

12 **Abstract**

13 Fostering understanding and support for environmental and climate issues requires a
14 foundational understanding of how environmental discourse interacts with the public.
15 Animated films exist as a medium in which environmental messaging is distributed to the
16 public with the goal of inducing behavioural change in an audience. The goal of this paper is
17 to link the messaging of such films with audience feedback. This will be accomplished by
18 analyzing the impact of two environmentally focused animated films, *The Lorax* and
19 *Tomorrow*, produced in Hollywood (United States) and Dhallywood (Bangladesh),
20 respectively, and by using environmental humanities discourse analysis to examine how
21 people responded to these films on social media websites. The first part of the article is the
22 analysis of selected social media pages to understand the impact of these two films on
23 contemporary environmental discourse, and the second part comprises an analysis of the
24 environmental narrative of the films. I selected these two films for four reasons: i) they are
25 both environmental educational and pedagogical tools; ii) they use environmental
26 storytelling; iii) they both address sustainability; and iv) they may have influenced some
27 discourse on environmental issues on social media. The study demonstrates that
28 environmentally driven animated films can affect and shape the discourse of their audiences.
29 This study also demonstrates how narratives from films such as *The Lorax* and *Tomorrow* can
30 lead an audience to consider large-scale environmental issues.

31 **Keywords**

32 environmental storytelling; environmental discourse analysis; environmental education;
33 environmental communication; sustainability; sense of place; films; social media

34 **Introduction**

35 Using environmental discourse analysis as a narrative inquiry, I investigated two
36 animated eco-blockbusters, selected for the rich social media feedback available for

37 them: *The Lorax* (Chris Renaud, 2012) and *Tomorrow* (Mohammad Shihab Uddin, 2019).¹
38 The films were produced in Hollywood (United States) and Dhallywood (Bangladesh,
39 Bangladeshi production house Cycore Studios), respectively. *Tomorrow* specifically was
40 selected as standout film produced recently within the global South that has received good
41 reception both domestically and internationally, having won the Cannes World Film Festival²
42 award in August 2021 and having received praise from western environmental journalist Bill
43 McKibben. Another major factor in the selection of *Tomorrow* was that it came out at a time
44 in which there was a relatively large population of Bangladesh had internet access, going
45 from 5% of the population having access in 2012 to 23.8% in 2019,³ providing an early look
46 into how a key population within the global South reacts to environmental messaging
47 targeted specifically at them. The 2012 incarnation of *The Lorax*⁴ was selected as a
48 contemporary western environmental blockbuster due in part to its similarities in art style to
49 *Tomorrow*, and due to sharing a message that promotes a world where sustainability is not
50 prioritized over economic development.⁵ Animated films may be a powerful medium of
51 environmental education and shape the public discourse, as discussed below. That said, both
52 stories take different approaches to this end - while *The Lorax* describes the severity of waste
53 and environmental collapse caused by deforestation (and implicitly climate change, given the
54 media environment and promotional material around the release of the film),

¹ Although the television version of *The Lorax* produced by DePatie-Freleng Enterprises is closer to *Tomorrow* in terms of time format, the 1972 TV version is not suitable for a social media analysis due to the time of its release risking viewer nostalgia being a factor in the discourse, potentially compromising the analysis.

² Not to be confused with the *Festival de Cannes*.

³ ITU. (February 14, 2022). Internet penetration rate in Bangladesh from 2011 to 2020 [Graph]. In *Statista*. Retrieved August 30, 2023, from <https://www.statista.com/statistics/764102/internet-penetration-rate-bangladesh/>.

⁴ It is important to note that the 2012 film version of *The Lorax* has many deviations from prior material labeled as *The Lorax*, particularly the book version, or the 1972 TV special.

⁵ *WALL-E* was also considered as a film, but *The Lorax* was selected as it shares a more direct display of cause and effect with *Tomorrow*, where *WALL-E* mostly does not show the world prior to environmental collapse, with the closest scene focusing on the fictional Directive A113, occurring well after the planet has become uninhabitable. This helps reduce variables that may affect sentiment. While another award-winning film closer to *Tomorrow* would have been better for the comparison, no such film appears to exist.

55 *Tomorrow* describes how such events result in climate change. *The Lorax* uses a fictional
56 world to deliver a general message while *Tomorrow* highlights the reality of severe climate
57 injustices in the global South such as Bangladesh. I undertake a meticulous analysis of social
58 media commentary to gain valuable insights into the perception and response of the general
59 public in both Bangladesh and the United States, specifically in relation to the climate-change
60 themes depicted in the animated films. By carefully examining the discussions and reactions
61 of individuals from diverse backgrounds and demographics on various social media
62 platforms, I aim to unravel the profound impact these films have on the broader population
63 and their role in shaping the discourse surrounding climate change and environmental
64 concerns.

65 Humanities scholars such as Alexander Elliott and James Cullis (2017) argue that
66 research on climate change has shifted to a global scale from a previous focus on the Euro-
67 American perspective. The film *Tomorrow* reflects this trend in the realm of popular culture.
68 *Tomorrow* came out in 2019 after being in development for two years, notably about the
69 same period as Bangladesh had experienced several environmental disasters, including flash
70 floods attributed to climate change.⁶ 2012's *The Lorax* is similar, despite not being set in a
71 specific place, in that it was released at a time when environmental catastrophes including
72 earthquakes, wildfires, and hurricanes were major stories in media across the globe, including
73 the previous year's Fukushima nuclear disaster stroking fears of nuclear contamination across
74 the Pacific ocean, and the remnants of Hurricane Irene causing atypical damage in parts of
75 New England.⁷ Both films therefore addressed the global nature of environmental crisis in a

⁶ This is further substantiated by two supporting sources. *The Business Standard* (2021) news highlights this correlation, while Hossain et al. (2020) explore the implications of these extreme flood disasters, emphasizing their impact on the livelihoods and coping mechanisms of the Char Village.

⁷ Though Hurricane Irene was in many cases not as bad as it was predicted to be in regards to the effects on New York City, it did cause a media frenzy prior to landfall, and actual catastrophic flooding in many places, especially parts of Vermont and New Hampshire.

76 timely manner. Through the joint analysis of the films and their reception by viewers on
77 social media, this study finds evidence that these two films gave their viewers thematic
78 narratives and talking points that they then incorporate into personal discussion and in
79 general promotion of environmental causes.

80 **Methodology**

81 Using environmental humanities discourse analysis as a tool, the principal question of
82 this study is: *How do The Lorax and Tomorrow instruct viewers about key environmental*
83 *messages?* To answer this overarching question, I consolidated the public comments and the
84 narrative analysis of the films into three main categories: *environmental catastrophe,*
85 *environmental storytelling,* and *environmental education* in order to address three questions
86 related to these three environmental discourses. First, *how are these two films situated within*
87 *the discourses of environmental catastrophe?* Second, *how do these two films perform*
88 *environmental storytelling while emphasizing a sense of place, i.e., spatiality?* Third, *what*
89 *sorts of educational messages do these two films spread regarding sustainability?*

90 The environmental discourse analysis in the paper is structured as follows. First, this
91 paper provides a brief synopsis of the films. Second, this study considers the literature on
92 how public comments online pertain to broader environmental media. Continuing the
93 discourse analysis, a select sampling of activity on social media pages related to each film is
94 analyzed to understand the discourse surrounding each. Third, the paper provides an
95 environmental discourse analysis to extract the themes and narratives from both films with
96 the most impact. By using both an analysis of social media posts about the films and a direct
97 analysis of the films themselves, this study demonstrates how aspects of each film influenced
98 public discourse.

99 I use an environmental discourse analysis model drawn mainly from anthropologists
100 Peter Mühlhäusler's and Adrian Peace's scholarship. My narrative analysis also incorporates

101 spatiality as it shows how discourse may vary in different local, regional, and global contexts
102 even when they address the same environmental concerns. Furthermore, the narratives and
103 target audiences of both works incorporate some spatiality, with *Tomorrow* being squarely set
104 in the real world and particularly focused on Bangladesh, while *The Lorax* was a Hollywood
105 blockbuster aimed at the developed world with a fictional setting reminiscent at first glance
106 of global North suburbia. While discussing the methods of environmental discourse analysis,
107 Peace states that emphasis on keywords and select terminologies is vital to the
108 anthropological contribution to environmental discourse analysis (p. 415). As a part of the
109 environmental discourse analysis, I chose the selected words and phrases from the content
110 and comments of the two films. The study also deals with spatiality as both comments and
111 contents highlight local and global concerns about the environment.

112 I use social media as a platform to measure and understand public reactions. To
113 extract public comments about *The Lorax* on social media, I used the search term: “lorax” on
114 Twitter (currently in the process of being rebranded as X) using the Netlytic social networks
115 analyzer, which yielded exactly 1000 comments. This number of comments was chosen as it
116 is the default used by Netlytic and represents a reasonable sample for manual coding of
117 sentiments.⁸ I confined the study to Twitter because Netlytic does not extract comments from
118 Facebook, and because *The Lorax* Facebook page has very few public comments from which
119 to glean data. Furthermore, *The Lorax* does not have a YouTube page. For *Tomorrow*, I
120 extracted comments from *Tomorrow’s* YouTube page, as *Tomorrow* does not have either
121 Facebook or Twitter pages. I extracted comments by using a web scraping method written in
122 the Python programming language, using the search term: “tomorrow animated movie”;
123 which yielded 1510 comments (Bengali and English) out of 4974 total, based on which

⁸ Based on the research objectives and available resources, it was determined that a sample size of 1000 comments would provide a sufficiently representative sample for manual coding of sentiments. It is also worth noting that the ability to conduct an updated analysis using Netlytic may have been affected by recent changes made by Elon Musk to the Twitter API, which can impact the availability of data.

124 comments received more “likes” (the remainder of comments were omitted for falling below
125 a threshold of likes). For *The Lorax*, the Twitter comments spanned a decade, as the film was
126 released in 2012. As *Tomorrow* is a relatively recent release, so are all its comments. After
127 transferring the data to a Microsoft Excel spreadsheet, I manually examined it, developing
128 codes to analyze public reactions pertaining to different environmental discourses. I began
129 with a total of twenty-five codes, re-examined the data, and condensed them to seven major
130 codes. Using the statistical programming language R, I present a graphical text categorization
131 algorithm that generates skip-gram phrases selectively, by extracting and using phrases.
132 Commenter names and online handles have been excluded for anonymity.

