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Impact Evaluation Highlights

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Stills from *The Social Dilemma* courtesy of Exposure Labs.

EXECUTIVE SUMMARY

Exposure Labs engaged the University of Southern California Norman Lear Center's Media Impact Project (MIP) to study the audience impact of *The Social Dilemma* (TSD), a documentary film released on Netflix in September 2020. TSD shows the individual and societal implications of the techniques social media platforms employ to monetize user attention. MIP conducted a survey of 3,881 U.S.-based Netflix subscribers¹ and used a statistical technique called Propensity Score Matching (PSM) to adjust for pre-existing differences between viewers and non-viewers of TSD. We found the following:

What is the impact of TSD on viewers' knowledge, attitudes, and behavior?

- Compared to non-viewers, TSD viewers were more knowledgeable about attention extraction and persuasive design techniques and had greater support for design changes and government regulation. They were more likely to have placed limits on their own smartphone use, discussed social media with others, and taken civic engagement actions on the issue.
- However, viewers were more likely to say social media has a "mostly positive" effect. Despite the film's impact on support for government regulation, viewers were more likely to believe that individual behavior and design changes would be effective remedies.

How do viewers respond to TSD?

- Viewers of TSD generally perceived the film's impact to be positive. Nine out of ten took at least one action associated with TSD's impact campaign. They were more likely to report feeling negative emotions like anger or fear than positive ones like hope, and most felt the real interviewees effectively conveyed the problem.

Do certain subgroups of viewers have stronger outcomes?²

- Certain subgroups of TSD viewers had stronger outcomes in general. These include viewers recruited by Exposure Labs, those who took several impact campaign actions, and non-parents.
- However, parent viewers and those recruited by the survey firm Qualtrics were more likely to take various civic engagement actions, and found the film more effective at illustrating the societal impacts of technology.

What are the mechanisms underlying TSD's impact?

- TSD viewers who felt afraid while watching had stronger knowledge, attitudinal, and behavioral outcomes on most variables. However, viewers who felt hopeful took more civic engagement actions and rated the film more effective at showing both personal and societal impacts.

Qualitative findings

- Asked about problems to which social media and search technologies contribute, respondents noted the spread of misinformation and interpersonal harms, such as reduced social skills.
- Viewers praised TSD for illustrating how intentional design features built into products and platforms contribute to these problems.

The results of this research suggest balancing fear-inducing messages with hopeful ones; promoting efficacy by providing resources and modeling effective actions; and telling authentic, humanizing stories are effective strategies for promoting social impact through documentary film.

1. This is an independent study of which Netflix had no input, partnership, or oversight over the methodology or analysis.

2. "Stronger outcomes" is used throughout as shorthand for the numerous knowledge, attitudinal, and behavioral outcomes of interest. These include knowledge about attention extraction, attitudes aligned with the film's message (e.g., support for various types of reform), and actions related to individual technology use or civic engagement.

■ INTRODUCTION

The Social Dilemma (TSD) is a documentary film from Exposure Labs, the creators of *Chasing Ice* and *Chasing Coral*, released exclusively on Netflix in September 2020. Blending documentary-style interviews with technologists, researchers, and activists and a unique scripted narrative storyline, the film reveals how unregulated social media platforms are optimized to promote addiction and manipulation, with serious implications for mental health, civil discourse, and the fate of our democracy: “If you’re not paying for the product, you are the product.” TSD won two Primetime Emmy Awards, a Webby Award, and reached 38 million Netflix viewers in its first four weeks.

The producers of the film sought not only to engage audiences but also motivate them to take action through an associated impact campaign involving media outreach, a virtual tour, mass mobilization actions, targeted screenings, partnerships, policymaker briefings, youth engagement, and educational resources. The ongoing COVID-19 pandemic posed some challenges, including the absence of in-person events.

The goals of the film and associated impact campaign included:

- Promoting awareness of the harmful effects of “Big Social’s” extractive business model and the promise of humane design;
- Shifting attitudes around how tech platforms undermine democracy, human rights, and mental health in the pursuit of profit, and how these technologies can be better designed, regulated, and used; and
- Fostering action, including public pressure on technology platforms and policymakers to increase regulation and accountability.



