

It's The End Of The World And You Watch It: A Brief History Of Disaster Themed Media

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This paper aims to present a brief history of disaster themed media, in particular focusing on cinema and video games. Specific sections also discuss pandemic themed cinema and video games. The media under discussion is mainly from the United States and this paper predominately predominantly discusses the media from a western cultural perspective. The paper posits that the prevalence of disaster themed media in popular culture is closely correlated with 'real world' events. These disaster and post-apocalyptic narratives provide the consumer with safe spaces where they can metaphorically deal with the tensions and anxieties of the present world. This paper intends to discuss disaster themes in popular culture, specifically cinema and video games, and to provide some insight into the consumption of disaster themed media during the 2020 COVID-19 pandemic. This paper is the first in a set of two publications, a more focused examination of media consumption during the COVID-19 outbreak can be found in the companion paper, "It's the End of the World and You Watch It: Media in the Time of COVID-19."

Keywords: Disaster media, history, pandemic, cinema, video games, COVID-19

INTRODUCTION

Human culture is constantly fascinated by an important question regarding what would happen if everything as we know it was suddenly at risk, or worse, suddenly gone. The idea that humans might survive a global catastrophic event is not a new one, and many writers have imagined multiple scenarios in which humans continue to exist after a major disaster in some reduced state.

The modern post-apocalyptic literary genre started to develop in the early 19th century. Beyond the variety of retellings and derivations of the Book of Revelation that existed during that time, a couple of original works stand out. Among them is the 1826 novel *The Last Man* by Mary Shelley. This novel follows a group of people, mostly British aristocrats, who live through a devastating plague that kills a large percentage of the population. The resulting disorder leads to the destruction of governments and basic social structure, the rise of fanatical religious cults, and an invasion of the British Isles by American survivors that leads to even more death and destruction (Snyder, 1978).

During the rest of the 1800s, writers detailed supernatural apocalypses as well as those that were perfectly plausible. Edgar Allen Poe's short story *The Conversation of Eiros and Charmion* (1839) features a disruption in the Earth's atmosphere, causing it to become 100% oxygen and igniting a worldwide inferno after a nearby comet hits. In H.G. Wells' 1898 novel *The War of the Worlds*, one of his most famous works, an unnamed narrator recounts a Martian invasion of England, with a focus on the senseless violence the aliens inflict on his town. Up until the middle of the 20th century, nearly every post-apocalyptic work built upon the idea that humans would die out as a result of disasters seemingly out of their own control (Mills, 2007; Falero, 2015).

In more recent times, popular media (such as cinema and video games) have throughout their history had a strong relationship with disaster. This particular segment of popular media feeds off the suffering of others to provide cinematic or interactive spectacles full of shock and awe. Any disaster focused media is immediately identifiable by a level of destruction and violent impact upon people and places. This visual disaster spectacle may be a bigger draw than the star of the film itself.

By any criteria, the graphic depiction of physical destruction in most disaster movies is quantitatively large. Whether a high-rise building would burn as in *The Towering Inferno*, or Los Angeles could be impacted as in *Earthquake*, or a modern ship might be capsized as in the *Poseidon Adventure* has been technically questioned. Whatever the reality of the

possibilities of physical destruction, disaster films certainly portray massive damages and give very little indication that the catastrophic events depicted would, in the real world, represent the extreme end of the continuum rather than the typical disaster - especially in American society. In other words, disaster films in one sense of the term portray catastrophes rather than the kind of destructive damage the usual fire, flood, earthquake, etc. would create in the United States. (Quarantelli, 1980)

Within the disaster genre, there is inherent conflict, a struggle pre-built with the simple goal of survival pre-attached. The generic disaster genre can be categorised into multiple subgenres, such as natural disasters, technological disasters, medical disasters, zombies, or even the idea of a post-apocalyptic world, a setting which the disaster itself would create (Andharia, 2020).

Määttä (2015) analysed a range of disaster themed fiction and film, specifically apocalyptic and post-apocalyptic examples. He identified the works that are most discussed and mentioned within the field and narrowed the list down to 35 works which are mentioned repeatedly and are regarded highly.

When it comes to the crises or disasters depicted in all the 35 canonical works of apocalyptic and post-apocalyptic fiction and film, nuclear wars and pandemics are the most common scenarios, with nuclear wars and their aftermath accounting for sixteen, or almost half (45.7 percent), of the cases, and with pandemics (viruses, plagues, etc.) coming second with five entries (14.3 percent), although diseases (and famines) often figure as secondary calamities in many more, especially in the stories dealing with nuclear war. The disasters in the remaining classics consist of celestial phenomena, alien invasions, floods, and freak occurrences (if they are not unknown). (Määttä, 2015)

Whether it be volcanos, weather, nuclear war, earthquakes, a virus, or the undead rising from their graves, the threat of an 'outbreak' is something movie makers and game developers (and

their audiences) all seem to have a fascination with. There is definitely a commercial benefit that brings media producers back to these disaster themes over and over again.

There is a question that needs to be asked surrounding the reasons that these disaster scenarios are currently so prevalent within the popular media that is regularly consumed around the globe. A number of possible reasons present themselves:

- Perhaps the fascination is born from knowledge of real events, such as the sinking of the Titanic, a large hurricane, or the events surrounding a global pandemic.
- Perhaps the audiences enjoy the idea of being scared or unsettled, audiences are able to escape their real-life worries while watching the end of the world from the safety of a dark movie theater or their living room couch.
- Perhaps it is that morbid curiosity of the intensely curious onlooker, a macabre desire to watch a horrifying event and the imagery of death – the viewer is slowly driving past the scene of a traffic accident or crime.
- Perhaps there is an interest in discovering a deeper meaning or message. Filmmakers or game developers may view a disaster or apocalyptic scenario as a perfect mechanism to transfer their message onto their audience.

The reasons why disasters are so prevalent in our modern popular culture are complex, potentially due to combinations of the factors described above, along with others that are not listed here. This paper intends to discuss disaster themes in popular culture, specifically cinema and video games, and to provide some insight into the consumption of disaster themed media during the 2020 COVID-19 pandemic.

