

The Day After Tomorrow:
Climate Change & The Today of Science, Film, & Activism

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Abstract

In May of 2004, director Roland Emmerich released his blockbuster film *The Day After Tomorrow*. Since its release, the film has been noted as being an important piece of Cli-Fi, Climate Fiction. This thesis argues that the film has been given these distinctions of importance to Cli-Fi and the climate change movement is due to the political and social context it was released in as a traumatized post-9/11 society under the Bush Administration's environmental policies. This thesis further argues that *The Day After Tomorrow*'s success stems from its ability to harness the emotions from this specific traumatized audience and has since been used by members of the climate change movement to garner public action.

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Introduction

On the morning of September 11, 2001, citizens of the United States were left shocked as they watched and experienced the unthinkable. Four commercial airline planes were hijacked by nineteen al-Qaeda¹ terrorists whose plans were to crash two of the planes into the North and South World Trade Center Towers in New York City, crash one plane into the Pentagon in Arlington, Virginia, and crash the final plane into the White House in Washington D.C. Three out of the four planned attacks were successful. The upper floors of the North and South Towers of the World Trade Center were struck just seventeen minutes apart. At the first crash, news outlets and citizens believed it was an accident.

Millions of people watched (both through the live news and in real-time) in disbelief as they saw the second plane crash into the towers, and people began to realize what was happening. First responders rushed to the scene and were able to evacuate the majority of the people from the towers. As the fires intensified, the steel of the building began to weaken causing both towers to collapse, completely devastating the World Trade Center, and causing severe damage to the surrounding block. The 9/11 Memorial & Museum states that 2,977 total victims were killed by the 9/11 attacks with over 90% of those deaths occurring in New York.²

The traumas of the attacks were not only felt by those who experienced the events in real-time but were also felt by the millions of Americans at home watching and experiencing the attacks and destruction unfold via the news. This secondary traumatization is known as vicarious trauma, in which film theorist Joshua Hirsch suggests that someone can be traumatized not just

¹ al-Qaeda is an Islamist extremist group who declared war against the United States in 1996 due to the United States' support of Saudi Arabia and Israel, as well as their military presence in the Middle East.

² "9/11 FAQs," *9/11 Memorial & Museum*, 2023, <https://www.911memorial.org/911-faqs>. Several more people died later due to respiratory issues and injuries sustained by the smoke and dust that was spread across the city as the towers collapsed.

from experiencing trauma personally, but from witnessing or viewing trauma.³ Millions of Americans watched the events of the 9/11 attacks either in real-time, through live news, or through the media aftermath coverage approximately within thirty-minutes of when they occurred.⁴ The entire country was able to experience a collective trauma, leaving millions of Americans with PTSD.⁵

After experiencing trauma, many victims seek to re-create and relive their trauma as a way of coping.⁶ Reenacting trauma provides “an opportunity for an individual to ...work through the terror, helplessness, and other feelings and beliefs surrounding the original trauma.”⁷

Reenactments can help victims reestablish a sense of control and help them to work through their own feelings towards their past, whether they are conscious of their re-creation or not.⁸ Films are one way in which many people attempted to work through and understand their trauma of the 9/11 attacks as they could related to characters and (hopefully) facilitate some sort of resolution.⁹ In the wake of 9/11, thousands of American actively sought out disaster content via video and DVD rentals.¹⁰ After 9/11, many Americans found comfort in disaster films as they could relate to the characters and their “efforts for survival” — and the effects of the disaster on the lives of

³ Joshua Hirsch, “Post-traumatic Cinema and the Holocaust Documentary,” In *Trauma and Cinema: Cross-Cultural Explorations*, (Hong Kong University Press, 2008), 93-94. <http://www.jstor.org/stable/j.ctt2jc7kk.8>.

⁴ Roxanne Silver, “Twenty years after 9/11, what have we learned about collective trauma? with Roxane Cohen Silver, PhD,” produced by *American Psychological Association*, Speaking of Psychology, 8 September 2021, Podcast, MP3 audio, 37:53, <https://www.apa.org/news/podcasts/speaking-of-psychology/9-11-twenty-years>.

⁵ Ibid.

⁶ Michael S. Levy, “A Helpful Way to Conceptualize and Understand Reenactments,” *The Journal of Psychotherapy Practice and Research*, vol. 7, no. 3 (1998): 227.

⁷ Ibid, 229.

⁸ Ibid, 231.

⁹ Ani Kalayjian et al, “Trauma and the Media: How Movies can Create and Relieve Trauma,” In *The Cinematic Mirror for Psychology and Life Coaching*, ed. Mary Banks Gregerson (Springer, 2010): 159.

¹⁰ Stephen Keane, *Disaster Movies: The Cinema of Catastrophe*, 2nd edition, (London: Wallflower Press, 2006), 91.

characters as they themselves were searching for how 9/11 would be affecting their way of living.¹¹

In May of 2004, moviegoers attending showings of Roland Emmerich's blockbuster film *The Day After Tomorrow* witnessed a film in which could fulfill their (whether consciously or not) desires for reenactment. In fact, moviegoers were able to relive the destruction of New York City on the big screen for the first time since 9/11.¹² With that fact aside, many of those who even just witnessed the trailer alone could not help but be reminded of the 9/11 attacks from nearly four years prior. Americans were struck with familiar visuals of shaky news footage, fear, panic, and fleeing citizens.¹³ Viewers were even struck with some all too familiar cries and screams such as "[l]ower Manhattan is virtually inaccessible!"¹⁴ Many moviegoers reported feeling uneasy after just viewing the trailer. One viewer stated that the "scenes ... [left] a lump in [their] throat as they remind[ed them] ... of the horrific terrorist attacks of 9/11."¹⁵ Though the imagery may have offered (whether consciously or unconsciously) an ability for many Americans to relive the trauma, it did not offer any kind of resolution to traumatized viewers. In fact, the film appeared to be calling for further panic. This was far from accidental. *The Day After Tomorrow* was not about the possibilities and horrors of terrorism – the film was about the consequences of climate change. Though the film is about the planet's changing climate and its possible consequences, the film's events and 9/11 were and still are inextricably intertwined in ways that demand further explanation.

¹¹ "Disaster Films," *Filmsite*, 2017, <https://www.filmsite.org/disasterfilms.html>; Kalayjian et al, "Trauma and the Media: How Movies can Create and Relieve Trauma," 159.

¹² Logan Hill, "9/11: Going, Going, Gone," *New York Magazine*, 14 May 2004, https://nymag.com/nymetro/news/people/columns/intelligencer/n_10412/.

¹³ *Ibid.*

¹⁴ *Ibid.*

¹⁵ Brendan Sundry, "9/11 & The Day After Tomorrow," *The Digital Video Information Network*, May 2004, <https://www.dvinfo.net/forum/totem-poll-totally-off-topic-everything-media/27088-9-11-day-after-tomorrow.html>.

The Day After Tomorrow follows climatologist Jack Hall (Dennis Quaid), whose research concerning the idea of the North Atlantic Current being brought to a halt due to a meltwater inflow, leading to an extreme cooling, is largely ignored by government officials. Hall's research is proved correct when an enormous superstorm develops over the northern hemisphere, creating a new ice age almost overnight and leading to other catastrophic disasters worldwide.¹⁶ The movie then focuses on Hall's son Sam (Jake Gyllenhaal) who is trapped in New York City and must survive the freezing cold temperatures as they wait for Hall's arrival as he travels on foot from Philadelphia, braving the conditions.¹⁷

The film became a box office hit, earning \$550 million worldwide and becoming the sixth highest-grossing film of 2004.¹⁸ Since its release, the film has become a seminal example of the literary and artistic genre known as cli-fi.¹⁹ The film has earned this reputation because it was the first to invoke climate change consciously rather than just using a climatically changed apocalyptic environment as a narrative setting or background.²⁰ In this paper, I argue that *The Day After Tomorrow*'s success stemmed more from the context in which the film was produced and consumed in American society and how the film's content was conveyed visually rather than the content of the film itself. Specifically, the film possesses many of the same features as previous literature and films in regard to the dystopian Cli-Fi subgenre, yet the film has been noted as holding "special status" within Cli-Fi cinema.²¹ Much has been written about the film's impacts on society in regard to climate change and on the trajectory of Cli-Fi as well as climate

¹⁶ "The Day After Tomorrow: Plot," IMDB, 2023, https://www.imdb.com/title/tt0319262/plotsummary/?ref_=tt_ov_pl.

