minded is to acknowledge one’s general fallibility as a knower.

However, this second-order view of open-mindedness faces significant challenges. James S. Spiegel (2012) argues that what Adler describes as open-mindedness is actually a form of intellectual humility. If open-mindedness, as Adler suggests, involves a recognition of one’s epistemic fallibility—an acceptance that at least some of one’s beliefs, even foundational ones, may be mistaken—then this characterization aligns more closely with standard accounts of intellectual humility rather than open-mindedness. Various theorists define intellectual humility in different ways: some describe it as adopting a properly low view of oneself, while others frame it as an accurate estimation of one’s cognitive limitations. Regardless of the precise definition, intellectual humility, not open-mindedness, seems to fit Adler’s description of a second-order attitude toward one’s beliefs. Thus, Spiegel argues that Adler’s account mistakenly conflates these two distinct epistemic virtues, committing a category mistake.

While my account of open-mindedness echoes Adler’s emphasis on self-awareness of one’s intellectual capabilities, it differs in a crucial way. In my view, self-awareness is *only one*

intellectual limitations and capabilities, I do not mean to suggest that cultivating this awareness is easy. In fact, I suspect it is an ideal that could be extremely difficult to achieve. Nevertheless, this difficulty should not deter us from recognizing it as a virtue worth striving for. My aim, then, is not to express confidence in our ability to accurately assess our own intellectual competence, but rather to advocate for the pursuit of this ideal.

component of open-mindedness. Recognizing one's fallibility is necessary, but it is not sufficient. Open-mindedness requires more than the acknowledgment of epistemic limitations—it also demands a genuine willingness to revise one's beliefs when presented with compelling new evidence and arguments and a commitment to impartiality in evaluating new information. This distinguishes my account from the second-order view of open-mindedness and makes it immune to Spiegel's critique. While Adler's account risks collapsing into intellectual humility, my account involves not just awareness of fallibility but also readiness to engage with new perspectives.

Nevertheless, in my account, open-mindedness does have a very close relation with intellectual humility.³⁸ And because of it, I suspect open-mindedness could play a significant role in addressing toxic phenomena on social media platforms. In the next section, I will demonstrate how open-mindedness fosters the development of empathy, which, in turn, can help individuals navigate social media more effectively and help reduce the prevalence of toxic phenomena on these platforms.

³⁸ It is also worth noting that some have questioned whether intellectual humility should be regarded as a virtue. For instance, Paul Bloomfield (2020) argues that what we should endorse is not intellectual humility, but intellectual justice. In his view, intellectual humility—when understood as “owning limitations”—addresses only one half of the picture, while neglecting the other: a proper intellectual virtue should require us not only to recognize our limitations but also to acknowledge our strengths and competencies. The virtue of intellectual justice, as Bloomfield conceives it, encompasses both. This project does not aim to settle the question of how intellectual humility should be defined or whether it qualifies as a genuine virtue. However, I want to make a few clarifying remarks before proceeding. My account is compatible with the claim that intellectual justice, rather than intellectual humility, is the relevant virtue. The inward-looking awareness I discuss is not limited to the recognition of one's limitations; it involves a broader assessment of one's intellectual capabilities as they relate to particular domains—as exemplified in the case of Britney. Nevertheless, I focus on intellectual humility for two reasons: (1) even if intellectual justice is the more comprehensive virtue, intellectual humility remains a key component of it, and (2) the empirical studies I later reference primarily focus on intellectual humility, with limited discussion of intellectual justice. Therefore, for the purposes of this project, I focus on how intellectual humility relates to my account of open-mindedness.

3.4 Open-Mindedness and Toxic Phenomena on Social Media Platforms

Besides the concern about whether open-mindedness is truth-conducive—a concern which I have argued is based on an unsatisfactory account of open-mindedness—I suspect there are even more compelling reasons why social media users should cultivate this trait. Even if open-mindedness could lead users to lose the knowledge they once possessed in specific cases (or to incur some false beliefs), it can still help users develop other traits including empathy and change their user behavior, including help slowing down users when they consume information. These changes lead to broader benefits for the epistemic environment of social media should be sufficient to justify open-mindedness’s status as an epistemic virtue for users.

Promoting open-mindedness among social media users offers a promising means of fostering intellectual humility, which could, in turn, help restore empathy. As discussed in the previous section, a key component of open-mindedness is self-awareness regarding one’s intellectual capacity. For example, in Ann’s case, determining when to engage with new evidence and arguments in an open-minded manner requires her to assess whether she can reliably identify experts in the field. This observation suggests that self-awareness is closely related to the development of intellectual humility. Indeed, this connection is supported by empirical research demonstrating a correlation between open-mindedness and intellectual humility.³⁹ Users who are open-minded also tend to be intellectually humble as well.