A BRIEF HISTORY OF DISASTER CINEMA

Throughout history, disaster themed films have been important and have garnered much critical acclaim. Early examples included such films as *The Last Days of Pompeii* (1913), *The*

Sea Beast (1926) starring John Barrymore, and the Michael Curtiz directed *Noah's Ark* (1928).

Noah's Ark is a prime early example of the form, it was produced at a crucial time in cinema's history as a hybrid cinematic artifact, mired in the tug-of-war between silent and 'talkie'. The film demonstrates the pull of large-scale disaster epics, expensive to produce having a \$1 million budget, the film generated around \$2.5 million in profits – which is \$32 million adjusted for inflation (Glancy, 1995).

A steady stream of disaster themed films were produced between the 1930s and the 1960s, but it was the 1970s that saw a massive increase in the production of disaster/apocalyptically inclined genre films. Hollywood was also changing in the 1970s and 'New Hollywood' or the 'American New Wave' was the face of the industry. Gone were the musicals of the Golden Age and the glistening star power that held studios together, these were replaced by gritty stories rooted in realism. Movies gravitated to stories with high stakes and deep and rich undertones, responding to contemporary events such as the Civil Rights Act and the Vietnam War (Elsaesser et al, 2004).

The golden age of Hollywood disaster movies began in the early 1970s. *The Poseidon Adventure* (1972) was filmed during Hurricane Agnes, the costliest hurricane to hit the United States up until that point, most of the country was affected by flooding and storms. The film was released in December of that year and on a \$5 million budget it generated over sixteen times of what it cost to make in revenue. This helped set the tone for this type of picture in the years following its release (King, 2008). Two years later, on a \$14 million budget, *The Towering Inferno* (1974) grossed \$116 million in North America. The film was also nominated for the Best Picture Oscar that year, losing to *The Godfather Part II*. *Earthquake* (1974) was also released this same year, another film that was intent on providing entertainment out of adversity. Again, this disaster epic turned a massive profit, generating over \$70 million in revenue from a \$7 million budget.

Pauline Kael, summing up the general feel for critics at the time regarding these movies, noted that Earthquake:

...is swill, but isn't a cheat; it's an entertaining marathon of Grade-A destruction effects, with B-picture stock characters spinning through it. (Kael, 1974)

Correspondingly, during this decade the United States had seen a steady increase in natural disasters. In 1972 the country recorded 48 large-scale natural disasters, whereas before 1972, the highest annual total on record was 29 in 1969. Natural disasters continued to ravage the country during this time, 55 recorded in 1973, and 53 recorded in 1974 (FEMA, 2020). In 1973 The United States was hit by Hurricane Ava, the fifth strongest Pacific hurricane on record. This was coupled with a highly active tornado season, there were 16 tornado events in March alone, and the Mississippi flood of 1973 saw much devastation in the country. Again in 1974 the United States was hit by a series of devastating tornadoes, April saw an outbreak of tornadoes which affected much of the central and eastern parts of the country, including the '1974 Super Outbreak,' registered as the second largest outbreak of tornadoes in a 24 hour period of time. It was also the most violent tornado outbreak on record, 148 tornadoes caused over \$800 million in damages, which corresponds to \$4.5 billion when adjusted for inflation (FEMA, 2020).

It's clear that people were decimated and downtrodden during this time of wide-ranging destruction, but perhaps these films were revered for saluting the American spirit of overcoming and prospering through hardship. People yearned to see perseverance and victory in a time of national sorrow and loss. Looking back on this time period, it may not be so easy to say why people watched what they did, but the data tells us *what* they watched. Perhaps filmmakers were gravitating toward darker and grittier projects, or the audience were seeking out themes that mirrored society. A deeper analysis of the story structure of many films from the 1970s illustrates a correlation with this particular genre of disaster film.

Many studies of cinema narratives discuss the traditional three-act structure which most films utilise (beginning, middle and end).

- The first act presents the world and the characters and provides some form of interruption which the characters attempt to fix.
- In the second act two, the characters attempt to solve the problems, the obstacles are now larger, subplots take hold and there is a build-up to the finale.
- The third act resolves the tension, sometimes providing a narrative twist. The film ends with a resolution to the story and provides some sort of return to normalcy.

Analysing three films from the period, *Earthquake* (1974), *The Towering Inferno* (1974) and *The Poseidon Adventure* (1972), there is a strong adherence to this type of structure, at least in relation to the plot and the advancement of character. These films have a definite, climactic third act, but what we see in disaster films is a lack of closure, there is no return to normalcy. This breaks with the kind of ending we see in typical Hollywood narrative structures or in a Joseph Campbell-esque hero's journey. This means that the viewer of a disaster movie is often left without this sense of closure, thus, the audience is not told that everything will be alright.

In *Earthquake* (1974), the film climaxes with the bursting of a dam, rushing water floods the sewers as Ava Gardner falls into the rapidly advancing surge, Charlton Heston's character sacrifices himself to attempt to save his estranged wife, but they (and many others) are consumed and swallowed by the deluge. The rest of the survivors climb to safety, as they take in the decimated city of Los Angeles surrounding them.

The Towering Inferno (1974) boasts 41 deaths in the film, many of which are major characters in the narrative, again an atypical approach to Hollywood's happy-ever-after format. Considering the ending of the film for closure, for a second time we lack the return to normal, the building is destroyed. The film ends with a rather forcible character arc with the acquiescence by Paul Newman in accepting the guidance from Steve McQueen when

building their next skyscraper. But in the end, there is just remorse, loss, sorrow, and McQueen driving off into the darkness.

The Poseidon Adventure (1972) results in six passengers surviving a cruise ship being hit by a tidal wave. As is normative in the genre of disaster film, there is a daring rescue, and a climactic, heroic act of selflessness. In this case, Gene Hackman's character sacrifices himself for the survival of the remaining group. They are flown away toward apparent safety, but the tragedy lingers, as the audience is kept from the return to normal life. There is some closure in the rescue, but as with the previous two examples, the disaster is the thing that continues in the minds of the audience.