133 **Film synopses**

134 The animated film *The Lorax* (2012) is loosely based on Dr. Seuss’s children’s book,
135 *The Lorax* (1971), although the plot of the film diverges from the source material. This
136 divergence primarily takes the form of additional plot points and characterization, such as the
137 focus on the history of the Once-ler, or newly invented characters such as Aloysious O’Hare.
138 Visual communication studies scholar Dylan Wolfe (2008) notes that environmentalism is a
139 key feature of the work.

140 Produced by Illumination Entertainment and released by Universal Pictures in 2012,
141 *The Lorax* had a budget of \$70 million and grossed \$348.8 million worldwide.⁹ It showcases
142 the process of industrialization, portraying the cause and effect of the hypocritical nature of
143 “human progress” when externalities are not addressed, and the environment is not thought of
144 as worth protecting. It must be noted that environmental messaging in media adjacent to the
145 film was compromised, as noted by Caraway and Caraway (2020) in their article, while the
146 film railed against greenwashing, cross promotion in advertising with the film was used to

⁹ For comprehensive insights into the financial aspects of *The Lorax*, including budget and income details, please refer to Box Office Mojo's webpage dedicated to the film, accessible at <https://www.boxofficemojo.com/title/tt1482459/>.

147 showcase gas-powered automobiles. In her article, communication scholar Ellen Moore
148 (2016) also notes this as a flaw as it changes the focus from reducing consumption to
149 encouraging a nebulous “green” consumption.

150 Ted, the protagonist, wants a real tree, which is now so rare as to be mythical. The
151 tree is intended to impress a girl he likes named Audrey. Audrey personifies trees and is
152 described using words such as “softer than silk” and “smelled like butterfly.” Because of
153 Audrey’s love of nature, somewhat uncharacteristic of a Thneedville resident, her character
154 invokes a sense of conservation. Audrey shows Ted a painting of trees with a sense of loss
155 and lamentation. Unlike how the general population and especially the industrialists of their
156 town of Thneedville approach trees, Audrey’s approach produces a renewal in environmental
157 consciousness. To investigate the disappearance of the real trees, Ted visits a hermit known
158 as the Once-ler and the Lorax who “speaks for the trees.” Speaking for the trees (Earth) is
159 portrayed in a positive light.

160 The Once-ler represents industrialist society, which profited from development, but at
161 the cost of pollution and deforestation. The Once-ler employs subterfuge in his
162 industrialization, including “greenwashing.” The Lorax’s warnings were ignored by the
163 Once-ler when he became an industrialist, and the sky was filled up with smoke, the water
164 polluted with sludge, and the land was left barren. Greed and the illusion of progress
165 deafened the Once-ler to the words of the Lorax until one day the last Truffula tree was
166 chopped down, and the Once-ler discovers that he is condemned to grow old and waste away
167 in the wretched badlands of his own making. This very clear cause and effect is a cautionary
168 tale to viewers, showing how unethical profiteering can one day leave them worse off, with
169 gains that were fleeting. Because the Lorax disappeared when the last Truffula tree was
170 chopped down, the Once-ler relays to Ted the Lorax’s cryptic last message, “Unless someone
171 like you cares a whole awful lot, nothing is going to get better, it’s not” (1:02:09). This is a

172 clear call to action to the audience, as Ted is the archetype of the everyman, a person who the
173 audience can relate to. Indeed, the Once-ler charges Ted, and by extension the audience, with
174 repairing the devastated environment. However, other industrialists in the movie, chief
175 among them a clean air tycoon named O’Hare, fight to keep the status quo by tricking the
176 populace, subconsciously warning the audience that pushback from people they know may in
177 fact be misdirection from real-life industrialists.

178 The 2019 film *Tomorrow* (budget: 10 million BDT,¹⁰ converted roughly to ~119,000
179 USD; a reliable figure for gross income could not be found) similarly portrays a dire future in
180 the hopes that the present generation will find a way to avoid it. *Tomorrow* begins when
181 Ratul and his father, a nature lover, learn that sea levels are rising, which will make them and
182 their fellow villagers ecological refugees. Despite this knowledge, they and the villagers are
183 reluctant to take any actions to prevent the hazard. One of the villagers’ comments, “why
184 would we ruin today thinking about tomorrow?” (4:10) is a refrain viewers may be familiar
185 with, a carelessness about their own future.

186 In a dream, Ratul learns that Bangladesh is going to face a disastrous fate because of
187 rising sea levels combined with the melting ice caps in the Himalayas. To answer Ratul’s
188 questions, Batasher Buro, a shamanic figure known as “the Old Man of the Winds,” takes
189 him to the future, in which most of southern Bangladesh is submerged, with almost 30
190 million homeless and destitute people taking shelter in the north. This reflects real life—for
191 some time now, residents of southern Bangladesh have been migrating to the capital city,
192 Dhaka, and other comparatively highland parts of the country. But there is still hope: the Old
193 Man of the Winds takes Ratul to another possible future, where solar panels and windmills
194 are commonplace and there is no usage of fossil fuels. This alternate future implies that

¹⁰ *The Daily Star*, a daily newspaper, provides insightful information about the budget of *Tomorrow*. Accessible at <https://www.thedailystar.net/lifestyle/news/tomorrow-3d-film-bangladeshi-animators-2111009>

195 mankind has a choice. Ratul wants to know how to build a future like this, but the Old Man
196 of the Winds leaves, saying this is Ratul's planet and he himself needs to seek an answer.
197 Similar to *The Lorax*, Ratul is an everyman, with the audience implicitly being told to
198 personally care about the environment themselves.

199 Ratul awakens concerned about the welfare of Earth. Inspired by his father's
200 motivational speech about saving the environment, Ratul starts a campaign on social media
201 focused on taxing fossil fuels, inspiring protests, which start taking place all over the world.
202 (Posting on social media and protesting are actions that viewers may be able to take on their
203 own; these easier actions are shown first, lowering the barrier for meaningful action by the
204 audience.) The film then leaps 25 years in the future to show a grownup Ratul delivering a
205 speech at the United Nations. By then, many parts of the world, including southern
206 Bangladesh, are submerged. But there is optimism that Bangladesh can rehabilitate its people
207 with money from a tax on fossil fuels; the other countries of the United Nations begin helping
208 to address the climate crisis, following in the footsteps of Bangladesh. Ratul hears the voice
209 of the Old Man of the Winds, who tells him that he has been successful in saving the world.
210 This is more than a narrative statement; it is a clear statement to the audience that their
211 actions have the potential to make a real impact.

212 **Environmental discourse analysis**

213 How film characters deal with environmentally catastrophic issues is part of what
214 viewers imitate and can be influenced by in a film. These two films exhibit several major
215 environmental themes, including the concept of unspoiled nature, the sense of place,
216 pollution, deforestation, and land erosion.

217 Environmental discourse analysis has been adapted and developed from several
218 branches of social sciences, primarily anthropology, and is therefore inherently multifaceted.
219 Adrian Peace (2018) explains that “academic disciplines go about their interrogation of

220 discourse in different ways” (p. 415), but in general describes discourse as “specific ways of
221 talking about particular environments and their futures” (Mühlhäusler and Peace, 2006, p.
222 458). A social anthropologist, for example, “become[s] familiar with the natural discourses
223 local people draw upon to describe environments of greatest significance to them” and in this
224 way contributes to environmental discourse analysis by highlighting environmental discourse
225 on a local level (Peace, 2018, p. 415). Peace (2018) is a social anthropologist, but there are
226 many historians, political scientists, or communication studies researchers who examine
227 power abuse, inequality, and other significant concerns within the social and political
228 environment. The many discourse analysis techniques cannot be summarized in this brief
229 space, but all approaches, at least to an extent, view language as a social practice and
230 discourse as pertinent to the broader social order. This research aims to complement the
231 broader discourse by providing valuable empirical insights. By examining the empirical
232 findings alongside the existing discourse, it contributes to a comprehensive understanding of
233 the reception and impact of climate-change media. Thus, this study recognizes the relevance
234 of the ideological debate while highlighting the unique perspective offered by the empirical
235 analysis.

236 Mühlhäusler and Peace (2006) underscore that “[m]uch environmental discourse
237 elaborates the theme that human actions are detrimental to the survival of humanity” (p 461).
238 My analysis correspondingly highlights the irreparable damage that humanity is contributing
239 to the environment which viewers witness within the selected films. Mühlhäusler and Peace
240 (2006) speculate that it is yet unknown how much the environmental discourses and
241 metadiscourses improve the condition of the environment (p. 457). Environmental discourse
242 analysis can show which narratives instil feelings of hopelessness, apathy, and inaction in
243 viewers. Conversely, environmental discourse analysis may highlight narratives about
244 environmental issues and matters of environmental justice that give the viewer a manageable

245 sense of alarm, spurring them to act before it is too late. In “Envisioning A Sustainable
246 World,” sustainability scholar Donella Meadows (1994) regrets, “Whatever the reason,
247 hardly anyone envisions a sustainable world as one that would be wonderful to live in” (p 2).
248 She is hopeful nevertheless, “I have noticed, going around the world, that in different
249 disciplines, languages, nations, and cultures, our information may differ, our models disagree,
250 our preferred modes of implementation are widely diverse, but our visions, when we are
251 willing to admit them, are astonishingly alike” (1994, p. 4). Two different movies from two
252 different parts of the world with two different senses of place both demonstrate a singular
253 desire to save the world from environmental catastrophes.

254 **Analysis of public reactions to the films on Twitter and YouTube**

255 The films *The Lorax* and *Tomorrow* engendered the formation of publics, aligning with
256 Michael Warner’s (2002) conceptualization. These publics emerged through self-organization
257 as individuals voluntarily congregated around a shared interest in the films’ environmental
258 themes. Online discussions and interactions epitomized relations among strangers within the
259 public sphere, where personal and impersonal address intertwined. The collective attention
260 devoted to these films and the reflexive circulation of discourse on social media platforms
261 fostered a dynamic social space for the shaping of public opinion and reception. Valuable
262 insights into the dynamics of these publics and their role in the discourse surrounding *The*
263 *Lorax* and *Tomorrow* are possible by integrating Warner’s conceptual framework.

