SCIRES it
SCIentific RESearch and Information Technology
Ricerca Scientifica e Tecnologie dell'Informazione
Vol 14, Issue 1 (2024), 147-160
e-ISSN 2239-4303, DOI 10.2423/i22394303v14n1p147

CASPUR-CIBER Publishing, http://www.sciresit.it

MULTIMEDIA COMMUNICATION STRATEGIES FOR ENVIRONMENTAL SUSTAINABILITY: A DIDACTIC EXPERIENCE FOR PROMOTING NGOS

Giulia Panadisi; Vincenzo Maselli***

*G. D'Annunzio University of Chieti-Pescara – Pescara, Italy.
**Sapienza University of Rome – Rome, Italy.

Abstract

In the last years multimedia strategies have played a significant role in communicating environmental sustainability policies aimed at affecting changes on a local, regional, and global scale. This article would like to stress the use of animation as a successful multimedia communication tool for promoting responsible consumer choices and sustainable production methods. After a quick overview on the issue of sustainable consumption and production behaviors and the description of relevant examples of animated campaigns produced for supporting organizations, the article reports a didactic experience and describes animated artifacts designed by students to promote the Italian project *SfruttaZero*, that engages migrants and precarious farmers in the production of local products with the multiple aim to build a fair working environment and to foster a culture of sustainable consumption.

Keywords

Multimedia communication, animation, environmental sustainability, NGOs, education

1. *Introduction*[1]

The pervasiveness of multimedia communication artifacts in the everyday experiences of young generations suggests a necessary convergence in advertising complex contents by taking advantage of animation tools and narrative approaches (Stone & Wahlin, 2019). According to Daniel Jenett, animated products and production processes have become easier to approach over the past 20 years, thanks to more accessible and affordable digital technologies, and they allow the creation of appealing visual outputs that capture the attention of the viewer with clear and incisive messages (Jenett, 2014). The plurality of themes, instruments, and styles makes animation not only a successful communication language, but also a promising and fascinating research and teaching tool as it raises technological, aesthetic and cultural concerns and allows to stress the relationship between multimedia communication design strategies, contemporary issues and digital technologies (see Stone and Wahlin, 2019, p. 289). Furthermore, according to scholars and practitioners such as Steven Heller (2008) Austin Shaw (2016), John Krasner (2013), Leah Wahlin, and Brian Stone (2019), the technological component inscribed in the DNA of an animated artifact digital-oriented production process and watching experience perfectly fits the changing learning needs as makes the language of these particular multimedia products "inherently connected to the fluid and dynamic thinking of young people" (Maselli & Panadisi, 2021, p. 19).

The recent global environmental emergency revealed the urge to increase the usage and the quality of digital tools and multimedia strategies aimed at raising public awareness and at educating people about environmental issues and sustainable practices. Several companies and organizations have fulfilled these needs by producing animated video, thus structuring a learning experience that incentivizes strong connections among users from around the world (Rick Shearer et al., 2020), and fostering practices

[1] The article shows the result of a common discussion and elaboration work, but the writing of sections can be attributed to: Giulia Panadisi (Introduction; Sustainable consumption and production patterns; Multimedia communication and animation's environmental sustainability agenda) and Vincenzo Maselli (Animation and NGOs; Animation as medium for raising awareness in educational environment; *SfruttaZero* project didactic experience).

that do not deplete or harm the planet's ecosystems, allowing them to continue functioning in a balanced and healthy way (Shetabi, 2015). This approach roots in the study conducted at the beginning of the new millennium by Sasha Barab, Michael Thomas and Henry Merrill (2001, p. 39) and has implemented its validity in the pedagogic strategies, as it has pushed digital culture from a technocentric scenario to a content-oriented focus with particular attention to the spread of social and environmental topics. In simple terms, animated artifacts language and technology in pedagogical environments has been subjected to a reevaluation process since they allow not just to promote and communicate but also to connect, raise awareness and push responsible and socially useful behaviors.

In the following sections animation for environmental sustainability agenda will be stressed and explored to pay attention to the power of video social campaign and viral multimedia communication actions to deal with social and environmental issues and, in particular, with those related to sustainable consumption and production patterns and fair working conditions. The analysis of animation for environmental sustainability agenda demonstrates its effectiveness as a tool for creating learning paths aimed at exploring complex contemporary topics and it is functional for describing a didactic experience conducted during the 2020–2021 academic year in the Bachelor program of Design at the G. D'Annunzio University of Chieti-Pescara. Students were requested to produce animated artifacts for different media channels to advertise the tomato sauce *SftruttaZero* produced by the Italian NGOs *Solidaria* (Bari) and *Diritti e Sud* (Nardò) by putting attention on the qualities of local production, responsible consumption and production, sustainable agriculture, worker equality and dignity.

2. *Sustainable consumption and production patterns*

Among the 17 goals set by the United Nations, the objective n.12 of the 2030 Agenda for Sustainable Development focuses on promoting actions aimed at fostering responsible consumer behaviors and sustainable production methods in order to minimize environmental impact. These actions can include practices like organic farming, distribution of items coming from local sources, eco-labeling, and sustainable supply chain management. The concept of sustainable consumption and production was first recognized in the Johannesburg Plan of Implementation, adopted in 2002 at the World Summit on Sustainable Development (WSSD). On that occasion, sustainable consumption and production was identified as one of the three overarching objectives and essential requirements for environmental sustainability, together with poverty eradication and the management of natural resources in order to foster economic and social development. It was acknowledged that fundamental changes in the way societies produce and consume are indispensable for allowing the planet's ecosystems to continue functioning in a balanced and healthy way (UN environment programme, 2020). According to the UN, indeed, sustainable production and consumption pattern addresses "the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product" (ibid). Although in recent years this objective has been pursued by countries around the world, the 2023 Global indicator framework for the Sustainable Development Goals reports that the number of Countries with a sustainable consumption and production national action plan in 2022 decreased slightly compared to 2020.