¹⁷ Ibid.

¹⁸ Axel Goodbody and Adeline Johns-Putra, eds, *Cli-Fi: A Companion*, First edition (Oxford; New York: Peter Lang, 2018), 133.

¹⁹ Ibid.

²⁰ Ibid.

²¹ Ibid.

change action due to the film's ability to gain attention and charge a national debate.²² As the moviegoer comparisons mentioned above indicate, the film's success lies in its ability to visualize and connect itself and its imagery to the political and emotional atmosphere of post-9/11 society under the Bush Administration. It is only when viewed in this context that *Tomorrow's* far-reaching impact on the climate change movement and its scientists, filmmakers, and activists can be understood accurately.

What is Cli-Fi?

Climate fiction, or Cli-Fi, is a relatively new term coined by Dan Bloom in 2007 and therefore still lacks a universal definition used by all scholars. However, for this paper, Cli-Fi can be thought of as a subcategory of dystopian science fiction (sci-fi) film and literature that describes, explores, and engages with anthropogenic climate change and “the political, social, psychological, and ethical issues associated with it.”²³ Cli-Fi, like all forms of media, is a reflection of our culture and thus another “medium of [our] lived experience.”²⁴ Cli-Fi is an outlet for humanity to sort through and explore the future of the environment.²⁵

Cli-Fi penetrated the public conscious as a form of science-fiction literature in the 1980s after the accumulation of scientific works and discussion over the “renewed” ‘discovery’²⁶ of climate change in the 1960s and 1970s.²⁷ The accumulation of works in the 1960s and 1970s such as the films *Soylent Green* (1973) and *Logan's Run* (1976), as well as books such as *Silent*

²² Ibid.

²³ Ibid, 1-2.

²⁴ Gregers Andersen, *Climate Fiction and Cultural Analysis: A New Perspective on Life in the Anthropocene*, Routledge Environmental Literature, Culture and Media (London; New York: Routledge, Taylor & Francis Group/Earthscan from Routledge, 2020). This is also echoed in Goodbody and Johns-Putra, *Cli-Fi*, 7.

²⁵ Ibid; Goodbody and Johns-Putra, *Cli-Fi*, 4.

²⁶ Goodbody and Johns-Putra *Cli-Fi*, 3. Climate change has been known about and discussed for several decades, but the discussion of climate change in terms of warming only began to be picked up around this time. See Joshua P. Howe, *Behind the Curve: Science and the Politics of Global Warming*, for further discussion.

²⁷ Ibid.

Spring (1962), *The Population Bomb* (1968), *Hothouse Earth* (1975), all played into the public's fears of "overpopulation, pollution, and acid rain."²⁸ According to leading scholars of the genre, interest in Cli-Fi escalated in the 1990s in relation to Vice President Al Gore's "success in raising the profile of climate activism" within society.²⁹ The literature during this period involved dystopian imaginings of climate change's impact on the environment: "desertification, drought and water shortage, floods and violent storms, the spread of tropical diseases, ..." etc.³⁰ This was to play off of and further instigate the public's growing anxiety surrounding climate change and the planet's limits.³¹

Though the literature was meant to correspond with the public's feelings on climate change, much of the literature was dismissed by the public for its inaccurate portrayal of science and the magnitude of the disaster occurring. This is what happened with T.C. Boyle's 2000 novel, *A Friend of the Earth*. Boyle's novel looks at the Earth and the environmental movement and climate crisis in two different time periods: 1980-1990 and 2025.³² His novel is based on his experiences as an environmental activist in the 1980s-1990s, and the pessimistic future he predicted would result from the failure of that activism to bring about change.³³ Boyle used "clear historical sources" as well as personal experience as the basis for his novel, yet reviewers were left feeling unsatisfied with the accuracy of Boyle's predictions for the future.³⁴ One reviewer from the *Tampa Bay Times* went so far as to say that Boyle's predicted future was "a cute and harmless contrivance."³⁵ Reviews claimed that it was the scientific inaccuracies

²⁸ Ibid.

²⁹ Ibid, 4.

³⁰ Ibid, 5.

³¹ Ibid.

³² Ibid.

³³ Ibid; Bill Duryea, "Aftermath of a Ravaged world," *Tampa Bay Times*, 20 August 2000, <https://www.tampabay.com/archive/2000/08/20/aftermath-of-a-ravaged-world/>.

³⁴ *Cli-Fi*, 98; Duryea, "Aftermath of a Ravaged world."

³⁵ Duryea, "Aftermath of a Ravaged world."

alongside the inconceivable social and environmental disaster of the United States which led to its failure.³⁶

In recent years, Cli-Fi has become a popular topic among researchers and scholars as climate change becomes one of the most prominent topics of discussion today in media and politics. Scholars argue that Cli-Fi is a “vital” supplement to climate science due to its ability to make “visible and conceivable future modes of existence ... [that are] scientifically anticipated.”³⁷ Cli-Fi can be comforting to our society as it offers visualization of what we can sometimes become overwhelmed with as being unimaginable. I believe that *The Day After Tomorrow* does the opposite. I believe that *The Day after Tomorrow* was successful because it was a post-9/11 film that carried special weight in an America that was not only reeling from the emotional trauma of the attacks, but also beginning to experience the first stirrings of the climate crisis as well.

Issues with the “Science-First” Approach

Scientists have known about climate change for over 100 years,³⁸ yet global warming itself has appeared to only truly garnered the attention of the American public when presented with media sensation and spectacle, which was certainly the case with the release of *The Day After Tomorrow*. The film is noted as gaining “more than ten times the press coverage of the 2001 IPCC report,”³⁹ with it accounting for an overall “32% increase in media attention to

³⁶ Ibid; *Cli-Fi*, 100-103.

³⁷ Gregers Andersen, *Climate Fiction and Cultural Analysis*.

³⁸ Joshua P. Howe, *Behind the Curve: Science and the Politics of Global Warming*, (University of Washington Press, 2014), 6.

³⁹ *Cli-Fi*, 134; Anthony Leiserowitz, “Before and After The Day After Tomorrow: A U.S. Study of Climate Change Risk Perception,” *Environment*, vol. 46 no. 9, (Eugene, Oregon: 15 November 2004): 34.

This is interesting as other sources appear to contribute at least part of the film’s success to the release of the 2001 IPCC report (see Gregers Andersen, *Climate Fiction and Cultural Analysis*).

climate change” after the film’s release in comparison to the year’s previous average.⁴⁰ Before *The Day After Tomorrow*, scientists were the face of the climate change movement and mostly advocated with a “science-first” approach, which failed to gain public interest.⁴¹

The “science-first” approach refers to the understanding by scientists that facts and science alone will pave the way for policy.⁴² It is this idea that science is completely objective, and that knowledge will lead inevitably to solutions. Thus, scientists have made large strides in recent decades to better understand climate change and disseminate this knowledge and data to policymakers as well as the general public.⁴³ But it is the prioritization of the “primary and sometimes exclusive focus on science in global warming advocacy” that has led to a lack of actual engagement with the climate change problem.⁴⁴ This is especially true as for much of the history of climate change, scientists have been the only ones to possess “the expertise, the technologies, and the language to understand and communicate” what climate change is and how it works, forcing them into the role of climate change advocates.⁴⁵

As scientists collected more research on climate change, they realized that their role as climate change advocates would have to evolve as they discovered that they have to prescribe solutions that required social and political change.⁴⁶ However, scientists actively avoided their roles as political advocates as they believed it to defy their “community-defined standards of objectivity” and overstep their positions and overall role in society.⁴⁷ They instead dove deeper

⁴⁰ Matt Nisbett, “Evaluating the Impact of The Day After Tomorrow,” *Skeptical Inquirer*, 16 June 2004, <https://skepticalinquirer.org/exclusive/evaluating-the-impact-of-the-day-after-tomorrow/>.

