THE ARCHITECTURE OF FEAR: A SOCIO-POLITICAL FRAMEWORK FOR UNDERSTANDING HOW VALUES SHAPE THE FEAR OF TECHNOLOGY

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ABSTRACT: *This article presents a theoretical framework to explain why rapid technological changes often generate deep and polarizing social fear. The author argues that public reactions to innovations such as artificial intelligence, 5G, mRNA vaccines, or biotechnologies are not manifestations of ignorance or irrationality, but rather the predictable result of a conflict between new technologies and deeply entrenched fundamental value systems. The paper postulates that key ideologies—particularly conservatism, which values stability, tradition, and hierarchy, and progressivism, which favors reform, innovation, and equality—act as "perceptual and moral filters." These filters determine which aspects of a technology individuals focus on (e.g., the risk of social disruption versus the opportunity to solve problems) and imbue them with emotional and moral significance. Through specific case studies, the article demonstrates how individual anxieties are socially amplified and transformed into a "culture of fear," shifting the debate from the technical characteristics of the innovation to a broader conflict over competing visions of society. Ultimately, the paper builds a holistic model that challenges the 'deficit model,' offering a socio-political perspective in which the fear of technology is understood as a logical, albeit emotionally charged, reaction to perceived threats to identity, security, and moral values.*

Keywords: Technology;, fear;, social construction of risk perception;, value systems.

Introduction

Every aspect of human life is constantly changing due to the unparalleled pace of technological advancement that characterizes the twenty-first century. These changes create a basic dilemma in areas like communication, work, social interaction, and health. Technology is seen as a magic bullet that will solve all of humanity's problems and enhance the future by boosting health, productivity, and connectivity.

This tension is not just theoretical; it is evident in public discourse in the last few years. The widespread distribution of COVID-19 vaccines, the worldwide rollout of 5G telecommunications, and the quick development of artificial intelligence have all sparked contentious debates that go beyond technical details (Stoica, 2024). These disagreements show that people's reactions to technology often reveal more about their values, worldviews, and social trust than the technology itself. The main focus of this article is on how popular value systems, like conservatism, progressivism, and democratic ideals, affect people's risk perceptions and create a fear of technological change.

The following main research questions serve as the article's guide in addressing this complicated issue:

1. What is the relationship between the shared values of individuals and the risks they perceive in society?
2. How are current technological changes viewed from the perspective of different, often opposing, value systems?
3. What are the key perceived risks that are directly attributed to these technological changes?

The main contention of this article is that the perception of risk related to technological advancements is a socially and psychologically mediated process rather than an objective evaluation of empirical danger. People's basic beliefs, especially the conflict between conservatism and progressivism, greatly influence this process. We argue that progressive values, which are motivated by an ethos of change and reform, tend to reduce risk perception regarding disruptive technologies, whereas conservative values, which are based on the preservation of tradition and social stability, tend to increase it. But according to their fundamental principles,

both value systems recognize different risks, showing that no ideological viewpoint is completely immune to technological anxiety.

This study is significant because it develops a comprehensive theoretical framework for examining the psychological and social foundations of technophobia. This article offers a sophisticated framework for comprehending one of the most significant social phenomena of our day by fusing ideas from social psychology, political science, and sociology. This framework is essential for social scientists, policymakers, and business executives to anticipate public opposition, develop successful communication plans around emerging technologies, and promote a more thoughtful and reasonable public conversation that transcends the binary opposition of technophilia and technophobia. In the end, we can better navigate the societal path to responsible innovation by investigating why some technologies cause fear.

1. The Value-Based Foundations of Social Perception

Establishing a theoretical framework based on the idea of values is crucial to understanding why technological advancements provoke such divisive and emotionally charged reactions. Perceptions of danger and fear are examples of social phenomena that cannot be understood in a vacuum. Rather, they are interpreted in light of preexisting moral and cognitive frameworks that people create and propagate within their communities. These frameworks, which are generally regarded as value systems, serve as filters for perception, emphasizing some parts of reality while hiding others, and ultimately directing feelings and actions. Before going into detail about the main ideological axes—conservatism, progressivism, and the disputed values of democracy—that influence how society interprets technological change, this chapter will define value as it is used in the social sciences.

1.1. The Concept of Value in the Social Sciences

In this study, "values" are defined as ingrained, persistent beliefs about what is essentially desirable, right, and good rather than as merely personal preferences (Hechter, 1993).

As a moral compass that guides attitudes, defends deeds, and offers standards for assessing the world, they stand for the fundamental values and standards of a society or an individual. These values are rarely found alone; instead, they are arranged into logical, hierarchical value systems that make up a worldview. People get their sense of purpose, identity, and order from these systems (Spencer-Oatey, 2012).