One of the parameters to measure the sustainable management and the efficient use of natural resources pursued by countries, concerns the tonnes of Material Footprint (MF), i.e. the sum of the weight of the used biomass, fossil fuels, metal ores and non-metal ores, consumed by each Country. In the last ten years the consumption of these materials has increased exponentially, especially in high-income countries that leave a larger environmental footprint compared to low-income countries: per-capita in high-income countries is 10 times bigger than that of low-income countries. (Our World in Data team, 2023). Furthermore, despite calls for a phase out, fossil fuel subsidies return and nearly doubled, triggered by global crises: they have growth from $375 billion in 2020 to $732 billion in 2021.

In order to reduce this problem, strategies for the management of a sustainable supply chain for food consumption products on a local scale have been developed. The consumption of a product is an issue that consumers are more aware of,

probably because it is intrinsically linked to health issues; after all, the affirmation of the philosopher Ludwig Feuerbach "we are what we eat" seems to have been understood and adopted by a good percentage of the population who are more attentive to reading labels, paying attention to nutritional properties and to the list of the ingredients. While sustainable consumption is what we are partially – there is still a lot to do– more aware of, sustainable production is something less immediate to understand as it can't be read from a label, and this is the critical point for which optimization actions have been planned in the exploitation of resources in recent years.

The production of a product grown, sold and consumed locally carries out significant importance for various reasons. Global food systems contribute significantly to greenhouse gas emissions at all stages of the food chain: production, processing, marketing, resale, domestic preparation and waste, and can be one of the main contributors to environmental damage such as climate change or biodiversity loss. In developed countries, food consumption can contribute up to 15-28% of greenhouse gas (GHG) emissions (Kiss et al., 2019).

Thus, the sustainability of traditional agricultural and food systems has been questioned in recent decades and has been largely demonstrated how a short supply chain reduces carbon footprint, because it minimizes transportation distances, leading to lower carbon emissions associated with shipping goods over long distances. Moreover, local sourcing supports the local economy by creating jobs and allowing the growth of small business and preserves regional biodiversity reducing monoculture farming. The locally produced food is also fresher and healthier because it has fewer or no preservatives, so it tastes better and has better nutritional qualities; the shorter supply chain reduces the chances of contamination improving overall food safety.

The problem of the sustainability of the production of a product is also inherently related to the work and people behind the finished product found on supermarket shelves. The exploitation of seasonal agricultural labor and the employment of migrant workers, often in precarious and exploitative conditions, has become a structural element of the agri-food production system in many EU countries. Although data cannot provide an effective picture of the labor force in the agri-food sector, due to the rate of temporary and undeclared work, especially with regard to migrant labor, official estimates show a significant increase in migrant workers in this sector over recent years. Between 2011 and 2018, more than 1.3 million natives employed in agriculture in the EU countries left the sector (Palumbo et al., 2022) and have been replaced by migrant workers, partially due to the large entry of EU-citizen and third country migrants. But most migrant workers employed in the agri-food sector, engaged in various activities in the production of staple foods, fruits, horticulture and viticulture, livestock and meat production, and dairy production (in the processing and packaging stages), work long hours, are exposed to toxic pesticides, and endure summer heat and winter cold with low pay; many of them live in degrading and unsanitary conditions, in some cases without access to fundamental and basic services (Corrado et al., 2018).

Data described in this paragraph make it clear how food production and consumption is directly related to social and environmental issues and that there is an urgent need for communications actions aimed at promoting and advertising an improvement of production patterns and consumers behaviors. But how can animated languages make a contribution to improving these major social and environmental issues? In the next sections a rapid overview on the reasons and the uses of animated videos as successful multimedia communication strategies and tools for promoting environmental sustainability actions will be provided, focusing on the social animated campaigns developed by several NGOs for fostering a culture of sustainability.

3. Multimedia communication and animation's environmental sustainability agenda

Since the 1970s, socially responsible communication design has been a widely recognized important area of actions for changing the world through positive social, economic, political, and/or environmental impact (Papanek, 1971; Heller & Vienne, 2003; Piscitelli, 2019). Compared to the modernist values of the industrial-era communication designers, who were primarily concerned with improving the function and appearance of messages and services, today's post-industrial, information age communication designers are juggling a much greater complexity of variables and multimedia

channels. Working within the challenges of the information age, designers who work with multimedia communication tools must now address, or at least consider, the tasks of providing knowledge and creating awareness about critical environmental, social, technological, economic, and/or political issues. It is crucial that multimedia communication designers comprehend environmental issues: environmental impact is one of the major topics and pressing problems that design is now dealing with and the discipline's present and future depend on the quality of communication actions, ethical use of technologies and fostered responsible interventions. For these reasons, multimedia communication design practices have played an important role in addressing societal and environmental problems in recent years, as they naturally negotiate the concerns of diverse stakeholders and provide a more direct tool for improving local, regional, and global issues related to conservation of ecosystems and their resources, public health and territorial development (Manzini, 2015; Normoyle, 2019).

If until the last century these topics were mostly approached by communication design with media such as journals, posters and television advertising, called "progress advertising" (Gabardi, 2011), with the advent of web and social networks a very wide range of new communication channels has opened up; these new media are particularly attractive for a large segment of the population and, therefore, very effective in conveying different kind of messages. To date, animated products are among the most used multimedia design tools and languages to convey complex messages as they travel across multiple communication channels, tv, cinema, social networks and the web. Animation lends itself very well to attract large audience segments and thanks to the great flexibility of products entirely made in digital, an animated product, if well-conceived, can easily be proposed on a variety of different platforms (Maselli & Panadisi, 2019). Nowadays people prefer contents that are both informative and entertaining, and animated videos are very effective when it comes to spotlighting a current social or environmental issue because they tell a visually appealing story and are designed to elicit a strong emotional response. They are packed with information that clearly and concisely explains the issue, allays viewers' concerns, and provides a glimpse of the future. Animated artifacts are a great option to address such serious issues, as they allow designers to work on different media channels and meet tastes and habits of a large number of users. In this way, each viewer can apply their own level of sensitivity and imagination to the animated story they are watching and feel emotionally connected to it. Different animated representations strategies can be used to eliminate superfluous information and effectively lead the viewer directly to the heart of the matter.