In a disaster film, this lack of normalcy subsequent to the disaster is an interesting factor when considering story structure, as well as the popularity of these films. The movie going public paid to witness these unending disasters, while being exposed to all the real-world disasters of the 1970s. This might allude to the Anthropocene, a term popularised in the 1980s and revived recently as we look at the ecological extinction facing humanity. This can be viewed as a product of the intertwining fate of humans and nature. People's fascination with their relationship to the natural occurrences around them, now finds them wanting to somehow separate from it, especially now as audiences see our fate tied into the destruction caused to our own ecology and the planet we inhabit.

Or perhaps it is simply projection, as it is a common human desire to project ill-feelings, negative energy, personal dissatisfaction, onto someone or something else.

Cinema knows it. One of the things cinema is there for is to find some kind of objective correlative for feelings that can't be acknowledged. Maybe cinema is not about desire at all, or even anxiety. Maybe it is about seduction, of turning us aside from unacknowledged feelings, and slipping us into worlds of object and relations that displace those feeling onto something else... Sometimes there is a veritable potlatch of all these

beautifully but temporarily made things staged for the film itself. Cars crash, towers explode in fireballs. Cinema is an allegory for the fiery ends of the world. (Wark, 2014)

Some of these disaster films of the 1970s added a dash of political agenda which added to the denseness of the texture and the richness of the message. Take the deftness of the political idealism handled in a film such as Romero's *Dawn of the Dead* (1978). There is a strong underlying message regarding America's consumption and consumerism.

Dawn's human characters, too, find reassurance in returning to the 'normality' of the mall. After landing on the mall's roof, the group sets up base in an upstairs storeroom before the two SWAT men head off to explore the mall and find supplies. Arriving in a central control room, they find a bunch of 'keys to the kingdom,' as Roger calls them. Flicking switches, the men bring the mall to life: lights come up, music fills the till-then-silent void, fountains begin pumping, and escalators kick back into operation. It's show time again. The eerie, silent void---a ghostly, incongruous 'space' ---again becomes 'place,' sensorially identifiable, comfortingly familiar. (Bailey, 2013)

Once safe, the lure of material possessions at first drives them wild. Two, Roger and Stephen, become overly possessive, leading to mistakes that later cost them their lives. The others, Fran and Peter, become bored, but regain sufficient self-control to eventually escape both mall and zombies. (Bailey, 2013)

Dawn of the Dead illustrates consumerism running wild, mall culture and the idea that a zombie apocalypse brings an idea of freedom over previously known authoritarian ideals. Yet over time, even having 'everything' which consumerism could allow, this will simply never satisfy the need for human connection.

For the next twenty years, the number of natural disasters in the United States would fluctuate between 20 and 40 per year. Then, in 1996, America was once again hit by an increase in natural disasters (floods, blizzards, fires, tornadoes), and the terrible 1996 Atlantic hurricane

season which included 13 named storms and 9 hurricanes, six of which were categorised as major. The hurricanes started in June of 1996 and lasted until the end of November; this was the highest number of hurricanes produced in a single season since 1950. The 1996 Atlantic hurricane season caused \$6.5 billion in damage (adjusted for inflation) and 256 fatalities (FEMA, 2020).

Hollywood's response to this spate of natural disasters was to produce a plethora of disaster themed films, including but not limited to:

- *Twister* (1996)
- *Independence Day* (1996)
- *Daylight* (1996)
- *White Squall* (1996)
- *Titanic* (1997)
- *Dante's Peak* (1997)
- *Volcano* (1997)
- *Deep Impact* (1998)
- *Armageddon* (1998)
- *Hard Rain* (1998)
- *Godzilla* (1998)

In this three-year span of time, these eleven films totaled \$1.9 billion at the box office, making up 10% of the entire domestic box office returns of this period, during which Hollywood produced 1,300 films, and even without *Titanic*, this was still 7.5% of the total earned by Hollywood. (The Numbers, 2020).

With the resurgence of disaster films in the 1990s, there was an increasing interest in interweaving politics and deeper messages into the film's narrative. Sewn into the fabric of many of these films there is an idea of how we want the audience to feel as they see the cause and effect of the disaster and the impact it has on the actors on the screen.

in order to see the processes of translation by which actual political developments re-emerge in fantasmatic ways in disaster films, we need to note the ways in which the disaster film genre is structured by the dynamics of response and responsibility: some disaster stories elucidate forms of political, social and personal responsibility, while

others use the disaster narrative in order to activate massive action-based response storylines that focus on the ways professionals, emergency responders and government agencies react to the disaster. In a rough sketch, this delineation is related to the agent of the disaster. What causes the disaster? Can it be avoided? Is someone responsible? Is the agent of the disaster conscious or sentient? And is there room for political negotiation with the agent of the disaster? If negotiation is possible, in the case of a human enemy, a purposeful aggressor or a sentient and reasonable alien, for example, then the disaster premise highlights issues of responsibility both for the enemy, for threatening or causing the disaster, and for the human negotiators, for working to avert it. (Kakoudaki, 2011)

In Roland Emmerich's film *Independence Day* (1996), the disaster is an immediate threat to the globe, however from the film's direct point of view, the threat is aimed at the United States. This threat causes a response to the alien forces attempting to infiltrate the borders of American airspace by a direct attack and defense of the breach. This contrasts with James Cameron's *Titanic* (1997), where the reaction to the disaster is to simply hold on and try to survive. The audience sees the ship break apart, we see crewmen attempting to grab hold of the rails, while failing and falling. We see elderly couples holding onto each other as their cabins fill with the icy waters of the Atlantic Ocean. We see our main characters, Jack and Rose, holding onto a small piece of wood and to one another's hands, until it becomes physically impossible to do so.

An interesting note among many of the disaster films of the 1990s, is that within the general conceit of the narratives, politics played the flag-waving role of cheerleader, rather than taking the blame for any of the destruction caused, or lack of preparedness. When considering films such as *Twister* (1996), *Volcano* (1997), *Dante's Peak* (1997), *Armageddon* (1998), in each case nature is posited as the antagonist. Each film contains a physical character to embody the evil nature of man, sometimes those characters are political figures, but the films themselves hold an astute "Mother Nature vs. Humankind" conflict. These movies rarely show a failure of government, but rather a small group of strong-willed individuals who keep the human spirit alive, and hopefully, most of the collection of stock characters, as well.