These value systems play a crucial role in regulating how people react to outside stimuli, especially those that signify change or novelty. People don't react to disruptive forces like new technologies by evaluating their technical merits objectively and rationally. Rather, their current value system processes the technology, instantly framing it in terms of norms: Is it a chance for advancement or a danger to stability? Does it allow for more control or more freedom? Does it follow customs or go against accepted norms? Accordingly, these value systems serve as the main means by which the subjective perception of risk and fear is converted from the empirical reality of technological change (Stoica, 2024). Understanding the core tenets of the dominant value systems in contemporary society is therefore a prerequisite for analyzing the roots of technological anxiety.

1.2. Core Ideological Axes in Interpreting Change

Despite their diversity, human values tend to center around two main ideological poles that present opposing but comprehensive perspectives on social life. The ideological spectrum between conservatism and progressivism offers the most powerful explanatory axis for examining responses to technology. These worldviews are based on essentially different conceptions of social order, human nature, and what progress actually means (McClintock, 1978).

1.2.1. Conservatism: The Primacy of Stability, Tradition, and Authority. The desire to maintain the established institutions, customs, and values that are thought to provide social stability is the fundamental driving force behind conservatism as a political and social philosophy (Heywood, 2012). A skepticism toward radical change, which is frequently perceived as a leap into the unknown that runs the risk of losing the accumulated wisdom of the past, is fostered by

this orientation. Three fundamental tenets of the conservative worldview govern how technology is perceived (Muller, 1997):

Tradition: From a conservative perspective, tradition is not merely a nostalgic reverence for the past but an epistemology of the collective—a repository of tacit knowledge, moral insights, and social solutions that have been tested and refined through generations of human experience. It represents a form of wisdom that is considered more reliable than the abstract, rationalistic, and often utopian schemes of reformers. New technologies, by their very nature, are frequently disruptive to tradition. They can render traditional skills obsolete, alter established modes of social interaction (e.g., the erosion of face-to-face community through social media), and challenge long-standing moral norms. Therefore, technology is often perceived first and foremost as a potential threat to this repository of collective wisdom, prompting a cautious, if not outright resistant, response.

Hierarchy and Authority: The conservative worldview tends to perceive society as a naturally ordered organism composed of hierarchies that provide structure, role clarity, and stability. Authority, whether vested in the family, religious institutions, or the state, is seen as a necessary force for maintaining social order and restraining the more destructive aspects of human nature. Information and communication technologies, in particular, are often seen as profoundly corrosive to these structures (Jost et al., 2003). By decentralizing communication, bypassing traditional gatekeepers of information, and enabling the rapid organization of dissent, technology can directly challenge established authority and flatten social hierarchies. This capacity is inherently viewed as a source of social entropy and instability, making such technologies an object of significant concern.

When evaluating new technology from a conservative perspective, the default lens is one of social cohesion risk. "What will this disrupt?" is more important than "What can this achieve?" Slow, gradual adaptation that incorporates new tools without compromising the stability offered by custom and established authority is the recommended course of action (Nisbet, 1993).

1.2.2. Progressivism: The Pursuit of Reform, Change, and Human Improvement.

Progressivism, on the other hand, is a forward-thinking philosophy driven by the belief that human society can be improved via reason, change, and cooperation. The current situation is viewed as an imperfect state that needs to be improved upon rather than as an inheritance that needs to be preserved (Nugent, 2010). Therefore, change is essentially a practical and moral necessity rather than a risk.

Social Reform and Intervention: A fundamental principle of progressivism is the conviction that intentional intervention, frequently by the government, can and ought to be used to address social issues like injustice, inequality, and inefficiency (Stoica, 2024). This method is based on a belief in human agency and the ability of logical planning to solve social problems. Many people believe that technology is the most effective tool available for enacting these reforms. Technology is viewed as the force behind society's advancement, from data-driven policymaking to green energy solutions and medical advancements.

Openness to Innovation and Novelty: Progressivism is hopeful, whereas conservatism is cautious. It welcomes change and believes that innovation is essential to maximizing human potential and building a brighter future. The inherent disruption brought about by new technologies is frequently presented as the "creative destruction" required to destroy antiquated, unfair, or ineffective systems rather than as a loss of stability. As a result, a progressive position is typically one of openness and excitement for new technologies, along with the conviction that any unfavorable effects can be controlled with more innovation and sensible regulation.

For progressivism, the perceptual filter is one of opportunity for improvement. The default question when faced with a new technology is "How can this be used to solve problems and advance human well-being?" The primary risk identified is not the disruption caused by technology, but rather the risk of stagnation and inequity that arises from failing to embrace it.

