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Alternative communication forms in raising public awareness: The interactive documentary

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Abstract

This research examined how digital media created the framework for the evolution of new communication and storytelling forms and their connection to public awareness. It attempts to shed light upon the genre of interactive documentary as a new hybrid genre of documentary that employs various multimedia tools that promote audience participation during the evolution of the narrative. The key issue that was addressed was whether this genre can promote public awareness and intention for behavioral change through its inherent potential for audience participation. The experimental part of the study included an audiovisual production of mini documentaries that incorporate different interactive elements, such as quizzes, images, hyperlinks, etc. Quantitative research was carried out to identify audience's perspectives on the genre of interactive documentary, as well as its impact on their awareness. The findings revealed a positive effect on public awareness, while the interactive features enhanced participants' engagement, memory, and active thinking.

Keywords: audiovisual production, digital storytelling, interactive documentary, public awareness.

Introduction

The evolution of technology -among others- made new forms and practices of communicating show a rise. New media technologies have been established, including new forms of communication platforms, transforming the way we get informed and the ways we participate in our society, while digital media present major impacts on every aspect of our culture. As the technical resources progress, new audiovisual storytelling genres emerge providing appealing stories with incorporated control choices through which the audience becomes a participant, thus promoting engagement (Kalinov, 2017; Podara, Giomelakis, Nicolaou, Matsiola, & Kotsakis, 2021; Podara, Matsiola, Maniou, Kalliris, 2019a). Non-conventional storytelling techniques through a versatile arrangement of information with alternative navigation paths deliver new forms of video productions that combine multiple narrative and multimedia functions in a non-linear style (Matsiola, Dimoulas, Kalliris, & Veglis, 2015).

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The concept of Web 2.0 as a participation platform where users participate and connect to each other, satisfying these innate human characteristics has long and extensively been mentioned by scholars (Jenkins, 2016). Furthermore, it triggered a broader engagement, both in terms of different forms and of wider access globally, in social issues. Users became producers, as Web 2.0 encourages the creation and sharing of user-generated content (UGC), and a substantial shift in their participation in the media environment is witnessed (Bruns, 2013; Saridou, & Veglis, 2021). In the age of new media technology, people are increasingly producing, and sharing their stories digitally. User-generated content employing digital storytelling narratives receives high levels of attention on global social media platforms, such as Facebook, Instagram, and YouTube; thus, much greater visibility is achieved resulting in delivering bigger social consequences (Jenkins, 2016). Increased information exchange through online networks can build trusting relationships among participants reinforcing existing ties and creating new ones (Gil de Zúñiga, Jung & Valenzuela, 2012; Valenzuela, Halpern, Katz, & Miranda, 2019). Studies show that the new media play a positive role in the participation of citizens in social and political life. Results vary by study, but overall, they show a positive relationship between social media use and online participation (Boulianne, 2020).

In the following sections, the genre of the interactive documentary will be further deployed along with the environmental issues of fast fashion, zero waste, upcycling and recycling and their importance in sustainability. Subsequently, the production of the four interactive mini-documentaries and their evaluation via statistical terms will be presented and explained. Next, the authors' conclusions on the research are stated, and finally the limitations are referred, and additional studies are suggested.

The interactive documentary

The field of filmmaking, and particularly the documentary, has been challenged and was reconstructed by the advent of the digital technologies. In this framework, a new genre, the interactive documentary was born applying to the characteristics of an online audience who is active making choices during the viewing process and finally receives personalized information (Podara, Matsiola, Maniou, Kalliris, 2019b). Innovative experiences are provided via the multidimensional approach of interactive documentary to new audiences who are able to interact in environments they favour, such as mobile devices (Vázquez-Herrero & López-García, 2019). It combines elements of traditional documentary (audio-visual production) and uses digital tools to document reality. Its innovation is that the audience is participating in the development of the story through interactive features. Paths are deployed in the web-customized narrative and the audience which is positioned within the production and related to it, is allowed to follow its own way while watching the documentary. As Perlmutter (2014) argues interactive documentary symbolizes the birth of an entirely new art form and Aston and Gaudenzi (2012) in their definition on the genre, identify the interactivity, which is a physical action, as part of the production process, besides its relationship with the platforms. Different