264 In the context of the public who commented on social media platforms, Michael
265 Warner’s (2002; p. 50) concept of a public as “a space of discourse organized by nothing
266 other than discourse itself” holds significant relevance. The individuals who engaged in
267 discussions and expressed their opinions on platforms such as YouTube and Twitter can be
268 seen as actively participating in the creation of a public space through their discourse. Their

269 comments, reactions, and interactions constitute the very fabric of this discursive space,
270 where ideas, perspectives, and sentiments are exchanged and circulated.

271 Warner's (2002) notion of a public being "autotelic," existing as the purpose and
272 outcome of the discursive activities it encompasses, aligns with the understanding of social
273 media platforms as spaces where public discourse takes place. The act of addressing and
274 responding to one another's comments on these platforms contributes to the formation and
275 sustenance of the public sphere. The comments made by individuals reflect their engagement
276 with the films and the issues they address, shaping the broader discourse surrounding climate
277 change and environmental themes. Public comments are not just isolated individual
278 expressions but collectively contribute to the discursive space of public reception.
279 Understanding and analyzing these comments provide insights into the perceptions,
280 interpretations, and responses of the public, shedding light on the dynamic nature of public
281 engagement with climate-change media.

282 The audience is a key part of the environmental discourse equation, and these two
283 films generated many positive reviews on the social media pages related to the films.
284 Audiences' reactions to media are important to understand so that artists, activists, and
285 academics may even more effectively contribute to environmental awareness. Despite this
286 clear need, some scholars caution that we lack sufficient knowledge regarding how audiences
287 react to environmental communication, calling for more such studies (Kluwick, 2014;
288 Garrard, 2014, p. 20). Solitary public comments on social media may be inconsequential on
289 their own, but together, they are important to understand public reception. Unlike formal
290 media, informal social media is often free from the traditional trappings of media criticism;
291 the opinions on social media are often that of laypeople who are concerned with different
292 aspects of the film than a professional critic would be. Furthermore, the opinion of a friend or
293 family member on social media may have more impact on someone than that of a distant

294 critic whom the reader does not know. Social media comments are not a perfect stand in for
 295 an “average” opinion of the film, as social media posts come with their own biases, and there
 296 are economic and geopolitical factors that affect who is able to access the internet, and by
 297 extension social media platforms.

298 I manually examined each of the selected 1510 public comments about *Tomorrow*
 299 (beginning with the comment with the most “likes” (1.4K), ending with those with just one).
 300 The most-liked comment states that *Tomorrow* is a locally made film with a global
 301 international standard that carries an environmental narrative. The most-liked comments after
 302 that are about the quality of the film and that it deserves international accolades. The major
 303 seven environmental discourses derived from such public comments are presented in Table 1.

304 **Table 1: Example of YouTube Comments from *Tomorrow***
 305 *(Arranged by total number of likes in sample)*

Discourse	Total number of likes of the combined comments	Total number of comments	Example of comments ¹¹
Environmental education	1541	131	“It should be premiere in every School in Bangladesh ... It's the most Realistic animated short movie I ever seen!”
Climate change	1239	95	“This film ... [shows] examples of how climate change can affect us environmentally and as a community”
Sense of place	142	116	“Local places are getting destroyed because of global places” (my translation)
Environmental activism	191	88	“It’s our duty to save our world, to save our people to save the wildlife # stand Against fossil fuel 🙌 # Raise awareness among all the people 🙌”
Environmental storytelling	189	309	“Story is beautiful...I love this story...”
Sustainability	152	158	“If we plants tree more, one day we get a beautiful Bangladesh. Let’s go we plants tree for a beautiful future”

¹¹ These comments have been selected as fairly typical of the topic. Except for my translations, grammatical and spelling errors in comments have been left as is.

Plastic/waste	110	29	“We should not destroy the environment by producing plastic” (my translation)
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307 Public reactions juxtapose positive reviews of the content of the film with negative
308 statements about the current local and global environmental conditions. Online commenters
309 urge showing *Tomorrow* in all primary and secondary schools across Bangladesh while
310 encouraging elected officials to watch and screen it as well. This commentary connects with
311 the film narrative as the protagonist of *Tomorrow* is a schoolchild, who goes on an abridged
312 hero’s journey to affect global politics regarding environmental laws and policies.

313 The comments for *Tomorrow* demonstrate the power of locally produced media, an
314 aspect of the film which may prove valuable to other environmental communicators and
315 educators. Climate communication scholars Candice Howarth and Alison Anderson (2019)
316 highlighted that stronger collaborative bonds between local media and scientific research
317 helps form a more trusted relationship between local media and other local stakeholders and
318 increases engagement with climate change. Many comments express an emotional response
319 to seeing environmental destruction in their own localized area, for example, “Alas! My
320 home is in Hatia, the southern part of Bangladesh” (my translation). Since *Tomorrow* was
321 made in Bangladesh, it may create a greater local impact than if it had been produced in
322 Hollywood, or even Bollywood. Relatedly, Howarth and Anderson (2019) have noted that
323 climate change is often understood as “abstract and distant” (p. 718). *Tomorrow*, by contrast,
324 shows how climate change is an issue requiring both local and global action.

325 Earth’s restoration is possible only if we can imagine it clearly. Stories occupy an
326 important role in that ability. For all of us, stories matter; if we know our local story,¹²
327 especially through local media, we can participate in a range of actions to restore our local

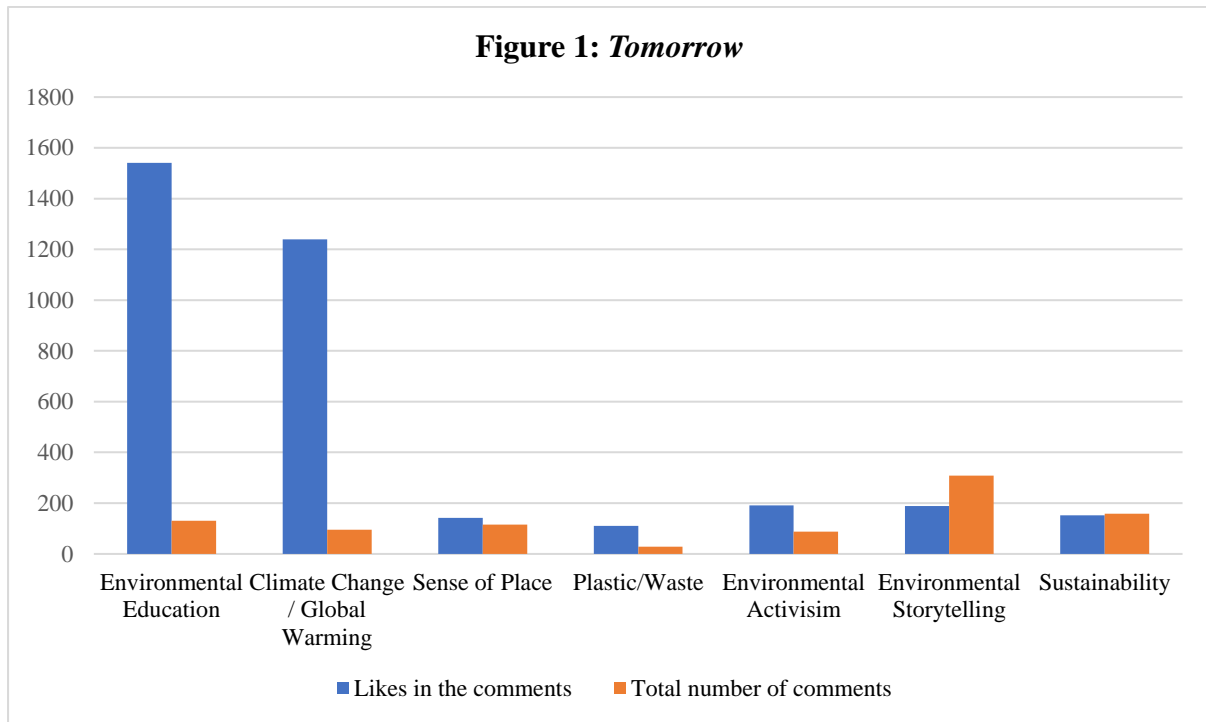
¹² That is to say, how our local environment came to be, and how our actions alter it.

328 landscapes. However, the public of Bangladesh often do not believe that their elected
329 officials will reduce the use of fossil fuels on their own. Yet the movie instills civic hope in
330 some viewers—comments like “should the Prime Minister watch this movie, the country
331 would benefit greatly” (my translation) reinforce the position in the public discourse that the
332 ordinary people of Bangladesh do not trust the government to take adequate action.
333 Intriguingly, this mirrors the events of the film, where the government increases taxes on
334 fossil fuels following public outcry—showing that such a strategy is viable in the real world.