⁴¹ *Cli-Fi*, 134.

⁴² Howe, *Behind the Curve: Science and the Politics of Global Warming*, 6.

⁴³ *Ibid.*

⁴⁴ *Ibid.*

⁴⁵ *Ibid.*, 6-7.

⁴⁶ *Ibid.* 6.

⁴⁷ *Ibid.*, 7-8.

into the science-first approach by only advocating for “more and better science” as they believed “a better understanding of the problem...would force appropriate political action.”⁴⁸

One of the most important, accurate and longest-running climate change measurements is the Keeling Curve. The Keeling Curve is an accumulated series of measurements of the Earth’s atmospheric CO₂ concentration levels based on a continuous series of measurements first taken by Charles Keeling at the South Pole and Hawai’i’s Mauna Loa Observatory in 1958.⁴⁹ In 1960, Keeling published his findings in a *Tellus* article revealing the first significant evidence of a rapid increase in CO₂ concentration levels in the atmosphere.⁵⁰ Keeling’s work would be known as one of the most important scientific findings of the 20th century⁵¹ and be credited for raising awareness of the increasing atmospheric CO₂ levels,⁵² however, these recognitions of Keelings work would not be given until decades later.⁵³ When Keeling’s article was first published, it did not gain much attention at all and his research project received major cuts to where he was barely able to continue his project at the Mauna Loa Observatory, where research is still being conducted.⁵⁴

In 2017, a study was conducted to try and better understand why Keeling’s article, like many other climate change publications, had such a slow reception for being such an impactful piece of scientific work.⁵⁵ One of the biggest reasons the authors found for this lack of interest in

⁴⁸ Ibid.

⁴⁹ Rob Monroe, “The History of the Keeling Curve,” *Scripps Institution of Oceanography, UC San Diego*, 3 April 2013, <https://keelingcurve.ucsd.edu/2013/04/03/the-history-of-the-keeling-curve/>.

⁵⁰ “The Early Keeling Curve,” *Scripps Institution of Oceanography*, 2023, https://scrippsco2.ucsd.edu/history_legacy/early_keeling_curve.html.

⁵¹ Naomi Oreskes, “Climate Disruption,” YouTube video, 52:47, 23 January 2017, Archived by “Awesome Documentaries TV,” *Ghost Archive*, 12 December 2021, <https://ghostarchive.org/varchive/ENvJ2WqxNgQ>.

⁵² Euan Nisbet, “Earth monitoring: Cinderella science,” *Nature*, vol. 450, no. 7171 (2007): 789-790.

⁵³ Werner Marx et al, “Slow reception and under-citedness in climate change research: A case study of Charles David Keeling, discoverer of the risk of global warming,” *Scientometrics* vol. 112 (2017): 1085.

⁵⁴ Charles D. Keeling, “Rewards and Penalties of Monitoring the Earth,” *Annual Review of Energy and the Environment*, vol. 23 (1998): 45-46.

⁵⁵ Marx et al, “Slow reception and under-citedness in climate change research: A case study of Charles David Keeling, discoverer of the risk of global warming,” 1079; 1085.

Keeling's work was in part due to the project's appearance as "routine science."⁵⁶ Keeling's findings went unacknowledged for several decades because his research and methods were not seen as 'flashy' or "novel."⁵⁷ Without this added 'flare' to his project, Keeling's research went unacknowledged but not completely unnoticed. From the scientists who did notice Keeling's work, it was not what was trending scientifically at the time in regard to climate research. At the turn of the 20th century, scientists were more concentrated on studying climate change in terms of the past with the ice ages.⁵⁸ The majority concern of the climate science community was global cooling – not global warming.⁵⁹ This was due to the northern hemisphere's significant drop in average surface temperature between 1940 and 1980.⁶⁰ From the 1950s-1980s, almost every climate change publication that picked up popular press had to do with global cooling and the possibilities of another ice age occurring in the northern hemisphere.⁶¹ This made Keeling's findings of a global warming incredibly hard for both the public and the scientific community to take seriously.⁶² Even if some scientists were interested in Keeling's project, further research of its topic offered little to no funding, contracts, or higher recognition within the community.⁶³ With understanding the "science-first" approach, it is easy to see how Keeling's research was not acknowledged until several decades later when climate change – in terms of warming – became popular amongst both the public and researchers in the 1990s.⁶⁴ Keeling did not offer an

⁵⁶ Ibid, 1089.

⁵⁷ Ibid. This was especially in comparison to the other scientific research being conducted, such as those concerning the newly formed NASA and their experiments concerning space exploration during this Space Race and Cold War Era.

⁵⁸ Ibid, 1088.

⁵⁹ Ibid.

⁶⁰ Ibid.

⁶¹ Ibid.

⁶² Ibid, 1089.

⁶³ Ibid.

⁶⁴ Ibid, 1085. Keeling's article and research saw an increase in citations from 1991-2010.

interpretation or discuss the implications of his findings, and his research was left struggling due to minimal support.

In 1988, climate change – in terms of warming – became popular amongst the public which helped push for the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) to create the Intergovernmental Panel on Climate Change (IPCC). The IPCC was tasked with preparing “a comprehensive review and recommendations with respect to the state of knowledge of the science of climate change; the social and economic impact of climate change, and potential response strategies and elements for inclusion in a possible future international convention on climate.”⁶⁵ The IPCC, while claiming to address “the social...impact of climate change” was still a group that was only allowed to make recommendations.⁶⁶ The IPCC, while addressing some social concerns, was still acting with a science-first approach: having to wait for the science and lobbying to invoke political action.

As environmentalism began to gain more public popularity, some became outraged by the slow processes that the “science-first” approach offered and began to look for alternative measures that would invoke action and expedite ‘real’ progress toward pressing issues of conservation.⁶⁷ This is what led several environmentalists to become radicalized and turn to direct action tactics like monkeywrenching⁶⁸ in order to try and create a political movement. These tactics in response to the lengthy and arguably insufficient “science-first” approach may have played a role in a radicalization of some environmentalists, giving the environmental movement a negative public perception that would be utilized by the new Administration.

⁶⁵ “History of the IPCC,” *IPCC*, 2022, <https://www.ipcc.ch/about/history/>.

⁶⁶ *Ibid.*

⁶⁷ *Ibid.* Conservation is specified as these environmental groups also largely ignored the issues of climate change.

⁶⁸ Activities that involve direct (physical) action against the property of persons and businesses engaged in activities considered harmful to the environment. Monkeywrenching allows for activists to take immediate action against environmental offenders in ways that halts or slows the damage done to the environment, or at least inconvenience environmental offenders long enough for political action to take place.