Tristan Harris, co-founder, Center for Humane Technology, speaks before Congress in a scene from the 2020 documentary *The Social Dilemma*.

Exposure Labs engaged the University of Southern California Norman Lear Center's Media Impact Project (MIP) to study the impact of the film through a survey research study. We set out to examine the following research questions:

RQ1:

What is the impact of the film on viewers' knowledge, attitudes, and behavior?



RQ2:

How do viewers respond to the film?



RQ3:

Do certain subgroups of viewers have stronger outcomes?



RQ4:

What are the mechanisms underlying the film's impact?



METHODOLOGICAL CONSIDERATIONS

When studying the impact of a piece of media content, the goal is usually to understand whether exposure to the content caused certain outcomes, such as a shift in attitudes or behavior. The gold standard for drawing such causal conclusions is experimental research. This approach requires participants to be randomly assigned to view either the content in question or a control condition, which may be some other content, or sometimes nothing. This method has serious limitations, however, including the lack of realism of the experimental context and difficulty capturing long-term changes in behavior. For these reasons, MIP tends to favor methods in which we study how the actual audience responds to a piece of content in a real-world context, rather than instructing people to watch something they may not otherwise choose. To maximize the likelihood of capturing long-term behavior change, we often survey the audience some time after exposure to the content. We then compare the outcomes of interest — knowledge, attitudes, and behavior — for those who have seen the content versus those who have not.

This methodology is not without its own limitations, including selection bias. This refers to the tendency of those who seek out certain types of content — such as social issue documentaries — to differ in meaningful ways from those who do not. For example, previous research has found that viewers of social issue documentaries are more likely to be white, highly educated, lean ideologically liberal, believe that films can have a moderate to large impact on individuals and society, or have heard concerns associated with the film's topic in conversations or media.³ These pre-existing differences between viewers and non-viewers can easily be confused

3. The USC Norman Lear Center previously conducted impact studies of the Participant Media documentaries *Food, Inc.* and *Waiting for "Superman"*:

Blakley, J., Huang, G., Nahm, S., & Shin, H. (n.d.). *Changing appetites, changing minds: Measuring the impact of Food, Inc.* The Norman Lear Center. <https://learcenter.org/wp-content/uploads/2016/06/Food-Inc-Summary-Report.pdf>

Blakley, J., Huang, G., Huh, J., Nahm, S., & Shin, H. (n.d.). *Preaching to the choir? Measuring the impact of Waiting for "Superman."* The Norman Lear Center. <https://learcenter.org/wp-content/uploads/2016/11/WaitingForSupermanReport.pdf>

with evidence of impact. For example, it would be inappropriate to conclude that documentaries make people more liberal, when such differences likely existed before watching. Thus, it is necessary to statistically adjust for pre-existing differences between viewers and non-viewers.

To do this, we use a statistical technique called Propensity Score Matching (PSM). We begin by identifying a set of factors — based on previous research and theory — that we believe will predict whether someone watches the content in question. For example, these might include race/ethnicity, education, and ideological orientation. Next, these factors are entered into a model to generate a composite variable called a propensity score for each survey respondent. The propensity score represents each respondent’s individual likelihood of exposure to the content, based on their pre-existing characteristics, regardless of whether they *actually* were exposed.

Finally, we attempt to match each viewer with a corresponding non-viewer who has a similar propensity score, reflecting approximately equal likelihood of exposure to the content (respondents with no matches are excluded from the analysis). In short, PSM enables us to adjust for pre-existing differences and compare apples-to-apples, thereby attributing any differences in knowledge, attitudinal, and behavioral outcomes to the impact of exposure.

METHODOLOGY OVERVIEW

We recruited 3,881 U.S.-based Netflix subscribers aged 18 or older from two sources: (1) Qualtrics Panels, a third-party aggregator of market research panels, and (2) Exposure Labs and the Center for Humane Technology distributed survey links via newsletters and social media (Table 1).⁴ The Exposure Labs sample primarily consisted of high-propensity (i.e., likely to watch) viewers, but this dual approach enabled us to recruit a mix of viewers and non-viewers with a range of propensities.