1.2.3. Democracy as a Contested Set of Cross-cutting Values.

Democracy, rather than occupying a third position on this ideological axis, represents a set of fundamental values that are claimed, interpreted, and prioritized differently by both conservatives and progressives. The principles of freedom, equality,

and individual rights form the battleground on which debates about technology are often fought (Watkins, 1970; Diamond & Morlino, 2005).

Freedom and Expression: In the technological sphere, this value manifests as a conflict between open access and control. Progressives might champion the internet as a tool for democratizing information and giving a voice to the marginalized, advocating for net neutrality as a tenet of freedom. Conversely, conservatives, while also valuing freedom, may be more focused on the risks that unchecked online expression poses to social order, moral standards, and national security, thus being more open to content regulation (Stoica, 2024).

Equality and Rights: Regardless of social background, progressives may see technologies such as AI-powered learning platforms as a way to give everyone equal opportunities. Conservatives may contend that these kinds of systems go against established meritocratic ideals or might be applied with unspoken biases, leading to the emergence of new types of inequality. Similar to this, the debate over technological surveillance pits the state's obligation to maintain security against the democratic right to privacy; the trade-off is assessed very differently depending on one's underlying values.

To put it simply, technology is not a force that exists in a vacuum. Through these deeply ingrained ideological lenses, its social meaning, potential advantages, and—above all—perceived risks are actively constructed. The fundamental theoretical basis for comprehending the emergence and nature of technological fear in modern society is provided by the ongoing conflict between the conservative imperative to preserve and the progressive drive to reform, with both sides using the language of democratic values.

2. From Risk to Fear: The Social Construction of Technological Peril

The previous chapter demonstrated that technological advancements are value-laden phenomena that are viewed through the ideological prisms of progressivism and conservatism rather than being neutral artifacts. However, the strong, frequently visceral emotion of fear that usually accompanies significant technological shifts cannot be adequately explained by this interpretation alone. By examining the processes by which a technological advancement is framed as a threat to society, this chapter closes the gap between emotional reaction and cognitive evaluation.

Using ideas from social psychology and cultural sociology, we will first break down the idea of "risk," shifting it from a technical to a social realm. Next, we will distinguish between social fear and individual anxiety, explaining how individual fears can be institutionalized and magnified into a "culture of fear." Finally, we will develop a framework for comprehending how technological anxieties fit into the larger context of societal insecurities by introducing analytical tools like the "pyramid of social fears." (Chelcea, 2009)

2.1. The Cultural Theory of Risk and the "Risk Society"

The modern conversation about technology is filled with discussions of risk, yet this term remains remarkably ambiguous. In technocratic and scientific frameworks, risk is often defined as an objective, quantifiable measure: the likelihood of an adverse event occurring, multiplied by the potential severity of its consequences. However, this strictly mathematical perspective is not sufficient from a social science point of view. The risks that tend to capture public attention or cause societal concern are not necessarily those with the greatest statistical probability of harm. Rather, these risks most effectively speak to dominant cultural values and shared fears, influencing public opinion in ways that go beyond simple math (Renn, 1992).

The Cultural Theory of Risk, which Mary Douglas and Aaron Wildavsky developed in 1982, is based on this viewpoint. Their framework holds that risk identification, selection, and prioritization are fundamentally social and political processes. According to Douglas and Wildavsky, societies decide for themselves which risks are important enough to be feared and given attention. They then use these decisions to legitimize existing social structures, reinforce social norms, and form collective identity. Risk perception, therefore, is not about individual miscalculation; it is a form of social control and boundary maintenance. When a community labels a technology (e.g., genetically modified organisms, nuclear power) as "dangerous," it is often simultaneously making a statement about its

moral boundaries, condemning the social groups associated with that technology (e.g., multinational corporations, unaccountable scientists), and reinforcing its own worldview. From this perspective, the debate over technological risk is less a scientific discussion and more a struggle between competing visions of society (Stoica, 2024, pp. 49-50).

Building on this foundation, sociologist Ulrich Beck (1992) introduced the concept of the "Risk Society." Beck posits that modern societies have transitioned from a logic of wealth distribution (addressing issues of poverty and inequality) to a logic of risk distribution (addressing the pervasive, often invisible, and globally scaled dangers created by industrial and technological progress). Unlike the localized dangers of the pre-modern era (e.g., famine, disease), the risks of the contemporary world—such as climate change, nuclear fallout, or digital data breaches—are deterritorialized, democratized (potentially affecting everyone, regardless of class), and often imperceptible to the human senses, ideas also discussed by Giddens (1998).

This dynamic contributes to a shifting terrain of societal anxiety. Technological risks are frequently presented as chronic and difficult to detect, with impacts that can span decades and remain largely invisible in everyday life. Because they are frequently unable to give the public unambiguous or conclusive guarantees of safety, such risks thus call into question the legitimacy of political and scientific authorities. As societies struggle with complicated threats that defy easy fixes, the ongoing uncertainty surrounding these issues can erode public trust and increase collective unease. Because of this, there is a widespread culture of mistrust and uncertainty, and the "what if" scenarios of possible disaster gain more social clout than statistical assurances. It is within this fertile ground of distrust and imperceptible danger that technological change can be most easily constructed as a source of existential fear.