The Bush Administration and Environmentalism

Within his first 60 days in office, President George W. Bush shifted U.S. environmental policy in a new direction through “rolling back campaign promises on clean air, reversing Clinton Administration initiatives on drinking water, promoting new oil exploitation in previously protected regions.”⁶⁹ Many environmentalists stated that it was “the most alarming rollback in environmental efforts that [they had] ever seen” as it appeared that all land could be developable, no matter if it was previously protected, no matter the effect on the residents of the land.⁷⁰ Bush made claims that these rollbacks were made in the United States’ best economic interests in mind.⁷¹

Bush specifically made several rollbacks to climate change policy. While campaigning, Bush made several pledges stating how he was going to regulate carbon dioxide pollution and was interested in protecting the environmental integrity of the United States. Yet, some of his first acts in office were to withdraw from the 1997 Kyoto treaty and completely remove the caps on carbon dioxide emissions (greenhouse gasses) as having these policies in place threatens to “harm our economy and hurt American Workers.”⁷² His campaign had deep ties to the oil industry, and any direction that would support climate change would negatively affect the oil industry as it was one of the most prominent contributors of greenhouse gas emissions.⁷³

The Bush Administration’s policy on global warming was rather an “orchestrated policy of delay” with the White House blocking and rolling back any and all reforms for the sake of trying

⁶⁹ Gwen Ifill, “Bush and the Environment,” *PBS*, 29 March 2001, <https://www.pbs.org/newshour/show/bush-and-the-environment>.

⁷⁰ *Ibid.* Residents referring not only to people, but to the plants and wildlife who reside on the land as well.

⁷¹ *Ibid.*

⁷² *Ibid.*

⁷³ *Ibid.*; Benjamin Franta, “Early oil industry disinformation on global warming,” *Environmental Politics*, vol. 30, no. 4 (2021): 633-688, <https://doi.org/10.1080/09644016.2020.1863703>. Burning oil releases carbon dioxide.

to find a ‘better solution’ for American workers.⁷⁴ Political correspondent Tim Dickinson⁷⁵ reported that a fax was sent to the White House February 6, 2001 from Randy Randol, a top ExxonMobil lobbyist, “demanding a housecleaning of the scientists in charge of studying global warming.”⁷⁶ The goal of the Administration was to mislead the public and shift their attention from environmental issues to economic issues. Federal scientists were reportedly pressured to suppress their discussion and findings on global warming and actually told to “eliminate the words “climate change,” “global warming,” or other similar terms from a variety of communications,” and if they were not eliminated, many scientists had their reports edited in ways that ultimately “changed the meaning of [their] scientific findings.”⁷⁷ The Bush Administration was purposefully distorting data in order to change the public’s perception of climate change.

Another role that the Administration played in changing the public’s perception of climate change was through changing the public’s perception of environmental groups as a whole. Prior to the 9/11 attacks, the FBI declared that the “most dangerous” threat facing the United States domestically was “eco-terrorism” and “eco-terrorist groups.”⁷⁸ These groups and their actions were noted for “using intimidation, threats, acts of violence, and property destruction *to force their opinions* [my emphasis] of proper environmental ...policy upon society.”⁷⁹ They criticized

⁷⁴ Dan Froomkin, “Cheney: Neither Here Nor There?” *Washington Post*, 2007, https://www.washingtonpost.com/wp-dyn/content/blog/2007/06/21/BL2007062101075_2.html?nav=hcmodule.

⁷⁵ Tim Dickinson is a political writer for Rolling Stone Magazine.

⁷⁶ Froomkin, “Cheney: Neither Here Nor There?”

⁷⁷ Francesca T. Grifo, “Hearing on ‘Allegations of Political Interference with the Work of Government Climate Change Scientists,’” *Committee on Oversight and Government Reform*, 30 January 2007, U.S. House of Representatives, 5

<https://web.archive.org/web/20090805213620/http://oversight.house.gov/documents/20070130113153-55829.pdf>.

⁷⁸ Gwen Infill, “Bush and the Environment.”

⁷⁹ James M. Inhofe, “Eco-Terrorism.” Specifically Examining the Earth Liberation Front and the Animal Liberation Front,” *Committee on Environment and Public Works—United States Senate*, (Washington DC: U.S. Government Printing Office, 2005), <https://www.govinfo.gov/content/pkg/CHRG-109shrg32209/html/CHRG-109shrg32209.htm>.

the government and did so in large displays in order to gain the attention of the media and general public to grow awareness and garner change to some degree. To the public, environmental groups were terrorist groups. This view would only intensify after the 9/11 attacks.

Environmentalism After 9/11

After the 9/11 attacks, the situation between environmentalists and the Bush Administration intensified as more and more environmental groups were not only labeled as eco-terrorist organizations, but also unpatriotic for their criticism of the Bush Administration and the government as a whole.⁸⁰ This also came with a crack-down on the discussion and production of any environmental research that seemed to fuel radicalism or anti-American rhetoric.⁸¹ Environmentalism had connotations and associations with extremism to many Americans, making the movement and its issues unrelatable.⁸² The 9/11 attacks thus represented a pivotal event that altered the discourse on environmental issues in the United States.

This impact can be directly seen in the so-called Luntz memorandum. In 2003, leading Republican consultant Frank Luntz wrote a memo to the Bush White House stating that his fellow Republican politicians should change the way they discuss the environment by “avoiding ‘frightening’ phrases such as global warming” in order to change the general public’s perception of the environmental crisis.⁸³ Luntz urged fellow Republicans to abandon the phrase “global warming” and instead opt for the phrase “climate change” on the basis that it would decrease the feelings of danger and urgency because change is something that occurs not only

⁸⁰ Steven Best and Anthony J. Nocella II, eds, *Terrorists or Freedom Fighters?: Reflections on the Liberation of Animals*, (New York, NY: Lantern Books, 2004), 9.

⁸¹ Ibid.

⁸² Joseph R. Gutheinz, “There Will Be A Day After Tomorrow,” *Space Daily*, (Washington: 27 May 2004), <https://www.spacedaily.com/news/oped-04n.html>.

⁸³ Frank Luntz, “The Environment: A Cleaner, Safer, Healthier America,” *Luntz Research Companies*, (Washington DC: 2003), <https://www.sourcewatch.org/images/4/45/LuntzResearch.Memo.pdf>.

often, but naturally.⁸⁴ The rationale behind this seemingly semantic change would have large consequences: scientists would have to prove that the climate change occurred at an unnatural rate, which then required several models and predictions that differed in methods and outcomes. Republicans could then use this as an example of how “there is no scientific consensus on the dangers...” of climate change and that the government should be “acting only with all the facts in hand.”⁸⁵

In Luntz’s narrative, climate change emerged as something of a story rather than an environmental fact.⁸⁶ He believed Republicans could manipulate that story and make the environmental discussion irrelevant to the American public under the rationale that “facts only become relevant when the public is receptive and willing to listen to them.”⁸⁷ If the environmental issue appears to no longer be pressing, then facts become a problem for the future. Luntz’s memo proved effective and in turn, influenced the Bush Administration’s rhetoric and mainstream media discussion. Almost all discussion over the environmental crisis was discussed by the media in terms of climate change rather than global warming, and the terminology remains contested today.

The Entertainment Industry & 9/11

Following the 9/11 attacks, the federal government needed the American people to unite and support their actions.⁸⁸ With this in mind, the government and the entertainment industry formed a “strategic ‘pact’” in which Hollywood would play a role in the public relations of the

⁸⁴ Ibid.

⁸⁵ Ibid.

⁸⁶ Ibid.

⁸⁷ Ibid.

⁸⁸ Lynn Spiegel, “Entertainment Wars: Television Culture after 9/11,” *American Quarterly* 56, no. 2 (2004), 261.

attacks.⁸⁹ Many film projects were put on hold, specifically those which fell under the disaster genre. This is because disaster films tend to imitate real-world events and issues that are occurring.⁹⁰ This rings true to the point where many people watching the live news coverage of the 9/11 attacks experienced initial confusion as they could not distinguish if what they had witnessed was real or some kind of disaster blockbuster film.⁹¹ Many of the television commentators and first-hand witnesses of the attacks stated that “it was like a movie” followed by comparisons to films such as *Independence Day* (1996), *Die Hard* (1988), and *Armageddon* (1998).⁹² This inability to differentiate between reality and blockbuster film caused the entertainment industry to gravitate toward “tastefulness,” fantasy, and family in the weeks following the 9/11 attacks.⁹³ The industry was quick to censor any content that could be trauma-inducing to audiences.⁹⁴ This caused for all upcoming films to be either heavily re-edited, have a postponed release, or be completely canceled, as well as many existing films and shows to be pulled out of rotation due to their content.⁹⁵ One of the most famous edits made to a film would be Sony’s *Spider-Man* (2002). The film’s original teaser trailer featured several clips of the Twin Towers which were quickly edited out and the official teaser images and posters featured the reflection of the World Trade Center in Spider-Man’s eyes which were all recalled.⁹⁶

⁸⁹ Ibid; Thomas Riegler, “‘Mirroring Terror’: The Impact of 9/11 on Hollywood Cinema,” *Imaginations of Cross-Cultural Studies*, vol. 5, no. 2 (2014): 106.