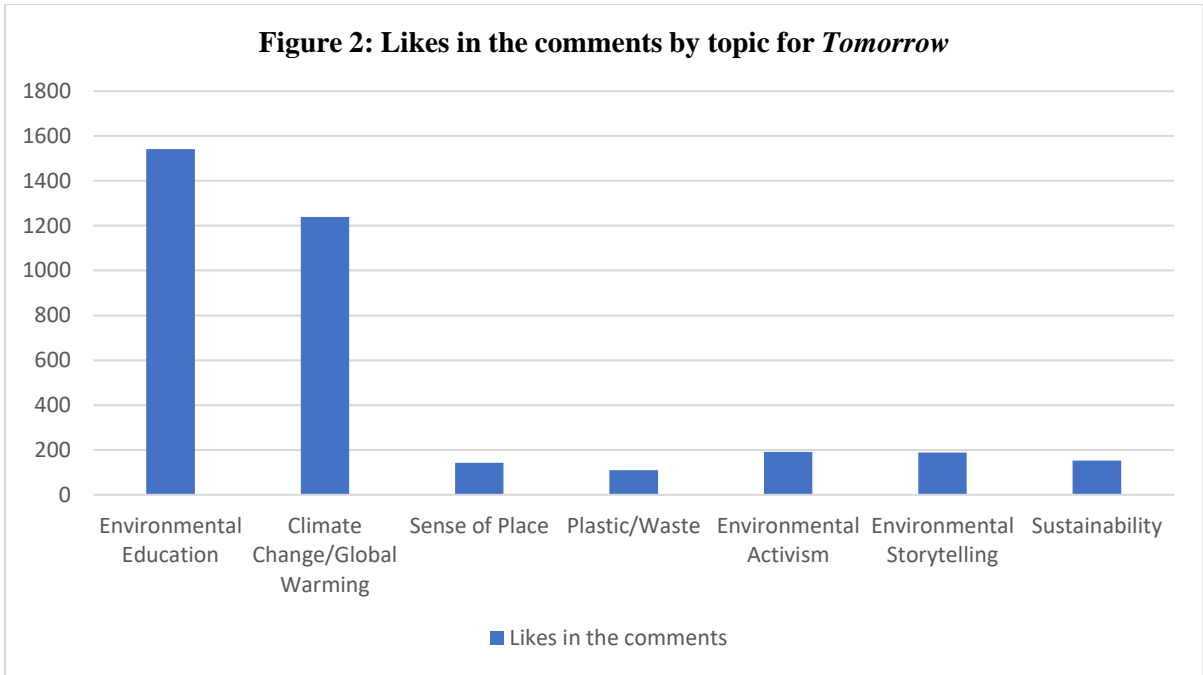
335 Public comments carry a sense of responsibility and an ethic of care. Commenters use
336 words and phrases such as “I cannot control my emotions,” “my eyes were moistened while
337 watching the movies,” “the Earth needs to be protected,” “save Earth, save Bangladesh” and
338 many more, to explain their sense of empathy and responsibility with local and global places.
339 These are virtual comments, yet this sense of awareness is exhibited, nonetheless. This is
340 again demonstrated when commenters give attention to the occasional hypocrisy or at least
341 inconsistencies in the story. They appreciate the protest against fossil fuels, and critique
342 Ratul’s flight on a fossil fuel–powered airplane; they appreciate the message about the
343 environment.

344 Regarding environmental activism, there were many comments such as “we each have
345 a responsibility to save the world,” and “all mass media ought to disseminate this film
346 massively to create public awareness regarding climate change... the UN must force a new
347 policy plan over the globe for building green planet again as soon as possible, avoiding
348 further environmental degradation. Let’s reduce fossil fuel usage, stop cutting trees by
349 planting more, ban the Rampal project, together heal the world, make it a better place.”
350 Comments emphasized the need to act locally, for instance, stopping the Rampal coal-based
351 power plant, located near the Sundarbans, a UNESCO World Heritage Site, which is causing
352 an adverse impact on the Sundarbans’ biodiversity and ecological conditions. The current

353 administration built the power plant, ignoring feedback from both environmental experts and
354 the masses. There was a collective effort to stop the project, but it went forward anyway.
355



356
357 Figure 1 shows the relationship between the total number of comments by topic in the
358 sample alongside the total number of likes for that topic. A high like bar indicates many likes,
359 the easier of the two participatory actions. Total comment bars tend to be lower as
360 commenting is harder; the higher an orange bar, the greater the desire to perform deeper
361 participation. The ratio between the two shows how well comments are received.



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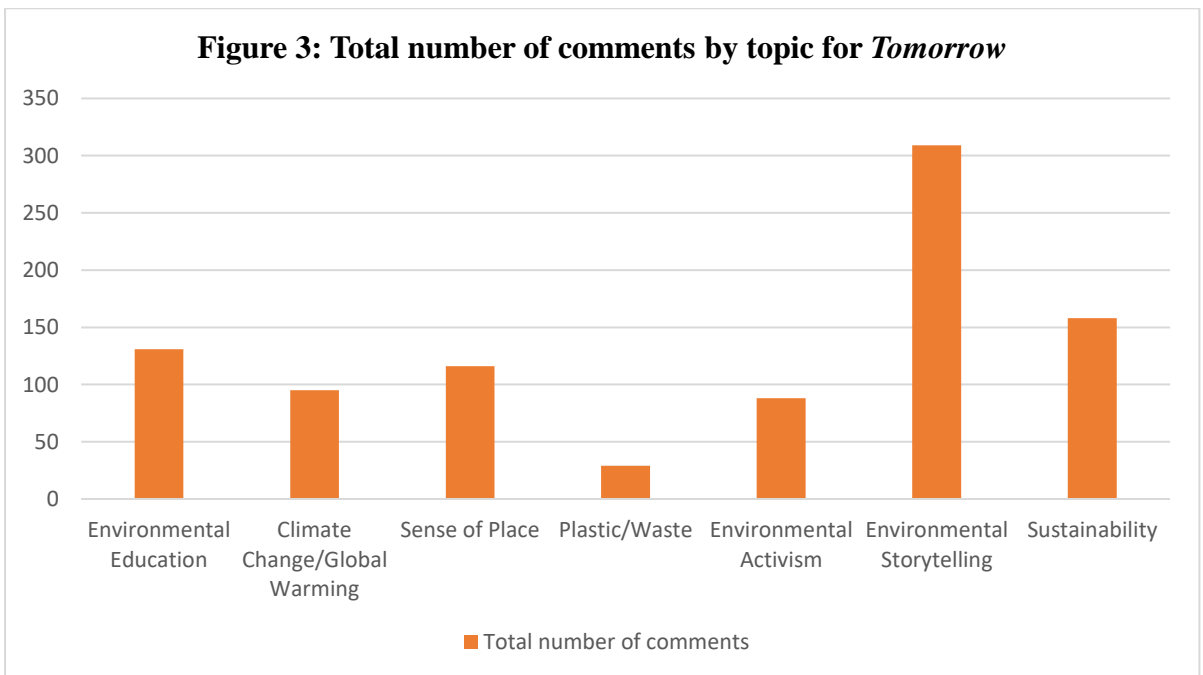
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By focusing on the individual aspects covered in the above chart, we can better see what engages online commenters. Of special significance is the generation of likes for Environmental Education topics in comments, which is over 14 times higher than the lowest topic measured, that being plastic/waste. Similarly, Climate Change / Global Warming performed well as a topic for this movie in the comment topics.



368

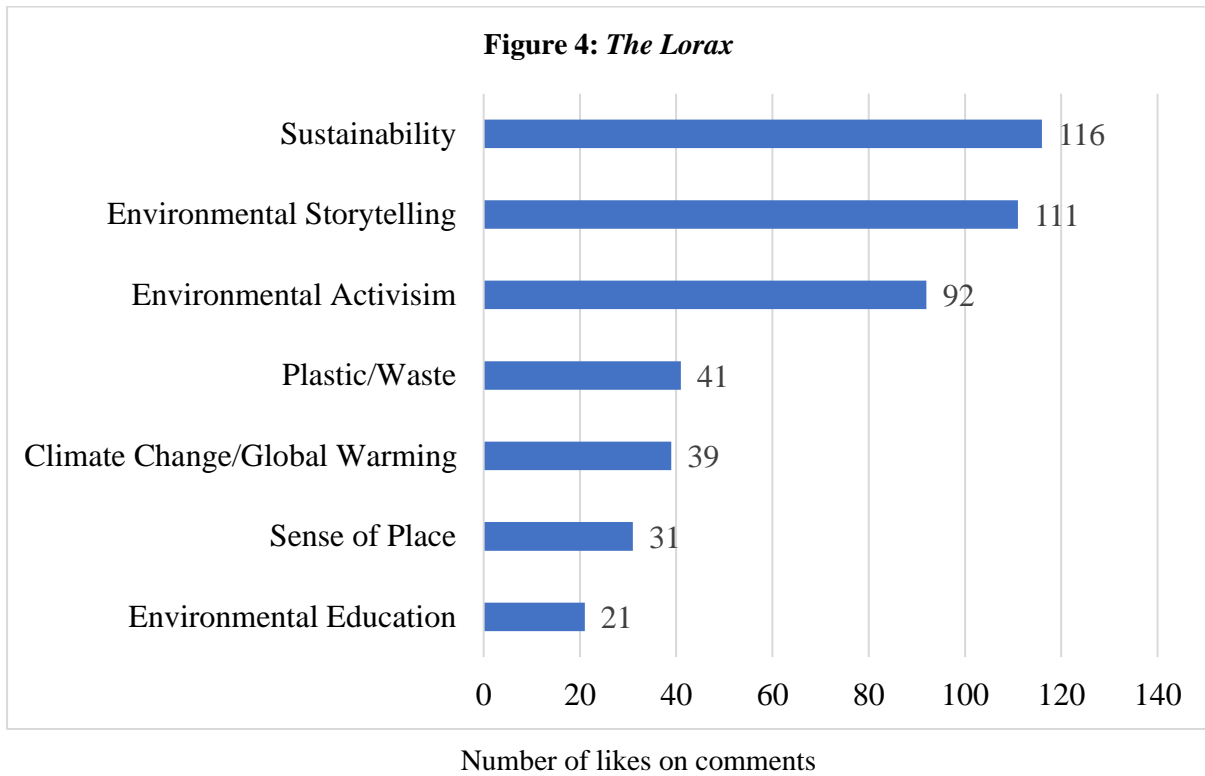
369 Figure 3 however shows that the comments that receive the most engagement with
370 likes is a minority, with the majority of comments focusing on topics related to
371 environmental storytelling. This provides some insight as to which topics are most likely to
372 incite a user to act, if we assume that writing and posting a comment is more effort than
373 liking a comment. It also potentially highlights a worrying disconnect between those who are
374 the most likely to get involved, and the broader online public.

375 Public comments demonstrate two major demands. First, this film should be
376 disseminated more widely, including being translated into English and other languages. (The
377 film was indeed later translated into other languages.) People from outside Bangladesh
378 should know that the Bangladeshi film industry can make a film that meets international
379 standards, and people from everywhere should be aware of climate change and become active
380 in civic discourse to hold their leaders to account. Second, common people should
381 engage in environmental activism and take peaceful civic action. The film suggests imposing
382 taxes on fossil fuels and investing in renewable energy, solutions echoed in the comments:
383 the public—individually and collectively, locally and globally—want to create and contribute
384 to a broad environmental movement.