	Viewers	Non-Viewers	TOTAL
Qualtrics	1,015	1,503	2,518
Exposure Labs	1,302	61	1,363
TOTAL	2,317	1,564	3,881

Table 1. Participants Recruited from Each Source

Data were collected between July 16 and September 8, 2021, approximately ten to twelve months following the release of the film on Netflix. Of note, *TSD* also became available to stream for free on YouTube during the data collection period, on August 19, 2021.

4. For ease of reporting, we refer to respondents recruited by either Exposure Labs or the Center for Humane Technology as the “Exposure Labs sample.” An additional 411 Exposure Labs respondents were excluded from the analysis because they did not meet the inclusion criteria (not U.S.-based, not Netflix subscribers).

5. See the full *TSD* survey instrument at <https://learcenter.org/wp-content/uploads/2022/02/NLCTheSocialDilemmaSurvey.pdf>
6. For details on analysis methods, please see *Appendix: Detailed Analysis Methods*. https://learcenter.org/wp-content/uploads/2022/02/TheSocialDilemma_Appendix.pdf

Quantitative Analysis

The survey instrument was developed and refined in consultation with Exposure Labs, and was designed to measure the following among audience members:⁵

- Knowledge of the basic principles of attention extraction and surveillance capitalism;
- Attitudes regarding the perceived risks and benefits of social media, support for reform (e.g., changes in design of tech platforms, regulation), and perceived responsibility of social media for the events of January 6, 2021;
- Self-efficacy (confidence in one's ability to take action in various contexts);
- Actions taken, including changes in technology use, civic engagement (such as sharing a personal story or donating to a relevant organization), and participation in impact campaign activities;
- Perceived impact of the film and emotional and other responses to the film (among viewers only).

Because there were just 61 non-viewers in the Exposure Labs sample, we used only the Qualtrics sample for the PSM analysis examining the impact of the film (RQ1). From this sample (shaded cells in Table 1 on p. 6), we generated 502 matched pairs of *TSD* viewers and non-viewers and analyzed differences in outcomes between the two groups. However, we used the combined sample (Qualtrics and Exposure Labs) of 2,317 viewers of *TSD* to examine viewer responses (RQ2), differences in outcomes between subgroups of viewers (RQ3), and the mechanisms of impact (RQ4).⁶

**RQ1
Sample**

502 matched pairs of *TSD* viewers and non-viewers (1,004 total), recruited by Qualtrics.

**RQ2,3,4
Sample**

2,317 viewers of *TSD*, recruited by Qualtrics and Exposure Labs.

Qualitative Analysis

The survey also included open-ended questions about why respondents watch fictional or documentary films that focus on social issues, their specific reasons for watching *TSD*, and any social problems to which they believe technology contributes. Survey respondents who took any individual actions related to technology use were asked to describe what prompted those changes. Finally, *TSD* viewers who indicated the film had a large impact on them were prompted to elaborate on changes they noticed. We conducted a qualitative analysis to extract key themes from the open-ended items.

7. See the *Impact Evaluation Findings* deck for detailed quantitative and qualitative findings. <https://learcenter.org/wp-content/uploads/2022/02/TheSocialDilemmaSlideDeck.pdf>

KEY FINDINGS⁷

RQ1:

What is the impact of the film on viewers' knowledge, attitudes, and behavior?

“

TSD viewers were more knowledgeable about attention extraction and persuasive design techniques and had greater support for design changes and government regulation.

8. Viewers had greater support for government regulation than non-viewers, and non-viewers and viewers alike believed regulation would address concerns with social media and search companies. However, viewers were no more (or less) likely than non-viewers to believe regulation would address these concerns. Thus, we cannot conclude the film had an impact on this outcome, despite its impact on support for government regulation.

Relative to a matched comparison group of Netflix-subscriber non-viewers, TSD viewers:

- Were more knowledgeable about attention extraction, better able to identify persuasive design techniques, and were more likely to know companies monetize attention through targeted advertising.
- Were more likely to believe social media and search technologies have a “mostly positive” effect overall, but a negative impact on mental health.
- Had greater support for design changes (e.g., a more transparent process for flagging content for removal) and government regulation (e.g., banning surveillance advertising that employs users' behavioral data).
- Were more likely to believe that individual behavior and design changes – more so than regulation – would effectively address concerns with tech companies.⁸
- Had greater self-efficacy in their homes and local communities, were more likely to place limits on their smartphone use, and more likely to discuss social media with others.
- Were more likely to take various civic engagement actions, including sharing a personal story or donating to a relevant organization.