4. Animation and NGOs

Animation for social ads has recently become a game-changer for non-profit organizations and NGOs. The language of animated artifacts allows them to instantly grab the audience's attention, intrigue the viewers, evoke deep emotions, and make users want to follow the story (Waters & Jones, 2011). A large amount of animated video material has been produced in recent years on social and environmental issues. These artifacts use different narrative strategies and visual languages to address complex contexts, and visually translate the values and concerns of nonprofits and NGOs (Alam, 2022).

Greenpeace is among the NGOs that have used animation to develop multimedia campaigns that deal with issues such as biodiversity preservation, water conservation, pollution reduction and climate action.

In the "Save the Arctic" campaign that began in 2012, the NGO attacks the Lego company and its partnership with Shell, an oil company that drills in the Arctic. The video, titled *Everything is NOT awesome (2014)*, is a brick film created by the creative agency Don't Panic and initially shows an uncontaminated Arctic landscape, made of Lego bricks which, upon the arrival of the Shell company, is submerged by oil. Greenpeace stages a plausible scenario and asks Lego to sever relations with Shell. This theme is highlighted even more in the video *Lego: Help children save the arctic* (2014) created for the same campaign, this time in 3D CGI, simulating a brick film. The protagonists are children who imagine a trip to the Arctic with their friends and relatives and all their favorite animals such as the polar bear and the seal. The campaign went so viral that Greenpeace managed to achieve its goal of having Lego break its agreement with Shell (Still, 2014).

Over the years, Greenpeace has dealt with various and numerous problems related to climate

change, the protection of ecosystems and pollution, going against numerous companies exploiting resources. One of these was the campaign against Asia Pulp & Paper (APP), one of the largest paper and packaging production companies. Greenpeace conducted the campaign targeting Mattel, a company that bought from APP, using Barbie as the protagonist of the video produced in 2011. In the short film Ken, the doll's iconic companion, discovers that his girlfriend is involved in deforestation and decides to leave her. After the campaign Mattel decided to remove rainforest paper from their production (Ibid.).

Regarding marine pollution, a powerful example of an animated video made by Greenpeace is *Turtle Journey* (2020), a stop motion artifact that aims to highlight the plight of the world's oceans. The short spot, directed by Aardman's director Gavin Strange, tells the heartbreaking story of a turtle family heading home through an ocean that is under increasing pressure from climate change, plastic pollution, oil drilling and overfishing. During the journey of the turtles, the viewer realizes that nature is sending signals to the family, waste and drillers appear in the marine background, but the protagonists only realize the ongoing disaster once the journey is over, when it is too late. The final claim summarizes some data and invites the viewer to sign the petition for marine sanctuaries promoted by Greenpeace.

Finally, in the 2021 short film *There is a monster in my kitchen*, Greenpeace translated its action against deforestation in the Amazon into animation. The protagonist of the short is a child who learns from a jaguar that the meat industries are deforesting the Amazon to produce feed and new animal breeding. The monster of the title, therefore, is not the jaguar, but these industries that are destroying the Amazon Forest.

Greenpeace's production is interesting both for the vastness of the themes linked to environmental issues and for the heterogeneity of the styles and communication strategies with which these themes are addressed. The first video mentioned is a brick film made in stop motion, the video *Lego: Help children save the arctic* is produced in 3D animation and so is the film starring Barbie and Ken. The last two videos are made respectively in claymation and traditional 2D animation.

The last two animated videos produced by NGOs that we want to mention are *Can't negotiate the melting point of ice* from 2021, and *The plastic ocean* from 2018. In the first, produced by the WWF within the *Global Arctic Programme*, a young polar bear made of ice animated in stop motion tries to survive in the increasingly melting Arctic environment. In the film, as in real life, Arctic Sea ice is melting and the Arctic ecosystems are changing, thus destroying the planet. *The plastic ocean* is a Computer Graphics (CGI) animated video produced by the NGO Sea Shepherd, an organization actively involved in the protection of marine fauna and flora. In the video the protagonists are marine animals that swim and "drown" behind a plastic wall. The short ends with a caption informing that every year approximately one million marine animals die due to plastic pollution.

5. *Animation as medium for raising awareness in educational environment*

Since the first decades of the 20th century animators have realized the powerful connection between moving images and education and started producing films aimed at creating awareness, sensitizing, visualizing, exploring and educating the viewers about several different topics (Honess Roe, 2013). In 1918 the animated documentary *The Sinking of Lusitania* by Winsor McCay inaugurated a path of narrative and aesthetic experimentation that has used moving images for informing and raising awareness about historically important events or scientific issues by using different languages, narrative structures and codes of representation (Ceccarelli, 2012). The first examples of animated documentaries produced with pedagogic purposes are: *Tommy Tucker's Tooth* by Disney (1922), *The Einstein's Theory of Relativity* by the Fleischer Brother's (1923), and then in the fifties *Hemo the Magnificent* (1957) and *Our Mr. Sun* (1956) by Frank Capra. On the other hand, animation has always been a powerful and attractive tool to build fictional stories, and over the years this fictional dimension has been used to build narratives that implicitly addressed important issues. Among the most well-known examples of animated series designed for broadcasting scientific contents on television or social platforms with pedagogical purposes it's possible to mention *Il était une fois… la Vie* by Albert Barillé (1987), the more recent scientific anime *Cells at work!* (2018) written and illustrated by Akane Shimizu, and the series of

motion design videos *In a nutshell* produced by the German animation studio Kurzsgesagt.

