

Documentary Film and Institutional Behavioral Change: A Student-Driven Mobilization for Sustainability



Madhavi Venkatesan , Radhika Barot, Amani Chinni, Adam Regenstrief, Priyasha Singh, Julia Sucov, and John Sun

1 Introduction

For the last century, film as a medium has provided an additive opportunity for relaying information and sharing perspectives. The ability to communicate a scene, idea, or statement in high definition and in color has expanded the horizons of entertainment far beyond the edge of a stage to make the real and the imagined tangible. The impact of film is beyond the visual and can transform the viewer, irrespective of whether the information relayed is fiction or fact. This is perhaps more significant for documentary film. Due to its focus on an experienced event, this genre creates an opportunity to connect with an audience through facilitating a shared journey.

From their roots in exoticism and the newsreel tradition, documentaries are something akin to artistic journalism, where scripting and performance take a backseat to

M. Venkatesan (✉) · R. Barot · A. Chinni · A. Regenstrief · P. Singh · J. Sucov · J. Sun
Department of Economics, Northeastern University, Boston, MA, USA
e-mail: m.venkatesan@northeastern.edu

R. Barot
e-mail: barot.rad@northeastern.edu

A. Chinni
e-mail: chinni.a@northeastern.edu

A. Regenstrief
e-mail: regenstreif.a@northeastern.edu

P. Singh
e-mail: singh.priyas@northeastern.edu

J. Sucov
e-mail: sucov.j@northeastern.edu

J. Sun
e-mail: sun.joh@northeastern.edu

© The Author(s), under exclusive license to Springer Nature Switzerland AG 2023
W. Leal Filho et al. (eds.), *Educating the Sustainability Leaders of the Future*,
World Sustainability Series, https://doi.org/10.1007/978-3-031-22856-8_18

visual storytelling. However, these films largely differentiate themselves from traditional journalism with their foci. By focusing on unexpected or otherwise obscure topics, they can critically examine potentially controversial subjects without falling into sectarian or politicized commentary. When producing a documentary, it is far easier to lend a narrative framework to observable reality rather than to seek out examples which confirm prior beliefs, and it is this constraint which enables an objective and authentic transmission of nearly any situation.

Documentary film is perhaps at its best when it captures the unseen, revealing a reality to the audience they wouldn't otherwise be able to access. Brazilian educator and philosopher Paulo Freire, in his seminal work *Pedagogy of the Oppressed*, defines praxis as “reflection and action upon the world in order to transform it” (Freire 2000 p 51). Many documentary filmmaking efforts stem from a desire to transform the world, and their products often serve as a starting point for praxis by providing a vehicle for reflection and, in some cases, prescribing an action. It turns out documentaries are themselves very Freirean, as they force an individual viewer to engage with objective reality in color and perhaps in high definition. Filmmakers then have an opportunity to critically confront this reality; in our example this was the assignment of responsibility to anyone who uses paper coffee cups. While uncomfortable, it is this realization of the problem which inspires action to correct it.

Freire thought about this in the context of oppression and liberation; in many ways this translates directly to the way in which we are oppressed by the normalized patterns of consumption we so carelessly fall into. We might be liberated from this paradigm and strive for better outcomes for our health and the environment, but only if there is a realization that we are subjugated by it. According to Freire this is the first stage of the pedagogy of the oppressed, wherein “the oppressed unveil the world of oppression and through the praxis commit themselves to its transformation” (Freire 2000 p 54). Thus, the call to action is instrumental in any impactful documentary, even if it is as simple as urging the viewer to learn more about the topic. This is because it constitutes a commitment to make a change now that the viewer's perception of the issue has been objectified. It is effectively trusting the audience to reflect and take up their own course of action.

Once they have been exposed to the truths of systemic racism, the imminent extinction of the North Atlantic Right Whale, or convenience culture to enumerate a few examples, the viewer cannot shut their eyes and return to a state of ignorance. They can no longer find security in fearing freedom from that which oppresses them. The natural continuation of this process is to do something about it—to become anti-racist, campaign to close areas of ocean to fishermen, or drink from a reusable coffee cup. It is through this action that permanent liberation can be achieved when the myths of a false and unchangeable reality are expelled (Freire 2000 p 54).