Beyond its general benefits, intellectual humility is strongly linked to the development of empathy. Studies have shown that individuals who score higher in intellectual humility are less likely to dismiss the intellectual capabilities and moral character of their sociopolitical

³⁹ For instance, see Krumrei-Mancuso et al. 2019.

opponents.⁴⁰ For instance, Stanley et al. (2020) found that intellectually humble individuals are more willing to befriend and engage with those who hold opposing views, including following them on social media. Similarly, Lehmann et al. (2025) identified a positive relationship between intellectual humility and both empathic accuracy and empathic resilience, emphasizing the role of intellectual humility in enhancing empathy. These empirical findings perhaps are not surprising as empathy is often characterized as involving the capacity to reenact the thought processes of others and take the perspective of others.⁴¹ By recognizing their intellectual limitations and acknowledging the possibility that their own views may be incorrect, intellectually humble individuals are more inclined to consider alternative viewpoints and engage with others more empathetically. With open-mindedness, intellectual humility, and empathy being closely interconnected, cultivating open-mindedness can also promote the development of both intellectual humility and empathy.

Let us consider an anecdotal example to further illustrate how these virtues are closely interconnected and how the development of one virtue can initiate a virtuous cycle that fosters the growth of the other two. Megan Phelps-Roper, a social media activist, grew up in the Westboro Baptist Church, which is known for its public protests against homosexuality. Unsurprisingly, given her upbringing, Megan pursued Westboro's agenda with a special zeal, which brought her to Twitter in 2009. As she began having conversations with people—both on Twitter and, when they found her at Westboro protests, in person—she gradually noticed inconsistencies in what the church advocated. Why, for instance, advocate the death penalty for

⁴⁰ In the empirical studies cited in this section, although the definitions vary slightly, “intellectual humility” is generally understood as the acknowledgment of one’s intellectual limitations or the awareness that one’s views and beliefs may be fallible or incorrect.

⁴¹ Karsten Stueber (2006), for instance, suggests that one important type of empathy is reenactive empathy, which involves the use of our capacities to imitate how others think.

homosexuals when Jesus said, "Let him who is without sin cast the first stone"? And how could one claim to love their neighbor while at the same time praying for God to destroy them? As these conversations continued, Megan realized that the Westboro Church was not the arbiter of truth, but rather a group of flawed human beings and that those she encountered on social media were not demons. As her trust in the church eroded, Megan left Westboro in 2012 and became a political activist who advocates for dialogue between groups with opposing views. Megan's story shows that as she realized her conversations with those holding opposing views were civil and constructive—and that her religious beliefs were fallible—she no longer saw her opponents as demons and began to understand their perspectives. This reflects a process in which intellectual humility opened her to opposing views and fostered greater empathy toward others' experiences.

Megan's case also sheds light on how open-mindedness paired with intellectual humility and empathy can potentially alleviate various toxic phenomena on social media platforms.

⁴²Existing literature discusses several of these issues, including the spread of fake news and misinformation, epistemic bubbles and echo chambers, and polarization. These phenomena are not only problematic by themselves, but the prevalence of these phenomena also highlights broader epistemic challenges within social media environments. For instance, as mentioned earlier, scholars such as Amico-Korby et al. (2024) argue that social media platforms make it difficult for users to identify experts and assess authenticity. Additionally, the lack of accountability mechanisms allows users and organizations that spread misinformation to do so without consequence. As these issues stem from the specific mechanisms of social media

⁴² For details of the case, see Megan Phelps-Roper's TED Talk "I Grew up in the Westboro Baptist Church" and her memoir *Unfollow*.

platforms, it is reasonable to expect that the platforms themselves should address and resolve them. Amico-Korby et al. suggest that social media platforms should implement mechanisms to “clearly demarcate informative content from non-informative content” and assist users in recognizing experts (2024, 18). Regina Rini proposes that social media platforms should “provide the infrastructure for tracking the testimonial reputation of individual users” to establish “testimonial norms with a clear norm of accountability” (2017, 56).

On the other hand, some problems with social media platforms could potentially be alleviated by changes in individual users. For instance, scholars have suggested that users on social media platforms tend to exhibit a decrease in empathy. Studies indicate a notable decline in empathetic capacity among a growing segment of the population, particularly among frequent internet and social media users⁴³. Mossner and Walter (2024) argue that frequent internet users struggle to be empathetic because they do not absorb sufficient affective repertoires, perceptual input, and background knowledge through online interactions. This reduced capacity for empathy, in turn, exacerbates several toxic phenomena on social media platforms, including the spread of fake news⁴⁴, polarization⁴⁵, and hate speech. Increasing open-mindedness, intellectual humility, and empathy among users, therefore, could significantly improve the toxic phenomena on social media platforms and improve these platforms as epistemic environments in general.