⁹⁰ Riegler, “‘Mirroring Terror’: The Impact of 9/11 on Hollywood Cinema,” 104; Keane, *The Cinema of Catastrophe*, 91.

⁹¹ Spiegel, “Entertainment Wars,” 235; Anthony Lane, “This is Not a Movie,” *The New Yorker*, 24 September 2001, <https://www.newyorker.com/magazine/2001/09/24/this-is-not-a-movie>.

⁹² Lane, “This is Not a Movie.”

⁹³ Spiegel, “Entertainment Wars,” 235; ⁹³ Riegler, “Mirroring Terror,” 105.

⁹⁴ This included any images of the Twin Towers themselves.

⁹⁵ Keane, *The Cinema of Catastrophe*, 91; KBJ, “Sony Pulls Spider-Man Teaser Trailer & Poster,” *IGN*, 13 September 2001,

<https://web.archive.org/web/20120209125330/http://uk.movies.ign.com/articles/305/305861p1.html>.

⁹⁶ KBJ, “Sony Pulls Spider-Man Teaser Trailer & Poster.”

These industry changes were made in an effort to appease the federal government who, after the 9/11 attacks, needed the American people to unite and support their actions.⁹⁷ In this case, the industry was happy to oblige.⁹⁸ Film and media were asked to promote a narrative of an “essential goodness,” purity, and innocence of America and its people.⁹⁹ The Bush Administration created a strong patriotic feeling of national unity and hope by using the industry to generate a binary picture of the American ‘good’ versus the ‘evil’ other. This came with an overwhelming influx of historical programs and films which would instill a sense of pride and a ‘fighting spirit’ narrative amongst the American people.¹⁰⁰ These programs portrayed the United States as an underdog character capable of winning through the strength of unity.

This is reminiscent of what occurred between Hollywood and Washington following Pearl Harbor.¹⁰¹ Themes of war, patriotism, and nationalism were boosted, and “Hollywood... march[ed] to a military beat.”¹⁰² In doing so, the industry, both in 1940 and 2001, supported the Administration’s goal to ease the American public into the idea of war.¹⁰³ Film and media had conditioned many Americans to feel a sense of national pride. Those who lacked such a feeling or dissented from the government-sanctioned narrative were cast as bad Americans and thus associated with the “other.”¹⁰⁴ The Administration, through the means of film and media, created such a polarized view of the world that many Americans felt as though they had to act out the role of what an American citizen should be.¹⁰⁵ As time progressed and political divisions began

⁹⁷ Riegler, “Mirroring Terror,” 106.

⁹⁸ Spiegel, “Entertainment Wars,” 261.

⁹⁹ *Ibid.*, 245.

¹⁰⁰ *Ibid.*, 240-241.

¹⁰¹ Riegler, “Mirroring Terror,” 105.

¹⁰² *Ibid.*

¹⁰³ *Ibid.*

¹⁰⁴ Spiegel, “Entertainment Wars,” 255. This idea of ‘othering’ is created to make ideas of exclusion within a culture or community in order to strengthen relationships with other liked people while ostracizing what is deemed as the ‘greater difference.’

¹⁰⁵ *Ibid.*

to resurface as a controversial war in the Middle East began taking shape, and the narrative of national unity became performative for many people.¹⁰⁶

From 2001-2002 films, video games, and television shows were still being edited to remove the Twin Towers and any trauma-inducing imagery.¹⁰⁷ In 2003, a flurry of films appeared that paid tribute to 9/11 attacks but also signaled their normalization in film. Examples include Robert Dornhelm's television biopic *Rudy: The Rudy Giuliani Story*, Spike Lee's drama *25th Hour*, and Denys Arcand's documentary *The Barbarian Invasions*.¹⁰⁸ The controversial invasion of Iraq in 2003 marks the beginning of the end of this era of historical military films. These films started to become low-grossing as more doubt and suspicion arose against the Administration's actions.¹⁰⁹ Then in May of 2004, 20th Century Fox put out the first trailers for Roland Emmerich's film *The Day After Tomorrow*. The movie's subsequent release shows the end of the Bush Administration's semi-partnership with the movie industry.

The status of *The Day After Tomorrow* as a disaster film directly contributed to much of the movie's success. The film showcased the destruction of New York City for the first time since 9/11. Viewers reported that the imagery shown in the film and in its marketing mirrored that of what was seen and experienced with the attacks. Imagery such as the snow-covered New York City vaguely reflected that of when its downtown was covered in ash (*see figures 1, 2 & 3*).¹¹⁰

Audiences were captivated by the film's character's "efforts for survival" and felt a deeper connection to the effects the disaster had on their lives.¹¹¹ Though the destruction portrayed in the film stemmed from extreme weather produced by climate change rather than a

¹⁰⁶ Ibid.

¹⁰⁷ Hill, "9/11: Going, Going, Gone."

¹⁰⁸ Ibid.

¹⁰⁹ "Mirroring Terror," 103;105.

¹¹⁰ Hill, "9/11: Going, Going, Gone."

¹¹¹ "Disaster Films."

terrorist attack, the evocative images of New Yorkers struggling for survival in the aftermath of a traumatic event resonated with moviegoers. Many films of this time wanted to “tap into the powerful reactions [the 9/11 attacks] induced” but chose to dodge “the complex issues and especially the political arguments that might turn off ticket buyers.”¹¹² *The Day After Tomorrow* actively made the decision to dive into political arguments and reflect “the tensions and divisions within American society.”¹¹³

The film’s antagonists are the president and vice president, portrayed respectively as witless and money-grubbing, who ignored and denied the warnings of the impending dangers of climate change and are thus deemed responsible for the destruction. *The Day After Tomorrow* directly criticizes the Bush Administration and its environmental policies. Emmerich stated that he specifically chose actors who resembled President Bush and Vice President Cheney for the roles.¹¹⁴ In making this decision, Emmerich specifically coupled the catastrophic imagery of 9/11 with the newly emerging potential of climate apocalypse that could result if the Bush Administration’s policies were followed to their logical conclusion. In turn, this portrayal proved stunningly effective to a new generation of environmental activists already disillusioned with the Administration’s policies.

Activism With *The Day After Tomorrow*

The release of *The Day After Tomorrow* allowed activists to change the ‘extremist’ narrative surrounding environmentalism. Activists knew that *The Day After Tomorrow* was “more science fiction than science fact,” but that the crisis itself was and still is in fact a real and pressing issue,

¹¹² “Mirroring Terror,” 107.

¹¹³ Ibid, 108.

¹¹⁴ Scott Bowles, “‘The Day After Tomorrow’ heats up a political debate Storm of opinion rains down merits of disaster movie.” *USA Today*. 26 May 2004.

<https://usatoday30.usatoday.com/educate/college/firstyear/articles/20040530.htm>.

and the film gave audiences that exact visual.¹¹⁵ Activists used the film to regain relevancy of the climate change issue while discrediting the government in their argument.