The tornadoes in *Twister* chase our main characters like hounds after a rabbit, the lava from *Volcano* and *Dante's Peak* seems to be somehow sentient and embodies a predatory nature. These disasters almost pull the film characters toward the danger, making it almost impossible for characters to flee. *Armageddon* achieves the lone inconsistent plot device here, as it showcases much more of the ultra-conservative ideology of the anti-climate change movement, as the scientists involved and all of NASA fail to come to terms with how to solve the problem of an asteroid on a collision course with our planet. It takes a group of “real men” to win this war, with an added dose of uber-machismo when the father sacrifices himself for mankind, as well as his daughter’s happiness (this sort of sacrifice references back to the disaster films of the ‘70s).

The moral of these stories contends that mankind can conquer nature when technology and those in power fail (again this is a standard trope in films from the late ‘70s). We can look to the politics of the time as a sounding-board to the tenor of the themes at play in the disaster films of the 90s. The economy was strong, unemployment was low, the Gulf War had wound down and smaller pockets of conflict were the military issues during these years (Bosnia, Kosovo, Somalia and Rwanda etc.). Life in America was seen as pleasant, and society was stable. Hollywood saw less threat from mankind and looked to nature to fill the vaunted role of villain in the disaster movies of the time.

There comes a pretty hefty shift toward the end of the 1990s and early 2000s. Films with natural disaster themes began to morph into extraterrestrial conflicts post-*Independence Day* (1996) and other films such as the *Jurassic Park* (1990-2001) franchise, the Wachowski’s blockbuster *The Matrix* (1999) and even smaller movies such as Kevin Smith’s *Dogma* (1999) flirted with the idea of a post-human idea of living on planet Earth. This indicated a shift among filmmakers from disasters to a more existential idea of global ruin leading to a dystopian future.

This idea was reinforced further in September of 2001; post 9/11, when America was transformed. This flashbulb event changed the way Americans went out in public, the way they traveled, the way they looked at society. Many commentators have noted that this was the point where movies began to represent how Americans see themselves as isolated and alone (Bradshaw, 2011; Brody, 2011). Cinematically, Hollywood moved away from ‘group’ scenarios, where a collection of individuals are trying to outlast a natural disaster. Films of this period began to portray life as whittled-down and barren, characters exist in a world stripped of resources and life, the reverberation of the disaster, with survivors attempting to exist, maybe perhaps rebuild. Films from the late 1990s to early 2000s no longer contain narratives about ‘causality,’ they become stories about humanity and life, the aftermath of the cause.

When we sit down to watch *Armageddon*, *Independence Day*, or *The Fifth Element*, we already know that, come the eleventh hour, humanity will save itself. Redemption is the point of these films: the world must be saved so that in films to follow it can be blown up all over again. In the current post-9/11 environment as seen onscreen it is the end of the world itself that is inevitable, so taken for granted that the cause has become almost irrelevant...

...Post-9/11 films no longer need to offer speculation about the future, but instead purvey a realisation of what is occurring in the here and now, perhaps implying that although we understand our eventual plight, we are powerless to prevent it. There is something sublime in this very description; the idea that we are careening towards a dramatic and spectacular end; that the finale will be glorious, vast, universal in scope. Just as the images witnessed on our television screens on September 11, 2001 were sublime in themselves, they have re-configured the audience’s perception of scenes of destruction. Post- 9/11 apocalyptic films have frequently traded in a different kind of sublime effect, moving away from the depiction of destruction itself and focusing instead on aftermaths, huge and unbounded expanses of devastation and waste, and the fate of the survivor. (Leggatt, 2011).

It is this post 9/11 world that sees the production of many films with a post-apocalyptic setting, going back to those *Mad Max* (1979-2015) roots. One of the main ways that filmmakers were able to bring this into cinematic existence were through the use of zombies. The year 2002 brought forth a resurgence of the zombie film, a perfect way to disconnect causality to disaster, and to allow the film's protagonists to simply exist within the disaster.

Danny Boyle's *28 Days Later* (2002) blurs the boundaries between good and evil, with attention paid to an animal rights group, whose mission is to save animals from being tested upon; their actions lead to a rage-virus being unleashed upon humanity. This embodies the "no good deed goes unpunished" directive, as we see the virus first flow through those charged with saving the animals, and the next thing we see is the aftermath of the disaster, a decimated, rage-riddled London, barren and torn to shreds. One man, isolated from the group, must reconnect to some sort of society to find answers and to discover hope for humanity's future. *28 Days Later* opened the floodgates for society's infatuation with apocalyptic landscapes, and a re-connection with end-of-the-world narratives. All these films found this sub-genre contain wellsprings of metaphor, delivering meaning and message.

Representations of the zombie in cinema and television underwent considerable changes since Romero's classic horror movie monster to the post-9/11 productions...the propensity of global man to conjure up end-times scenarios. As most film culture theorists are quick to point out, the revenant dominant gave way to the zombie as a site of contamination, epitomising the endemic fear of the spread of viral infection after the attacks at 9/11. The rise in the terrorism threat in post-9/11 context, gave a particular impetus to the zombie narrative, the zombie apocalypse emerging overnight as the kindred spirit of posthumanist dystopias...

...The nature of the anxiety embedded in the zombie apocalypse is what distinguishes the posthumanist dystopian imaginary from other dystopian modes. Unlike other post apocalyptic projections that render visions of the conquest or extinction of the human

species by technology, atomic wars, or extraterrestrial forces, posthumanist dystopia, grounded as it is in Anthropocene and fuelled by the age of terror, a new geological age, in which annihilation is not the ultimate scare; rather, it is the fear of survival in an ‘undead’ life form that mars the horizon of global man engendering the belief systems constitutive of the ethos and structures of the posthuman popular imagination. For the ‘posthuman’, the stake is nothing short of phylogenetic continuity and the survival of the ‘environmentally fittest’. (Neagu, 2019).

This has been the most recent major shift in this area of filmmaking. In the past ten years, the disaster film has wavered from re-hashing zombie tropes, such as *Day of the Dead: Bloodline* (2018), to re-packaging old natural disaster movies, such as *San Andreas* (2015). Most of these films receive a poor response and negative reviews, but still often make the studio a profit. Currently, the disaster films that feel like they contain some element of truth, are those that are honest and are able to tap into a current situation while metaphorically representing societal ills. Disaster themed films such as *Mad Mad: Fury Road* (2015) and *Train to Busan* (2016) provide a rich cinematic experience and hopefully are an encouraging trend.