Let us discuss how these virtues could help two specific toxic phenomena to demonstrate the benefits that come with these virtues. Social media is often said to exacerbate polarizations. Some intuitive ways to combat polarization could actually backfire. For instance, one common suggestion in response to polarization is to encourage people to engage with arguments of the

⁴³ For instance, see Konrath 2013; Martingano et al. 2022; Turkle 2017.

⁴⁴ For instance, see Vafeiadis and Xiao 2021

⁴⁵ For instance, see Feddes et al. 2015

other side of the debate. Studies have found, however, that this method is often not effective: people tend to become even more radical. The more people learn about the other side the more they may be inclined to see the opposition as pathological.⁴⁶

One possible explanation for why mere exposure to opposing arguments fails to reduce polarization is that exposure alone does not equate to genuine engagement or comprehension. Simply encountering an opposing viewpoint does not mean individuals are prepared—or even willing—to digest and consider it with an open mind. Horwitz and Seetharaman (2020) highlight that the core of polarization on social media is not just ideological disagreement but the “vilification of one’s opponents.” Vilification extends beyond mere propagation of false claims; it involves hostility and moral condemnation of the opposing side. Because vilification is not purely an epistemic issue, it cannot be resolved by simply providing more information or increasing exposure to alternative perspectives. If individuals already view their opponents with contempt, additional exposure may only reinforce their negative perceptions rather than encourage reconsideration. What is needed, then, is not just knowledge of the opposing side but the development of the cognitive and emotional capacities necessary to engage with differing viewpoints in a meaningful way.

This is where open-mindedness, paired with intellectual humility and empathy, becomes crucial. In Megan’s case, she was not only exposed to views opposing those of the Westboro Baptist Church, but she also engaged in civil conversations with her opponents and thoughtfully reflected on their perspectives. Through this process, Megan developed an awareness that the church’s teachings could be flawed, which made her even more open to opposing viewpoints and began to de-demonize those she once saw as enemies. Eventually, this became a virtuous cycle:

⁴⁶ See Aikin and Talisse 2020, 196 and Bail et al. 2018.

the more open she became to opposing views, the more she recognized her own fallibility, and the more empathetic she grew toward her former adversaries. In turn, this greater empathy made her even more willing to engage with and reflect on opposing perspectives. Open-mindedness, in this process, fosters empathy, encouraging individuals to see their ideological opponents not as enemies but as people with understandable—if still debatable—perspectives, thereby helping to reduce polarization.

Similarly, this virtuous cycle could play a crucial role in helping individuals escape echo chambers. When discussing potential ways for users to break free from echo chambers, Nguyen (2020) argues that solutions could lie in restoring trust between echo chamber members and the broader social world. According to Nguyen, merely exposing members to evidence that contradicts their beliefs is not enough, as echo chambers function by manipulating trust—causing members to automatically discredit all information from outside sources. As a result, even if individuals within an echo chamber are exposed to opposing views, their beliefs are unlikely to change; in fact, they may become even more entrenched as they automatically dismiss external sources as untrustworthy. While Nguyen does not provide a comprehensive solution to this problem, he suggests that rebuilding trust between echo chamber members and outsiders could encourage more genuine engagement with differing perspectives.

Once again, Megan's case illustrates how the virtuous cycle can help bridge the divide between echo chambers and the wider community. Echo chambers thrive on distrust, reinforcing the perception that outsiders are not only misguided but also malicious or deceptive. This distrust often prevents members from engaging in good faith with opposing perspectives. Megan was raised within such an echo chamber, surrounded by people who adhered to Westboro Church teachings and viewed non-members as demons. When Megan first interacted with opponents on

Twitter, the experience remained hostile—what she described as “the digital version of the screaming hordes I’d been seeing at protests since I was a kid.” At first, she continued to automatically dismiss outside perspectives. However, as she gradually recognized that her opponents showed genuine care for her, she began to open herself to their voices and questioned the infallibility of the Westboro Church’s teachings. The virtuous cycle of open-mindedness, intellectual humility, and empathy thus began, ultimately helping her escape the echo chamber.