As mentioned above, much of the activism that took place using *The Day After Tomorrow* discussed the failures of the Bush Administration.¹¹⁶ Some activists claimed that the Administration may “in some ways [be] even more fictional than the movie.”¹¹⁷ Many of them pointed out the Administration's support of mining and oil interests, but mostly to the suppression of climate change data.¹¹⁸ The Administration tried to convince the American public that there were no problems with the climate and attempted to promote “the big polluters’ argument that nothing should be done to change the current practices of dumping pollution in an unrestrained way into the atmosphere.”¹¹⁹ This suppression of climate change, its urgency, and the overall ignorance displayed by the Administration could lead to yet another disaster in the United States like that of 9/11, although radically different in cause and scope. It was this comparison that led the government to intervene in the growing controversy surrounding the film and its relationship with the Administration.

Activists used the film to home in on the distrust of the government and the trauma that was already circulating around the American public since the 9/11 attacks. Large online-based political activist groups like that of MoveOn.org teamed up with smaller online-based environmental organizations Global Exchange and the Rainforest Action Network to come

¹¹⁵ “The Movie the White House Doesn’t Want You to See,” *MoveOn Political Action*, 07 July 2004, <https://web.archive.org/web/20040707062454/http://www.moveon.org/climatecrisis/index.html>; “Global Exchange and Rainforest Action Network Bring Movie-Goers Back to Reality,” *Global Exchange*, (San Francisco, CA: 20 May 2004), <https://web.archive.org/web/20040701203825/http://www.globalexchange.org/update/press/1889.html>.

¹¹⁶ Ibid; “The Movie the White House Doesn’t Want You to See.”

¹¹⁷ Matt Nisbet, “Evaluating the Impact of The Day After Tomorrow,” *Skeptical Inquirer*, 16 June 2004, <https://skepticalinquirer.org/exclusive/evaluating-the-impact-of-the-day-after-tomorrow/>.

¹¹⁸ Suzanne Goldenberg, “The worst of times: Bush’s environmental legacy examined,” *The Guardian*, 16 January 2009, <https://www.theguardian.com/politics/2009/jan/16/greenpolitics-georgebush>.

¹¹⁹ Nisbet, “Evaluating the Impact of The Day After Tomorrow.”

together to organize the leafleting of theaters showing *The Day After Tomorrow* nationwide.¹²⁰ One flyer invoked dark themes¹²¹ with a person running from a tornado with bold text stating that that *The Day After Tomorrow* “isn’t just a movie” and that the President Bush represented “the problem” behind climate change (*see figure 4*).¹²² Another handout was a postcard that “spoofed the ice-covered New York skyline of “The Day After Tomorrow” – but with the added special effect of a Ford SUV overturned in a glacier.”¹²³ The postcard urged moviegoers to take contact nationwide businesses and industries to take responsibility for their greenhouse gas contributions and move towards greener practices.¹²⁴

Activists of MoveOn.org were specifically instructed to distribute their handouts after the film was let out.¹²⁵ Activists claimed that this was so they could target the “shell-shocked, unable to discern fact from fiction” viewers and steer them “towards a clean energy future.”¹²⁶ The combination of the handouts and scripted interactions show a deliberate harnessing of fear and confusion of viewers after the screening and directing it towards the Bush Administration while alluding to the possibility of more destruction being caused by them and more lies being told to the American public. Activists sought to take the viewer’s emotions of the past and direct them at the Bush Administration.

¹²⁰ Gabriel Snyder, “Activists plan to make ‘Day’ eye of the storm,” *Variety*, 23 May 2004, <https://variety.com/2004/scene/markets-festivals/activists-plan-to-make-day-eye-of-the-storm-1117905463/>.

¹²¹ Dark imagery in reference to the color palette used.

¹²² “Global warming isn’t just a movie. It’s your future,” MoveOn.org, 09 June 2004, <https://web.archive.org/web/20040609192723/http://cdn.moveon.org/climatecrisis/flyer.pdf>.

¹²³ Global Exchange, “Bring Movie-Goers Back to Reality.”

¹²⁴ *Ibid.*

¹²⁵ While this information is from a MoveOn leafleting in 2007, through email correspondence with MoveOn, they note that the tips used for the *Sicko* leafleting were based on their experience leafleting *The Day After Tomorrow* in 2004. “Guide to fliering at *Sicko*,” *MoveOn Political Action* 14 July 2007, <https://web.archive.org/web/20070714084424/http://pol.moveon.org:80/sickoflier/guide.html>.

¹²⁶ Global Exchange, “Bring Movie-Goers Back to Reality.”

It was actions like these that earned *The Day After Tomorrow* its tagline as “the movie the White House doesn’t want you to see.”¹²⁷ This narrative arose from the Bush Administration sending out a notice to NASA climatologists telling them to refrain from asking questions on and publicly discussing the film¹²⁸ after the mass amount of public calls to NASA organizations “about impending doom and or NASA cover-ups” just from the opening weekend of the film alone.¹²⁹

This idea that climate activists were only trying to generate mass hysteria against the Administration is exactly what many conservative counterprotest groups argued.¹³⁰ The most prominent conservative counterprotest group RightMarch.com,¹³¹ copied the tactics used by MoveOn and stood outside of viewings of the film and hand out flyers of their own.¹³² RightMarch activists focused more on setting “environmental facts straight” in what they referred to as the “battle for truth.”¹³³ RightMarch’s flyers read “Don’t let radical left-wing environmentalists fool you” because the future they are threatening is “just a MOVIE.”¹³⁴ The conservative group claimed that “radical left-wing environmentalists” were only trying to “fool” and manipulate audiences to believe the environmental issue to be a pressing matter in order to back their climate agenda which is “based in the same faulty science as the movie.”¹³⁵ This

¹²⁷ Goodbody and Johns-Putra, *Cli-Fi*, 134.

¹²⁸ Ibid; Gutheinz, “There Will Be A Day After Tomorrow”; Andrew C. Revkin, “NASA Curbs Comments On Ice Age Disaster Movie,” *New York Times*, 25 April 2004, <https://www.nytimes.com/2004/04/25/us/nasa-curbs-comments-on-ice-age-disaster-movie.html>.

¹²⁹ Joseph R. Gutheinz, “There Will Be A Day After Tomorrow,” *Space Daily*, Washington: 27 May 2004, <https://www.spacedaily.com/news/oped-04n.html>.

¹³⁰ Susan Jones, “Summer Escapist Movie Offers No Escape from Politics,” *crosswalk.com*, 23 May 2004, <https://www.crosswalk.com/culture/features/summer-escapist-movie-offers-no-escape-from-politics-1263825.html>; Snyder, “Activists plan to make ‘Day’ eye of the storm.”

¹³¹ RightMarch.com labels itself as MoveOn.org’s conservative counterpart. “Activists plan to make ‘Day’ eye of the storm.”

¹³² Ibid; Jones, “Summer Escapist Movie Offers No Escape from Politics.”

¹³³ Ibid.

¹³⁴ “Summer Escapist Movie Offers No Escape from Politics.” Their emphasis.

¹³⁵ Ibid.

rhetoric used by the RightMarch.com protestors really calls back the rhetoric the Bush Administration used to describe environmentalists as radicals and terrorists who threaten Americans in order to “force their opinions of proper environmental ...policy upon society.”¹³⁶ With Luntz’s statement that “facts only become relevant when the public is receptive and willing to listen to them,”¹³⁷ this conservative group acted against his recommendations and attempted to battle emotions with facts.

Science vs Entertainment

Many of the issues surrounding Cli-Fi have to do with how inaccurate the science is in it. However, there were differing views in the scientific community over whether or not *The Day After Tomorrow* could be used as an instrument to help the public gain an interest in climate change, or if it would cause a dismissal of the issue or cause mass hysteria.¹³⁸ Critiques of *The Day After Tomorrow* have even gone so far as to describe the film as not science fiction, but rather “great fiction.”¹³⁹ These same critiques surround many kinds of Cli-Fi media,¹⁴⁰ but none were able to garner a greater uproar than *The Day After Tomorrow*. Highly decorated government officials could not refrain from offering their opinion on the matter. Joseph (Joe) Gutheinz, a highly decorated NASA employee under the Bush Administration condemned the film as a “cheap thrill ride, which many weak-minded people will jump on and stay on for the rest of their lives” ultimately becoming extremists.¹⁴¹ Like Gutheinz, many scientists believed that Hollywood should not be the public’s source for climate science as it only disseminated “lies dressed up as ‘science’ ...to influence” rather than ‘pure’ objective science.¹⁴²

¹³⁶ Inhofe, “Eco-Terrorism Specifically Examining the Earth Liberation Front and the Animal Liberation Front.”