Stemming from these premises the didactic experience that will be described in the next sections tries to connect animation learning experiences and communication languages with environmental safeguarding policies, sustainable practices and social activities performed by non-profit organizations that needed to be communicated, promoted and enhanced.

6. *SfruttaZero project didactic experience*

In the a.y. 2020-21 students from the design course of the school of Architecture – G. D'Annunzio University of Chieti-Pesara were requested to produce animated artifacts to narrate and promote the Italian tomato sauce production project *SftruttaZero. SfruttaZero* is a cooperative project developed in south Italy by the non-profit associations *Solidaria* (Bari) and *Diritti e Sud* (Nardò) and the national network *Fuorimercato autogestione in movimento*. The project involves migrants and precarious farmers in producing local products with the aims to build ethical and sustainable supply chain and consumption patterns involving food products coming from local sources, fair and multicultural working environment and sustainable economies in the area. In recent years, the *SfruttaZero* project has provided a retail trade in the tomato sauce production sector alternative to the large-scale one, eliminating forms of exploitation along the entire supply chain, from the cultivation of tomatoes to the logistics and to the distribution of the finished product. Involved associations asked students to communicate the same goals that they try to achieve with the project, and those are:

- The creation of a sustainable, participatory, self-managed and environmental heritage respectful supply chain in which the entire production process (from cultivation to distribution) is taken care of by the associations themselves in a precise territory;
- The design of "narrating" labels that help communicate the noble objectives of the project, such as information on the materials used, the local dimension of production, the place of cultivation and transformation and the sustained costs that justify the price of each single tomato sauce bottle;
- The construction of a mutual aid fund that protects the rights of the workers involved, especially migrants;
- The construction of a network of relationships with other associations of the territory, such as *Ortocircuito* and *Villa Royh*, engaged in training

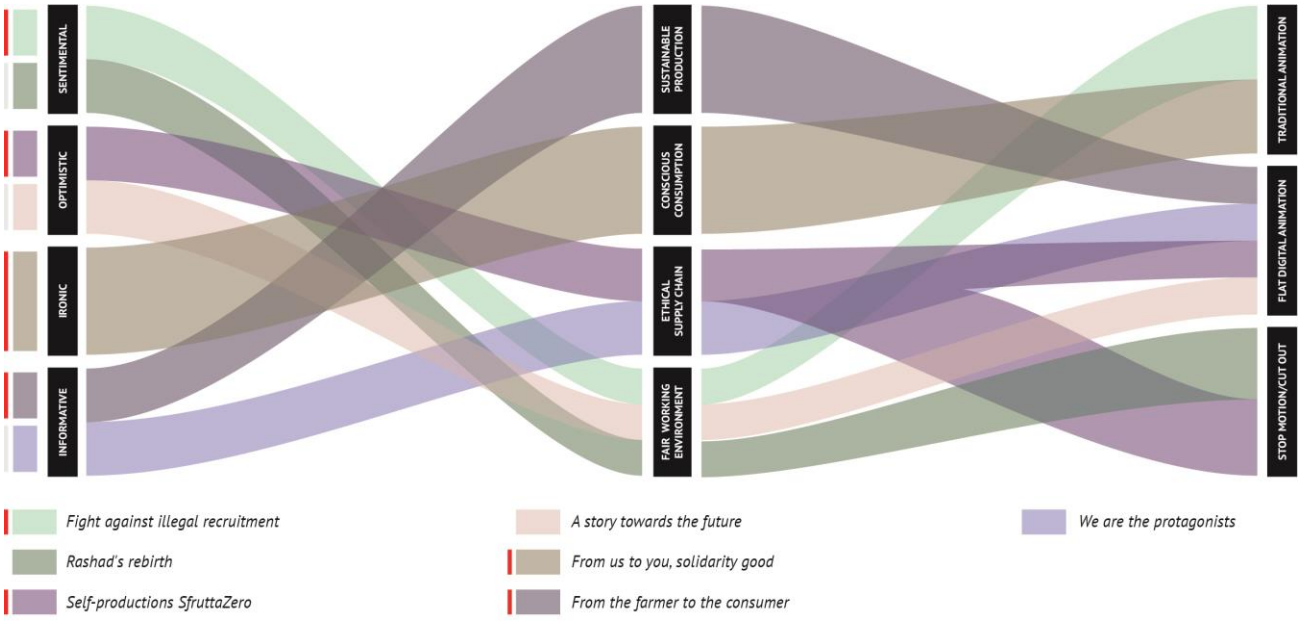

Fig. 1: Graphic visualization of students' motion design artifacts classified according to three main parameters: communication language (column 1), addressed topic (column 2), animation technique (column 3).

projects on sustainable agriculture methods based on sharing and sense of community and on social awareness actions towards the rights and needs of refugees.

Students Produced seven outputs that challenge animation's informative and entertaining power, visual qualities and technical features and address the topic under different perspectives, spotlighting one or more of the above-mentioned goals and staging either the sustainable and local production process, the respect for the environmental heritage or the *SfruttaZero* project social responsibility.

In (Fig. 1) the seven videos are graphically classified according to three main criteria: (i) the communication language or style[2] [emotional, optimistic, ironic and informative]; (ii) the addressed social issues and values that students decided to enhance among the project's goals [sustainable production, conscious consumption, ethical supply chain, fair and multicultural working environment]; (iii) the animation technique used for producing the videos [traditional animation, flat digital animation, stop-motion/cut-out animation].

In the following sections four out of seven produced videos will be described, selected in order to show the different linguistic, thematic and technical approached chosen by the students. Selected artifacts, indeed, are examples of different narrative approaches, animation techniques, aesthetic codes and perspectives about the project's goals.