Simply put, documentary film has the power to awaken and empower viewers to solve problems they may have previously been unaware of. If done correctly, there are few better ways to inspire simultaneous reflection and action beyond mere activism or verbalism (Borish 2021).

In the sections that follow, the development of the documentary film genre and its use in higher education are addressed to provide a foundation for the use of the

documentary as a learning opportunity from production to screening. The discussion focus, which then follows, is on the creation of Sustainable U, a student initiative and educational vehicle for student-based change agency at Northeastern University. Highlighted is the process of the creation of this organization and its first documentary project, *Plastic Linings*. The documentary short film reflects a multi-disciplinary student collaborative effort to educate to facilitate change through individual and collective empowerment.

2 Documentary Film

In 1922, Robert Flaherty, an American filmmaker, created what is known as the first ever documentary (van Dongen 1965 p 3). With help from the Inuit tribe, Flaherty was able to develop a film that showcased how this tribe lived. Flaherty believed his films could make the audience feel intimate with the people they were watching on the screen. In his eyes, there was a big difference between simply reading about a man's experience, grief, and pain versus watching him live out those moments. Critics argue that Robert Flaherty started the influx of documentaries, where real people and events were captured and narrated through film.

Bill Nichols is attributed as being one of the first scholars to apply modern film theory to the study of documentary. He identified six modes of representation in documentary films (Yu and Yan 2021). They are the expository, participatory, observational, performative, reflexive, and poetic modes (Nichols 1991 pp 32–75). The definitions are as follows.

- (1) *Expository mode*: emphasizes verbal commentary and an argumentative logic.
- (2) *Participatory mode*: emphasizes the interaction between filmmaker and subject.
- (3) *Observational mode*: emphasizes a direct engagement with the everyday life of subjects as observed by an unobtrusive camera.
- (4) *Performative mode*: emphasizes the subjective or expressive aspect of the filmmaker's own involvement with a subject.
- (5) *Reflexive mode*: calls attention to the assumptions and conventions that govern documentary filmmaking.
- (6) *Poetic mode*: emphasizes visual associations, tonal or rhythmic qualities, descriptive passages, and formal organization.

Since the time of Nichol's formal categorization of documentaries, other film critics have both supported and critiqued Nichol's framework. However, most agree in the principle that documentaries have the ability to conceptualize and visualize important events in history. Reviewing these different ideologies, researchers have also noted that documentaries, though a great visual medium, can sometimes offer an unclear image of a topic. For example, a documentary could properly encapsulate real people, places, and events, but fail to properly articulate the context behind the media in the manner writing could. Still, there is the ability of the filmmaker to plan a way to physically capture the object that a writer lacks. Of significance is the fact

that writing is not without subjective bias, which like film may be unobserved due to the perceived objectivity of the medium by the reader.

With the ability to visually incapsulate history, emotions, and the general un-staged occurrence of the world, documentaries allow filmmakers to narrate a story that is authentic and meaningful (Nichols 1983). If used in educational settings, students can learn historical and social concepts in a way that is interactive and impactful. Documentaries can be a powerful tool in education (Marquis 2022).

Interestingly though, despite the potential of film, documentaries remain relatively under-used in educational settings. In 2009–2010, the Documentary Film in Educational Research Project (DFER), funded by the British Academy, sought to understand how documentaries are and can be used in education. The researchers addressed how documentaries could direct student's self-observation, the intersection between media and education, and the extent to which documentaries aid students in learning. The assessment analyzed the origins of documentaries and the original motive of using film to convey certain messages (Warmington et al. 2011). The outcomes of the study supported the significance of film in education and provided a call to action in the promotion of the use of film as an educational tool.

