



VIRTUAL ETHNOGRAPHY: INFORMATION DISCLOSED ON SOCIAL NETWORKS ABOUT THE POSITIVE AND NEGATIVE IMPACTS OF THE PANDEMIC ON THE ENVIRONMENT

Virtual ethnography: information published on social networks on the positive and negative impacts of the pandemic on the environment

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Summary

This work aims to showcase research carried out in online environments, showing relevant information for the construction of scientific knowledge. The virtual environment is improving and progressing every day to provide a more facilitating resource for our society. Using Ethnography as methodological support, using YouTube as a locus of data production. Taking into account the various social networks that we currently have, the video platform was selected as a place to search for the empirical research material. related to shares, likes, comments and views. In order to be able to track the most relevant information about events related to the positive and negative impacts of the pandemic on the environment. done with the dissemination of news and information regarding knowledge of these impacts, to the public that most frequents the video platform. As we know, the situation started in China and spread worldwide. And with this, one of the means used to suppress the spread of the virus as a form of combat assigned to society was isolation and social distancing. What can be seen is that the pandemic had a very impactful factor on our environment, but it also had its beneficial side, such as isolation and social distancing, caused by restrictions due to the pandemic, there was a significant increase in hospital waste around the world. , as well as plastics discarded in domestic environments.

Key words: Covid-19 impacts on the environment, negative effects of the pandemic on the environment, corona virus and its impact on the environment.

Abstract

The present work aims to show the research carried out in online environments, showing relevant information for the construction of scientific knowledge. The virtual environment is improving and progressing every day to provide a more facilitative resource mode for our society. Having Ethnography as a methodological support, using Youtube as a locus of data production. Taking into account the various social networks that we currently have, the video platform was selected as a place to search for the empirical material of the research. related to shares, likes, comments and views. In order to be able to track the most relevant information about events related to the negative impacts of the pandemic on the environment. made with the broadcasting of news and information regarding the knowledge of these impacts, to the audience that most frequents the video platform. As we know, the situation started in China and spread worldwide. And with that, one of the means used to suppress the advance of the virus as a form of combat attributed to society was isolation and social distance. What can be seen is that the pandemic had a very impacting factor on our environment, such as isolation and social distance, caused by restrictions due to the pandemic, had a significant increase in hospitals waste worldwide, as well as plastics discarded in domestic environments.

203 Keywords: Covid-19 impacts on the environment, negative effects of the pandemic on the environment, corona virus and its impact on the environment.

1. INTRODUCTION

The new coronavirus is scientifically called SARS-CoV-2. This difficult word contains important information such as. SARS is an abbreviation for a syndrome called Severe Acute Respiratory Syndrome, which is translated as Severe Acute Respiratory Syndrome. This is the severe form of many respiratory diseases and the main symptom



It's the difficulty of breathing. CoV is short for coronavirus, the family of viruses it belongs to; finally, number 2, because it is very similar to another species of coronavirus that almost became a pandemic in 2002, SARS-CoV. The new coronavirus was initially observed in December 2019 in the city of Wuhan, China. The patients had in common previous contact with the Wuhan market, known for selling local foods, such as animals considered exotic to Westerners. (Tozzi, et al, 2020,).

Given the short time since the emergence of this virus, there was no scientifically proven and effective medicine to help combat it, the only solution was through various research with scientists who were committed to making a vaccine to be able to combat the virus and help the population to avoid have severe symptoms of the disease that have led to many deaths.

And as a starting point to reduce the impacts of the virus, it was advised that people around the world lockdown, isolate and social distance, so that the contamination rate could be reduced.

The modes of transmission are diverse, such as: direct transmission through respiratory particles (coughs and sneezes from infected people), transmission through objects and surfaces contaminated with the virus and through airborne transmission. (Barroso, et al, 2020).

Second (Medicinas, 2021). Even in the face of a reduction of around 20% in carbon dioxide emissions that had not occurred since 1970, the period of lockdown, caused by restrictions due to the pandemic, generated important data, showing that, however, this aspect was very short-lived. The concept of anthropause, a name given by science, is understood as the 'rest' that humans gave to nature due to the lack of environmental impacts, pollution and gas emissions.

Since the World Health Organization (WHO) declared Covid-19 a pandemic, several attempts to contain the spread of the virus have been proposed and implemented, such as, for example, social isolation of the population. The low human activity in recent months has generated a series of consequences and impacts, and, regarding the environment, many of the changes have been positive, as we can see below in figure 1. (Ufjf, 2020).