interactivity modes and levels vary depending on the technologies employed (i.e., hypertexts or immersive technologies), the medium that will facilitate the production, along with the range of experience and the interactivity capabilities provided to the user exist (Aston & Gaudenzi, 2012; Nash, 2014). The offered capabilities extend, but not limit, to commenting, filling in a quiz, moving to other websites, sharing content, playing, and more, however, the story is what determines the format (Vazquez-Herrero, 2021).

Sustainability

The topics of the interactive documentaries involved in this study are focused on environmental issues, thus, the term sustainability and its significance will be shortly deployed. "Sustainability" refers to meeting the needs of the present without compromising the ability of future generations to meet their own, and its concept depends on three basic sectors, economy, environment, and society which are also known informally as profits, planet, and people (Mollenkamp, 2022). With the addition of the term "development", the concept of sustainability is transformed into sustainable development whose goal is the evolution of social progress and the quality-of-life enhancement around the world.

Worldwide, initiatives and interconnected alliances are increasingly created to face the environmental and social problems that many societies must tackle, and sustainability seems to be the key. The United Nation's 17 SDGs (Sustainable Development Goals) which were agreed to be adopted by the UN members in 2015, constitute a good example (United Nations, 2022). Generally, sustainability promotes businesses' awareness to consider more factors than simply the immediate profit or loss. The last decade more and more companies have issued sustainability goals, such as commitment to zero-waste packaging by a certain year or by cutting emissions, lowering their energy usage, etc. (Mollenkamp, 2022).

However, change can also come from a personal level. Media hold a significant role in informing people and consequently raising public's awareness about social or environmental issues. Nowadays, participation in the public sphere through Internet and social media is powerful, and digital media can perform major influences as channels for social transformation promoting individual responsibility. The purpose of this study is to explore whether current media technologies and specifically the interactivity in digital storytelling narratives is related to audience's awareness. As digital storytelling liberates from the constraints of time and space and the emerging technologies which are embedded promote participation, online communities and digital cultures are created in the media. In this framework, the aim of the paper is to explore the interactive capabilities of audiovisual production and digital storytelling through the investigation of the dynamics of the interactive documentary. More specifically, the research examines whether interactivity enables audience's participation and whether it is related with higher or lower levels of engagement and consequently whether it influences audience's awareness and attitudes over social and environmental issues. The questions that this research seeks to answer are:

RQ1: Does a digital storytelling narrative / audiovisual production promote awareness and social change?
RQ2: Does interactivity promote a sense of participation, thus making the experience of the audience way more intriguing?
RQ3: Is interactivity in digital audiovisual stories correlated with higher levels of audience awareness?

To answer those questions, four (4) interactive mini documentaries on environmental issues were created. The selected topics were a) fast fashion, b) zero waste, c) upcycling and d) recycling. After completing their production, they were evaluated, at an initial stage, by viewers-users on their fulfillment of the aforementioned questions.

In the following subchapters, the terms of fast fashion, upcycling, zero waste and recycling are shortly presented.

Fast fashion

During the last couple of decades, manufacturing and trading processes of clothing have drastically changed globalized economy. As world trade agreements opened fashion brands to offshore production, powerful brands started producing clothes in developing countries. Furthermore, technological innovations led to mass production, thus leading to manufacturing a new, low-cost fashion, that is based on styles presented at Fashion Week runway shows, described with the term "fast fashion". Fast fashion allows consumers to purchase a wide variety of trendy new garments at affordable prices which are mostly sold by multinational retailers (Hayes, 2021).