Viewers of *The Social Dilemma* were more likely to know companies monetize attention through targeted advertising.

RQ2: How do viewers respond to the film?



Nine out of ten viewers took at least one action associated with the Exposure Labs impact campaign, such as:

- Visiting the *TSD* website
- Posting about *TSD* on social media
- Using *TSD* resources to improve their relationship with technology
- Listening to the Center for Humane Technology's podcast

- More than half of viewers watched *TSD* at least four months prior to taking the survey; only 22% had seen it within the past month.
- The most frequently reported reasons for watching the film were that it was recommended by Netflix (41%), recommended by a friend, colleague, or family member (36%), or hearing about it on social media (23%) or the news (20%).
- They generally perceived *TSD* to be successful at showing the impact of technology, but more so for personal impacts (e.g., motivation to change behaviors or relationship with technology) than societal impacts (e.g., building pressure for regulation of social media and search companies).
- Nine out of ten viewers took at least one action associated with the Exposure Labs impact campaign. These included visiting the *TSD* website (42%), posting about *TSD* on social media (28%), using *TSD* resources to improve their relationship with technology (22%), and listening to the Center for Humane Technology's podcast (21%).

- Viewers were most likely to experience negative emotions like sad (33%), angry (31%), disgusted (31%), or afraid (29%). Twenty-three percent reported feeling hopeful.
- The majority (65%) felt the real interviewees (e.g., former tech workers, researchers) most effectively conveyed the problem, compared to 14% who selected the fictional characters in the film.

RQ3: Do certain subgroups of viewers have stronger outcomes?

Sample Source

- Viewers recruited from Exposure Labs had stronger outcomes on the majority of variables, including knowledge, belief that social media has “mostly negative” effects, holding social media responsible for the events of January 6, support for design changes and regulations, taking individual technology actions, campaign actions, and perceived personal impact of *TSD*. They were also more likely to feel afraid.
- On the other hand, viewers recruited from Qualtrics were more likely to feel hopeful, take the majority of civic engagement actions, and rated *TSD* more successful at showing societal impacts.



Parents who viewed *The Social Dilemma* rated it more successful at showing both personal and societal impacts.

“

Non-parent viewers outperformed viewers with children under 18 on most outcomes. However, parent viewers took more civic engagement actions, and rated *TSD* more successful at showing both personal and societal impacts.

Campaign Participation

Viewers who participated in three or more impact campaign activities were less knowledgeable about persuasive design techniques, but had greater support for platform design changes and regulation, and rated *TSD* more successful at showing both personal and societal impacts.

Parent Status

- Unexpectedly, on most outcomes, non-parent viewers outperformed viewers with children under 18. Parent viewers were less knowledgeable about how tech companies monetize user attention and persuasive design techniques, more likely to say social media has “mostly positive” effects, and took fewer individual technology restriction actions.
- However, parent viewers took more civic engagement actions, and rated *TSD* more successful at showing both personal and societal impacts.
- Differences between parents and non-parents may be attributable to age differences (parents skewed older, and younger viewers had stronger outcomes) or sample differences (parents were more likely to come from the Qualtrics sample).
- To understand whether viewing *TSD* truly had a differential impact on parents vs. non-parents, we did a deeper dive within the matched PSM sample for certain key outcomes.
- Non-parent viewers were more likely to take individual technology restriction actions than non-parent non-viewers, but there were no differences between viewers and non-viewers among parents.
- On the other hand, parent viewers were more likely to take civic engagement actions than parent non-viewers, but there were no differences among non-parents.

RQ4: What are the mechanisms underlying the film's impact?



While TSD viewers who felt afraid had stronger outcomes on most variables, those who felt hopeful took more civic engagement actions and rated the film more effective at showing both personal and societal impacts.