385 The commenters exhibit a sense of urgency to create a sustainable planet Earth, as
386 well as their local environment. The tax solution to climate found in *Tomorrow* is also found
387 in comment analysis: online commenters want to create a movement to combat climate
388 change and plastic production. This shows that the calls to action given by the film in both its
389 visual and narrative storytelling were effective in at least inspiring viewers to comment on
390 their desire to act.

391 The public reactions to *The Lorax*, based on 1000 tweets, are similar to, yet distinct
392 from, those to *Tomorrow*. For example, “The Lorax is a cinematic masterpiece” and similar
393 comments show the widely shared opinion that the film had a high production value and was

394 enjoyable. As was the case with *Tomorrow*, the public reaction was also emotional for *The*
395 *Lorax*—the public cannot tolerate injustices and environmental destruction, even in fiction.
396 Table 2 and Figure 4 demonstrate the major environmental discourses coded from the public
397 comments, and the counts of these comments.¹³



398
399

400 Figure 4 illustrates that that *The Lorax* commentors responded with likes mostly to
401 sustainability and environmental storytelling, with environmental activism also performing
402 well. Notably, environmental education exhibited the lowest performance here, whereas in
403 *Tomorrow* it performed the best. Climate change/global warming also performed much worse
404 for *The Lorax*, although this may be more easily explained by *The Lorax* only showing
405 ecological collapse, and not the explicit threat of real-life climate change.

406

¹³ Netlytic derived Twitter comments excluded “likes,” thus the exclusion compared to Table 1.

407

Table 2: Examples of Twitter Comments from *The Lorax*

408

(Arranged by total number of comments)

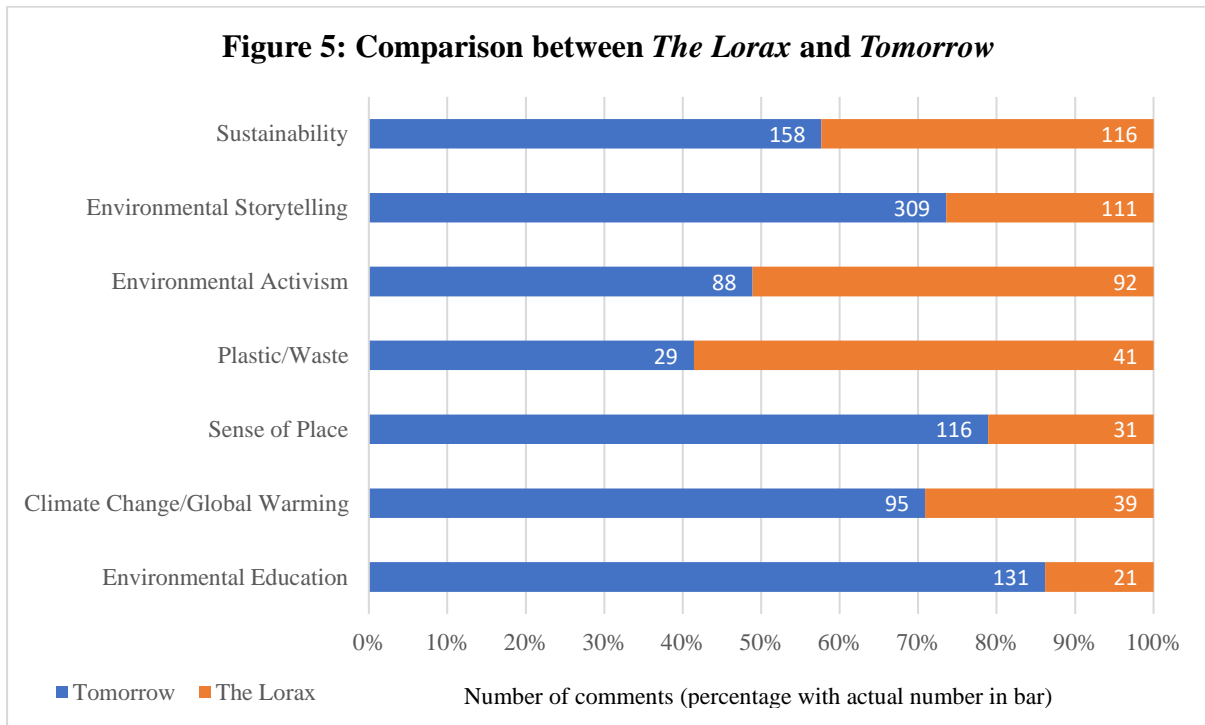
Discourse	Total number of comments	Examples of comments
Environmental education	21	“y’all are getting literal degrees and careers still not believing in climate change. my 2 year old sister understands climate change and all she did was watch the Lorax.”
Sense of place	31	“I am the Lorax and I speak for the trees Save the Amazon, or I’ll break your knees.”
Climate change	39	“#Earth #water The biggest issue of our time #climatechange #unless ‘Unless someone like you cares a whole awful lot, Nothing is going to get better. It’s not.’
Plastic/waste	41	“i am the lorax and i speak for the trees litter again and i’ll break your fucking knees 🤔”
Environmental activism	92	“@JohnBrennan @tedcruz He read Green Eggs and Ham on the Senate floor. I read the book to my 3 children countless times. Can I be a Senator from Texas now? The Lorax is the finest Dr. Seuss book and when Senator I will read that on the Senate floor.”
Environmental storytelling	111	“It is a very deep and inspirational movie ... I truly think it should have won movie of the year in 2012. It has changed my life for the better. This post is not satire.”
Sustainability	116	“The Lorax are we planting more trees — In sha Allah, many more 🌱❤ https://t.co/evJu2P0iIb .”

409

410 The most frequent subject of public comments relates to the multifaceted issue of
 411 sustainability. The audience knows that online activism can be an effective tool for creating
 412 political pressure and social action. An example of a commenter calling for social action is as
 413 follows:

414 “As the wise Lorax once said “Unless someone like you cares a whole awful lot,
 415 nothing is going to get better. It’s not.” On Saturdays, join us for a Self-Guided Beach
 416 Cleanup. Make a difference in as little as two minutes. <https://t.co/lUpXKlmoy3>
 417 #volunteer”

418 Perhaps the environmental storytelling used by the films is why commenters actively ask for
 419 initiatives aimed at reducing the plastic impact.



421

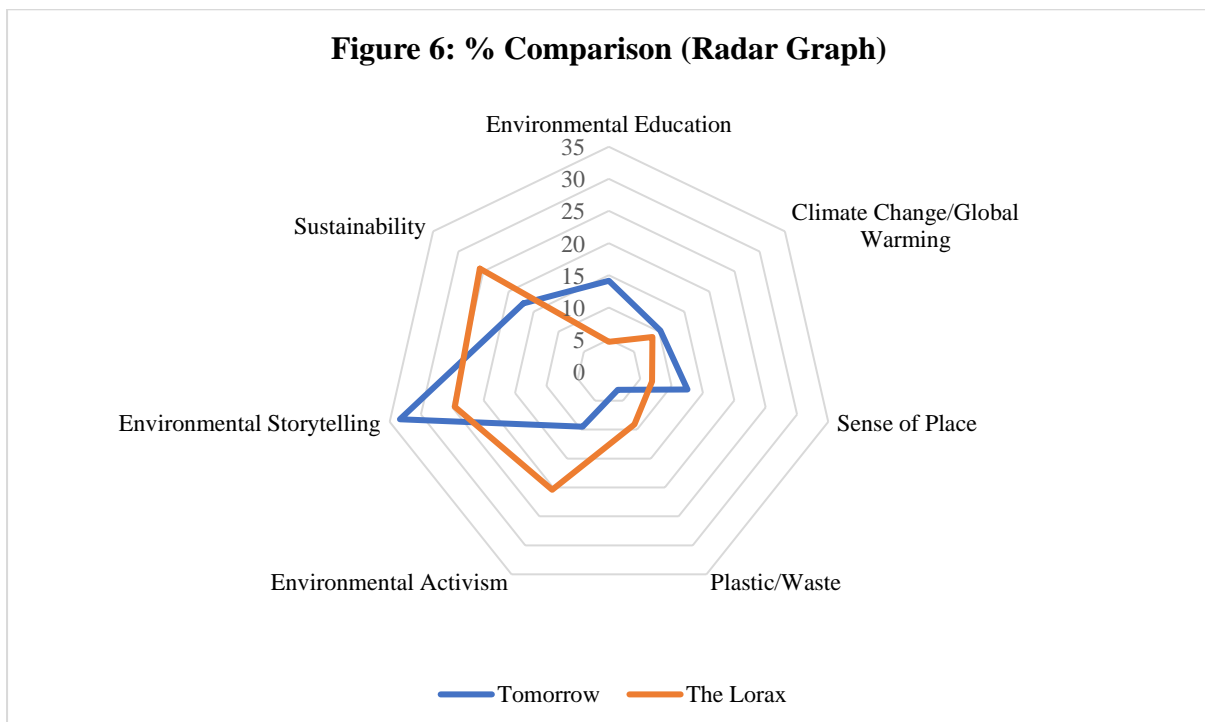
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Figure 5 compares the terms found in the environmental discourse seen within the public comments. Since *Tomorrow* has more analyzed comments (1510), it appears higher than *The Lorax* (1000) in all discourses when directly comparing raw data. Figure 6 therefore compares the percentage of comments by coded subject.