Nevertheless, fast fashion is considered one of the most resource-intensive industries in the world, both in terms of human and natural resources (Wicker, 2017). Also, it is associated with exploitative and abusive labor practices in factories of developing countries (Nguyen, 2020). Negative environmental impacts derive from fast fashion, too. It is estimated that it is responsible for 10% of humanity's carbon emissions, more than all international flights and maritime shipping combined (McFall-Johnsen, 2019). Furthermore, the garments' manufacturing requires a significant amount of energy and according to a 2015 report by European Clothing Action Plan, fast fashion is also the second largest water-consuming industry (European Parliamentary Research Service, 2019).

Efforts have been made to turn consumer behavior towards choosing more sustainably made clothes. Transnational organizations have addressed the environmental dimensions of fast fashion and its harm on people and the planet. New business models (such as clothing rental) are developed and garments that can be reused and recycled more easily (circular fashion) are designed. In addition, an effort is made to convince consumers to buy fewer clothes of better quality (slow fashion) (Štefko, & Steffek, 2018).

Upcycling

Initially, products were designed to be maintained indefinitely, however lately a "throw away" culture has appeared which resulted to increased resource use with negative environmental consequences (Bridgens, Powell, Farmer, Walsh, Reed, Royapoor, Gosling, Hall & Heidrich, 2018, p.146). The term upcycling originated in the 1990s and it involves the creative reuse of recyclable or recycled materials, objects, or parts thereof. This process is recognised as an encouraging way to reduce material and energy use, and to provoke sustainable production and consumption (Sung, 2015). It represents a variety of processes by which "old" products are modified and given a second life as they are transformed into a "new" product. As Yi, Lee, Lee, & Kim (2019, p.74) state "upcycling generally refers to the conversion of waste materials to something useful or valuable and is a useful concept that can be applied not only to the waste design industry but also to waste recycling and resource circulation". Upcycling may be initiated either by the need to meet human needs, or as an art form (Bridgens, *et al*., 2018).

Zero waste

There are many examples illustrating people's tendency to consume carelessly and uncontrollably, and this mentality of an unaware throwaway culture characterizes many contemporary consumers. This tendency may involve everyday routines, such as easily discarding items of low value, (i.e., disposable plastic plates or cups) or even items of higher economic value, such as electronic devices although they may still work efficiently and probably have been used only for a small period. These attitudes reflect society's lack of eco-consciousness.

Each new device or item we buy easily throw away costs to natural resources and this cost will eventually affect the environment and eventually the lives of future generations. The zero-waste movement is trying to bridge the gap between overconsumption and eco-friendly attitude. The five principles that govern zero waste are defined as the 5 Rs of zero waste: Refuse, Reduce, Reuse/Repair, Rot and Recycle (Yazawa, 2021).

"Refuse" is the first step and is performed by refusing to purchase unnecessary materialistic items as accumulating overloads. The second step is "Reduce" which means that shopping should be executed with a purpose, focusing on necessary purchases as opposed to random splurges (Judd, 2017). "Reuse or Repair" is the third step and is considered the most creative one. Before deciding whether to discard an item and buy a new one, one can consider reusing or repairing it. Moreover, reusing refers to swapping disposable items with reusable alternatives, thus minimizing waste destined for landfills. The fourth stage of zero waste is "Rot", which refers to composting food waste which is an eco-friendly way to recycle organic waste. The last step, which should be considered as last resort, is "Recycle".

Recycling

Recycling, although it is referred to as the last section of zero waste, it will be further developed since it is considered the most well-known sustainable action. It is the process of initially collecting and afterwards converting materials that would otherwise be discarded as garbage and turning them into new products. Among the benefits of recycling is the reduction of the waste amount that is sent to incinerators and the conservation of natural resources, such as timber. It is deemed necessary when the four previous steps in zero waste chain do not work, but unfortunately this process is not enough to confront the ecological crisis. Recycling encompasses a highly energy intensive manufacturing process, therefore presenting environmental impacts (Clark, 2019).