Emotional Responses

- Viewers who felt afraid were more knowledgeable about how tech companies monetize user attention and persuasive design techniques and more likely to say social media has “mostly negative” effects. They had greater support for design changes and regulatory efforts, took more individual technology restriction actions, and rated *TSD* more successful at showing personal impacts.
- Viewers who felt hopeful, on the other hand, were less knowledgeable about how tech companies monetize user attention and persuasive design techniques, more likely to say social media has “mostly positive” effects, and took fewer individual technology restriction actions. However, they took more civic engagement actions, and rated *TSD* more successful at showing both personal and societal impacts.

Character Effectiveness

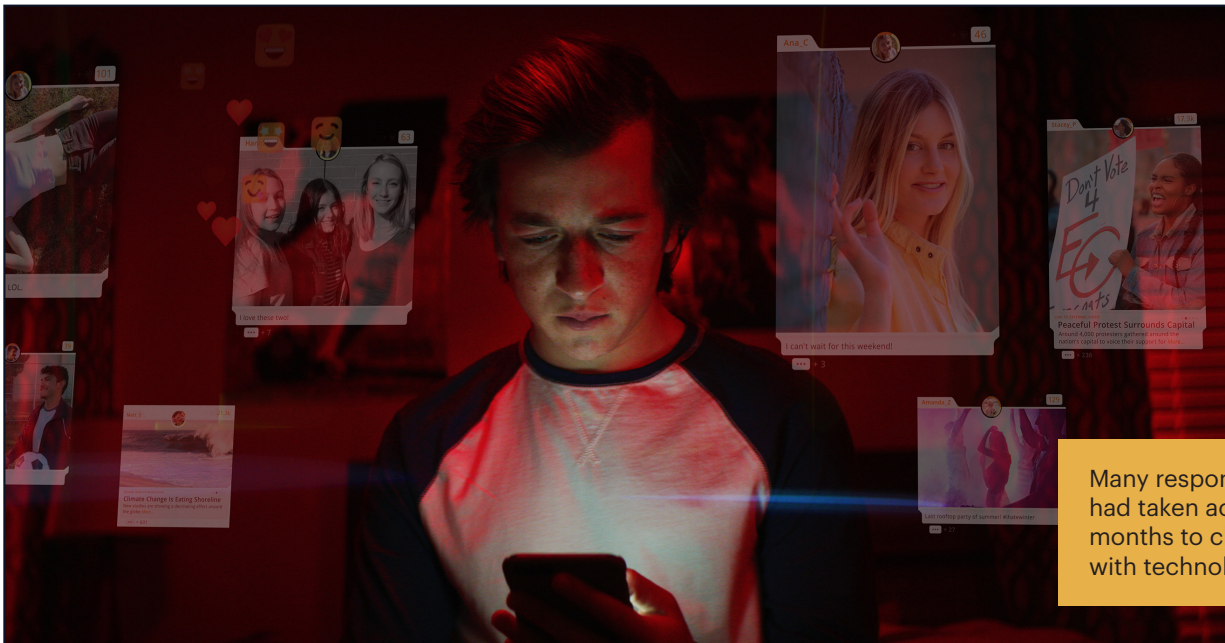
- Viewers who felt the real interviewees were most effective at conveying the problem generally had stronger outcomes.
- These viewers were more knowledgeable about how tech companies monetize user attention and persuasive design techniques, more likely to say social media has “mostly negative” effects, and held social media more responsible for Jan 6. They were also more likely to feel afraid, more likely to support platform design changes, and took more individual technology restriction actions.
- However, viewers who felt the fictional characters were most effective felt more hopeful and rated *TSD* more successful at showing personal impacts.

QF: Qualitative Findings

All Respondents

Respondents listed a variety of reasons for watching social issue films (fictional or documentary), including:

- To learn about social issues from different points of view, for example: ***“I want to be informed on issues from all sides and points of view so I can make my own decisions on what’s important to our society as a whole”;***
- To gain understanding in order to enact change, for example: ***“I am always seeking to learn so I can grow as a person. Documentaries are just one reason I am vegan now. I watched one about factory farming and it started my interest in plant-based eating.”***
- Because social issue entertainment is relevant to their profession.



