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-Qaeda\textsuperscript{1} 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.\textsuperscript{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

\textsuperscript{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.

\textsuperscript{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.\textsuperscript{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.\textsuperscript{4} The entire country was able to experience a collective trauma, leaving millions of Americans with PTSD.\textsuperscript{5}

After experiencing trauma, many victims seek to re-create and relive their trauma as a way of coping.\textsuperscript{6} Reenacting trauma provides “an opportunity for an individual to …work through the terror, helplessness, and other feelings and beliefs surrounding the original trauma.”\textsuperscript{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.\textsuperscript{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.\textsuperscript{9} In the wake of 9/11, thousands of American actively sought out disaster content via video and DVD rentals.\textsuperscript{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

\begin{itemize}
\item \textsuperscript{5} Ibid.
\item \textsuperscript{7} Ibid, 229.
\item \textsuperscript{8} Ibid, 231.
\item \textsuperscript{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.
\end{itemize}
characters as they themselves were searching for how 9/11 would be affecting their way of living.\(^\text{11}\)

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.\(^\text{12}\) 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.\(^\text{13}\) Viewers were even struck with some all too familiar cries and screams such as “[l]ower Manhattan is virtually inaccessible!”\(^\text{14}\) 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.”\(^\text{15}\) 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.

\(^\text{13}\) Ibid.
\(^\text{14}\) Ibid.
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.\textsuperscript{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.\textsuperscript{17}

The film became a box office hit, earning $550 million worldwide and becoming the sixth highest-grossing film of 2004.\textsuperscript{18} Since its release, the film has become a seminal example of the literary and artistic genre known as cli-fi.\textsuperscript{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.\textsuperscript{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.\textsuperscript{21}

\textsuperscript{17} Ibid.
\textsuperscript{19} Ibid.
\textsuperscript{20} Ibid.
\textsuperscript{21} Ibid.
change action due to the film’s ability to gain attention and charge a national debate.\textsuperscript{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.”\textsuperscript{23} Cli-Fi, like all forms of media, is a reflection of our culture and thus another “medium of [our] lived experience.”\textsuperscript{24} Cli-Fi is an outlet for humanity to sort through and explore the future of the environment.\textsuperscript{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’\textsuperscript{26} of climate change in the 1960s and 1970s.\textsuperscript{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

\textsuperscript{22} Ibid.
\textsuperscript{23} Ibid, 1-2.
\textsuperscript{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.
\textsuperscript{25} Ibid; Goodbody and Johns-Putra, *Cli-Fi*, 4.
\textsuperscript{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.
\textsuperscript{27} Ibid.
Spring (1962), The Population Bomb (1968), Hothouse Earth (1975), all played into the public’s fears of “overpopulation, pollution, and acid rain.” 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. 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. This was to play off of and further instigate the public’s growing anxiety surrounding climate change and the planet’s limits.

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. 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. 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. One reviewer from the Tampa Bay Times went so far as to say that Boyle’s predicted future was “a cute and harmless contrivance.” Reviews claimed that it was the scientific inaccuracies

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28 Ibid.
29 Ibid, 4.
31 Ibid.
32 Ibid.
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.\textsuperscript{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.”\textsuperscript{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 \textit{The Day After Tomorrow} does the opposite. I believe that \textit{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,\textsuperscript{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 \textit{The Day After Tomorrow}. The film is noted as gaining “more than ten times the press coverage of the 2001 IPCC report,”\textsuperscript{39} with it accounting for an overall “32% increase in media attention to

\begin{thebibliography}{99}
\bibitem{36} Ibid; \textit{Cli-Fi}, 100-103.
\bibitem{37} Gregers Andersen, \textit{Climate Fiction and Cultural Analysis}.
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, \textit{Climate Fiction and Cultural Analysis}).
\end{thebibliography}
climate change” after the film’s release in comparison to the year’s previous average. 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.

The “science-first” approach refers to the understanding by scientists that facts and science alone will pave the way for policy. 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. 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. 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.

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. 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. They instead dove deeper

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41 *Cli-Fi*, 134.
43 Ibid.
44 Ibid.
46 Ibid 6.
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.”

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. 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. Keeling’s work would be known as one of the most important scientific findings of the 20th century and be credited for raising awareness of the increasing atmospheric CO₂ levels, however, these recognitions of Keelings work would not be given until decades later. 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.

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. One of the biggest reasons the authors found for this lack of interest in

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48 Ibid.
Keeling’s work was in part due to the project’s appearance as “routine science.” Keeling’s findings went unacknowledged for several decades because his research and methods were not seen as ‘flashy’ or “novel.” 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. The majority concern of the climate science community was global cooling – not global warming. This was due to the northern hemisphere’s significant drop in average surface temperature between 1940 and 1980. 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. This made Keeling’s findings of a global warming incredibly hard for both the public and the scientific community to take seriously. 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. 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. 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.

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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.”

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. Bush made claims that these rollbacks were made in the United States’ best economic interests in mind.

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.” 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.