2.2. From Individual Anxiety to Social Fear

While the concepts of the risk society provide the macro-level context, the actual experience of fear remains a psycho-social phenomenon. It is crucial to distinguish between the internal state of individual fear or anxiety and the collective phenomenon of social fear.

Individual fear is a natural and adaptive emotional response to a perceived, immediate threat. It triggers physiological and behavioral reactions ("fight or flight") designed for self-preservation. Anxiety, by contrast, is a more diffuse state of apprehension directed toward an uncertain or future threat (Öhman, 2008). A technological innovation, being a novel and complex phenomenon, is more likely to initially generate anxiety than acute fear. This anxiety might manifest as unease about job security, worries about privacy, or a general sense of disorientation in a rapidly changing world.

However, individual anxieties can be transformed into social fear through processes of social amplification and communication. Social fear arises when a significant number of people within a society come to share a common object of fear, and this shared fear becomes a topic of public discourse that shapes collective behavior and political action (Furedi, 1997). This transition is facilitated by several mechanisms:

Mass Media and Social Media: Modern media ecosystems are powerful amplifiers of risk narratives. Sensationalist reporting, the virality of emotionally charged content, and the creation of ideological echo chambers on social media can rapidly elevate a specific technological concern from a niche issue to a society-wide moral panic (Glassner, 2010).

Moral Entrepreneurs and Political Actors: Individuals or groups may have a vested interest in promoting a particular technological fear to advance a political, ideological, or economic agenda. They can garner public support, undermine critics, and sway policy by portraying a technology as an existential threat.

Two significant mechanisms that lead to the worsening of general anxiety are confirmation and social validation. As more members of a certain social network begin to voice similar concerns, these anxieties gain social validation and are perceived as more urgent and real. In this sense, issues that might have previously only affected individuals are acknowledged as genuine problems that the entire community must deal with. A "culture of fear," where societal discourse is dominated by a preoccupation with potential threats and risk aversion, is often the outcome of this process.

Concerns about safety and security usually take precedence over other social ideals, such as freedom or technological advancement, in a

culture like this. Additionally, the burden of proof changes significantly, giving disproportionate weight to worst-case scenarios. Instead of requiring proof that a particular risk is harmful, the public is increasingly demanding absolute certainty about its safety, a threshold that most emerging technologies cannot meet.

To analyze and categorize these societal anxieties, the work of Septimiu Chelcea provides a valuable tool: the Pyramid of Social Fears (Stoica, 2024). Inspired by Maslow's hierarchy of needs, this model organizes social fears into a hierarchy, from the most fundamental (e.g., fear for one's life, loss of shelter) to higher-order concerns (e.g., loss of liberty, fear for the future of one's descendants).

The utility of this model lies in its ability to demonstrate how the primary fears of a society can shift over time and in response to different conditions.

A society in wartime might be dominated by fears at the base of the pyramid, whereas a stable, affluent society might be more preoccupied with higher-order anxieties. Critically, new technologies have the capacity to trigger fears across this entire spectrum simultaneously—from the fear of physical harm (related to vaccines or 5G) to the fear of economic displacement (loss of jobs to AI) and the fear of losing freedom (surveillance technology), making technology a uniquely powerful and multifaceted trigger of social fear.

3. Technological Change as the Trigger

The theoretical framework from the previous chapters shows how value systems shape the perception of risk and turn it into social fear. This framework needs a clear catalyst. In today's world, that catalyst is often technological change. This chapter shifts from the abstract to the specific by looking at the key technological developments that drive modern anxieties.

First, technology should be understood as a dynamic social process rather than merely a set of tools. The chapter will then examine instances of technophobia from the past and present. 5G telecommunications, artificial intelligence (AI), and novel biomedical advancements like mRNA vaccines will be its main topics. By influencing how people view risks and reflecting conservative and progressive ideals, these technologies instill fear in the general public.

3.1. Defining Technology as a Social Process

When examining technophobia, it is common to make the mistake of viewing technology as a static, outside force that influences society. The fact that technology is fundamentally a social and human endeavor is ignored by this viewpoint, which is commonly known as technological determinism. According to this study, technology refers to the systematic application of knowledge to achieve beneficial goals and includes more than just the tools and machinery we make (Bain, 1937). This process is linked to the political, economic, and cultural context in which it takes place (Schatzberg, 2006). This definition is important because it emphasizes several important characteristics:

Technology is a process rather than merely a product. It includes every phase of invention, innovation, distribution, and social adaptation. A new technology is not just "released" into society; rather, it evolves alongside social norms, economic systems, and cultural practices (MacKenzie & Wajcman, 1999).