Many respondents indicated that they had taken actions over the past nine months to change their relationships with technology.

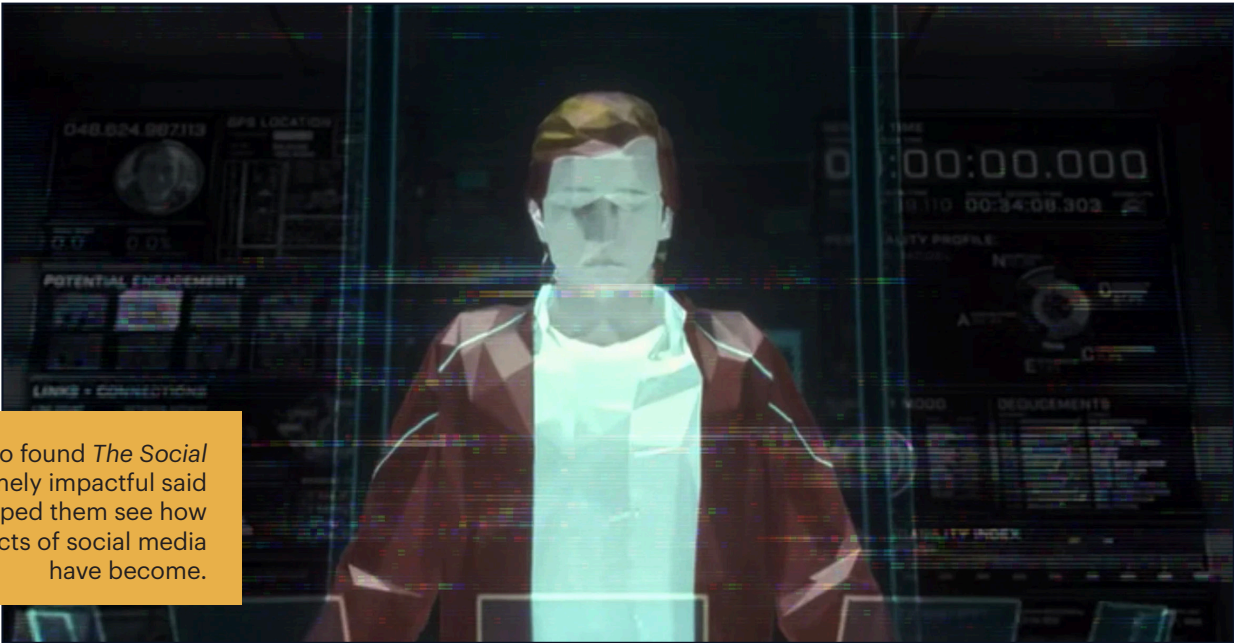
They also identified various social problems to which they believe technology contributes:

- Communication breakdowns, both interpersonal/social and systemic erosion of truth via misinformation and hate speech, for example: ***“Breakdown of social skills and in person interactions [from the] constant distraction/addiction”***;
- Mental health issues attributed to unhealthy standards (i.e., comparing one’s own lived reality to idealized images posted in social media);
- Time wasted due to technological distractions from real life.

Many respondents indicated that they had taken actions over the past nine months to change their relationships with technology. They were asked to elaborate on what prompted them to take the actions they selected:

- Perceived erosion of common sense and critical thinking ability, for example: ***“As a HS Principal, we made The Social Dilemma the focal point of a day of in-service and reflection. It generated great staff discussion and got the ball rolling toward recognition of these issues so we can at least begin to speak with a common vocabulary”***;
- Observing addiction-type behaviors, especially among children, for example: ***“Watching a loved one sit like a robot endless scrolling for no apparent reason. Having to compete for their attention with some influencer that has no relevance in our family’s lives”***;
- Experiencing detrimental effects on their own mental health;
- Watching TSD or encountering other media explaining the negative impacts of technology or providing guidance on reducing technology dependence.⁹

9. Other media mentioned by survey respondents included the documentary *The Great Hack* (www.thegreathack.com), the website for the Center for Humane Technology (www.humanetech.com), and the book *Digital Minimalism* (www.calnewport.com/books/digital-minimalism).