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 to

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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.
to find a ‘better solution’ for American workers.\textsuperscript{74} Political correspondent Tim Dickinson\textsuperscript{75} 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.”\textsuperscript{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.”\textsuperscript{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.”\textsuperscript{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.”\textsuperscript{79} They criticized

\begin{footnotesize}
\begin{enumerate}
\item Tim Dickinson is a political writer for Rolling Stone Magazine.
\item Froomkin, “Cheney: Neither Here Nor There?”
\item Gwen Infill, “Bush and the Environment.”
\end{enumerate}
\end{footnotesize}
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 the 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

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\(^81\) Ibid.


often, but naturally. 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.”

In Luntz’s narrative, climate change emerged as something of a story rather than an environmental fact. 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.” 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. 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.
attacks. 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. 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. 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). 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. The industry was quick to censor any content that could be trauma-inducing to audiences. 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. 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.

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92 Lane, “This is Not a Movie.”
94 This included any images of the Twin Towers themselves.
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. In this case, the industry was happy to oblige. Film and media were asked to promote a narrative of an “essential goodness,” purity, and innocence of America and its people. 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. These programs portrayed the United States as an underdog character capable of winning through the strength of unity.

This is reminiscent if what occurred between Hollywood and Washington following Pearl Harbor. Themes of war, patriotism, and nationalism were boosted, and “Hollywood… march[ed] to a military beat.” 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. 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.” 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. As time progressed and political divisions began

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97 Riegler, “Mirroring Terror,” 106.
99 Ibid, 245.
100 Ibid, 240-241.
102 Ibid.
103 Ibid.
104 Spigel, “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.\textsuperscript{106}

From 2001-2002 films, video games, and television shows were still being edited to remove the Twin Towers and any trauma-inducing imagery.\textsuperscript{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 \textit{Rudy: The Rudy Giuliani Story}, Spike Lee’s drama \textit{25th Hour}, and Denys Arcand’s documentary \textit{The Barbarian Invasions}.\textsuperscript{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.\textsuperscript{109} Then in May of 2004, 20th Century Fox put out the first trailers for Roland Emmerich’s film \textit{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 \textit{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 (\textit{see figures 1, 2 & 3}).\textsuperscript{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.\textsuperscript{111} Though the destruction portrayed in the film stemmed from extreme weather produced by climate change rather than a

\textsuperscript{106} Ibid.
\textsuperscript{107} Hill, “9/11: Going, Going, Gone.”
\textsuperscript{108} Ibid.
\textsuperscript{109} “Mirroring Terror,” 103;105.
\textsuperscript{110} Hill, “9/11: Going, Going, Gone.”
\textsuperscript{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.”

The Day After Tomorrow actively made the decision to dive into political arguments and reflect “the tensions and divisions within American society.”

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. 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.

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112 “Mirroring Terror,” 107.
113 Ibid, 108.
and the film gave audiences that exact visual.\textsuperscript{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 \textit{The Day After Tomorrow} discussed the failures of the Bush Administration.\textsuperscript{116} Some activists claimed that the Administration may “in some ways [be] even more fictional than the movie.”\textsuperscript{117} Many of them pointed out the Administration's support of mining and oil interests, but mostly to the suppression of climate change data.\textsuperscript{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.”\textsuperscript{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


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


\textsuperscript{119}Nisbet, “Evaluating the Impact of \textit{The Day After Tomorrow}.”
together to organize the leafleting of theaters showing *The Day After Tomorrow* nationwide.\(^{120}\)

One flyer invoked dark themes\(^{121}\) with a person running from a tornado with bold text stating 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.

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\(^{121}\) Dark imagery in reference to the color palette used.


\(^{123}\) Global Exchange, “Bring Movie-Goers Back to Reality.”

\(^{124}\) Ibid.


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 film\(^{128}\) 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.”\(^{135}\)

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\(^{127}\) Goodbody and Johns-Putra, *Cli-Fi*, 134.


\(^{131}\) 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.”  

With Luntz’s statement that “facts only become relevant when the public is receptive and willing to listen to them,” 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.  

Critiques of *The Day After Tomorrow* have even gone so far as to describe the film as not science fiction, but rather “great fiction.” These same critiques surround many kinds of Cli-Fi media, 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. 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.

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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 chancing 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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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 \textit{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.\textsuperscript{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.\textsuperscript{151} This then of course could inspire a domino effect of individuals actively participating

\textsuperscript{147} “Evaluating the Impact of The Day After Tomorrow,” 9.
\textsuperscript{148} “The Environment: A Cleaner, Safer, Healthier America.”
\textsuperscript{149} Howe, \textit{Behind the Curve}, 6.
\textsuperscript{150} Ibid.
\textsuperscript{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 scientists 158 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.
154 Howe, Behind the Curve, 6.
155 Cli-Fi, 134.
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 reality\textsuperscript{160} 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.\textsuperscript{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

\textsuperscript{160} Ibid.
\textsuperscript{161} Ibid.
her motivation behind her “Climate of Man” series was to “make global warming vivid to people…to make it real.”\textsuperscript{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.”\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.\textsuperscript{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.”\textsuperscript{168} This presentation is what came to be known as \textit{An Inconvenient Truth}.

\textsuperscript{163} Luntz, “The Environment: A Cleaner, Safer, Healthier America.”
\textsuperscript{164} Ibid.
\textsuperscript{165} Ibid.
\textsuperscript{167} Ibid.
\textsuperscript{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.\(^{172}\)


\(^{170}\) 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 new 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.
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