A BRIEF HISTORY OF PANDEMIC CINEMA

Professor Tom Doherty of Brandeis University, speaks to the history of pandemic cinema:

We’ve always known we’re going to die, of course, but the development of the atomic bomb, and especially the detonation of the H-bomb in 1952, confronted postwar America with the fact that we could all die --- that the entire human species could be wiped out.

So, you get a proliferation of nuclear disaster movies, alien invasion scenarios, an end-of-the-world narratives to express the intimations of mortality. Pandemic films are a variation of the theme --- perhaps in some ways more terrifying because their conceit is all too plausible. Elia Kazan’s ‘Panic in the Streets’ release in 1950, really provides a

template for the pandemic films that follow. It's about a health worker and a police detective trying to track down a Patient Zero in New Orleans to prevent an outbreak of pneumonic plague. (Cardillo, 2020)

Even before this, we saw the introduction of a plague to society in multiple films, whether it be Murnau's *Nosferatu* (1922) or Bergman's ode to the black death *The Seventh Seal* (1957), the idea of a pandemic has frightened the masses for generations. *Invasion of the Body Snatchers* (1956) and subsequently *The Andromeda Strain* (1971) bring in ideas about plagues coming from outer space. This stretches genre cinema and we see the rapid growth of science fiction outside the normative idea with zombie films, brought to mass popularity by George Romero and expanded on by the likes of Mario Bava, Bob Clark, Lucio Fulci, John Carpenter, Stuart Gordon, Wes Craven, Danny Boyle and Edgar Wright. These films all deal with the unwanted infiltration of a foreign substance which could end life on earth. It took a few years to get back to Kazan's idea of 'Panic in the Streets,' something Doherty mentions as:

... based on epidemiology, that focus on a named virus, and send out a shiver of real-life dread --- for example, *Outbreak* (1995) and *Contagion* (2011) (Cardillo, 2020)

Outbreak (1995) feels a little closer to the pandemic-obsessed idea of zombie films, and the film is often categorised as a lightweight horror movie. Although many reviewers at the time saw *Outbreak* as a piece of entertainment, it was produced as a response to issues of the time. The CDC from 1993 to 1995 was busy fighting the H5N1 avian flu that had been proven to spread to humans, and an outbreak of the deadly Hantavirus spread in the southwest of the United States via infected rodents. Over the next year and a half, the Americas had certified their elimination of Polio and the Centers for Disease Control and Prevention implemented the Vaccines for Children Program. The year the film was released, more viral concerns spread around the globe as Zaire was struck with an Ebola outbreak (FEMA, 2020). Hence, there was precedent for this film to serve as a global warning, as much as it could stand up as

an R-rated thriller which held up in the box office. On a \$50 million budget, *Outbreak* brought in \$190 million worldwide.

Sixteen years later, another movie about a pandemic would not be seen in the same light, this film illustrated dire cause and effect and did not have a happy ending. *Contagion* (2011) brought the fear and follow-through of a pandemic to the big screen, many of its major stars did not make it to the end credits alive. By 2011, Monkeypox, SARS, a multi-state outbreak of mumps with 6,000+ cases reported, and H1N1 influenza had worked their way through the global consciousness, and not without their share of deaths. In 2010, a 7.0 magnitude earthquake decimated the island of Haiti and with a quick and active response, the CDC helps prevent 7,000 deaths from Cholera (Barzilay et al, 2013). During the last decade, a collective understanding among the public of just how easily a disease can travel and adapt has become prevalent. Steven Soderbergh's film is prescient in its prediction of the medical reality of the COVID-19 outbreak in 2020. *Contagion* is a film about a global pandemic, a lethal virus which along with irresponsible media and paranoia, begins the collapse of our society.

Whatever the case may be at the time, it's clear that audiences are obsessed with earth-shattering, life-altering storylines. Whether it be local disasters, or global pandemics, audiences increasingly consume this type of entertainment during times of national crisis. Doherty elaborates:

I think the source of the obsession is classic Aristotelean catharsis. The films provide an outlet for the pity and terror we feel when confronting our own mortality in the face of a dreadful disease. Besides the terror of the thing itself, plague is a dandy metaphor for the uncertainty of the human condition. But the difference between a plague film like 'Panic in the Streets' and the ever-popular zombie apocalypse genre is that the former scenario can really happen --- as we've found out. (Cardillo, 2020)

Whether it be a dreadful disease, hurricanes, tornadoes, floods, all these disasters resonate with the global audience, they each pose a major threat in their own way and in their own

time. Audiences show that empathy shines through when trying to get understanding, or even a little better footing with our own individual or collective situation.

A BRIEF HISTORY OF DISASTER VIDEO GAMES

From the earliest days of video games, the interactive medium has had a close relationship with themes of disaster and apocalypse. This relationship continues and as the number of video game titles produced continues to increase, the number of disaster and apocalyptic themed games has also multiplied.

Often considered as one of the original outer space themed video games, *Space Invaders* (1978) is innovative, original and was exceedingly popular. It was the first game to feature the common disaster trope of fighting off an ever-increasing numbers of alien invaders.

Designed by notable game developer Tomohiro Nishika, *Space Invaders* reached a cult-like status in Japan before being exported to the United States. In fact, the coins used by Japanese gamers were in short supply during the 1980s because so many of them were being used to play *Space Invaders* (Arcade Classics, 2019).

Given the success of *Space Invaders*, multiple similarly themed games appeared rapidly, including *Galaxian* (1979), *Missile Command* (1980) and *Defender* (1981). These games helped to popularise home gaming consoles and there were multiple ports of these titles to many different home gaming consoles. (Haddon, 1988; Kiphshidze et al, 2005; Loguidice and Barton, 2009).

In the 1980s, the societal focus on nuclear warfare, mutually assured destruction, and fallout shelters overlapped with the advent of video game technology being available through home consoles. It was only a matter of time before video game studios started to create games to tap into the zeitgeist. An early, and classic, example of the post-apocalyptic video game genre was *Wasteland* (1988).