Viewers who found *The Social Dilemma* extremely impactful said that the film helped them see how damaging the effects of social media have become.

TSD Viewers

TSD viewers listed a variety of reasons for watching the film, including interest in the topic, familiarity with the Center for Humane Technology or Tristan Harris' work, and personal concerns due to their own lived experiences.

Viewers who found the film to be “extremely impactful” in creating urgency about the need for change were asked to elaborate:

- They indicated that the film helped them see how widespread and damaging the effects of social media have become for their families and society, especially regarding political issues and COVID-19.
- They described ways the film increased their understanding of how partisan polarization is increasing, as well as how people are deceived by misinformation.
- They credited the film with providing insights regarding social media features intentionally designed to hold attention and manipulate emotions, and how these can produce dependence and harm users' mental health.
- Viewers provided numerous examples of ways the film motivated them to change their relationships with technology, including making efforts to disconnect and get outside more often. As one respondent summarized:

“Every time I’m on social media I am aware that what I’m seeing is trying to make a buck off my engagement or is designed to manipulate my attention so I’ll keep scrolling. I’m more aware when I catch myself mindlessly scrolling. Knowing that there is an addictive element that is exploited by these technologies has made me wary of them and made me more self-aware about how I interact with it.”

CONCLUSIONS & RECOMMENDATIONS

10. Fullerton, N. (2021, April 29). *Instagram vs. reality: The pandemic's impact on social media and mental health*. Penn Medicine News. <https://www.pennmedicine.org/news/news-blog/2021/april/instagram-vs-reality-the-pandemics-impact-on-social-media-and-mental-health>
11. Moyer-Gusé, E. (2008). Toward a theory of entertainment persuasion: Explaining the persuasive effects of entertainment-education messages. *Communication Theory*, 18(3), 407–425. <https://doi.org/10.1111/j.1468-2885.2008.00328.x>
- Shen, F., & Han, J. (2014). Effectiveness of entertainment education in communicating health information: a systematic review. *Asian Journal of Communication*, 24(6), 605–616. <https://doi.org/10.1080/01292986.2014.927895>

Those who watched *TSD* had greater knowledge about attention extraction and persuasive design techniques, as well as support for design changes and government regulation. These impacts were particularly pronounced among non-parent viewers (who also tended to be younger), those who felt afraid while watching, and *TSD* superfans (those recruited via Exposure Labs channels or who took multiple campaign-related actions). Many viewers praised the film for deepening their understanding of how problems like the spread of misinformation, mental health issues, and social challenges are exacerbated by the design features intentionally built into products and platforms. Some even shared examples of a new mindset when they use social media, or a heightened awareness of why they receive pop-up notifications or see specific ads.

TSD had some impact on individual technology use in that viewers were more likely to place limits on their own smartphone use. It is possible that the ongoing COVID-19 pandemic attenuated the impact on individual behavior the film might otherwise have had. Whether borne of a desire for human connection, to keep abreast of case rates and vaccine availability, or merely stave off boredom in lockdown, research indicates social media use increased 61% during the first wave of the pandemic.¹⁰ In short, 2020–2021 may not have been the most conducive time to resolve to break free from social media, and stick to it.

However, viewers of *TSD* were more likely to take other actions, like discussing the film on social media, or various civic engagement actions. In particular, parent viewers and those recruited via Qualtrics (not superfans) were more likely to take civic engagement actions. Ninety percent of viewers took at least one action associated with the impact campaign. Some respondents specifically noted that *TSD* motivated them to change their behavior and discuss these observations and related issues with others.

Extensive research indicates that narrative storytelling, featuring compelling characters with whom viewers can identify, can overcome the resistance we feel when we encounter more overt persuasive messages.¹¹ Integrating a high production-value scripted narrative into a documentary is an unusual approach. On the whole, viewers found the expert “talking heads” more effective at conveying the problems associated with technology than the fictional family or the personified algorithms. Further, those who found the real interviewees more effective had stronger outcomes in general. It may be that identification with the interviewees, including those who relayed stories about their own technology use and fears as parents, was enough to cultivate attitude and behavior shifts. That said, viewers who found the fictional characters more



Viewers of *The Social Dilemma* were more likely to discuss the film on social media or take various civic engagement actions.

effective were more likely to feel hopeful, and those who felt hopeful were more likely to take civic engagement action toward systemic change.