Unfortunately, the perception of film as entertainment may account for its limited use as an educational tool (USA Art News 2020). Despite the perception of higher education as progressive, there remains a conservatism that defaults to traditional modes of instruction as defined by lectures and textbook readings (Mandell & Jelly 2020). Though the increased access and deployment of technology in the classroom has facilitated availability of non-traditional resources and multimedia inclusion, these have not been incorporated on a discipline basis and in general, adoption has been aligned to an individual instructor decision.

3 Film in Higher Education

In classes, professors have freedom to choose which mediums they use to educate their students (Euben 2002). Professors can also assign projects that require students to create their own documentaries or videos to portray their knowledge on certain subjects. However, there are apparent disciplinary variations in the use of documentary and visual arts. When speaking to staff from media resources at Northeastern University in Boston, Massachusetts, it was noted that professors in Communications, English, and Art, among other subjects, utilized film in their classes more. This points to a bias that aligns humanities courses with the use of non-traditional and creative mediums like short films. This is also evident in arts and design courses, where for example, video essays have become a means of documenting a project.

There is immense value in the use of different media in instruction, and recent studies have evaluated how the use of media over traditional methods like textbook readings can aid in retention. In a study conducted on 25 s-year medical students at Queen's University, those assigned multimedia learning tools performed at or above the level as those assigned a textbook excerpt, even showing better retention

on a few exam questions. While this does not show definitive proof for the absolute superiority of multimedia learning tools, it shows that the non-traditional medium, in this case a video, provided a different way of disseminating information that may help students retain more information (Steedman et al. 2012). Fitzgerald and Lowe (2020) highlight that documentary can be used not only for instruction and retention but also for research development and enhancing insight and perspective. From the standpoint of online instruction, documentary film has been shown to enhance student empathy and connection to international issues (Blum & Smythe 2021). Moskovich and Sharf (2012) in their analysis of film use in sociology highlight their findings that film “contributes to the involvement, collaboration, pluralism, creativity, assessment, and evaluation of the students” (p 62).

Empirical work in economics education reveals that the discipline was slow to modify instruction beyond traditional lecturing methods, which may be the reason for the decline in enrollments. Researchers at California State University of Fresno decided to create an economics course based on films and documentaries. The results of this study found that enriching economics with music, drama, films, and other mediums resulted in “enhanced learning experiences” for students (Leet & Houser 2003). In another study conducted on a general environmental studies course, course materials included films, lectures, worksheets, and discussions. Participants in the study answered survey questions with a 5-point Likert scale before and after taking the course and these results were quantitatively analyzed. Additionally, a few participants were also selected for individual interviews. After compiling the results from the quantitative and qualitative tests, it was determined that the students showed a positive change in their environmental attitudes (Liu 2018). The results of Leet and Houser (2003) and Liu (2018) emphasize the value of film and documentaries in the effective education of topics like environmental education and displays how a variety of learning topics helps improve the experience for students. In the conclusions, both studies provide encouragement for greater inclusion of media and film, providing the foundation by way of empirical evidence for the legitimacy of film as a teaching tool.

When documentaries are used in the educational setting, there is a richness in how films can connect with students. Brian Friel, an Irish short story writer and dramatist, wrote “It is not the literal past, the “facts” of history that shape us, but images of the past impeded in language. We must never cease renewing those images” (Friel 1980 p 66). As technology progresses and the digitalization of information increases, the use of documentaries in education provides a supplement and substitute to the information traditionally conveyed through the written word and lecture. Documentary film provides a connection between the individual and collective experience with the transmission of information that through its sensory dependence, enables empathy and enhances students’ understanding of various topics.

In courses where films and documentaries are used, it is easier to invoke emotions and passion for topics. Films present issues in a more robust way that often involves firsthand testimonies from people. Watching documentaries where people describe the tragedy of losing a loved one to company negligence is far more powerful than reading about the events. Because of the intimate nature of documentaries and films,

it is likely that important issues will be taken more seriously than if they were presented in a textbook. Only employing the use of written and spoken word is a missed opportunity to truly reach students in a variety of ways (Winton, 2010, 17). Diversifying the mediums used in academia will not only improve retention but will also ignite more passionate and concern for important topics like climate change.