Values are reflected in technology. Technological tools are not neutral; rather, they reflect the values and prejudices of their designers. For example, a social credit scoring algorithm has values related to individual behavior and social order.

Technology breeds doubt. Disruptive innovation modifies long-standing practices and introduces novel concepts. People and organizations must navigate a new environment where old rules may no longer apply, which frequently causes anxiety.

We can go beyond a straightforward "good vs. evil" viewpoint with the aid of this process-oriented viewpoint. It makes it possible to examine how specific aspects of technological advancements give rise to the value-based anxieties covered in Chapter 2.

3.2. Modern Instantiations of Technological Fear

Technology-related anxiety is not new, but with each new technological advancement, its focus and level of intensity shift. These anxieties have historically been rooted in concerns about job loss and the dehumanizing effects of machines. An effective illustration of this is the Luddite movement in 19th-century England. The

textile machines that endangered their jobs and independence were fiercely opposed by skilled workers (Linton, 1992; Jones, 2006). This historical example is important because it establishes a foundation for technological resistance associated with economic instability and the preservation of traditional lifestyles. In today's conversations, this theme strikes a deep chord. In a similar vein, Mary Shelley's Frankenstein remains an enduring cultural emblem of the apprehension of unbridled creation. It illustrates the arrogance of humanity in creating something it cannot control, which ultimately turns against its creator (Szollosy, 2017).

These historical examples of job loss and unregulated innovation reflect the worries we have about today's new technologies. The following cases, crucial to the research section of your thesis, are key instances of this modern fear of technology.

3.2.1. Artificial Intelligence: The Specter of Obsolescence and Disempowerment.
Artificial Intelligence, especially large language models like ChatGPT and generative media such as Deepfakes, is arguably the biggest source of technological anxiety today. AI sparks fear in various ways, impacting both conservative and progressive value systems.

Economic Risk (Labor Displacement): AI brings back the Luddite fear of mass job loss, but this time on a much larger scale. Unlike the machines of the Industrial Revolution that took over manual labor, AI can automate cognitive and creative tasks, affecting many white-collar jobs (Stoica, 2024). This threatens individual identity and financial security, creating a widespread fear of becoming "useless" in a new economic landscape. This concern is shared by people across the political spectrum, though expressed differently: conservatives see it as a serious disruption to social order and personal purpose, while progressives worry it could worsen economic inequality to devastating levels.

Deepfakes and other generative AI technologies pose a serious threat to our shared understanding of reality, which is known as **epistemic risk** (disinformation and reality collapse). It enables the creation of remarkably lifelike but completely fake audio and video content. This technology undermines the foundations of information trust (Westerlund, 2019). It seriously endangers society. Those who

value democracy say it undermines the potential for an informed public and leaves political discussions open to widespread manipulation. Conservatives see it as a powerful tool for causing social unrest and damaging the reputation of respectable leaders and institutions. Being tricked is not the only problem; entering a post-truth world where it is difficult to tell what is real and what is fake is also a problem (Fletcher, 2019).

Existential Risk (Loss of Control): as with the Frankenstein archetype, discussions about artificial intelligence are often accompanied by worries about a superintelligence that could be impossible for humans to control. The worry about creating something more powerful and intelligent betrays a deep fear of losing control, even though this idea is usually found in science fiction. It suggests a sincere concern that people may become extinct (Stoica, 2024, p. 94).

3.2.2. Biomedical Innovations and 5G: The Fear of the Invisible and the Invasion of the Body.
While artificial intelligence (AI) raises questions about thought and social structures, technologies like 5G and mRNA vaccines evoke deeper concerns about physical health, personal freedom, and hidden dangers.

5G's Invisible Danger: The primary cause of the public's anxiety about 5G technology is not its ability to deliver faster data. Rather, it results from its functioning, which entails the propagation of electromagnetic fields with radio frequencies. Regarding the long-term impacts of this invisible force on the human body, experts cannot agree (Thielens et al., 2018). It is a major cause of health-related anxieties because of this uncertainty and the pervasive misinformation about it (Meese, 2020). This fear intensifies from the perspective of cultural risk because it feeds into a narrative about pollution brought on by an invisible and uncontrollable corporate or governmental force. It particularly appeals to those who respect nature, purity, and skepticism toward established institutions.

Vaccines and Bodily Autonomy: The controversy surrounding COVID-19 vaccines brings to light the conflict between advanced technology and deeply held views on freedom and the body. The mRNA vaccine was a quick, and for many, a little-understood, scientific breakthrough in biomedical technology. This raised concerns due to a number of value-based conflicts:

Naturalism and Purity: One could argue that injecting a synthetic material into the body violates its inherent integrity. Some conservative and wellness groups find great resonance in this issue.