426

427 Today's academic environmental activism draws inspiration from Thoreau, Muir,
428 Leopold, and Carson, among others, with this academic discourse indirectly influencing ideas
429 found in public activism through the broader environmental movement. *Walden* (1854) laid
430 the foundation of modern-day activism because Thoreau coexists with nature. Muir's
431 establishment of the Sierra Club and encouraging ordinary people to explore Yosemite
432 Mountain shows activism. Leopold (1986) considers the land as a teacher and emphasizes the
433 restoration of land is an enduring example of environmental activism. Leopold (1986)
434 remarks, "A thing is right when it tends to preserve the integrity, stability, and beauty of the
435 biotic community. It is wrong when it tends otherwise." Carson's (1962) *Silent Spring* is
436 enduring because it shows women's activism contrary to men's, and it demonstrates her bold
437 statement against the patriarchy, which is responsible for pesticides and insecticides. In
438 addition, like *Silent Spring*, Wolfe (2008) argues that *The Lorax* warns of a present danger
439 and a rapidly approaching future. Comment activity demonstrates that the public also relates
440 race, ethnicity, and gender with environmental activism. Some comments contend that *The*
441 *Lorax* is racist and sexist because the Lorax speaks for only for certain trees, as exemplified
442 by the comment "Quick question: is the Lorax racist against certain trees? He just seems like
443 the type"¹⁴ and some believe Audrey should have been the protagonist instead of Ted.
444 Despite the fact that online commenters presumably do not often have backgrounds in
445 academia, it is notable that a casual informal understanding of intersectionality is sometimes
446 seen within the comments. In the United States, campaigns about environmental justice have
447 been historically intertwined with race, class, and gender. For instance, environmental
448 historian Nancy Unger (2012) has written about how women often interact more closely with
449 their local environment than men do. Similar to the work of Unger, African American
450 cultural geographer Carolyn Finney (2015) addresses environmental justice in *Black Faces*

¹⁴ Username expunged.

451 *White Spaces*. Finney reviews the history of African American engagement with the
452 mainstream environmental movement from the early 1900s to the present. Finney focuses on
453 how African Americans are excluded from the environmental justice movement, but she
454 espouses the human experience of the story. Public comments tend to deconstruct the
455 hegemonic racist elements, if informally.

456 When analyzing the discourse of any text, through skip-grams, bigrams, or n-grams, a
457 word association network prioritizes word-by-word analysis. Methodologically speaking, a
458 single analysis of just one of these graphs could be highly misleading – they must be
459 interpreted together, and with context of the films, to avoid making inferences which are not
460 based in reality. For example, methodologically, the value of “Lorax” appearing in a word
461 frequency table so much should be discounted, because the use of the word could plausibly
462 refer to the film, the book, the old television episode, or the character himself. However, by
463 viewing the other graphs, enough context can be gleaned to provide cautious insight.

464 For *The Lorax*, the word-frequency table demonstrates the top word counts of the
465 selected tweets, in which the word “Lorax” appears in nearly 800 tweets while “Once-ler,”
466 the least common term on the list, is in many fewer tweets. However, the count for the word
467 “Lorax” is included below to provide greater context for a later skip gram analysis. Because
468 of the discounting of the word “Lorax,” the most significant term here is perhaps “like”
469 which while not a perfect indicator, generally indicates positive sentiment in conjunction with
470 the relatively high-ranking word “good.” This is especially noteworthy when compared to the
471 lower ranked word “bad” (which may also be affected by its heavy use in the fan favorite
472 song “How bad can I be?”). The word “trees” appears to be relatively highly ranked,
473 indicating strong environmental sentiment in viewers.¹⁵ Finally, the pair of words “watch”

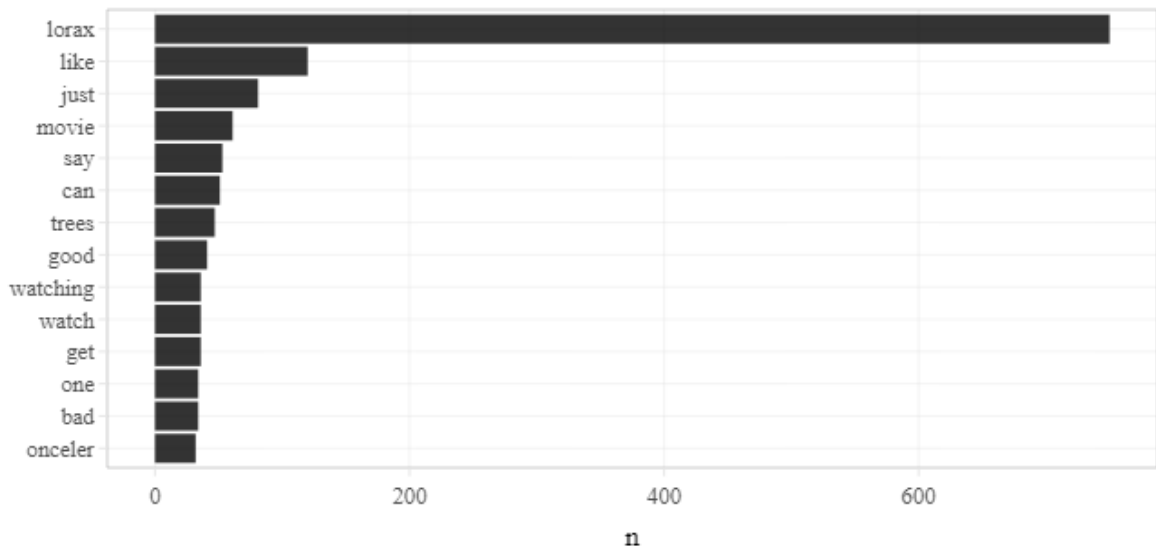
¹⁵ The use of the Truffula tree as a movie plot point could contribute to this word being highly ranked, however since the Truffula Tree is a fictional proxy for the overall environment, this inference is appropriate.

474 and “watching”, while individually ranked lower on the graph, would jointly rank higher, and
475 are often used in comments to indicate personal interaction with the film itself. One example
476 comment illustrating this as follows: “@¹⁶ Hey lol, wanna watch the lorax together 🤝👉”
477

¹⁶ Username expunged.

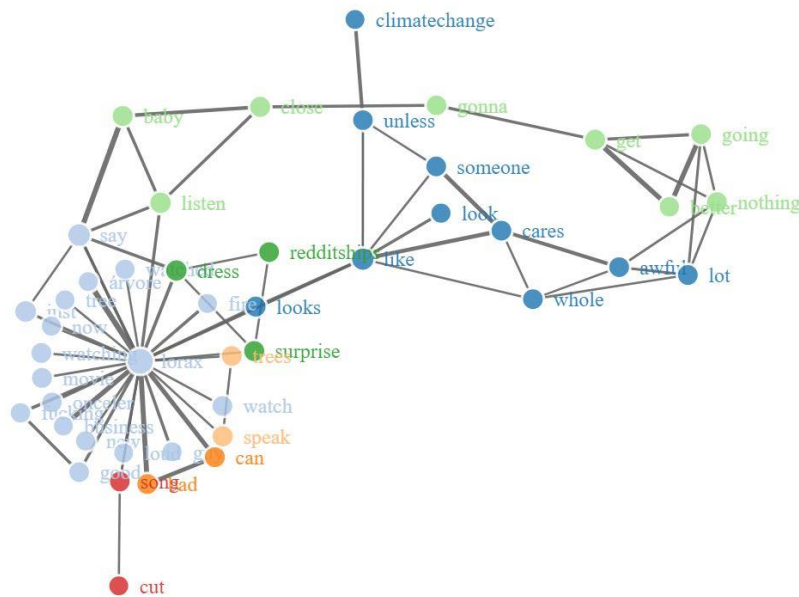
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Figure 7: Top word count for *The Lorax*



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Figure 8: Skip-gram for *The Lorax*

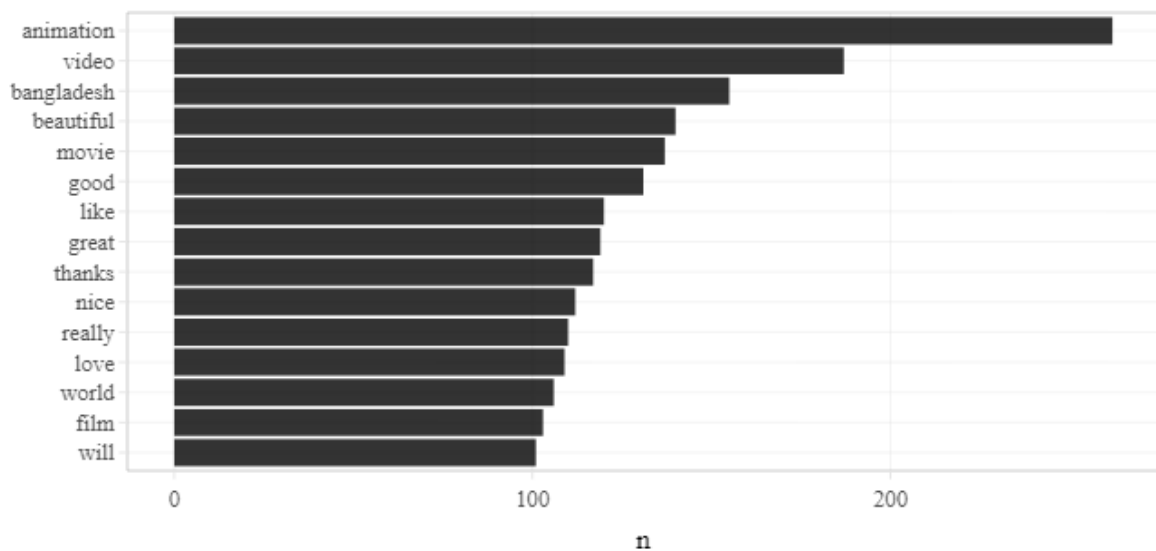


486

487 For *The Lorax*, the skip-gram count network exhibits the following word chunks. This
 488 skip gram is centralized around “the Lorax” with a cluster influenced by the phrase “unless
 489 someone cares a whole awful lot.” While in the previous example, the term “Lorax” should
 490 be discounted, here the related words show a roughly even split between discussion of the

491 movie itself or the character to these ideas, making it more useful within this context
 492 compared to the previous figure. For the roughly half of instances which emphasize the
 493 narrative of the film over the movie itself, this is linked with the environmental discourse
 494 regarding climate change. Other notable words are revealed by the skip-gram word count,
 495 including “redditships,” referring to offsite discussion of non-canonical romantic relations
 496 between characters, and “dress,” which can perhaps be explained by the distinctive clothing
 497 worn by the characters. In the skip-gram, the word “dress” is directly connected to the word
 498 “redditships”, indicating a close and significant attachment to characters within the narrative,
 499 and is also located (albeit indirectly) in close proximity to the word “looks”, which indicates
 500 an emphasis on aesthetic value judgements. Perhaps factors such as fashion and the aspect of
 501 potential romance between characters are also something to be considered when designing
 502 new environmental media in order to improve audience engagement.