4 Sustainable U

4.1 Funding and Purpose

The documentary film project addressed in this paper originated with a faculty member in the Economics Department at Northeastern University, Dr. Madhavi Venkatesan. In the spring 2021, she received a Northeastern University Humanities Center Grant that funded her proposal to develop a documentary short film. The funding was for \$3,000 and grew to \$4,000 with support from her non-profit, Sustainable Practices. The film described in the grant application was to address the issue of convenience waste from the perspective of the cost of convenience, highlighting the externalities. The rationale was to increase the tangibility of externalities to students and engage them in the significance of economic concepts that are minimally addressed with respect to their environmental impact in standard entry-level economics texts and courses.

An excerpt from her *Economics of Sustainability* syllabus provides an understanding of the role of film in her teaching style (Venkatesan 2021):

The teaching of economics is related to the outcome of increasing overall economic literacy and promoting student appreciation of a holistic decision-making process that includes both quantitative and qualitative factors in the analysis. To this end, given the behavioral and explanatory foundation of economics, it is incumbent on the part of instructors of economics to explicitly address sustainability from the perspective of market failures inclusive of social justice, environmental justice, and economic equity, and to then relay the concept of sustainable development, inclusive of environmental, economic, and social equity. For example, through an evaluation of the implicit consumption-based value structure inherent in the GDP-focused economic framework, students are engaged in a discussion of the relationship between the implicit values integrated into indicators of economic progress and current economic issues, specifically addressing the human resource footprint and the externalities created in the form of environmental degradation and human and non-human exploitation. Through use of selected documentary film, the tangibility of the externalities related to production and consumption are accessible and foster empathy that may not be attainable through reading and lecture alone. Additionally, through an outcomes-based discussion, students are provided with an ability to contextualize sustainability and the evolution of the concept of sustainable development. The incorporation and discussion of sustainability increases the relevance of the subject to the student and promotes the tangibility of the discipline of economics to daily life.

The documentary film project was announced to Dr. Venkatesan's spring 2021 *Economics of Sustainability* as a call for participation. One student of the 19 enrolled

volunteered, Amani Chinni, and she along with Dr. Venkatesan, developed the core team of six members, four of whom were former students of the professor and two who were friends of former students: Radhika Barot, Amani Chinni, Adam Regensreif, Priyasha Singh, Julia Sucov, and John Sun. The project team was assembled by late May and by June, the production team had a name, Sustainable U. The project and production team were branded as “A Northeastern University Student Initiative” with Dr. Venkatesan as the team’s faculty advisor.

4.2 Development Process

From the start of the project, of key import was the intent of the film, and the discourse and action to be generated by its distribution. The focus of the project from inception was to raise awareness of sustainability issues on college campuses by highlighting the hidden cost of consumption. The goal was to include the life cycle of a product and the externalities that promoted its overconsumption relative to its resource footprint. Over the course of hourly weekly meetings through the summer, the theme narrowed to the impact of convenience consumption of coffee, a good chosen based on its ubiquity and the number of coffee shops both on and immediately off the Northeastern University Boston campus.

Once the topic was determined, a sub-group was created to develop a life-cycle assessment where all stages of coffee production were evaluated from production to consumption to disposal. The latter considered the impact of planned obsolescence and due to the significant environmental and health consequences of plastic and the plastic linings in single-use coffee cups. Following a few weeks of research assisted by the faculty advisor, the sub-group presented their findings to the full production team and the production team decided to focus on the topic of plastic linings.

In acknowledging the limitations of the budget, the team focused on resources that were freely available, including experts that would be highlighted. Given the sponsorship of Sustainable Practices, there were pre-existing relationships with experts that were synergistic to the project and contributed to depicting the life cycle of disposable coffee cup consumption. By early fall semester 2021, interviews highlighting the production, consumption, and disposal impact were recorded with Alex Eaves, a reuse edutainer, and Kirstie Pecci, senior attorney, Conservation Law Foundation. Further the film was able to address both individual contributions and solutions by including the emerging, shared economy model of USEFULL, a company promoting reuse by partnering with closed campuses to offer reusable stainless-steel cups at the cost of disposable units. The company’s founder, Alison Rogers shared the business model in her interview in the late fall. The development of the interview process provided the outcome of the film as Alex was a Northeastern alumnus and Alison had a product that was tailored to a closed campus environment. What remained was how to piece together the interviews and include students on film.