Figure 1: One of the most impactful images of the effects of the pandemic on nature, the Himalayas visible for the first time after 30 years



Source: ufjf, 2020

The professor of the Postgraduate Program in Ecology, at the Federal University of Juiz de Fora (UFJF), Fabrício Alvim Carvalho, states that the quarantine measures are positive not only for society, but for wild fauna and flora. "The reduction in human exposure to environmental pollution is clear; consequently, related respiratory problems are also reduced. In a way, it is also positive for wildlife, which is also exposed to these high concentrations of gases." (Ufjf, 2020).

204 Drop in NO₂ and CO₂ levels, the phenomenon, however, is not exclusive to India. Satellite images show that the coronavirus pandemic is temporarily lowering air pollution levels around the world. Experts point to the quarantine as the largest-scale event ever recorded in terms of reducing industrial emissions. The European Space Agency (ESA) also detected a reduction in nitrogen dioxide (NO₂), a chemical compound that contributes to atmospheric pollution and acid rain. NO₂ is the result of emissions from cars and other industrial processes and can, among other things, cause respiratory problems. Let's see another example in figure 2, below. (Ufjf, 2020).

Figure 2: Venice canals are also cleaner and more crystal clear, a state they did not reach 60 years ago



Source: uffj, 2020

However, unfortunately we do not only have positive sides, the pandemic has not only brought benefits to the environment, it has also worsened other environmental problems such as the disposal of plastics, accumulations of waste, hospital materials, associated with isolation and social distancing. Thus bringing impacts to our environment. The emergence of Covid-19 has led to an increase in the generation of medical waste across the world, as well as in the volume of hazardous waste and household plastics. To get an idea of this increase, in 1950, the world produced 2 million metric tons of plastic. In 2017, there were 8.3 billion metric tons of plastic and the projection for 2050 is 34 billion metric tons of plastic produced. According to research by the International Atomic Energy Agency (IAEA), over the next 80 years, the amount of plastic in the oceans could increase by up to five times. (Medicinasa, 2021).

Plastic also has important impacts on the environment. They move, they don't stay put where they are discarded. They can transport themselves around the world in different ways, being deposited in all environments and waters, entering all biomes. Plastics are also involved in another pandemic called "Antimicrobial Resistance" with barely visible impacts. It is through microplastics that antibiotics and heavy metals serve as reservoirs for communities of bacteria that can return to humans. (Medicinasa, 2021). There is no doubt that plastic pollution was already one of humanity's greatest challenges before the arrival of COVID-19 and the massive use of gloves and masks recently showed the entire world images of beaches invaded by these products. (Mapfre, 2020)

The mask has become one of the main brands in the fight against Covid-19. Although it is not the most efficient measure to prevent contamination (the essential thing is to constantly clean your hands and avoid crowds), it reduces the chances of an infected person transmitting the virus onwards – but there is a catch. The mask has a short lifespan and some models, especially surgical ones and those made with TNT, cannot be used more than once. Adding this to the fact that the ideal is to change them every four hours, we are faced with another problem: if discarded in the wrong way, masks can be a threat to the oceans as shown in Figure 3. Below. (Simonetti, 2020).

Figure 3: Gary Stokes, from the organization Oceans Asia, shows the used masks that were discarded on the beaches of Hong Kong



Photo: Naomi Brannon


Source: Simonetti, 2020

The objective of this article is the way in which the distribution of information from social networks about the individuals in which it is being used is identified, which can be characterized by the spread of information, by analyzing several cases of these subjects we can create alerts for people to become aware, and know how to correctly dispose of your plastic waste that has accumulated in an absurd way in the face of the pandemic, causing impacts on our environment, as the pandemic has led our society to only worry about the virus and forget about the other factors that are around us, be it our mental health and our environment, we aim to show our readers how this content is somewhat delicate in general.

2 METHODOLOGY

This is a qualitative study based on virtual ethnographic research as an investigation method. Data collection took place through the researcher's immersion in social networks and the research was carried out in January 2022. (NEERGAARD; OLESEN; ANDERSEN; et al.2009; HINE, 2000). Taking into account the numerous social networking sites that currently exist, YouTube was selected as a place to search for the empirical research material. For data analysis, the first ten publications were used, such as the number of views, the number of likes, the number of shares and the results of each survey were organized in Excel spreadsheets and graphs. According to ethical guidelines, approval by an ethics committee was not necessary, as this was research carried out on social networks with data open to the public.

A data collection was carried out regarding the positive and negative impacts of the pandemic on the environment. For the searches, it was necessary to select descriptors such as: Covid-19 impacts on the environment, negative effects of the pandemic on the environment, corona virus and its impact on the environment, and without selection filters for each search. As shown in figure 1:

<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">206</div> 	Covid-19 impacts on the environment.	Effects negatives from the pandemic to the quite environment.	Corona virus and its impact on the environment.
	+ 1 million videos	+ 1 million videos	+ 1 million videos

Source: Youtube, 2021



2.1 SELECTION OF SAMPLES FOR ANALYSIS

From the data obtained, we created a variable to evaluate the 18 most relevant videos or posts from all searches with the descriptors and the criteria used were: number of views, number of likes, number of shares. The posts were then organized into a ranking of interactions in a table format from which information was selected regarding the publications' understanding of the positive and negative impacts of the pandemic on the environment.