Individual Freedom vs. Collective Mandate: Individual liberty and minimal government intervention are valued by many. Many conservatives and libertarians held this opinion, which presented vaccination laws as an intolerable infringement on personal autonomy. People had the impression that the government was dictating what they had to put into their bodies.

Authority and Trust: Conspiracy theories were stoked by mistrust of government health organizations and pharmaceutical companies. According to these theories, the vaccine was not a public health initiative but rather a tool for control or financial gain (Stoica, 2024, p. 95).

3.2.3. The Panopticon Society: Surveillance Technologies and the Fear of Lost Autonomy.

There is a deeper, more abstract concern than the apparent ones of losing one's job and getting hurt: the fear of losing one's personal freedom to ongoing surveillance. The concept of a digital "panopticon" encapsulates this fear (Spears & Lea, 1994). It depicts a society in which people are compelled to regulate their behavior in order to blend in because they are aware that they could be watched at any time. This anxiety results from the interaction of numerous technologies rather than from a single gadget. These include the use of facial recognition technology in public places, tracking via web browsers and smartphones, social media monitoring, and the emergence of "smart" gadgets that record audio and video in private spaces, like doorbell cameras and home assistants. People of all political persuasions are impacted by the profound value conflicts brought about by this expanding surveillance.

The Fear of Control by Liberals and Democrats: The development of surveillance technology poses a severe threat to people who cherish democratic values such as freedom, privacy, and the right to disagree. It has a powerful "chilling effect" to know that the government or private companies track and examine our whereabouts, communications, and even private exchanges. It discourages open discussion of ideas, political activism, and nonconformist expression. This fear is about a future in which dissent will be impossible, not just

about instant punishment. It imagines a society in which the capacity for independent thought and action has been undermined. The danger is the loss of freedom—not by coercion, but by a slow, data-driven suffocation.

The Conservative Ambivalence and the Fear of Abuse: The conservative perspective on surveillance is frequently more nuanced. On the one hand, it is an essential instrument for upholding social norms, guaranteeing national security, and preserving law and order; these objectives are indicative of the conservative emphasis on authority and stability. However, support for surveillance relies on the belief that the system will be managed by a trusted and legitimate authority. Many conservatives fear not surveillance itself, but that it could end up in the hands of a hostile or ideologically opposing government. Such a government could then use it to persecute them and break down traditional institutions. The real concern is about political misuse and the potential transformation of a tool for order into a weapon of oppression.

The Progressive Fear of Algorithmic Discrimination: Progressives often criticize how surveillance technologies can reinforce and automate systemic injustice. They highlight the well-documented biases in facial recognition algorithms that misidentify women and people of color more frequently, resulting in wrongful arrests. They worry that data-driven policing will excessively target already marginalized communities. Additionally, they fear that social credit systems could be used to deny housing, jobs, and social services to those who do not fit into majority norms. This fear centers on a high-tech dystopia where inequality is not just a social issue but becomes embedded in the very fabric of society, forming a permanent and inescapable digital underclass.

3.2.4. Redefining Humanity: Biotechnology, Genetic Engineering, and the Fear of Transgression.

Modern biotechnology, particularly gene editing tools like CRISPR-Cas9, challenges the fundamental definition and perceived value of human biology if artificial intelligence (AI) threatens the distinctiveness of human thought. Beyond merely curing illnesses, this technology has the potential to make people better. At the genetic level, it can eliminate undesirable traits, boost IQ, and lengthen lifespan. This capacity, which is sometimes called

"transhumanism," arouses some of our most intense anxieties.

These anxieties can be divided into a number of distinct, morally motivated worries:

The Fear of The Transgression of Natural Order, or "Playing God": those who hold traditional or religious beliefs are most affected by this anxiety, which stems from the Frankenstein archetype. It is predicated on the notion that humans shouldn't alter the natural order of things. According to this perspective, changing the human germline—that is, making modifications to DNA that can be passed on—is an indication of extreme arrogance because it goes beyond the fundamental lines separating creator and creation. The fear encompasses a moral and spiritual catastrophe in addition to potential bodily repercussions. Humanity runs the risk of losing its soul and suffering unanticipated cosmic or divine punishment if it attempts to control its own evolution.

The Ultimate Inequality: The Fear of a Genetic Divide: a major component of the progressive critique of biotechnology is this concern. There is concern that expensive genetic enhancements, which are only accessible to the very wealthy, will eventually become the ultimate status symbol. This could eventually result in a genetically superior elite and a long-lasting biological caste system. Current social and economic disparities might appear insignificant under this system (Stoica, 2024). The democratic ideal of fundamental human equality is destroyed in this dystopian scenario. A society divided into "haves" and "have-nots" based on genetics would take its place. Injustice alone is not the threat. It is the separation of humans into subspecies that differ from one another biologically.