A subgroup was dedicated to reviewing all the interview footage to determine a sequence that could determine the flow of the documentary. Three individual

sequences were created and then reviewed by the entire production team (six students and their faculty advisor). At this point, a general script of visuals and information was constructed, b-roll and text were addressed as to where and what should be included, and this is the point where student interviews were decided on. Five students were interviewed across different campus sites to answer the same set of questions, as in the earlier editing, these interviews were reviewed and recombined for flow and inserted in the larger film project. At this point with the interviews completed, the project began to take form, narrative was recorded at a public radio station, and animation purchased for a nominal fee from the artist Hannah Folz. The animation was previously created and used, which reduced the expense for the documentary project. When the majority of the film was pieced together by Adam Regenstreif, it was shared with the composer, Joseph Sowa, who created a musical score to accompany the scenes in the film.

At completion, the film incorporated several modes of representation: Expository, participatory observational, and poetic. The development of the project highlighted the usefulness of varying the communication patterns to foster engagement; however, the use of multiple communication channels also enabled a perceived sophistication of the film that may also have facilitated engagement.

The film was screened live and was accessible in-person and through live stream, followed by a panel of the same experts featured in the film on April 5, 2022, in Blackman Auditorium, Northeastern University. (The venue had been booked a year in advance and in anticipation of the final film by Dr. Venkatesan upon her receipt of the Humanities Center grant.) More than 300 students were registered, and nearly 30 student organizations sponsored the film. Following the screening, the film was a topic of discussion on campus for the five weeks that remained in the spring semester.

4.3 Outcome

The screening of *Plastic Linings* was a success specific to its initiating intention; it highlighted an issue and culminated in a call for action. Additionally, as a learning tool, the film is demonstrative of the power of documentary film, as a genre, it has value not just as entertainment, but additionally serves as both a pedagogical tool and an instrument for building empathy for its subject. A unique characteristic of documentary is the way in which it achieves both goals—as educational material that seeks to create a shared outlook and awareness in all those who watch it—and as a visual narrative that imbues both its subjects and viewers with humanity by providing an authentic view of the world.

Sustainable U sought to create something that would simultaneously educate students and other viewers of the implications of rampant coffee-drinking while motivating them to organize around the issue and change their behavior. This is arguably very hard to achieve, but ultimately boils down to making them care about what their choices are doing to their bodies and the planet. As noted by Kirstie Pecci, “if you’ve used a paper coffee cup, you’ve created an environmental problem that

will not go away” (Sustainable U 2022 3:01–3:06) While some viewers might not take kindly to this blatant accusation, it is necessary that by engaging the audience and reminding them of their own contributions to this problem, we can generate a common understanding of the challenges we face, and the behavioral changes needed as a response. Alex Eaves addressed the myth that one person cannot make a difference by changing their behavior. In his championing of reuse, he noted in the film that the number of disposable coffee cups saved from the landfill due his commitment to reuse alone “the stack of disposable coffee cups for the past 13 years that I haven’t been using them be higher than the tallest building in the world, the Burj Khalifa” (Sustainable U 2022 8:54–9:03).

Since the original screening of the film, *Plastic Linings* has been released on YouTube and social media as well as shared with the University academic administration through the Provost’s office. Sustainable U is now an on-going entity and will be following up with University facilities to promote reuse and facilitate the incorporation of USEFULL on campus. Having learned the process of documentary film making, the group is dedicated to promoting sustainability education and will start another project in fall 2022. Finally, and of significance, students across disciplines have emailed to be involved with future projects and initiatives creating an opportunity for more campus engagement.

5 Reflection and Next Steps

Sustainable U members involved with *Plastic Linings* joined for a variety of reasons but stayed with the project from beginning to end—nearly an entire year. The team members have committed to remaining a part of the production company through graduation, through 2024 for four members and 2022 for the two seniors. The following are reflections related to their participation in the project. The comments provide insight into the impact of the project on the students and the significance of documentary film not only as a passive educational tool but an active engagement learning vehicle.