6.1 Da noi a te solidalmente buono

Da noi a te solidalmente buono [En. Trans. *From us to you, solidarity good*] (Fig. 2) is a 1 minute and 40 seconds video produced in traditional animation. The protagonist is a girl who enters a supermarket to buy a bottle of tomato sauce and, by observing the label of an anonymous tomato sauce bottle and that of a bottle of *SfruttaZero*

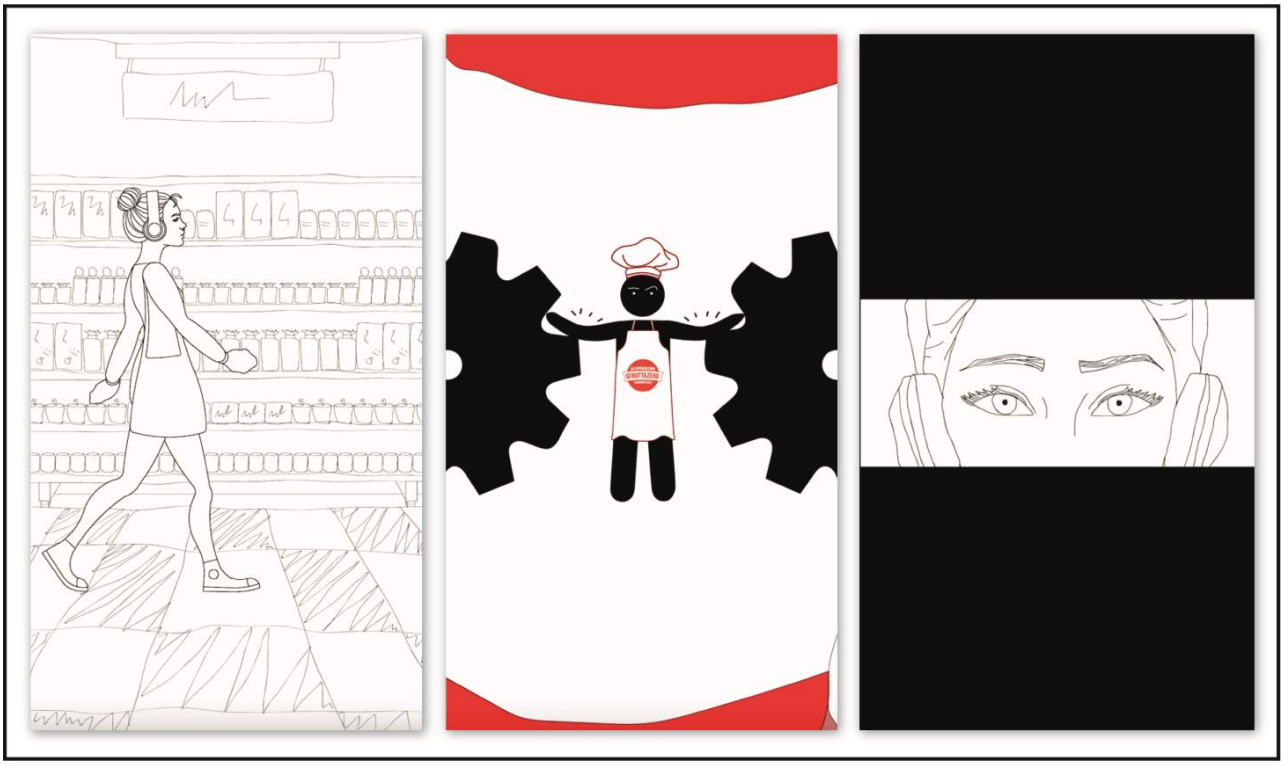

Fig. 2: Still frames from the video *Da noi a te solidalmente buono*. Authors: Ludovica Amati, Mattia Matarazzo © Vincenzo Maselli, Giulia Panadisi

[2] The communication languages and styles addressed in this article stem from the list formulated for the first time by the Italian sociologist Roberto Bernocchi in 2008, which are: sentimental, dramatic (fear arousing appeal), accusatory, optimistic, ironic, paternalistic, irreverent, informative.

tomato sauce, notices a difference. Two animated sequences come to life on both labels staging in one case, that of the anonymous sauce, a little man consumed by two gears, a metaphor for iniquity, exploitation and disrespect for workers, behaviors that often characterize the production process in the various stages. On the second animated label, however, on the *SfruttaZero* bottle, the little man stops the two gears and destroys them demonstrating the strength of a superhero, a metaphor for the worker stronger because he is protected. The choice of the protagonist is obvious, choosing the sauce with the label on which the worker wins exploitation and claims a path of self-determination. The social issues evoked in the video are multiple. The main one aims at raising awareness of the production process of tomato sauce, at inducing ethical purchasing and consumption choices on the part of consumers, and at knowing the condition of workers, who are very often exploited. This first objective is closely linked to the second topic addressed by the narrative, i.e. that of respect for work in all phases of the production chain.

The style of communication is funny and ironic especially in the metaphors that take life onto the labels. While describing a dramatic situation of exploitation, authors made characters perform humorous behaviors, which raise a smile. From an aesthetic point of view, the video is in black and white, with the exception of the tomato sauce inside the *SfruttaZero* bottle, and produced mostly in traditional frame-by-frame hand-drawn animation, with a style that recalls rough animation, except for the two sequences in which the stylized workers come to life on the bottles' labels. These two sequences are produced in two-dimensional digital animation.

The format chosen by the students is a vertical 9:16 as the video is supposed to be aired on social platforms and mobile apps, with some dynamic variations of the aspect ratio that make it possible to enhance a few details, such as the super close-ups on the protagonist's surprised expression and smiling mouth.