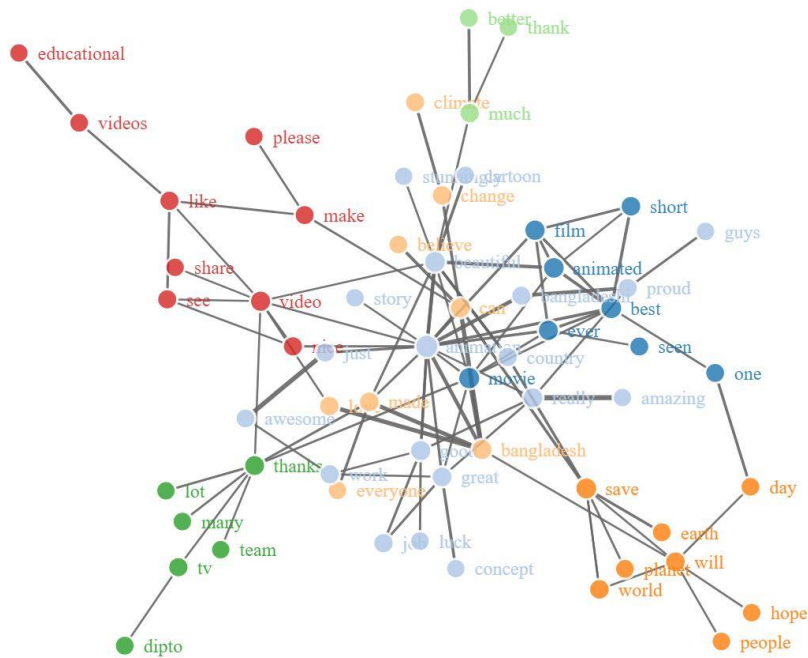
503 **Figure 9: Top Word Count for *Tomorrow***



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Figure 10: Skip-gram for *Tomorrow*



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For *Tomorrow*, the word-frequency table shows that “animation” is the most frequent

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word that appeared, though this is perhaps affected by the discussion of the film industry in

511

Bangladesh.¹⁷ Many of the highly linked words in the skip-gram demonstrate the positive

512

sentiment of the film and its content generally, such as “awesome”, good, “great”, etc. It is

513

notable that even though the word “Bangladesh” is ranked so high in the top word count, the

514

word “world,” while relatively low ranked among the top words, still demonstrates a global

515

consciousness among the online commenters. This is especially illustrated by the skip-gram,

516

where the word “world” is closely associated with the words “hope,” “save,” and “planet.”

517

Further analysis of the skip-gram count network for *Tomorrow* reveals a more decentralized

518

network when compared to *The Lorax*. This is potentially influenced by the lack of a specific,

519

unifying catchphrase in *Tomorrow*, whereas the central “unless” catchphrase of *The Lorax*

520

comprises a significant wordchunk.

521

¹⁷ A number of online comments take nationalistic pride in a progressing film industry in Bangladesh, using *Tomorrow* to exemplify advancing standards in domestically produced computer animated films.

522 **Environmental catastrophe**

523 *The Lorax* takes a social constructionist view of nature as the film explains that the
524 trees, the forests, have agency, but must act within a framework established by mankind—an
525 anthropocentric view. The Lorax, the guardian of the forest, thus establishes a space to
526 advocate for the rights of nature. The Lorax’s proclamation in the opening scene, “I am the
527 Lorax, I speak for the trees,” (0:00:56) establishes the role of the Lorax in representing nature
528 more broadly. The tone of the film is set by the deceptively bright city of Thneedville, set
529 against a foreboding sickly purple dawn. This city is one of artificiality, in which every entity
530 is made of artificial products: “a town without Nature, not one living tree” (0:01:24). In this
531 city, trees are made of plastic and their colors can be changed by clicking remote buttons.
532 Environmental pollution in the film is often implied through use of plastic, and the exclusive
533 use of synthetic materials instead of those found in nature. The artificiality of Thneedville
534 constitutes a major crisis in the film. Thneedville society takes capitalist pride in
535 commodifying nature: O’Hare informs Ted, “I make a living selling fresh air to people”
536 (00:31:19). Ted’s search for an original tree is a business threat to O’Hare’s company. Moore
537 (2016) explains the intimate relationship that exists between children, consumer culture, and
538 commercial media in the United States. Moore (2016) shows that both “the news and
539 entertainment industries reveal that the way Hollywood treats a subject like the environment
540 is not an exception to the rule; instead, the consistent subjugation of environmental concerns
541 is part of a broader capitalist logic in a concentrated market” (p. 5). This also connects to
542 real-life industrialists, as in when Frankfurt School critics Max Horkheimer and Theodor
543 Adorno (2007) discuss capitalist social structures, arguing that material identities are assigned
544 to nonmaterial cultures (perhaps also natural resources), commodifying them into the
545 products from which capitalists could profit. These natural resources are manufactured,
546 bought, and sold like a commodity. Environmental historian William Cronon (1996) has also

547 described the impact of nature as commodity not just in American culture and landscape but
548 in the entire planet Earth for centuries.

549 The excessive use of plastic and artificiality are symbols of late-stage capitalism. In
550 that regard, the opening song's lyrics stress the phrase "brand new" that references that we
551 live now in an advanced capitalist society which fetishizes consumerism: "If you put
552 something in a plastic bottle, people will buy it" (11:24). Commodification increases when
553 natural entities are treated without respect with some exceptions. The film implies that
554 Truffula trees are valuable and a positive, desirable asset, because by providing food, shelter,
555 and oxygen, Truffula trees help reduce environmental threats.

556 *Tomorrow* also presents the idea of nature, but it is not a socially constructed nature,
557 nor a nature that is soothing and tranquil. Rather, it emphasizes that reckless behavior from
558 humanity not only damages the environment, but also makes nature uninhabitable for
559 humans. Irresponsible human actions make the environment more vulnerable to future
560 damage. The village in *Tomorrow*, unlike *Thneedville*, is not artificial, yet its people lack a
561 sense of environmental consciousness just as in *The Lorax*, until Ratul's father joins the
562 conversation about the land erosion with the people. Their conversation and the conversation
563 between Ratul and the Old Man of the Winds change their attitude—they gain an
564 understanding of nature which make them proactive in slowing down the unfolding disaster
565 and envisioning—literally showing the audience—a future full of hope. Such a positive
566 narrative work against the idea that it is too late to act to prevent catastrophes.

567 Plastic waste is another environmental catastrophe on its own, which additionally is a
568 contributing factor to global warming, as plastic production and transportation require fossil
569 fuels. *The Lorax* shows the audience the impact of waste and wanton consumption on the
570 environment. *The Lorax* demonstrates that the process of wanton cutting down trees and
571 making clothes (fantastical knitting) out of it as a wasteful practice. But the Once-ler,

572 considers the result of this tree-cutting and knitting process “revolutionary.” The product has
573 a multitude of uses, and the audience may be inclined to agree at first, enhancing the impact
574 of this cautionary tale. “Whoa,” is Ted’s reaction when he steps out of the walled Thneedville
575 and sees the industrial waste. Thneedville produces a lot of waste but has no policy regarding
576 waste management beyond hiding it from public view; this is a reminder that the whole world
577 suffers from waste management policies that are effectively wishful thinking and likely
578 encourages the viewer to consider the impact of the industrial society fuelled by their own
579 wanton consumption. Industrial waste is also a critical theme in *Tomorrow*. In the dream,
580 when the Old Man of the Winds takes Ratul on a tour of the world, Ratul notices chimneys
581 spewing greenhouse gases in the atmosphere. The Old Man of the Winds instructs Ratul that
582 coal needs to be replaced as a source of energy.

583 Both *The Lorax* and *Tomorrow* encourage the viewer to foster a desire to protect
584 nature, albeit in different ways. *The Lorax* fosters a protective desire through Audrey’s and
585 Ted’s quest for Truffula trees, Grammy’s Indigenous sense of conservation, and the Lorax’s
586 mission to speak for trees. Although Wolfe (2008) focuses on Dr. Seuss’s book, Wolfe’s
587 observation that, “[. . .] nature is elevated from inferiority to a form of divinity” is germane in
588 the context of film (p. 14). *Tomorrow* fosters love for nature by creating an awareness about
589 climate change and biodiversity.

590

591 **Environmental storytelling: sense of place**

592 These films deal with both place and displacement, important concepts in
593 environmental education. “The integration of place into education is important,” writes
594 sustainability scholar David Orr, as “knowledge of place where you are and where come from
595 is intertwined with knowledge of who you are. Landscape, in other words, shape mindscape”

596 (2013, p. 93). These films use storytelling show how human beings and animals are
597 displaced.

598 Storytelling is an important element in combatting large-scale problems such as
599 climate change. Stories lead to greater emotional attachment than raw data does. In looking at
600 the impact of stories, I return to Jonathan Gottschall’s (2012) statement, “we are, as a species,
601 addicted to story. Even when the body goes to sleep, the mind stays up all night telling itself
602 stories” (12). Cherokee author Thomas King’s (2003) statement, “The truth about stories is
603 that that’s all we are” (2) or environmental historian William Cronon’s (1992) statement
604 inspired by Graham Swift that human beings are “storytelling creatures” underscore the
605 importance of storytelling. But humans are not the only storytelling creatures; other animals,
606 plants, spirit beings are the storytelling creatures too. The tree, the land, the other non-human
607 entities have agency, and they are storytelling creatures too, as demonstrated in the films. In
608 *The Lorax*, although of course somebody else has to speak for those trees, they nonetheless
609 have agency, and in *Tomorrow*, the Old Man of the Wind is not human but rather a spiritual
610 entity. By incorporating non-humans into storytelling, these movies help combat human
611 supremacist attitudes, by showing that man cannot stand alone against environmental
612 collapse.