Radhika Barot

When I first started working on *Plastic Linings*, I had almost an ignorant view of sustainability. Though I was aware of topics such as climate change, the plastics issue, and so many more environmental and human tragedies, my perception of sustainability was small and disconnected from my everyday life. Having worked on this short film for almost a year now, I have had the privilege of being educated on how sustainability affects me in my everyday life. I am now aware of how sustainability can be incorporated in my daily actions, attitude, and outlook on consumption. Whether it be my small decision to eliminate single-use plastic from my daily life or to stop buying clothing from companies that degrade the environment, I am now conscious of the fact that I can help create a healthier world to live in.

Amani Chinni

Creating this film has taught me a lot about sustainability and the power of the individual. I learned that one person can drive change and inspire others and when you have a group of people with a purpose and passion, even greater things can be achieved. I also learned that there is a lot of ignorance about environmental issues despite all of the resources and tangible harm we see like litter. This film helped to break my personal ignorance and become more aware of the problems around me like land and water pollution in addition to waste accumulation.

Adam Regenstreif

What started as a portfolio opportunity developed into a sustainable consumption habit. Somewhere along the production process, I realized that I was stressing too much about the professional benefits I'd reap from producing this film. Our project and initiative are not about me, nor is it about our featured speakers, students, or audiences. We're part of a larger movement to end single-use products. It's rare that I feel profoundly changed by the films I work on, but I can say that *Plastic Linings* was a complex emotional negotiation that asked me to reconsider the cost of convenience.

Priyasha Singh

Working on this film has provided me with access to crucial information about sustainability issues that I might not otherwise be exposed to. Over the months it constantly and consistently challenged my perspective and provided me with the inspiration to make the world around me a better place for everyone. The making of this film also provided me with professional insights into little-known aspects of sustainability and reusability. It helped me open my mind and challenge my thinking around the concepts of carbon footprint, climate change, and the effects of single-use plastic. Furthermore, I developed an emotional connection with these causes during the production and pre-production of this film. I hope this film reaches as many people as it can and creates the impact the world needs.

Julia Sucov

Before participating in the creation of *Plastic Linings*, I was not convinced that individual action was an effective solution to combatting the current environmental crisis, nor that enough people cared about such a niche topic to make the behavioral change we planned to ask of them. Throughout the process of making *Plastic Linings* and showing it to my peers, I have developed a new sense of hope for the future of the planet and for myself. My outlook on individual consumption and the power of one has changed dramatically, and I feel now as though I have a better understanding of how I can have autonomy and power in the movement towards environmental justice and sustainability. I feel this project has given me the resources to understand the complexities of the most pressing issues of our time, and has provided me with a newer, more positive outlook on how I personally can change the course of the future. Additionally, I was able to understand that people really do care about this issue and are willing to partake in the difficult changes we ask of them, just that no one is asking yet. Knowing now that my peers are interested in the same commitments I am, I feel genuinely hopeful that my community can be one of the leaders in the movement towards sustainable, behavioral change. I am forever grateful to this project for opening my mind and heart to the power of individual action, for providing me with the hope that I can challenge the course of our future, and that I am not in this movement alone.

John Sun

Working on *Plastic Linings* influenced my perception of sustainability. I think that despite being interested in environmental science for years and writing a capstone paper focused on a sustainability issue, making this film has helped me appreciate the importance of individual action. I have a newfound appreciation for the impact one person can make because it will likely inspire others to do the same—and that is perhaps more powerful than an instantaneous change in policy, regulation, etc.

The next steps for Sustainable U include having a dedicated team to address a campus-based issue through film and discussions are underway with respect to the focus of the next project. In addition, given the number of requests to be involved in future activities, the team is exploring a fall and spring Sustainability Day and an annual sustainability themed documentary film series with one film screened per semester, with each followed by a panel discussion.