Research methodology

Considering the research questions, a research design was elaborated with the main priority being the creation of the interactive mini documentaries which afterwards would be evaluated by the audience to explore interactivity's role in promoting awareness. The four episodes on environmental issues were produced after having performed research and conducted interviewees with experts, such as members in environmental groups and non-profit organizations, people working in university or ministry, a clothes' designer, an architect and interior space designer, a sustainable-friendly businesswoman who owns and manufactures reusable sanitary products and a social media administrator.

Furthermore, many linear and non-linear documentaries on environmental issues were watched to comprehend the directors' perspective. Our focus was made on providing alternatives to what the individual can do when confronting crucial world issues. Therefore, the interactive mini documentaries aimed at presenting simple steps that anyone could follow to make the shift to a more sustainable way of living.

Upon the completion of the linear video production, interactive elements were added in the platform of H5P. The interactive elements that were employed were of different kinds depending on the role they served. External links were used to serve two functions, one to lead the audience to further engage with a group in social media, and a second one to further look into a specific topic presented briefly by the interviewee. Additional images helped the audience to have a visual impression and quizzes were employed to stimulate the audience's curiosity. We thought that in that way the viewers would be incited to participate in a more interesting and entertaining way in the evolution of the narrative. This specific feature could engage the audience to a larger degree with the project experience. The vision behind this project was based on the two terms of interactivity which applies to its structure and sustainability which applies to its content. Prior to that, extensive research was performed on the digital authoring tools that could be used to create interactive documentaries evaluating their features (technical skills required such as coding, compatibility with other platforms, cost,

navigation, etc.). Keeping in mind our purpose and after having tested some of the offered solutions we concluded that H5P would be the appropriate platform to materialise our project.

Eventually the digital story was published online and by that it became accessible to the public. Therefore, the next step was the creation of an evaluation form and proceeding to a quantitative survey. The online questionnaire which was distributed through social media was selected as the instrument to succeed that. The links of the four interactive mini documentaries were attached to the questionnaire, enabling easy access and participation of the audience. It has to be mentioned that it involves initial trend control research exploring general perceptions in a limited audience that has to be further evaluated at larger scale after considering the answers provided by this analysis to reach safer conclusions regarding the attitudes of the audience towards interactivity, interactive documentary and public awareness.

The characteristics of the target audience were set as the research was planned. Since the issues developed in the interactive documentaries involved environmental matters, it was thought that anyone could participate, however familiarization with information technology could somehow prohibit the engagement of older people (60+). Nevertheless, none of the age groups were excluded, as some seniors do have digital literacy. Respecting the educational background, all educational levels were considered, as media literacy is not exclusively related to the level of studies.

The anonymous questionnaire was divided in two parts, one prior to watching the mini documentaries which consisted of nine (9) closed-ended questions referring mainly to general opinions and one after having watched the mini documentaries which was consisted of fourteen (14) closed-ended and two (2) open-ended questions referring to the specific productions and their impact. Generally, the second part tried to measure changes in audience's attitudes towards the issues depicted in the interactive mini documentaries. There were also four (4) questions on demographic data. In the first part, the participants were asked to provide their opinions either in a five-point Likert scale in terms of importance evaluation (1-not at all, 5-very much), or by simply replying in binary (1-no, 2-yes) questions. In the second part, they were again asked to state their perspective mainly in a five-point Likert scale, in two (2) multiple choice grid questions but they were also given the chance to elaborate further in the two open-ended questions on the reasons they estimate that some of the interactive elements were more useful and whether, after having watched these mini documentaries, they would change some of their habits and which would be those.

The distribution method of the questionnaire was through social media in the form of public posts in personal accounts and social media groups that the researcher followed, and it was open for replies for one month (June 2021).

The analysis of the data derived from the questionnaire was performed with SPSS version 25, using mainly descriptive statistics. In total 36 answers were collected in this preliminary

evaluation of the interactive mini documentaries in terms of raising audience awareness on environmental issues.

Results

The male participants accumulated 58% while the female ones 42%. In Figure 1, the age distribution of the participants is presented.