6.2 Autoproduzioni SfruttaZero

Autoproduzioni SfruttaZero [En. Trans. *Self-productions SfruttaZero*] (Fig. 3) is a one-minute animated video consisting of two sequences, one in 2D digital animation and a second one in stop-motion. The video highlights important aspects of the production chain of the *SfruttaZero* project, the

Fig. 3: Still frames from the video *Autoproduzioni SfruttaZero*. Authors: Federica Busilacchi, Luca Pugliese, Helena Scimia Vincenzo Maselli, Giulia Panadisi

self-managed and participatory management and the responsible production methods that reduce waste and environmental harm. The first part - in flat digital animation - stages the silhouette of a stick man planting a tomato plant sprout, then watering and caring for it, so revealing the passion and environmental attention of the farmer who follows all the phases of growth of the tomato seedling, one of the goals of the self-managed and sustainable supply chain. The second part of the video is introduced by the farmer who tears up the scene as if it were a page to leaf through or a sticker to remove, and so he reveals a material and almost tangible background, made up of collaboration, ecology and integration: farmers made of plasticine, fabric and wool hair, and are animated in stop motion, in fact, enhance the cultural melting pot of the project, the sense of community and the self-determination of migrants and the care for local products obtained respecting the life cycle of the plant.

The communication language of the video is optimistic and reassuring as authors address the problem in a light way, showing the positive working environment where cultivation, harvesting and distribution of tomatoes take place, in a fair and multicultural scenario. And that's not just an utopistic future but the reality of the *SfruttaZero project* production reality and the oncretenes of this condition is suggested from a narrative perspective by two strategies: (i) the action of unveiling carried out by the stickman who tears up the scene like the page of a book, and so (ii) reveals a world made of matter, whose real and three-dimensional physical consistency is perfectly recognizable.

6.3 Dal produttore al consumatore

The third video titled *Dal produttore al consumatore* [En. Trans. *From the farmer to the consumer*] (Fig. 4) portrayed the self-managed sustainable supply chain of the project from another perspective in about a minute using a 2D flat digital animation. The protagonist, this time, is not the worker but the raw material, the tomato, symbolically represented by a red diamond whose production phases – from cultivation, to harvesting, transformation, bottling and distribution processes – occur in the same local scenario, highlighting the philosophy of production at zero distance carried out by the

Fig. 4: Still frames from the video *Dal produttore al consumatore*. Authors: Bibbò Samuel, Calò Chiara, Tacconelli Martina Vincenzo Maselli, Giulia Panadisi

project. All these stages of production, furthermore, are managed by a community of diverse geographical origins, which participates actively and enthusiastically in the process of enhancing this local treasure. And so, a bright red diamond is planted, it generates a plant that gives life to other diamonds, which are collected, then transformed – passing through a chain of solidarity and based on collaboration and integration –, bottled and finally distributed, from house to house, reducing the distance between – as the title suggests – the farmer and the consumer (*dal produttore al consumatore*). In the end, the images seem to suggest that the *SfruttaZero* tomato sauce brings color, helping to build a community open to integration and to the sustainable consumption of local products. The video is made in color with interpolated 2D digital animation and a few sequences animated frame by frame. The chromatic characterization is flat and the style of representation of the characters is stylized, albeit with easily recognizable anatomical details. The communication style is Informative as the video aims to inform in a descriptive and almost didactic way, using a precise and consistent graphic language based on flat elements combined with bright colors. Nevertheless a few sequences from the video are able to convey also a positive emotion related to the ethical supply chain based on collaboration and equality, especially when characters pass the tomato from hand to hand as if it is a treasure, and when the color suggesting that everything that is touched by the *SfruttaZero* red diamonds get brighter and colored.

6.4 Lotta al caporalato

Lotta al caporalato [En. Trans. *Fight against illegal hiring*] (Fig. 5) is a short film in traditional animation of about 30 seconds. The film combines an external narrator who denounces the plague of illegal hiring in the agricultural sector of southern Italy with a metaphorical visual narration. The viewer, while invited by the narrator to support the actions of social justice against the exploitation perpetrated by the illegal hiring for centuries, observes the fight between a black scorpion (allegory of the illegal hiring) and a red warrior generated from a seed (allegory of the *SfruttaZero* project). The seed seems to sprout and transform itself thanks to the warmth of a hand which, by picking it up, gives it strength and support. The use of red is a symbol of the tomato, the resource