The process and time commitment for the project was significant and one of the most significant learning outcomes highlight the dedication needed to participate in the project. Though this is a positive, it also reinforces a challenge for sustainability education: Though sustainability may be of ideal importance it is in opposition with an individual-centric perspective; sustainability projects require a collective mindset and a value for teamwork relative to individual-centricity. It is the very topic and sentiment embodied by sustainability that may limit its traction.

6 Conclusion

Sustainability is a buzzword that appears on many university and college websites. The concept is a marketing term but more importantly signifies a worldview that reflects an augmented human perspective toward all other life and resources on the planet. A challenge to the discussion and facilitation of sustainability is its opposition to how present socialization manifests in human domination of the environment and Earth. The opportunity in teaching sustainability concepts is in making sustainability tangible.

The focus of this discussion is an example of how students can promote sustainability traction. An outline the process related to the development of a documentary short film is provided. The included personal reflections of the six students involved in the project highlight the transformational nature of creating a short educational film. In using resources and inter-disciplinary and disciplinary expertise, the film was created with a limited budget, while sponsorship from student organization enhanced student engagement across campus and colleges. Outcomes from the film project include an ongoing film production team and a desire to promote sustainability initiatives on campus. The interest in action was facilitated by the film to include the viewers of the film. Selected comments are provided below.

“Watching the film was very insightful and it delivered the information in a different manner than the usual. Since it is centered around coffee cups and university, I believe it catered very

well to today's audience. The panel that followed the movie was a great addition, especially since students were able to ask questions about the issue that was addressed in the movie. An occurring theme that I took note of in the questions being asked was about how students can change their lifestyle and make different choices that would address this issue, and how one individual can make an impact. I interpreted this as a sign that the message had gotten through and that this was the first step in taking action towards making a change."

"This film truly did an amazing job highlighting the importance of your own individual actions. The film effectively outlined the problem, how you as an individual can take action, and the tremendous positive impacts that your actions will have if you shift your habits in the way described. The film is not forceful in any way, it is intellectual in its elaboration and encourages action by highlighting the benefits that would ensue if you shift your habits. I can't wait to share what I learned in this film with my peers!"

"I really enjoyed watching the film and appreciated that it emphasized things that a lot of people don't know. I think that the visualization of how tall a stack of cups would be if you didn't use a reusable cup is a great way to illustrate how much of an impact we can actually make. I also really liked the quote "the price we pay for convenience is much greater than the price we pay at the counter." Ultimately, the film does a great job establishing its points, spreading awareness to the viewers, and leaves with a simple yet important idea."

Though the film and the project process as well as the outcome all point to a positive or potential catalyst for sustainability action, this outcome remains uncertain. As other research has also noted, there is a disconnect between awareness, knowledge, and action, where the first two items do not necessarily result in the latter activity. This reflects a limitation of this project as a sufficient catalyst for change and aligns with the need for student action to result in operational changes that are both passive and active. Passive changes are reflected in facilities management and the types of tools and resources available for use, whereas, active choices reflect individual decision-making. Having passive programs to support the focus of the documentary film both reinforces the legitimacy of the topic and expresses a norm of behavior on campus. However, tracking the permanence of attitudinal shift and action is also valuable and should be implemented to determine the context of why certain policies may be superior relative to attaining sustainability and under what circumstances.

Table 1 Sustainable U plastic linings production team and roles

Adam Regenstrief	Director, editor, camera
Amani Chinni	Production manager, producer
Radhika Barot	Producer
Priyasha Singh	Producer
Julia Sucov	Producer
John Sun	Producer
Madhavi Venkatesan	Faculty advisor, executive producer, narrator