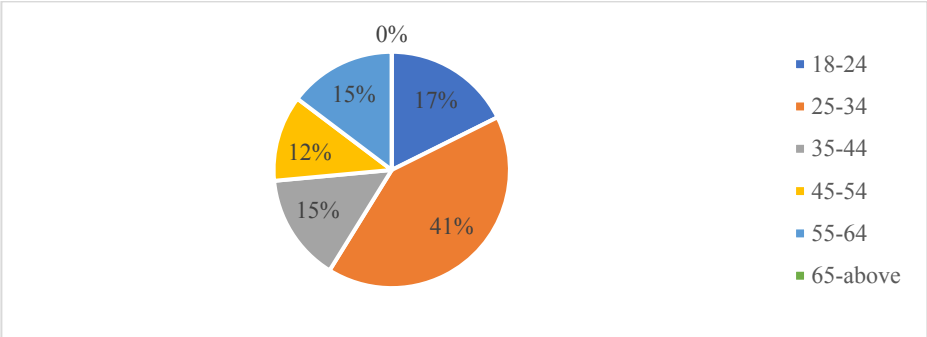

Figure 1: Age distribution of the participants

The documentary watching attitudes were asked in the first part of the questionnaire and in Figure 2 their answers are shown with a bar chart. As is perceived "sometimes" was the most common answer.

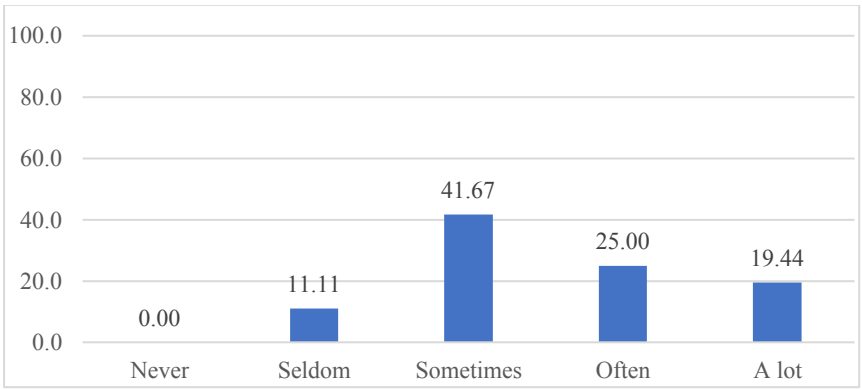

Figure 2: Frequency of watching documentaries (percentages)

In Table 1 the responses to the three questions (using Likert scale from 1. not at all, to 5. very much) regarding the role of documentaries on raising awareness, influencing attitudes, and provoking social change are depicted in mean values. It can be assumed that the general perspective of the audience is that documentaries may have a positive impact on the aforementioned issues since all mean values are higher than 3. Even if the mean value in the last question is lower than those in the first two ones, again it is still over 3, meaning that the participants seem to agree that documentaries may provoke social change.

Table 1: The social impact of documentaries (mean and standard deviation values)

	N	Minimum	Maximum	Mean
Do you think that documentaries can raise awareness on social, political or environmental issues?	36	3	5	4,14
Do you think that documentaries can influence the attitudes of the audience?	36	2	5	3,89
Do you think that documentaries as media are able to provoke social change?	36	1	5	3,42

On the question of whether they had seen a documentary that was memorable almost all participants gave an affirmative answer (33 people, 91,6%). On the consecutive question whether they have noticed a change in their attitudes after watching that documentary, out of the 33 positive answers, only 6 replied that they have not noticed a change.

Regarding the Interactive Documentary genre, more than half of the participants (19 people, 52,77%), had never even heard of it, while only 10 respondents had actually watched an interactive documentary.

Next, the participants were asked to watch the four mini documentaries and continue the evaluation with the second part of the questionnaire. The first question that they were asked related to the degree of interest that interactive documentaries raised. As depicted in Figure 3, more than half of the respondents thought that they were very interesting and only about 2,86% thought that they were slightly interesting.