The Fear of Unexpected Outcomes (The Uncontrollable Systemic Risk): the human genome and the larger ecosystem are extremely complex and interconnected, which causes this anxiety, which is reminiscent of Ulrich Beck's "Risk Society" and Taleb's "Black Swan" events (Taleb, 2007)." The long-term consequences of altering human DNA are largely unknown, according to scientists. Future generations may experience severe health problems as a result of the fear of creating irreversible changes. If gene-editing technologies, such as gene drives, are used in nature, there is also worry about unexpected environmental effects. The knowledge that we can alter biological systems far outweighs

our comprehension of them, which is the source of this fear (Huesemann & Huesemann, 2011).

These technological developments are not just tools; they also serve as strong social symbols. They trigger hidden societal worries and conflicts over values. They turn vague concerns about rapid change, trust in institutions, and personal security into clear and intense stories of fear related to technology.

4. Synthesis of the Conceptual Framework: An Integrated Model

The previous chapters have examined the main parts of our analysis. Chapter 2 focused on the foundational role of value systems. Chapter 3 looked at how social risks are created. Chapter 4 discussed the features of modern technologies that trigger anxiety.

The goal of this final theoretical chapter is to bring these different ideas together into one model. This model explains how technological innovation leads to social fear. It suggests that fear of technology is not an spontaneous or irrational response to new gadgets. Instead, it is a predictable result of a social and cognitive process. In this process, the traits of a technology are viewed through deeply held, and often conflicting, social values.

This chapter will first explain the main mechanism of this process, which is the role of values as a filter for perception and morals. Then, it will outline the step-by-step pathway of the model and display it with a conceptual diagram based on the thesis.

4.1. The Central Mechanism: Values as a Perceptual and Moral Filter

The key part of the entire model is how we think about value systems, like conservatism and progressivism, as a strong, two-part filter. This filter works on both a thinking and feeling level. It shapes what parts of a new technology a person focuses on and the emotional and moral importance they give to it.

First, the value system functions as a cognitive filter, directing an individual's attention and shaping their framework of relevance. When confronted with a complex, multifaceted phenomenon like the emergence of AI, it is impossible for an individual to process all available information. Instead, their value system

creates a heuristic for what matters. An individual with a strongly conservative worldview, prizing social stability and tradition, is cognitively primed to search for and focus on information related to disruption: job losses, the erosion of traditional skills, or the potential for social chaos. In contrast, an individual with a progressive worldview, oriented toward reform and problem-solving, is more likely to attend to information related to opportunity: AI's potential to cure diseases, combat climate change, or increase economic efficiency. In this sense, the filter does not just interpret reality; it actively selects which version of reality is most salient.

Second, and more critically, the value system acts as a moral and emotional filter. Once information has been cognitively selected, it is imbued with affective and normative meaning. The "fact" that an AI can generate a photorealistic image is, in itself, neutral. However, when passed through a value filter, this fact is transformed. Through a conservative lens that values authenticity and established order, it becomes a "threat" to truth and a tool for deception, thereby generating feelings of anxiety and distrust. Through a progressive lens that values creative expression and innovation, it may be seen as a new "opportunity" for art, while the associated risk is framed differently—perhaps as a danger to the livelihood of artists, a problem of economic inequality. This process of moral framing is the crucial step where objective information is converted into a subjective perception of risk, which is inextricably linked to an emotional response. Fear, in this model, is the emotional correlate of a perceived risk that is seen to fundamentally threaten a deeply held value.

4.2. The Model in Action: Tracing the Pathway from Innovation to Fear

This filtering mechanism can be illustrated as a dynamic, multi-stage process. The model proposes the following pathway:

Stage 1: The Emergence of a Disruptive Technology. A novel technology appears (e.g., CRISPR gene editing). At this initial stage, its full social, economic, and ethical implications are uncertain and subject to speculation. It exists as a complex object with multiple potential applications and consequences.

Stage 2: Interpretation and Moral Framing through the Value Filter. The technology is immediately processed by individuals and social groups through their respective value filters.

The Conservative Interpretation: Focuses on the risks of transgressing natural or divine boundaries ("playing God"), the potential disruption to the traditional family structure, and the unforeseen, long-term health consequences. The technology is framed as an act of hubris and a threat to human identity. The primary emotional response is one of moral apprehension and fear of the unknown.

The Progressive Interpretation: Focuses on the opportunities to cure genetic diseases, improve human health, and alleviate suffering. The technology is framed as a triumph of human ingenuity and a tool for progress. The primary risk identified is not the technology itself, but the potential for unequal access to it, which could create a new, biological caste system. The fear is of exacerbated social injustice, not of transgression.