In *Wasteland*, the game's main character is a Desert Ranger who must find and recruit survivors in the irradiated landscape of the United States after a nuclear war with Russia. *Wasteland* combined many of elements of earlier post-apocalyptic literary traditions, including a narrative focus on people dealing with social breakdown and lacking the basic necessities to survive (Falero, 2015).

Wasteland also featured a number of interactive elements within the video game, such as decision-making, fighting threats, and a relatively immersive visual experience. Within the game, the consequences of the player's choices were reflected in the way they mirrored the gravity of an actual post-apocalyptic world. Of note from a historical perspective was the fact that the game was one of the first to have a 'persistent world' feature, meaning player's changes to the environment would remain after they left the area (Haddon, 1988; Kent, 2010; Falero, 2015).

A sequel, *Wasteland 2* (2014) was developed by inXile Entertainment. This is a post-apocalyptic role-playing video game was funded through a successful Kickstarter crowdfunding campaign. *Wasteland 2* is set in an alternate history timeline, in which a nuclear war between the United States and Soviet Union took place in 1998 in relation to an impact event involving a cluster of meteors that sparked a global nuclear war. Once again, the player takes the role of a Desert Ranger making meaningful decisions in an attempt to help other survivors in the desert and beyond (Pereira, 2014).

From the earliest video games, disaster themes have been prevalent, encapsulating a wide range different cataclysmic scenarios (Haddon, 1988; Kent, 2010):

- *Agent USA* (1984) – An adventure game where a giant 'Fuzzbomb' is infecting people across America.
- *Rampage* (1986) – An action game where giant monsters destroy a city.

- *Midwinter* (1989) – A post-apocalyptic first-person action game with strategy and survival elements.
- *Contra III: Alien Wars* (1992) – A run and gun game where players fight off an alien invasion.
- *Doom* (1993) – A seminal post-apocalyptic first-person shooter survival horror game.
- *Final Fantasy VI* (1994) – A role playing game set after a magical apocalypse has destroyed the world.
- *Beneath a Steel Sky* (1994) – A cyberpunk adventure game set in a future destroyed by pollution.
- *Ragnarok* (1995) – A rogue-like adventure game where players attempt to prevent Norse Gods from destroying the world.
- *Chrono Trigger* (1995) – A role-playing game where players travel through time to prevent an apocalyptic future event.
- *The Legend of Zelda: The Wind Walker* (2002) – An action-adventure game set in a world destroyed by a giant flood.
- *Disaster: Day of Crisis* (2008) – A game where the player must survive various natural disasters while simultaneously battling terrorists.
- *I am Alive* (2012) – Set in an alternate America that has been destroyed by a series of earthquakes.
- *Spec-Ops: The Line* (2012) – A third person shooter set in the city of Dubai which has been destroyed by a sandstorm.
- *The Long Dark* (2017) – A game where players must survive in the Canadian wilderness after a geothermal storm event.
- *Frostpunk* (2018) – A game set in an alternate 1886, where the 1883 eruption of Krakatoa leads to an ice age,

In the current video game landscape, many video games depict a post-apocalyptic invasion by an ‘alien’ force that must be repelled. Popular examples include *XCOM* (1994-2020), *Destroy All Humans* (2005-2020), *Resistance: Fall of Man* (2006), *Death Stranding* (2019).

Many scholarly works address the influence that disasters and worldwide events have had on videogames and explore how these invasion games often deal with issues from a single event (such as 9/11) in explicit terms. Recently, more in-depth research and analysis has illustrated how latent long-term attitudes and beliefs can be addressed by invasion games on a more allegorical level (Berger, 2008; Marshall, 2008). It has become clear that often what these games are speaking to is a latent fear and mistrust of those who are culturally different. These games speak to contemporary cultural attitudes that are intertwined with the reputation of the United States overseas. Many alien invasion video games act as cultural texts, placing them within thinly veiled allegories that make explicit the desire to repel the invasion of forces that threaten the Western world (Lizardi, 2009).

Popular video game culture is awash with images and narratives of the apocalypse in various forms. These range from war and acts of terrorism involving weapons of mass destruction, to religious, science-fiction, horror and fantasy representations of the end of the world. Popular examples include the iconic *Fallout* series (1997-2018), *Mad Max* (1990, 2015), *Enslaved* (2010)¹, *Metro* (2010-2019), *The Last of Us* (2013), *Sheltered* (2016), *Attack on Titan* (2016, 2018), *Atom* (2020).

The depiction of ruined cities in video games offers a vision of failed progress through counter-spectacle (Bonner, 2014). Frequently, such settings are generic, such as the abandoned bases of *Doom* (1993). But real cities in a state of hypothetical ruin increasingly feature in modern video games such as *Fallout 3* (2008) and *The Last of Us* (2013). Seeing the ruins of a well-known city gives the player a sense of atmosphere, and the chance to experience spaces that they otherwise won't normally have access to. The ruins are often an integral part of the playable landscape, and the kind of play that it produces (Ash, 2009). Academics claim that this allows the player a more critically informed conceptualisation of popular media, urban experience, and their own political sphere (Fraser, 2016).

¹ *Enslaved* was originally conceived as a feature film by writer/director Alex Garland, who then went on to write and help design the final game.

Bendle (2005) argues that this contemporary fascination with apocalyptic worlds in video games is associated with a shift back towards traditional beliefs about American civilisation with its historical associations with millennialist ideas. It would appear that the popularity of both invasion and apocalyptic games in the United States is based on similar cultural attitudes.

Zombies have become ubiquitous in the post 9/11 landscape in all media, including video games. Popular examples include the iconic *Resident Evil* series (1996-2020), *Left 4 Dead* (2008, 2009) *Rage* (2011, 2019), *The Walking Dead* (2012-2015), *State of Decay* (2013, 2018), *Dying Light* (2015), *Days Gone* (2019).

Zombies have no soul or consciousness, and as completely alien, a post-human 'other', they seem like the perfect game opponent. Yet their portrayal is always politically charged, as they have historically been used as an allegory for slavery, poverty, and consumerism, ethnicity or political opinion (Luckhurst, 2015). The popularity of zombies is sometimes attributed to the fact that zombie narratives reinforce such paranoid beliefs, such as distrust your neighbor and avoid people who are different.