¹³⁷ Luntz, “The Environment: A Cleaner, Safer, Healthier America.”

¹³⁸ Gutheinz, “There Will Be A Day After Tomorrow”; *Cli-Fi*, 4.

¹³⁹ Ibid.

¹⁴⁰ As previously discussed with the Boyle novel.

¹⁴¹ “There Will Be A Day After Tomorrow.”

¹⁴² Nisbet, “Evaluating the Impact of The Day After Tomorrow.”

While some scientists criticized the film for its portrayal of science, others applauded the film's portrayal of the scientists themselves. Dr. Stefan Rahmstorf, whose research and area of expertise on the North Atlantic Current overlapped with that of the fictional disaster and science that occurs in the film, stated that while the science is not real, the portrayal of climatologists and politics of climate change was very realistic.¹⁴³ Unlike most sci-fi films, *The Day After Tomorrow* portrayed scientists as a separate entity from the government.¹⁴⁴ Audiences were rather able to see and understand the role that scientists play within the political sphere.¹⁴⁵ This would add the further distrust of the government as Americans saw through the film a chance to stop the destruction before it occurs, but the option for action being turned down in favor of more economically fruitful endeavors, and being told that these types of interactions between scientists and policymakers are realistic. These attitudes and feeling would only grow two months later when the 9/11 commission reports were released.¹⁴⁶ This played a vital role in changing the public's perception and understanding of scientists and their experiences. Scientists were no longer received by the American public as objects of logic and complicity, but rather as human beings capable of passion, all while adding to the villainization of the Bush Administration.

Conclusion

¹⁴³ Stefan Rahmstorf, "The Day After Tomorrow – some comments on the movie," *Potsdam Institute for Climate Impact Research*, Potsdam: 11 October 2004, https://web.archive.org/web/20041011172259/http://www.pik-potsdam.de/~stefan/tdat_review.html. Specifically, the "chillingly realistic" response Hall received from the vice president was to the response that Rahmstorf himself received from the head of the US delegation when he presented his climate change research at a UN conference (same as Hall in the film).

¹⁴⁴ In most sci-fi films, scientists are stereotypically portrayed as an instrument or an accomplice to the harm caused by the authority. "Evaluating the Impact of The Day After Tomorrow."

¹⁴⁵ Ibid.

¹⁴⁶ The 9/11 Commission Reports were released in July of 2004.

The belief that science should be the one and only driver of action is what paradoxically became the crux of action for the climate change movement.¹⁴⁷ The more models and differing information made climate change appear to be a complicated and nascent issue that needs to be further developed before it can be fully evaluated and prescribed any solution was something that many politicians focused on to invalidate the climate change issue.¹⁴⁸ The facts became overwhelming and climate change soon became a distant crisis — a problem for the future. The faith of some environmental scientists and lay environmentalists that a straightforward reading of the facts concerning climate change would, quickly and in linear fashion, lead directly to solutions now seems naïve at best and paralyzing at worst.¹⁴⁹ The ‘what’ has been overworked, it is the crucial ‘why’ factor that has been overlooked that has led to the failures of climate change advocacy.

With the chaos in the media surrounding the release of *The Day After Tomorrow*, people tried to gather their own understanding of climate change in order to help them form their own opinion and pick a side of the debate. It was the mixture of facts and emotional imagery that caused people to gain an interest in and care about climate change. Though the film may lack real science at times, it is the fact that the film invokes familiar emotions of 9/11 and “resonates with contemporary political themes” of the Bush Administration that is more important as it gains more attention.¹⁵⁰ Once the public’s attention has been won, they then may feel motivated to do further research on climate change or at least discuss climate change within the context of the film.¹⁵¹ This then of course could inspire a domino effect of individuals actively participating

¹⁴⁷ “Evaluating the Impact of The Day After Tomorrow,” 9.

¹⁴⁸ “The Environment: A Cleaner, Safer, Healthier America.”

¹⁴⁹ Howe, *Behind the Curve*, 6.

¹⁵⁰ Ibid.

¹⁵¹ Ibid.

in climate change advocacy by looking into environmental policies, politicians, environmental groups, etc., or even by donating money to either an environmental organization or to further scientific research.¹⁵²

As discussed earlier with Keeling's project, the 'flashier' and 'trendier' research is the research that receives more attention, traction, and citations, and thus receives more funding.¹⁵³ Therefore, it can be argued that the film has had an impact on influence science and academia. What is popular amongst the public and media actually affect scientific and academic research as far as what gets the most attention, and therefore, what would receive the most funding.¹⁵⁴ As previously stated, *The Day After Tomorrow* garnered overall "32% increase in media attention to climate change" in comparison to the year's previous average as viewers were eager for action and more information due to the fear of experiencing catastrophic disaster.¹⁵⁵ Scholar David Kirby states that media like that of *The Day After Tomorrow* are "essentially a communication process that facilitates the gathering of resources for pursuing certain lines of research."¹⁵⁶ Kirby states that media, especially with an anxious audience, can be an opportunity for scientists to "enhance funding opportunities" in order to promote their own research agendas, scientific organizations, or even themselves or other scientists.¹⁵⁷

The Day After Tomorrow served as the vehicle for discussion by the 'why' factor for scientists¹⁵⁸ and activists.¹⁵⁹ With all of the media attention surrounding the blockbuster film, scientists were publicly being questioned and interviewed to discuss the film, and more

¹⁵² Ibid.

¹⁵³ Marx et al, "Slow reception and under-citedness in climate change research," 1088.

¹⁵⁴ Howe, *Behind the Curve*, 6.

¹⁵⁵ *Cli-Fi*, 134.

¹⁵⁶ David Kirby, "Science Consultants, Fictional Films, and Scientific Practice," *Social Studies of Science*, vol. 33, no. 2, (2003): 242-243.

¹⁵⁷ Ibid.

¹⁵⁸ "Evaluating the Impact of The Day After Tomorrow."

¹⁵⁹ Howe, *Behind the Curve*, 6.

specifically, discuss climate change science. The media attention served as a gateway for scientists to move from a strictly science-first approach by forcing them to make public comparisons between film and reality¹⁶⁰ while giving grounds for activists to change the narrative of the environmental and climate change movement. This soon evolved into scientists “strategically fram[ing] climate change in ways that [would] resonate” with the general public itself.¹⁶¹

The Day After Tomorrow played a role in changing discussions and portrayals of climate change. The humanization of science through media is an important marker in the history of the climate change movement. Media and popular culture have become an incredibly important tool in not only gaining attention to the subject of climate change, but it is also important in understanding and disseminating information on its effects and dangers. A majority of the media surrounding climate change is focused on the human difficulties associated with the rise in temperatures and extreme weather. This media usually presents itself with an attention-grabbing title that refers to the destruction of or dangers of the planet and/or everyday life. All of these have imagery associated with these narratives and facts to showcase a dystopian future world — one that appears not only abandoned, but barren and visually dark (absent of most colors). There is usually some kind of feeling of guilt that is supposed to be associated with the suffering of future beings, usually through the use of children, animals, or some being that has an air of innocence and helplessness associated with it. This is very similar to the imagery and ideas that were disseminated in 2004 at *The Day After Tomorrow* theater leafletings (see figures 4 & 5).