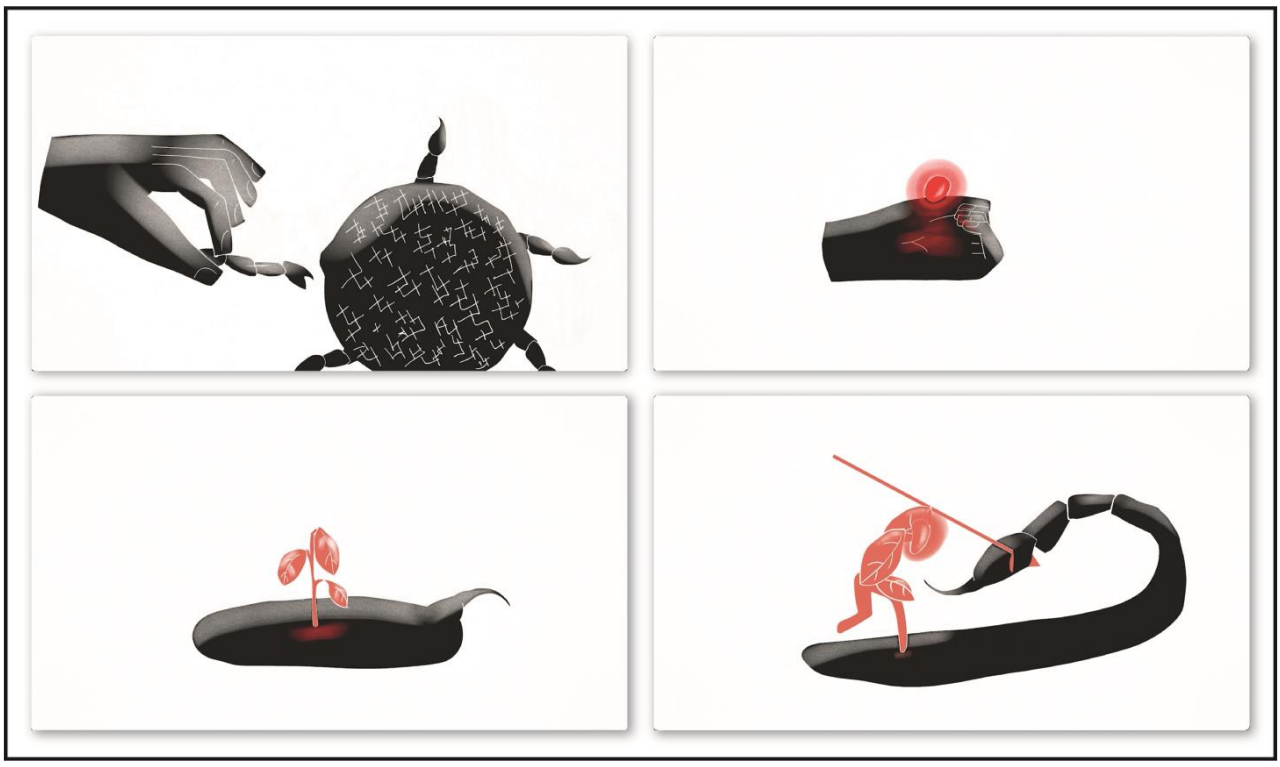

Fig. 5: Still frames from the video *Lotta al caporalato*. Authors: Giorgia Lucibello, Andrea Romagnuolo, Madia Scatigna Vincenzo Maselli, Giulia Panadisi

Fig. 6: Initial mood board for the video *Lotta al caporalato*. Authors: Giorgia Lucibello, Andrea Romagnuolo, Madia Scatigna Vincenzo Maselli, Giulia Panadisi

through which this struggle for the emancipation of the worker and the conquest of rights is perpetrated. The video is in traditional animation and stages graphic elements that transform as in a dance. The boundary line of the shapes is imprecise and jumpy. The colors used are red, black (with brightness variations to enhance points of shadow and light) and white, as a contrasting color for the design of lines and details inside the shapes.

The process of building the metaphor engaged students in a long journey for identifying the best images/shapes for communicating both the positive and negative elements of the allegoric narrative (Fig. 6): the red warrior versus the black scorpion, the growing seed that transforms the hand that closes it, in an hand that welcomes and protects it. At the same time the selected graphic styles and animation technique – with the inevitable imperfection of the drawings and the intentional often absent smoothness – perfectly fit the narrative and emotional purposes of the video.

The communication style is sentimental and almost moving as the narrative visually show a warrior fighting for justice caught in moments of difficulty, and his fight is combined with the moving world pronounced by the external narrator, who after describing the characteristics of the dramatic situation of illegal hiring, at the end hopefully asks the viewer to take action for building a better future. The last lines recited by the narrator are: "It is not a utopia to believe in a better world and that in all situations, even the worst, it is possible to do good. Only good is profound and can be radical."

7. Conclusions

This article has explored the multifaceted landscape of multimedia communication strategies for environmental sustainability. It has delved into the power of multimedia products, especially animated ones, in raising awareness, educating, and triggering individuals and communities towards more sustainable practices. Through an examination of various case studies of animated artifacts produced by NGOs and the description of animated output produced by students, it is made evident that multimedia products play a pivotal role in fostering a deeper connection between people and the environment.

Furthermore, the article has underscored the importance of tailoring communication strategies to target audiences and harnessing the potential of storytelling to evoke emotional responses. It is clear that effective multimedia communication goes beyond the dissemination of information; it should inspire action, drive behavior change, and

contribute to the broader goals of environmental sustainability.

The described didactic experience and students' animated outputs confirm these premises as demonstrate animation to be a powerful vehicle ONGs and non-profit organizations can adopt for conveying social engaging contents and advertising ethical values and solidarity actions.

The four projects described in paragraph six, carried out during the course, were chosen to highlight the various linguistic, thematic, and technical approaches selected by the students. The chosen artifacts exemplify diverse narrative styles, animation methods, aesthetic standards, and viewpoints concerning the project's objectives. The choice of different animation techniques and illustration styles are linked to the communication language used to tell the story.

Another aspect observed during the experiment concerned students' acquisition of knowledge and awareness about the contexts and the issues they were asked to explore. The learning by doing approach – theorized by Jerome Bruner in the sixties – makes animated multimedia communication artifacts production's experience a learning opportunity to understand contemporary issues and reach educational objectives by developing socio-emotional-cognitive skills. During the writing of the script, the storyboarding phase and the definition of aesthetic and linguistic characteristics, students had to practice their reflective and critical thinking. Reflective thinking is a consequence of the exploration of a topic (social, environmental, cultural) and can be implemented in case of the writing of a storytelling about it. The American pedagogist John Dewey (2014) emphasized the value of creating narratives as a way of thinking about experience and thus about social and emotional issues of the present. Storytelling, then, has the power to penetrate a sphere of inwardness and to make it possible to experience the narrative with a reflective consistency (Green et al., 2002).
Exactly for these reasons in an era of rapid environmental change, it is crucial to harness the power of design to create meaningful connections between people and their natural and cultural surroundings. By doing so, we can ensure the continued protection and celebration of our environmental heritage for generations to come.

REFERENCES

Alam, N. (2022). Narrative Strategies for Animated Development Communication. Examples From BRAC in Bangladesh. In G. Sorce (Ed.), *Global Perspectives on NGO Communication for Social Change* (pp. 90-105). London, UK: Routledge Research in Communication Studies.

Barab, S., Thomas, M. & Merrill, H. (2001). Online Learning: From information Dissemination to Fostering Collaboration. *Journal of Interactive Learning Research 12*, 105–143.

Bernocchi, R. (2008). I linguaggi della pubblicità sociale: alla ricerca dell'efficacia. In C. Bertolo (Ed.) *Comunicazioni sociali. Ambiguità, nodi e prospettive* (pp. 165-186). Padua: Cleup.