References

- Blum D, Smythe, JL (2021) Beyond “Feeling Blessed”: Using international documentary film to foster global awareness in an online college course. *Int J Multicult Educ* vol 23:2 pp 107–126 <https://doi.org/10.18251/ijme.v23i2.2659>
- Borish D, Cunsolo A, Mauro I, Dewey C, Harper SL (2021) Moving images, moving methods: advancing documentary film for qualitative research. *Int J Qual Methods* <https://doi.org/10.1177/16094069211013646>
- van Dongen, H (1965) Robert J. Flaherty 1884–1951. *Film Quarterly*, 18:4 pp 3–14 <https://doi.org/10.2307/1210252>
- Euben D (2002) Academic freedom of individual professors and higher education institutions: The current legal landscape. American Association of University Professors [https://www.aaup.org/sites/default/files/files/Academic%20Freedom%20-%20Whose%20Right%20\(WEBSITE%20COPY\)_6-26-02.pdf](https://www.aaup.org/sites/default/files/files/Academic%20Freedom%20-%20Whose%20Right%20(WEBSITE%20COPY)_6-26-02.pdf)
- Fitzgerald A, Lowe M (2020) Acknowledging documentary filmmaking as not only an output but a research process: a case for quality research practice. *Int J Qual Methods*. <https://doi.org/10.1177/1609406920957462>
- Freire P (2000) *Pedagogy of the Oppressed* (30th, Anniversary). Continuum Publishers, London
- Friel B (1980) *Translations*. Faber and Faber, London
- Leet D, Houser S (2003) Economics goes to hollywood: using classic films and documentaries to create an undergraduate economics course. *J Econ Educ* 34(4):326–332. <https://doi.org/10.1080/00220480309595226>
- Liu S (2018) Environmental education through documentaries: assessing learning outcomes of a general environmental studies course eurasia journal of mathematics. *Sci Technol Educ* 14:4 pp 1371–1381 <https://doi.org/10.29333/ejmste/83653>
- Mandell A, Jelly K (2020) Creative tensions in progressive higher education. *J Adult Contin Educ* 26(1):149–173. <https://doi.org/10.1177/1477971419876295>
- Marquis E (2022) Student reading of documentary and fiction film. In Manarin K (Ed), *Reading across the Disciplines* (pp 102–120). Indiana University Press <https://doi.org/10.2307/j.ctv224v185.9>
- Moskovich Y, Sharf S (2012) Using films and a tool for active learning in teaching Sociology. *J Eff Teach* 12:1 pp 53–63 <https://files.eric.ed.gov/fulltext/EJ1092141.pdf>
- Nichols B (1983) Voice Documentary Film *Q* 36(3):17–30. <https://doi.org/10.2307/3697347>
- Nichols B (1991) Representing reality: Issues and concepts in documentary. https://www.google.com/books/edition/Representing_Reality/Jq2cS7qARd8C?hl=en&gbpv=1&pg=PR9&printsec=frontcover
- Steedman M, Abouammoh M, Sharma S (2012) Multimedia learning tools for teaching undergraduate ophthalmology: results of a randomized clinical study. *Can J Ophthalmol* 47:1 pp 66–71 www.sciencedirect.com/science/article/pii/S0008418211003358, <https://doi.org/10.1016/j.jcjo.2011.12.006>
- Sustainable U [Sustainable U] (2022, May 13) Plastic Linings. [Video] YouTube <https://www.youtube.com/watch?v=I1z41AV99Ts>
- USA Art News (2020, November 24) 6 Advantages of using movies for educational purposes. <https://usaartnews.com/news/6-advantages-of-using-movies-for-educational-purposes>
- Venkatesan M (2021) Economics of sustainability syllabus. January 7, 2021 Department of economics, Northeastern University, Boston, Massachusetts. Canvas <https://northeastern.instructure.com/courses/65322>
- Warmington P, Van Gorp A, Grosvenor I (2011) Education in motion: uses of documentary film in educational research. *Paedagog Hist* 47(4):457–472. <https://doi.org/10.1080/00309230.2011.588239>
- Winton E (2010) Beyond the textbook: Documentary as a tool for teaching. *Point of View* vol 77(spring). <https://povmagazine.com/beyond-the-textbook/>

Yu H, Yan Y (2021) Legitimation in documentary: modes of representation and legitimating strategies in *The Lockdown: One month in Wuhan*. *Vis Commun*. <https://doi.org/10.1177/14703572211015809>

Leadership Through Operations, Engagement and Partnerships