The Democratic Values Interpretation: The technology is evaluated against principles of liberty and equality. Questions arise: Does this technology threaten the ideal of a common humanity? Should the state have the power to regulate human genetics? These questions create cross-cutting debates that resonate with both ideological camps, but for different underlying reasons.

Stage 3: The Social Construction and Amplification of Perceived Risk. Once framed by a value system, the identified risks are externalized and enter the public sphere. As outlined in the Cultural Theory of Risk, these specific fears are then amplified by media narratives, political entrepreneurs, and social networks that share the same underlying values. The risk is no longer a private anxiety but a socially validated and collectively constructed "problem." Conspiracy theories may emerge as a narrative tool to explain the actions of the "other" side (e.g., "greedy corporations are pushing this" vs. "reactionary luddites are holding back progress").

Stage 4: The Crystallization of Social Fear and Behavioral Outcomes. The heightened risk perception turns into a common social fear aimed at the technology and those who support it. This fear drives collective action, resulting in social division. On one side, some groups call for strict regulations, total bans, and public opposition to the technology. On the other side, supporters push

for investment, less regulation, and quick adoption. The discussion shifts from being about the technology to a conflict between different worldviews.

4.3. Visualizing the Integrated Model

These dynamics occur in the Social Field, which is the central idea. Values, the central component, serves as a container for the primary ideological filters of conservatism and progressivism. Its overlap with democracy indicates that both ideologies disagree on democratic principles. Technological changes, an external factor, enter this field and undergo the filtering process. Perceived risks are the direct outcome of this process. It is evident from the diagram that risks are not a distinct category. Rather, they are closely linked to values; they stand for what values perceive as a danger.

The "hot zone" of social conflict is the central intersection of risks, technological advancements, and all three value systems. The most intricate and tenacious arguments, motivated by profound societal anxieties, take place here. This area demonstrates that the biggest concerns arise when a technology raises fundamental issues regarding freedom and control, appealing to progressives, threatening major disruption, frightening conservatives, and promising substantial advancement, appealing to progressives. These issues also engage democratic values.

Conclusion: A Theoretical Synthesis of Technological Fear

This essay offers a theoretical framework that clarifies why social fear is constantly triggered by technological change, which is frequently viewed as progress. The model here proposes that fear results from a substantial conflict between new technology and traditional human values, rather than oversimplifying these anxieties as simple ignorance or irrationality. The primary contention is that our subjective assessment of technological risk does not represent an impartial assessment of potential harm. Instead, it is a social and psychological process of meaning-making that is influenced by both progressivism and conservatism.

The notion that ideology serves as a powerful filter for morality and perception lies at the heart of this framework. We have maintained that

people do not view disruptive innovations as neutral tools. Instead, they immediately view it through a lens that highlights opportunities or dangers. Because conservatism places a high value on tradition, hierarchy, and social order, it frequently views rapid, transformative technology as a source of disruption. It looks for signs that it might challenge established authority, disregard historical wisdom, and endanger social cohesion. But according to progressivism, which emphasizes human development and reform, technology is an essential tool for addressing societal issues. It highlights how it can promote equality, efficiency, and well-being.

This model holds that risk is not an objective metric but rather a social construct. It originates from a set of principles that acknowledge potential violations of its main principles. Fear follows this perception. It manifests when a technological development is thought to jeopardize someone's identity, financial stability, moral values, or personal freedoms. This procedure is a social problem that goes beyond personal opinion. We postulated that personal concerns are amplified and validated by social and media networks. This escalation could lead to a "social fear" that divides society. Current issues like concerns about biotechnology, artificial intelligence, and ubiquitous surveillance technologies serve as an excellent example of this. These fundamental conflicts of values are effectively triggered by their traits, such as their ability to change biological composition, automate thought processes, and violate privacy. As a result, they are powerful symbols in a larger cultural struggle.

The main contribution of this theory is a novel understanding of technology anxiety. A socio-political model, which sees public fears as logical, albeit emotionally charged, reactions to deeply held beliefs, replaces the deficit model, which blames public fear on irrational panic or a lack of scientific knowledge. The real struggle is between opposing and often incompatible ideas of the ideal society, not between the knowledgeable and the ignorant.

This approach suggests that as technology develops, these value-based conflicts will not only continue but also probably get more intense. This preexisting ideological environment will interact with any new disruptive technology, like quantum computing or neural interfaces, and trigger predictable patterns of fear as well as acceptance.

Comprehending this circumstance is not merely a scholarly endeavor; it is essential for future management. This theory's main takeaway is that the most in-depth conversations about technology are rarely about the actual technology. Discussions about what it means to be human in a world that we are continuously changing are and will continue to be ongoing.

Conflict of interest

The authors declare no conflict of interest.

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