Elizabeth Kolbert, a journalist for *The New Yorker* released an article series in 2005 titled “The Climate of Man,” just one year after *The Day After Tomorrow*’s release. Kolbert states that

¹⁶⁰ Ibid.

¹⁶¹ Ibid.

her motivation behind her “Climate of Man” series was to “make global warming vivid to people...to make it real.”¹⁶² Kolbert, just as other climate activists, realized that Luntz was right in that “facts only become relevant when the public is receptive and willing to listen to them.”¹⁶³ Kolbert also recognized the errors with the “science First” approach as the articles written prior to her article are “not accessible, not readable” due to overuse of niche jargon and statistics.¹⁶⁴ Unlike what had been done in the articles before hers, Kolbert decided that the only way to “grab people” was through the use of storytelling and descriptions.¹⁶⁵ This would induce the imagination to create images that would stick longer with readers.

Al Gore, like Kolbert, realized that his current tactics of grabbing the public’s attention were not working. Gore was able to grab the attention of academics through his books and seminars, however, he still failed to grab the average American’s attention. In fact, Gore used the film and its premier as a hook and vehicle for discussion for his presentations on climate change.¹⁶⁶ It was actually this specific presentation that prompted producer Laurie David to approach Gore and pitch the idea of turning his presentation into a movie.¹⁶⁷ Though Gore was uncertain of the offer at first, David convinced him that the presentation offered the right “language [that could be used] to explain [climate change] to people in a way that they could digest.”¹⁶⁸ This presentation is what came to be known as *An Inconvenient Truth*.

¹⁶² Jon Michaud, “Eighty-Five from the Archive: Elizabeth Kolbert,” *The New Yorker*, 21 May 2010, <https://www.newyorker.com/books/double-take/eighty-five-from-the-archive-elizabeth-kolbert>; For further reading see Elizabeth Kolbert, *Field Notes from a Catastrophe: Man, Nature, and Climate Change*, 1st ed. Bloomsbury USA, 2006.

¹⁶³ Luntz, “The Environment: A Cleaner, Safer, Healthier America.”

¹⁶⁴ Ibid.

¹⁶⁵ Ibid.

¹⁶⁶ Jennifer Keishin Armstrong et al, “The Slideshow That Saved The World,” *Al Gore*, 25 May 2016, <https://algore.com/news/the-slideshow-that-saved-the-world>.

¹⁶⁷ Ibid.

¹⁶⁸ Ibid.

It was not until the release of his 2006 documentary film, *An Inconvenient Truth* that Gore's arguments successfully reached the greater public. Though the film was released in conjunction with the book, it is the film that has been credited with "expanding the climate change discussion," "reigniting an ethical purpose in the United States," and igniting political action to reduce carbon emissions.¹⁶⁹ While the film and the book contain the same language, explanations, and descriptions of the climate change issue, it is the film which offers something slightly more 'digestible': images. Imagery, whether it is induced in the imagination or done on a screen, is the most important factor in how climate change media is received.

Science alone does not promote action. Narrative prompts action. *The Day After Tomorrow* was successful because it was a post-9/11 film that harnessed the emotion and trauma experienced by Americans. *The Day After Tomorrow*'s success has sparked several other films to follow suit down the Cli-Fi disaster route.¹⁷⁰ Films such as *Ice Twisters* (2009), *2012* (2009), *100 Degrees Below Zero* (2013), *Snowpiercer* (2014), *San Andreas* (2015), and *Geostorm* (2017) are all influenced by *The Day After Tomorrow*.¹⁷¹ It can be argued *The Day After Tomorrow* made a formula of sorts for environmental films released post-9/11. All of these films deal with the drastic changing of the planet's climate having catastrophic consequences on humans, forcing them to try to survive in a dystopian apocalyptic world, but none of them have stirred up the same amount of attention and action as *The Day After Tomorrow*, especially as our society grows further away from the cultural impact of 9/11.¹⁷²

¹⁶⁹ Jessica M. Nolan, "An Inconvenient Truth" Increases Knowledge, Concern, and Willingness to Reduce Greenhouse Gases," *Environment and Behavior*, vol. 42, no. 5 (2017), <https://doi.org/10.1177/0013916509357696>.

¹⁷⁰ Svoboda, "Ice-fi: the legacy of 'Day After Tomorrow.'"

¹⁷¹ Ibid.

¹⁷² Ibid.

The whole reason that the film was as successful as it was due to the political and social context it was released in. A period when Americans were still scared and confused from what they had experienced on September 11, 2001, and were struck with fear all over again when they were told that it could happen all over again, but this time, everywhere. *The Day After Tomorrow* and its ability to draw emotions was a catalyst for how scientists, filmmakers, and activists use media and emotion. How climate change is discussed today shows the film's impact directly. Discussions and teachings are not as science-based but could be seen more as science-backed with more of a focus on conveying the issue emotionally first, usually done with visuals and narratives.

Illustrations



Figure 1. Water rushing through the streets of New York as citizens panic trying to escape. This sequence has been heavily compared to the on-the-ground news coverage and personal accounts of the ash engulfing the streets of New York after the collapse of the Towers on September 11, 2001 (*see figure 3*). 20th Century Studios, “The Day After Tomorrow | #TBT Trailer | 20th Century FOX,” 2015.



Figure 2. A tornado making its way through Los Angeles, CA in the opening scenes of the film and trailer for *The Day After Tomorrow*. This sequence has been compared to those of ash engulfing the streets of New York after the collapse of the Towers on September 11, 2001 (*see figure 3*). 20th Century Studios, “The Day After Tomorrow | #TBT Trailer | 20th Century FOX,” 2015.



Figure 3. Ash covering the streets of New York following the collapse of the Towers, September 11, 2001. Greg Semendinger, *NYC Police Aviation Unit/ABC News/AP*, 2010, <https://www.npr.org/templates/story/story.php?storyId=123815835>.

**GLOBAL WARMING
ISN'T JUST A MOVIE.
IT'S YOUR
FUTURE.**

PROBLEM #1
Reality: The Earth's atmosphere is heating at a rate faster than any time in history—a phenomenon known as global warming. Glaciers at the North Pole are melting. Sea levels are rising. Storms are intensifying. Heat waves, like the one that swept through Europe last summer, are longer and more deadly. Right now, we are in the middle of an unfolding climate crisis.

The abrupt climate crisis in *The Day After Tomorrow* is over the top. A full-blown ice age could not happen. But global warming *could* bring dangerously cold temperatures in some areas, while others suffer severe storms, extreme heat, floods, droughts and water shortages.

Here in the U.S., cars, trucks and coal-fired power plants spew over half of all pollution that causes global warming. But that's not inevitable. Together we can turn it around.

PROBLEM #2
One man stands in the way of real progress toward stopping global warming: President George W. Bush. At every turn, President Bush has sided with his friends and big campaign contributors in the oil, coal and automobile industries.

THE SOLUTION
We have the expertise to make cars run on cleaner burning fuels, and the resources to develop new technologies that will dramatically cut pollution (and create hundreds of thousands of new jobs right here in America).

Go to www.climatecrisis.org and tell President Bush to get serious about global warming. Tell him to support the international Kyoto treaty and support Senator John McCain's new bill in the U.S. Senate to reduce global warming.

Act now. Because we can't wait until the day after tomorrow.

MoveOn.ORG
Democracy in Action.

Figure 4. One of the flyers handed out by MoveOn.org activists at showings of *The Day After Tomorrow*, “The Movie the White House Doesn’t Want You to See,” *MoveOn Political Action*, 07 July 2004, <https://web.archive.org/web/20040707062454/http://www.moveon.org/climatecrisis/index.html>.



Figure 5. Example of current-day climate change media that emphasizes the human cost by leaning into ideas of a dystopian future. “More disease, more suicide: Study shows human cost of climate change,” *Halfpoint/iStock*, 2021, <https://westernowatoday.com/2021/10/22/more-disease-more-suicide-study-shows-human-cost-of-climate-change/>.

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