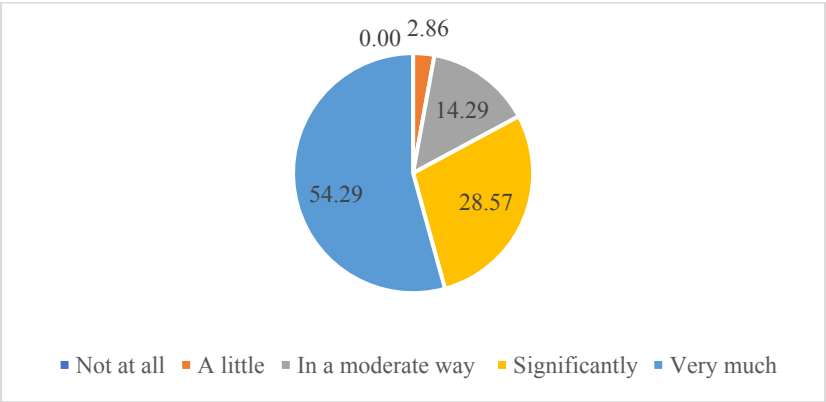

Figure 3: Degree of interest on the mini documentaries.

Next, the participants were asked a series of questions on the interactive elements, starting from whether they helped in the engagement with the story or were distractive. The great majority of the answers (70%) were "They kept me involved in the story". In Figure 4 the answers are presented, it has to be mentioned that the participants had the opportunity to add an answer of their own besides the ones set by the authors.

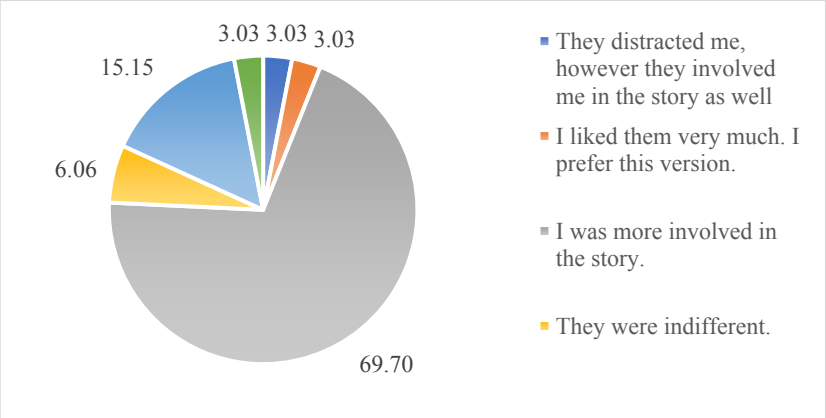

Figure 4: Aspects concerning the interactive elements.

The following question concerned the specific interactive features that were employed and whether they were helpful in the involvement in the story. As presented in Figure 5, the most helpful for the viewers appear to be the two kinds of quizzes.