However, the recent increase in zombie media is more frequently attributed to a negative perception by media consumers of the state of the world. The undead are often interpreted as a malleable allegory for several real-world anxieties. Sometimes the interpretation may be deliberate on the part of the creator of the media, other times the audience may unconsciously infer their own projected meanings on the genre. Natural disasters, terrorist events, economic recessions; all have at one time or another being used to explain the recent rise in popularity of zombie media. Also, one must remember that in many zombie narratives, a prion disease or infection is usually the source of the zombie outbreak, correlating with the global zeitgeist regarding pandemics (Backe and Aarseth, 2013; Luckhurst, 2015).

The zombie in the contemporary imagination is synonymous with the end of civilisation and the breakdown of society and its structures, creating the necessity for the survivors to

find ways to deal with problem of the zombie ... In this sense the zombie is the most postmodern of phenomena, a cultural artefact increasingly cut adrift in a sea of intertextual meanings and dynamics, constantly reused and recycled. (Hunt, 2015)

The proof that zombies and the zombie apocalypse represent a persistent aesthetic rather than a genre is illustrated clearly in their many uses as thought experiments. This was most impressively evidenced by the United States' Center for Disease Control (CDC) choosing zombies as the paradigmatic example of large-scale disaster and infrastructure breakdown (CDC, 2018).

Historical simulation games require players to master geographic facts, anticipate the interactions among geographic processes, become fluent with historical concepts, and understand relationships among geographical, political, economic, and historical systems. They also frequently require player to avoid or mitigate the effect of a range of disaster scenarios. Popular examples include *Sim City* (1989-2014), *Civilization* (1989-2016), *Rise of Empires* (2007-2018).

Success in a simulation game often demands that players confront political dilemmas such as whether to pursue isolationist politics, enter complex alliances for protection, or gain natural resources (e.g. oil) through military force.

The specific trajectory of events comprising any one game may have no analog in real life history; however, the rules binding the game – the core variables included in the model, the interrelationships among political, economic, and geography systems – allow players to gain insights into each of these areas and therefore the unfolding of history itself. (Squire and Barab, 2004)

As the players master sanctioned narratives, they can begin to explore the emergent properties of the simulated game world, which is designed to mimic the world the player inhabits. The introduction of disaster narratives into the simulated environments means that

players face permanent insecurity, knowing that their ‘God like’ abilities within the game have limits. At any point their simulated environment could become a dystopian, decaying and hazardous world relying on humanity's darkest inclinations towards brutality and materialism.

Several modern video games claim a high degree of historical authenticity, and indeed the experience of modern gaming is often described as being more ‘realistic’ than ever before. By deferring to historical authenticity, some games attempt to build ‘real world’ historical knowledge of disasters through sympathetic identification induced through the game’s own narrative and characters (Pérez-Latorre et al, 2017). Popular examples of games based on real disasters include *Stalker: Shadow of Chernobyl / Call of Pripjat* (2007-2009), *Titanic* (2012), *Titanic Honor and Glory* (2013).

These simulations act as a kind of map-in-time, visually and viscerally (as the player internalises the game's logic) demonstrating the repercussions and interrelatedness of many different decisions. Games that simulate disasters bring the tools of narrative to the player, allowing the individual not simply to observe, but to become experientially immersed in the progress of the narrative. The continuous series of decisions the gamer makes can eventually provide an alternative reality, perhaps even avoiding the disaster itself. Hence these games can provide a way of speculating on future and past possibilities regarding the intersections of history and gaming (Rejack, 2007).

Finally, it is worth mentioning a set of games that directly involve the player in disaster management.

Disaster Report (2003) is a survival video game, the game deals with the characters' survival and escape from the slow collapse of an artificial island. Sequels released in 2006, 2009 and 2011 dealt with flooding and earthquake scenarios. The games were developed in Japan and their development can be directly correlated with real disasters including the 2004 Indian Ocean tsunami and subsequent flooding. Between 2003 and 2011 Japan suffered from fifteen

earthquakes of magnitude seven and above, including the Great Earthquake of 2011 (Lay and Kanamori, 2011).

Stop Disaster (2018) is a game developed by the United Nations Office for Disaster Risk Reduction (UNDRR) attempts to teach government officials and city planners how to mitigate casualties and reduce disaster losses. The game allows players to learn more about the risks posed by natural disasters and to improve their resource management abilities. The game simulates multiple disaster scenarios including tsunamis, wildfires and earthquakes (UNDRR, 2018).

With any examination of disaster themed video games, it becomes immediately apparent that the correlations are similar to those found in the realm of cinema and film media. There is a definite correlation between the popularity of disaster themed video games and the ‘real world’ disasters experienced by the general population. In the modern world, complex sets of real-world anxieties are ever present, and it appears that the population may unconsciously look to disaster themed popular media (such as movies and video games) as a way to process these anxieties.

A BRIEF HISTORY OF PANDEMIC VIDEO GAMES

Pandemic gaming has an interesting history that can be traced back to one of the earliest, and most famous, of all games *The Oregon Trail* (1971). The original *Oregon Trail* game was developed as an educational experience. It was designed to teach school children about the realities of 19th century pioneer life on the Oregon Trail. The player assumes the role of a wagon leader guiding a party of settlers from Independence, Missouri, to Oregon's Willamette Valley via a covered wagon in 1848. Diseases featured strongly in *The Oregon Trail*, in addition to dealing with exhaustion, sunstroke and snakebites, players also had the opportunity to die from measles, typhoid, cholera, and dysentery (Bigelow, 1997; Rawitsch, 2017).

The 1982 game *Epidemic!* is a turn-based strategy game originally developed for the Apple II. A meteorite crashes into Earth, bringing with it an alien virus. The player stands in control of a world on the brink of extinction and must stem the epidemic across multiple regions as quickly as possible and with minimal loss of life. Within the *Epidemic!* Game the player must make a series of difficult choices, with options ranging from medical intervention, to quarantine, to destruction of a whole region with nuclear weapons (Strategic Simulations, 1982).