WHO WATCHES SOCIAL ISSUE DOCUMENTARIES?

¹² See *TSD Demographics* for detailed demographic information on *TSD* viewers vs. non-viewers: <https://learcenter.org/wp-content/uploads/2022/01/TheSocialDilemmaDemographics.pdf>

Viewers are drawn to documentaries about topics that concern them. They seek to better understand what they can do to make an impact. As in MIP's previous research on documentary films, viewers of *TSD* were more likely to be white, 18-34 years old, have a bachelor's degree or more, lean ideologically liberal (or identify as Democrats), earn at least \$50,000 a year, and watch social issue documentaries with some regularity. In the specific case of *TSD*, viewers were also likely to be heavy social media users who have already thought about concerns associated with social media and search technologies (e.g., believe technology contributes to social problems).¹²

People who watch social issue documentaries are seeking steps they can take to improve their lives and those of others. Some respondents shared that gaining an understanding of social issues via film and documentaries had motivated them to make a change, either on an individual or societal level. An additional unexpected reason for watching social issue films emerged in this study. Many respondents expressed a desire to learn about an issue from different perspectives. This would seem to contradict the prevailing narrative of extreme polarization and unwillingness to step outside of one's echo chamber.

13. Niemand, A., & Wright, S. (2019, June 17). How to use stories to bring 'us' and 'them' together. *Stanford Social Innovation Review*. https://ssir.org/articles/entry/how_to_use_stories_to_bring_us_and_them_together#

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16. Zak, P. J. (2013, December 17). *How stories change the brain*. The Greater Good Science Center at the University of California, Berkeley. https://greatergood.berkeley.edu/article/item/how_stories_change_brain

Renken, E. (2020, April 11). *How stories connect and persuade us: Unleashing the brain power of narrative*. NPR. <https://www.npr.org/sections/health-shots/2020/04/11/815573198/how-stories-connect-and-persuade-us-unleashing-the-brain-power-of-narrative>

RECOMMENDATIONS FOR STORYTELLERS

1 Evoke different emotions. The emotions evoked by entertainment can work in concert to engage audience members in different ways.¹³ Feeling afraid while watching *TSD* was associated with greater knowledge, more negative attitudes toward social media, greater support for reform, and greater likelihood of changing one's individual technology use. At the same time, feeling hopeful was associated with taking civic engagement actions on issues related to technology. Research suggests fear-inducing messages are most effective when they also promote efficacy among audience members.¹⁴ Feelings of hope can actually bolster this sense of efficacy in the face of threatening or negative circumstances.¹⁴ In other words, while fear may motivate individual actions, fostering hope can be particularly motivating of collective action toward systemic change.

2 Provide resources for taking action. One type of efficacy is self-efficacy, the belief that one is capable of carrying out the recommended actions. Engaged viewers tend to say a documentary made them want to learn more or understand what actions they can take to create an impact. Nine out of ten *TSD* viewers took at least one action associated with the impact campaign, suggesting the campaign was highly successful at reinforcing the information in the film and providing a bridge to action. Impact campaigns may suggest a range of explicit actions to audience members, from "low-investment" actions like visiting a credible website or sharing a personal story on social media to "high-investment" actions like donating or engaging in political advocacy.

3 Model effective actions. Another type of efficacy is response-efficacy, the belief that performing the recommended action will have the desired effect — that it will actually make a difference. At the end of the film, *TSD*'s subjects discuss specific solutions and individual actions viewers can take. A narrative story arc could also be a useful way to directly model characters taking specific actions, and those actions subsequently having an impact. This is particularly true of collective action, the impact of which takes time and can be difficult to imagine.

4 Tell authentic, humanizing stories. Research shows stories that center the human experience — love, loss, pain, the need for connection — are especially powerful.¹⁵ *TSD*'s interview subjects share authentic stories about how they wrestle with the ethical fallout of the technologies they personally helped create, a common theme in science fiction stories dating back centuries. Such stories can be just as poignant as a fictional narrative, if not more.