Bruner, J. (1966). *Toward a Theory of Instruction*. Cambridge, MA: Harvard University Press.

Ceccarelli, N. (2012). Historical perspective of animation in documentary film. In C. Turri (Ed.), *IP Informanimation 2011. Research, education and design experiences* (pp. 118-122). Milan, IT: FrancoAngeli.

Corrado A., Caruso, F., Cascio M., Nori M., Palumbo L., & Triandafyllidou A. (2018). *Is Italian agriculture a 'pull factor' for irregular migration – and, if so, why?*. Open Society European Policy Institute. DOI:10.13140/RG.2.2.34305.92000

Dewey, J. (2014). *Esperienza e educazione* (E. Codignola, Trans.). Milan, IT: Raffaello Cortina editore.

Gabardi, E. (2011). *Social advertising. Campagne pubblicitarie per un mondo migliore*. Milan, IT: FrancoAngeli.

Green, M.C., Strange, J.J. & Brock, T.C. (2002). *Narrative impact: Social and cognitive foundations*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Heller, S. & Dooley, M. (2008). *Teaching Motion Design. Course Offering and Class Projects from the Leading Undergraduate and Graduate Programs*. New York, NY: Allworth Press.

Heller, S. & Vienne, V. (Eds.) (2003). *Citizen Designer: Perspectives on Design Responsibility*. New York, NY: Allworth Press

Honess Roe, A. (2013). *Animated Documentary.* London, UK: Palgrave Macmillan.

Jenett, D. (2014). *Motion Design*. Hamburg, DE: Gudberg Nerger.

Kalantaryan, S., Scipioni, M., Natale, F. & Alessandrini, A., (2021). Immigration and integration in rural areas and the agricultural sector: An EU perspective. *Journal of Rural Studies 88*, 462–472. DOI: 10.1016/j.jrurstud.2021.04.017

Kiss, K., Ruszkai, C. &Takács-György, K. (2019). Examination of Short Supply Chains Based on Circular Economy and Sustainability Aspects. *Resources 8 (161),* 1-21. DOI: 10.3390/resources8040161

Krasner, J. (2013). Motion Graphic Design: Applied History and Aesthetics. Abingdon, UK: Taylor and Francis Group.

Manzini, E. (2015). *Design, When Everybody Designs: An Introduction to Design for Social Innovation*. Cambridge, MA: MIT Press

Maselli, V. & Panadisi, G. (2019). Progettare come ricerca. La ricerca attraverso gli strumenti del motion design. *AND Rivista di architetture, città e architetti 35*, 76–83.

Maselli, V. & Panadisi, G. (2021). Motion Design Teaching Strategy: Between Theory, Practice, Technology, and Distance Learning. *Design Principles and Practices: An International Journal—Annual Review 15(1)*, 19-31. DOI:10.18848/1833-1874/CGP/v15i01/19-31.

Normoyle, C. (2019). A Blended Perspective: Social Impact Assessment in Graphic Design. *Dialectic 2(2),* 71-94. Published by the AIGA Design Educators Community (DEC) and Michigan Publishing. DOI: 10.3998/dialectic.14932326.0002.205

Our World in Data team (2023). Ensure sustainable consumption and production patterns. *OurWorldInData.org.* Retrieved from https://ourworldindata.org/sdgs/responsible-consumption-production

Palumbo, L., Corrado, A., & Triandafyllidou, A. (2022). Migrant Labour in the Agri-Food System in Europe: Unpacking the Social and Legal Factors of Exploitation. *European Journal of Migration and Law 24(2),* 179-192. DOI: 10.1163/15718166-12340125

Papanek, V. (1971). *Design for the real world.* London, UK: Thames & Hudson.

Piscitelli D. (2019). *First Things First. Comunicare le emergenze*. Barcelona, ES: ListLab Editore.

Shaw, A. (2016). *Design for Motion: Fundamentals and Techniques of Motion Design*. Boca Raton, FL: CRC Press.

Shearer, R. L., Aldemir, T., Hitchcock, J., Resig, J., Driver, J. & Kohler, M. (2020). What Students Want: A Vision of a Future Online Learning Experience Grounded in Distance Education Theory. *American Journal of Distance Education 34(1)*, 36-52. DOI: 10.1080/08923647.2019.1706019.

Shetabi, L. (2015). Heritage Conservation and Environmental Sustainability: Revisiting the Evaluation Criteria for Built Heritage. In *Proceedings of the Australia ICOMOS Conference–Fabric: Threads of Conservation* (pp. 2–21), Adelaide, Australia. DOI: 10.13140/RG.2.1.4265.6086.

Still, J. (2014). Five Greenpeace campaigns against companies: Lego, Barbie and Shell. *Guardian sustainable business blog. Theguardian.com.* Retrieved from https://www.theguardian.com/sustainable-business/blog/greenpeace-campaigns-companies-lego-mattel-barbie-shell

Stone, B. & Leah Wahlin, L. (2019). *The Theory and Practice of Motion Design: Critical Perspectives and Professional Practice.* London, UK: Routledge.

UN environment programme (2020). Sustainable consumption and production policies. *Unep.org.* Retrieved from https://www.unep.org/explore-topics/resource-efficiency/what-we-do/sustainable-consumption-and-production-policies

United Nations (2020). *The UN Agenda 2030 for Sustainable Development*. Retrieved from https://www.un.org/sustainabledevelopment/

United Nations (2020). *Sustainable consumption and production*. Retrieved from https://sdgs.un.org/topics/sustainable-consumption-and-production

Waters, R.D. & Jones, P.M. (2011). Using video to build an organization's identity and brand: A content analysis of nonprofit organizations' YouTube videos. *Journal of Nonprofit & Public Sector Marketing 23(3),* 248–268. DOI:10.1080/10495142.20 .