Although there were many zombie themed games on the market, it was over a decade before another mainstream virus themed game was released. *Epidemic* (1995) is a first-person shooter video game developed for the PlayStation console. The release of this game correlates with the outbreak of the H5N1 avian flu virus, the Hantavirus and the Ebola outbreak in Zaire a few years previously (FEMA, 2020).

Taking place in 2065, *Epidemic* takes place in the underground metropolis of Neural City, where all remaining humans live after a devastating virus known as the Gigari virus has infected the surface of the planet, killing anyone who is infected with it 10 days after the symptoms are noticed. The game follows Masao Coda, who is informed that his wife, Layla, has recently been infected with the Gigari virus and has only a week to live. In order to save Layla, her doctor tells Masao that the only way to cure her is through the Lafres Flower, which only grows on the planet's surface. It is usual as it was one of the first video games where the whole narrative is explicitly tied to a disease and the attempt to find a cure (AllGame, 2014).

A few years later another mainstream game used the same narrative. *Nier* (2010) is an action role-playing video game published by Square Enix for the PlayStation 3 and Xbox 360. The game puts the player in control of the protagonist Nier, as he attempts to find a cure for an illness, known as the Black Scawl, to which his daughter has succumbed (Schilling, 2010).

Plague Inc. (2012) is a real-time strategy simulation video game with a very different set of goals. The player creates and evolves a pathogen in an effort to annihilate the human population with a deadly plague. The game uses a 'real-world' epidemic model with a complex and realistic set of variables to simulate the spread and severity of the plague. The player can play as many different types of pathogens (bacteria, virus, fungus, parasite, prion, nano-virus, and bio-weapon) each with its own advantages and disadvantages which influence evolution decisions. There are also a group of special plagues taken from popular culture, including a mind-controlling Neurax Worm, a zombie plague Necroa Virus, the "Simian Flu" from the *Rise of the Planet of the Apes* (2011) film, and a vampire themed Shadow Plague (Servitje, 2016).

Plague Inc. has seen large surges of new users in several countries after major virus outbreaks such as the 2014–16 Ebola outbreak where it reached 85 million downloads. *Plague Inc.* has remained at the top of the charts worldwide and the game was a runner up in the IGN Game of the Year 2012 awards. It is currently one of the most downloaded games of all time on a variety of mobile platforms (Mitchell and Hamilton, 2018).

The cooperative board game, *Pandemic* (2008) is based on the premise that four diseases have broken out in the world, each threatening to wipe out a region. The game accommodates two to four players, each playing one of seven possible specialists: through the combined effort of all the players, the goal is to discover all four cures before any of several game-losing conditions are reached.

It's difficult to overstate *Pandemic's* impact upon board gaming. This game, in which players work together to save the world from an outbreak of deadly diseases, is the most successful cooperative board game of the last ten years, possibly of all time. (Lane, 2016)

An online version of the *Pandemic* board game appeared on Steam in 2018 and is currently available for PC and mobile platforms. A number of different versions of the *Pandemic* board

game are also available for online multiplayer co-operative play using the Tabletop Simulator platform (Bolding, 2018).

The most recently developed pandemic themed game is *A Plague Tale: Innocence* (2019); an action-adventure horror stealth game. Set in 1348, Amicia de Rune is a young girl of noble descent who lives with her family in rural Aquitaine, which has been invaded by the English Army during the Hundred Years' War. Amicia encounters signs of blight, and flees to a nearby village, where she learns that hordes of ravenous rats have been spreading Bubonic plague and devouring anything they come across. The *Plague Tale* game consists of a series of survival puzzles, mostly of methods to scare away or distract the hordes of hungry rats in order to gain access to new areas or direct them towards enemies (Delahunty-Light, 2019).

There is no doubt that even if the plethora of zombie outbreak games are ignored, there are plenty of disease and virus themed video games available online. The increasing popularity of these games speaks to the global awareness of the pandemic problem and a desire to experience the disease experience through popular media.

DISCUSSION AND CONCLUSIONS

This paper has introduced a range of popular media concerned with disasters and pandemics. The writers, directors and media producers responsible for creating these media artifacts don't know anything more about the future than anyone else. Human history is unpredictable; the human race could descend into a mass-extinction event or rise into an age of unequalled prosperity. However, there seems to be a general feeling that by consuming disaster themed media, the viewers and players may be a little more aware, and a little less surprised by the negative effects of possible future events.

Often, science fiction traces the ramifications of a single postulated change; readers co-create, judging the writers' plausibility and ingenuity, interrogating their theories of history. Doing this repeatedly is a kind of training. It can help you feel more oriented in

the history we're making now. This radical spread of possibilities, good to bad, which creates such a profound disorientation; this tentative awareness of the emerging next stage—these are also new feelings in our time. (Robinson, 2020)

The consumers of disaster media interrogate the factors affecting the crises experienced by global populations (science, economics, politics) whether through unfolding filmic narratives, or by tweaking the simulation parameters in a video game. Disaster themed media allows the consumer to learn how to survive and how to balance resources in the face of a catastrophic event.

This paper has shown that the prevalence of disaster themed media in popular culture is closely correlated with 'real world' events. Many commentators have blamed environmental degradation, economic crisis, global terrorism as contributing factors that have led to a significant increase in disaster themed media, in particular post-apocalyptic media (Backe and Aarseth, 2013; Huber et al, 2014; Gurr, 2015; Hicks, 2016)

These disaster and post-apocalyptic narratives provide the consumer with safe spaces where they can metaphorically deal with the tensions and anxieties of the present world. But the important question is how, and in what ways, do these fictional worlds relate to modern society and the contemporary human condition. The way in which popular films and video games address these questions is important because they contribute to constructing the collective social imaginary through narratives that resonate in the modern world (Taylor, 2004; Kirkpatrick, 2013).

Frequently disaster themed media is dismissed as a shallow cultural artefact, a commodity that does nothing to advance any intellectual pursuit or cultural sphere. However, perhaps there is a need to recognise the potential of such media, perhaps imbue it with the capacity to at least sow the seeds for critical alternatives and to expand the possibilities for thinking differently when faced with real world problems.

This paper is the first in a set of two publications, a more focused examination of media consumption during the 2020 COVID-19 outbreak can be found in “It’s the End of the World and You Watch It: Media in the Time of COVID-19”

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