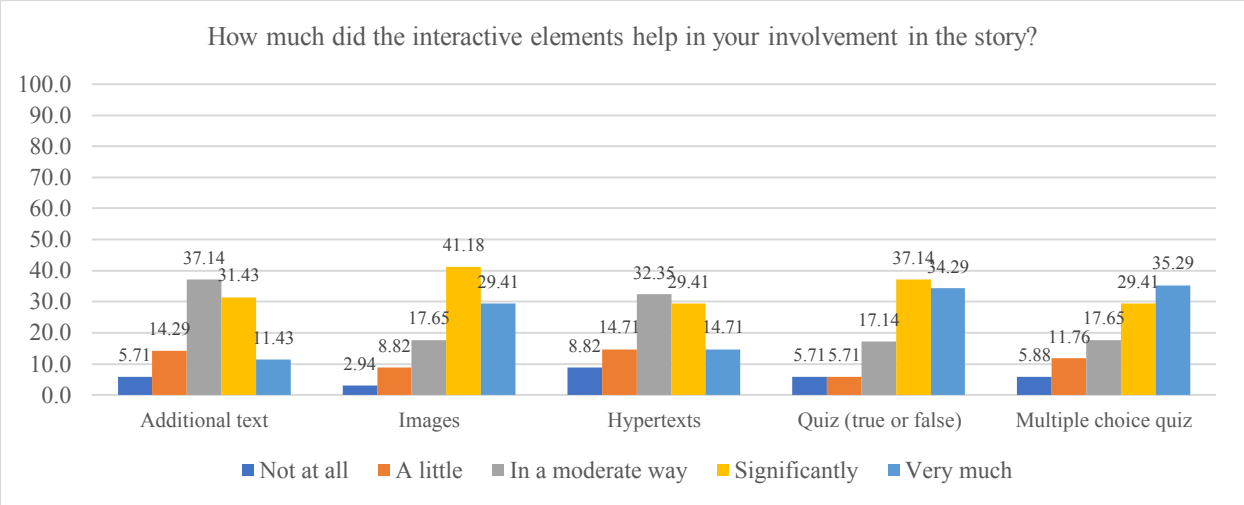

Figure 5: Participants perceptions on interactive elements aid

On the question whether interactive documentaries could raise public awareness 37% of the participants replied, "very much" and another 37% of them replied "significantly", which is a finding that clearly shows a positive attitude on the genre and its capabilities to raise awareness. In the same framework, the participants were asked whether these productions could change the public's attitudes and their own attitudes after having watched them and the results are presented in Figure 6. As may be observed the general position taken is positive either as a personal point of view or as a global aspect.