613 Movies cover important environmental features in the form of storytelling discourse,
614 which also encompasses the field of storytelling discourse aimed at children. Dolores Subia
615 BigFoot and Megan Dunlap (2006) note that “[s]tories give reason to the overall scheme of
616 things” (p. 134). *The Lorax* and *Tomorrow* carry an environmental storytelling tradition to
617 teach children a sense of place through stories (animated films are often aimed at children,
618 and teach both children and the parents; if children miss out anything, the parents can pick it
619 up). BigFoot and Dunlap (2006) suggest that “Parents, grandparents, and other relatives used
620 stories to help children understand their place in the world and how they could show their

621 gratitude for their existence” (p. 135). This is evidenced in the social media analysis, where
622 one commenter stated “my 2 year old sister understands climate change and all she did was
623 watch the Lorax”

624 Both films have a simple environmental storytelling trajectory, but that simplicity is
625 grounded within the place of each respective culture. *Tomorrow* focuses on a specific place
626 along the coastline of Bangladesh; *The Lorax* is a fantasy place that could be anywhere and
627 nowhere. If places are ecological and cultural, I would argue that the sense of place is linked
628 to the art of storytelling, ultimately linked to education and pedagogy. Orr (2013), for
629 instance, demonstrates the nexus between place and pedagogy. Orr’s understanding of place
630 as an educational tool emerges from Thoreau’s *Walden* (1854) (to be exact, “*Walden* is a
631 model of the possible unity between personhood, pedagogy, and place”) and conservationist
632 Leopold’s (1986) philosophy of “man as a biotic citizen.” Although non-human entities are
633 appropriated for our use, *Walden* (1854) emphasizes natural entities in a way that could help
634 contemporary culture be more sustainable, such as in issues like bottled water compared to
635 tap water. A similar perspective can be seen from Leopold, who draws us across time and
636 space by introducing ideas like the “land ethic” and asking human beings to think “like a
637 mountain.” These philosophies should be highlighted with a greater emphasis in popular
638 culture. By and large, these philosophies demonstrate how place plays a role in our moral and
639 psychic transformation. In *Tomorrow*, although commoners lack an academic or formal
640 understanding of place consciousness, they eventually show the unity and a sense of
641 belongingness needed to protect and preserve their local place. In *The Lorax*, the not-real
642 place still demonstrates influences from its Californian creators of 2012, such as general
643 heightened concern over environmental catastrophes like the 2011 Fukushima disaster in
644 areas on the Pacific. In the film, a child begins glowing a radioactive green as he sings “I just
645 went swimming, and now I glow!” (0:03:03). Stories with connections to place are important

646 as “[s]tories can give children a sense of belonging to their family, community, and tribe, and
647 this can instil a sense of purpose, identity, and hope. Stories could be an extremely positive
648 force in the life of children” (BigFoot and Dunlap, 2006, p. 5). *The*
649 *Lorax* and *Tomorrow* share the spectrum of life stories: as evidenced by online comments
650 such as “local places are getting destroyed because of global places,” these stories can create
651 a compelling connection between the storyteller and listener/spectators. These two films are
652 similar in that common people within the films are engaged to love their local places.
653 Initially, the Once-ler’s family is not respectful of the local place and environment, but when
654 the Once-ler gives Ted a seed to make the local place abundant with trees, the local place
655 matters. People rally around Ted for planting the seed, although they had almost been
656 convinced otherwise by O’Hare’s deceptive speech. In the same way, the common people
657 start a movement to save their village from climate crisis in *Tomorrow*. These are both ways
658 of showing place and action. In this way the audience learns from example how they may
659 avert their own climate catastrophes.

660 Storytellers can create a sense of connectedness with the stories. The Once-ler and
661 Ted’s grandmother serve as the role of storyteller. Granny initiates the storytelling session,
662 but she sends Ted to the Once-ler for firsthand experience. The Once-ler starts sharing the
663 story with “it all started a long time ago” (00:16:45). The Once-ler’s starting cue gives us a
664 sense of hearing a “once upon a time” story. He later uses the phrase “a long time ago,” at
665 least three times, hinting that the environmental destruction on Earth started a long time
666 before. As a storyteller, the Old Man of the Winds, in *Tomorrow*, appears in Ratul’s dream
667 and blames him for the deplorable condition of the planet. He takes Ratul away with him to
668 show the cruelty of people on nature: factories are emitting fumes and the use of fossil fuels
669 are resulting in air pollution, the greenhouse effect, and related human eco-sicknesses.

670

671 **Environmental education: sustainability**

672 Today, many animated films are incorporated into educational curricula because of
673 the impact they can have. *The Lorax* and *Tomorrow* are ideal candidates to be educational
674 tools for children as these films visually show (rather than just tell) fundamental
675 environmental problems and potential solutions. Both films can also be a platform to teach
676 children about preserving nature.

677 *The Lorax* and *Tomorrow* promote a world where sustainability and environmental
678 consciousness are prioritized over reckless economic and technological development. Both
679 films critique capitalism for setting society down a path of self-destruction. When Ted leaves
680 the town in search of the Once-ler, Ted is being watched on his way out by the corporate
681 enforcers of O'Hare, who report on anything that threatens their industrial progress. Progress
682 is the main goal for Thneedville's people. The Once-ler's mother rebukes him for not being
683 "successful." The Once-ler thus starts changing the world, but the spell of capitalism does not
684 fool the Once-ler forever, as he eventually recognizes the monstrous effects of unchecked
685 capitalism. In *Tomorrow*, Ratul learns about the impact of capitalism when he travels with the
686 Old Man of the Winds who shows him the advanced capitalist societies which are least
687 sustainable (even though some pretend to be). Ratul becomes conscious of the negative
688 aspects of the socio-political-economic nexus of capitalism, but he cannot remain free from
689 it. The films show the audience through visual storytelling what the consequences of life in a
690 capitalist society that reveres progress and success, and, later, how the lives of the people
691 within that society improve when environmental consciousness triumphs over the
692 commodities market.

693 The films both suggest that the destruction caused by unrestrained capitalism may be
694 averted through action. In *The Lorax*, Ted brings meaningful change by helping begin to
695 restore the environment. *Tomorrow* also offers solutions, such as imposing taxes on fossil

696 fuels and implementing green energy around the world. *Tomorrow* asks its audience “Are you
697 with us?” (20:55) and tries to create a sense of urgency to get its audience to act.

698 These films can help instill the idea that sustainability is more about actions rather
699 than just caring about nature. *Tomorrow* suggests an alternative to the present world by
700 showing a world occupied with environmentally responsible inhabitants; *The Lorax* suggests
701 a return to a more natural environment as an alternative to an artificially lavish life. These
702 alternatives are designed to preserve nature. It is important to note that these films do not
703 reject societal progress outright, but they oppose development rooted in industrial toxic
704 consumerism which can cause the displacement of millions of people and the extinction of
705 species.

706 Perhaps the most important characteristic for any educational tool is to leave a
707 discursive space. These films question their surroundings, the human interference with our
708 environment, the inevitable consequences of such interference, and they provide examples of
709 a remedy. *The Lorax* suggests it is “not too late”; that is, if people give up their
710 anthropocentric attitudes and seek harmony between nature and human, their doom can be
711 prevented. *Tomorrow* shows the need to be prepared for a calamity that cannot be evaded, but
712 also shows a glimmer of hope. It endows the audience with agency, when it tells Ratul, the
713 audience surrogate, “This is your planet, you have to find out the answer” (21:54). These
714 films leave unfinished tasks to be comprehended and finished by the audience.

715 These films also offer pedagogical opportunities because they convey their messages
716 through non-traditional formats such as social media, humor, song/rhyme, satire, etc. For
717 example, the song “How Bad Can I Be?” in *The Lorax* provides insight into the greed-driven
718 soul who avoids caring for a few trees in the desire to make money. In *Tomorrow*, there is the
719 presence of social media. Ratul starts campaigning on Facebook about fossil fuels from a
720 local place, and he receives global responses, as people from around the entire world protest.

721 **Conclusion**

722 Using environmental discourse analysis to understand how discourses about climate
723 change and sustainability, to list a few, are changing, is an important task. This is
724 acknowledged in the literature—Elliott and Cullis (2017) have written, “the humanities
725 should be more confident and vocal in addressing climate change” (p. 15). Although the
726 number of creative works on climate change is increasing, their growth is not as substantial as
727 the increase in risks we are encountering. Heise (2008) argues that “climate change poses a
728 challenge for narrative and lyrical forms that have conventionally focused above all on
729 individuals, families, or nations, since [climate change] requires the articulation of
730 connections between events at vastly different scales” (p. 205). Although it is challenging, the
731 most powerful environmentally driven artwork and films focus on local, regional, and global
732 riskscapes. The combination of these different scales described by Heise can be tricky, but
733 these films show it can be done. In *Tomorrow*, local action leads to global change, and in *The*
734 *Lorax*, action within Thneedville leads to improvements in the lands outside the city.

735 In *The Lorax*, as time passes, new trees begin sprouting, animals return, and the
736 repentant Once-ler joins the Lorax, everything in its proper place. The film ends with the note
737 that unless someone comprehends the awful consequences that awaits us and takes prompt
738 action, “nothing is going to get better.” *The Lorax* seeks to promote ecological awareness
739 among people showing the repercussions of their deeds “unless” they start taking care of the
740 environment. Film critics say that *The Lorax* is too political or scares children from the
741 environment by giving them “ecophobia” (Potts, 2019). Yet some are more hopeful, such as
742 critic Deidre Pike (2012), who deems *The Lorax* a “‘dialogic enviro-toon’ not presenting a
743 subject merely for entertainment but creating a safe zone for exploration of environmental
744 facts, ideas, images, and perspectives” (p. 13). Public commenters generally seem to agree
745 with Pike, and do not seem hindered by the message of *The Lorax*. Rather than them being

746 too political and ecophobia-inducing, I would argue *The Lorax* and *Tomorrow* have the
747 power to inspire the next Greta Thunberg in households around the world.

748 The uncertainty with which *Tomorrow* starts is a recurring theme throughout its entire
749 runtime. The film ends with a note of hope which environmentalist McKibben (2019) praises
750 in his tweet saying, “it never blinks at the horrors in store, but refuses to give up hope.”
751 Human beings are driving the great sixth mass extinction, but there is still time to take
752 initiative—a sentiment demonstrated in both the environmental discourses in the content of
753 these films and the public reactions. We need creativity, imagination and hope to face the
754 environmental crisis. The environmental discourse analysis of these films and the public
755 comments symmetrically convey the message: nature is on the brink of disaster in both films,
756 nevertheless both give the audience hope for the future.

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