Megan’s case shows how the virtuous cycle allows echo chamber members to reinstate and imitate other people’s thinking process, which humanizes those outside their echo chambers. They may become more willing to engage with opposing viewpoints in a way that is not immediately defensive or dismissive. Instead of automatically rejecting outside perspectives as threats, they make a genuine effort to understand where others are coming from. This shift in attitude can weaken the rigid boundaries of an echo chamber, making members more open to constructive dialogue and less likely to reflexively vilify those who disagree with them. Over time, this could create opportunities for trust to be gradually restored, allowing people to critically evaluate outside information without the automatically discrediting these outside sources.

3.5 Conclusions

I have argued that open-mindedness is still an essential epistemic virtue that social media users should cultivate. While concerns have been raised about open-mindedness being counterproductive for knowledge acquisition, especially in an epistemic environment like the social media platforms, these concerns rest on incomplete accounts of open-mindedness. These accounts neglect one component of open-mindedness: the self-awareness of one’s intellectual capabilities, which helps one discern when to be open-minded. I have further argued that open-

mindfulness is immensely valuable even without considering whether it is truth-conducive. It plays a crucial role in fostering empathy among social media users, which in turn has the potential to mitigate toxic phenomena that currently undermine these platforms. By promoting empathy, open-mindedness helps improve social media platforms as epistemic environments.

Conclusions

This dissertation explores what individual users of social media platforms can and should do to respond to the challenges arising from the negative impact of social media on our epistemic environments. The rise of social media has led to epistemic decentralization, granting users greater access to a wide range of information sources and enabling them to act as information disseminators to broad audiences. This decentralization is not entirely detrimental. In fact, if users are motivated to seek the truth, social media can empower them to become better knowers by providing both access to diverse information and platforms for information sharing.

However, when users lack such motivation, the decentralized epistemic environment can lead them further away from the truth, giving rise to problematic phenomena such as the spread of fake news. While individual users are not solely responsible for addressing this problem, there are important steps they can and should take. First, given the high moral stakes involved, users should exercise greater caution before deciding whether to share information encountered on social media. This includes either verifying the information before sharing or clearly communicating the intent behind the act of sharing.

Furthermore, one important virtue that users should cultivate is open-mindedness. Genuine open-mindedness involves not only an outward-looking willingness to reconsider one's beliefs about the world, but also an inward-looking reflection on one's intellectual capabilities as they relate to particular domains. This kind of open-mindedness can foster additional epistemic virtues such as intellectual humility and empathy—virtues that contribute to improving social media platforms as epistemic environments by counteracting harmful trends like the spread of misinformation, the formation of epistemic bubbles and echo chambers, and increasing polarization.

These conclusions suggest a general direction individual users can take to better navigate the impact of social media on the epistemic environment. As online platforms that connect users across the globe, social media amplifies the influence individuals have on one another's epistemic lives. Consider, for example, the role users play in the dissemination of information—whether as original sources or as participants in the circulation of content created by others. Also consider how individuals engage in public arguments and debates with people from diverse backgrounds and perspectives. We are now in a context where individual beliefs and actions carry greater epistemic and moral significance, raising the stakes of our participation in online discourse.

In light of this, individuals should exercise greater care regarding what they believe and how they act on those beliefs. Given our cognitive limitations as human beings, this often means acknowledging the possibility of error and being open to revising our beliefs in response to new arguments and evidence. This, in turn, calls for caution when taking high-stakes actions based on one's beliefs. These considerations motivate the duty to reserve reliance on one's justified beliefs, as discussed in Chapter 2, and the cultivation of open-mindedness as an essential epistemic virtue, as explored in Chapter 3.

While the moral and epistemic stakes of social media engagement are rising, current platforms largely lack effective mechanisms to hold users accountable for their epistemic misconduct or harmful behavior. Although this dissertation primarily focuses on raising awareness of the critical role individual users play in shaping today's epistemic environment and clarifying the responsibilities they bear, the findings also point to important obligations for social media platforms and broader institutional structures. These entities are uniquely positioned to influence user behavior: they can implement systems that encourage individuals to seek the truth,

promote responsible information-sharing, and foster healthier discourse. Moreover, they have the capacity to enforce accountability for epistemic irresponsibility and harmful participation online.

At the same time, any institutional efforts to regulate or shape discourse must be carefully balanced against legitimate concerns about infringing on individuals' rights to free expression. The tension between promoting epistemic responsibility and preserving freedom of speech presents a significant challenge. Future research should investigate how social media platforms and institutions can fulfill their duties in ways that both support the epistemic goals identified in this dissertation and respect fundamental democratic values. Exploring the normative boundaries and practical possibilities of institutional involvement is a promising direction for extending the work initiated here.

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