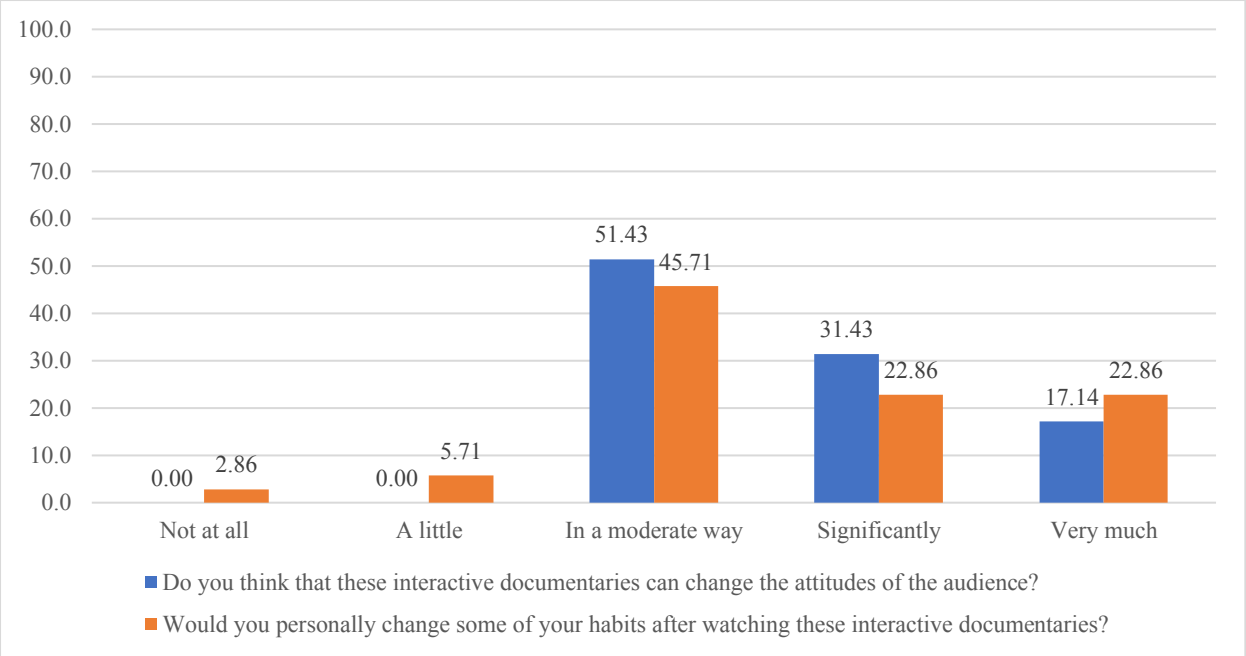

Figure 6: The role of interactive documentaries in changing attitudes

Finally, there was an open-ended question regarding the attitudes that the respondents would change after having watched the series of the interactive mini documentaries. Most of them stated that they would stop buying clothes from multinational companies, go thrift shopping and start buying secondhand clothes. They also said that would try to reuse, recycle, compost and a very interesting answer was "I will start watching documentaries because until now I was bored or thinking it's a waste of time".

Discussion

As Nash (2014) argues, the participatory culture of the Internet provides an appropriate environment for socially oriented documentary. Based on the findings of the conducted research, the incorporation of interactive features in the audiovisual production of mini documentaries seems to have a positive effect on the audience.

Drawn from the results, interactivity and awareness in digital stories are indeed connected. Audience's awareness was moderately enhanced by the interactive elements, conclusion which answers the first research question of the study (*Does a digital storytelling narrative / audiovisual production promote awareness and social change?*). This new genre as one of the forms of digital storytelling in the contemporary world can have an impact on civic engagement and social awareness, the same way traditional documentary has As Nash & Corner (2016), argue strategic impact documentaries are used by groups to achieve political and social change outside the mainstream media practices.

Our participatory culture is transformed by technology and alternative digital media, such as the interactive documentary, may satisfy the innate human need to participate (Jenkins, 2016), especially if we consider that most of the participants stated that the interactive elements made

them feel like they participate. Respondents' feeling of getting involved in the story through the interactive elements also showed a tie between interactivity and intention to change attitudes. Even though for most of the participants this was their first encounter with the genre of interactive documentary, they evaluated positively their whole experience which is a proof of the quality and effectiveness of the project answering to the second RQ (*Does interactivity promote a sense of participation, thus making the experience of the audience way more intriguing?*). Podara et al. (2021) also recognize the significant role which digital technologies and the Internet play in engaging audiences via content dissemination. However, they mention that digital projects need a transmedia approach, employing both conventional and interactive promotional techniques to reach the public.

Regarding the third RQ (*Is interactivity in digital audiovisual stories correlated with higher levels of audience awareness?*), the findings revealed that the interactive elements sharpened the memory and initialized a process of active thinking, especially when trying to answer to the interactive quizzes. As a respondent mentioned, the fact that interactive quizzes make you doubt your knowledge is what makes you want to know the truth. Promotion of understanding and memorization is achieved via interactive videos which are considered as the ideal technology for that purpose (Birkett, 2016). The present project attempted to mirror the transformation from traditional forms to innovative, as well as the public's need of participation online.

Nowadays, digital stories in the form of brief online videos, either user-generated or professionally made, are flooding all social media platforms. Within this plethora of digital production, all creators are seeking to attract the audience's attention and as Seeper (2015) argues creators should be constantly looking for alternative ways for visual arts to achieve attention and engagement online. Considering the short attention span of younger ages, new media genres that allow them to stay connected and engaged as long as they wish and from which they may drop out at any time having though received basic information on the issued deployed, are designed to satisfy that need (Podara et al., 2021).

Like all research, this one too comes with limitations, the main one being the small number of the respondents and the restricted participation of certain age groups that prohibits the generalization of the findings. However, this was known from the beginning since this study was a preliminary one that could set the basis for larger scale research to be conducted in the future. As a next step, besides reaching a greater audience, different kinds of interactive productions (i.e., journalist reports) on social, environmental or other issues with different interactive features produced on different platforms could help in delivering safer conclusions. Future research could also involve a qualitative survey through interviews after some time has passed of watching an interactive documentary. In that way richer insights into the genre's potential of social change would aid in providing more information on how interactivity and its tools correlate with behavioral change.

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