3 RESULTS AND DISCUSSION

You can see the following table, according to the data collected for each descriptor researched on the social networks used, nineteen posts were selected that had relevant information, focusing the research in relation to the number of views, likes, comments on the video platform Youtube . In view of the table below, it can be seen that the topic was covered a lot by the platform, and showed the concern of researchers. None of the research carried out presented all the interaction rankings selected in the research, such as video/poster title, views, publication date, views, likes, comments. Shown below in Table 1.

Table 1. Description of relevant posts on the topics on the video platform.

Channel	Title post	Date post	Views	Likes	Comments	Information	Link
Youtube	5 impacts positive and negatives of pandemic about the middle environment	06/09/2021	210	22	0 comments they are disabled	No informed	https://youtu.be/DJUNGxvx4Pg
Youtube		04/12/2020	107,296	4,300	369	No informed	https://youtu.be/UOkA2sBugf8
Youtube	LECTURE	06/01/2021	649	26	3	No informed	https://youtu.be/ke1YFK_PMug
Youtube	The impacts of the pandemic COVID-19 in the middle environment	07/01/2020	375	15	0 comments they are disabled	No informed	https://youtu.be/
Youtube	0 IMPACT of the pandemic in the middle	09/06/2020	5,981	330	8	No informed	https://youtu.be/w9lI2aq_5wo

Channel	Title post	Date post	Preview	Likes	Comments	Information	Link
Youtube	Impacts of pandemic of the new coronavirus in the middle environment	06/04/2020	602	28	0	No informed	https://youtu.be/
Youtube	Covid-19: the impact of pandemic in the middle environment	04/13/2020	30,427	681	39	No informed	https://youtu.be/

Youtube	The impact of covid-19 in the middle environment is the theme of Column Time Echo	04/16/2021	445	10	0	N TheO informed	https://youtu . be/
Youtube	Act Brazil: the impacts of the pandemic coronavirus in the middle environment global	05/26/2020	805	19	0	N TheO informed	ht tps://youtu. be/NY_ZFx8I-hg

Channel	Title post	Date post	in	Preview	Likes		Link
Youtube	P andemia It is quite environment	05/26/2020	4,734	126	1	N TheO informed	ht tps://youtu.
Youtube	I impacts environmental d The pandemic COVID-19	05/11/2021	626	41	two	N TheO informed	ht tps://youtu. be/Ytrdzn54-I8
Youtube		07/22/2020	402	33	0	N TheO informed	https://youtu . be/S6heQIBCJA0
Youtube	Webinar #16: The effects dark of pandemic COVID-19 in the middle environment	01/10/2020	37	3	1	N TheO informed	https://youtu . be/HgSKR7Nx9t4
Youtube	Exploration the middle one-environment and pandemic	04/08/2020	5,810	200	two	N TheO informed	https://youtu . be/lcCxRyXzeg0

Channel	Title	Date in the post	Preview		Comments		Link
Youtube			7,627	196	7	Did not inform	https://youtu.be/
Youtube	Get to know the effects of the pandemic	The	10,360	194	9	Did not inform	https://youtu.be/n3u-Q-2Fxc
Youtube	Quite environment It is		2,392	115	3	Did not inform	https://youtu.be/
Youtube	Live Covid-19 and Middle		410	16	0	Did not inform	https://youtu.be/
Youtube	The middle environment in times of Covid-19	It is	5,453	181	17	Did not inform	https://youtu.be/

To evaluate the content that was posted on social networks, we initially analyzed the recurring terms in the post titles. Based on this analysis, we built a word cloud with the most used ones in order to analyze the content published on the video platform about the positive and negative impacts of the pandemic on the environment. When analyzing the videos on YouTube, it was observed that the information disclosed was very relevant information, little was found regarding the positive effects of the pandemic, the only positive impact that was favorable for our environment was due to the reduction in carbon dioxide. However, the negative impacts are more addressed as they always come from problems that were already being addressed in our society and what happened was the worsening of certain people's customs in the face of discards, masks, gloves or their own materials. People have been forced to fight an invisible enemy, which has caused hundreds of millions of hospitalizations, more than 5 million deaths and led to the production of more than 8.4 million tons of excess plastic waste. (McIntosh, 2022)

Most of this waste was generated by hospitals fighting to save the lives of their patients and was made up of the most diverse materials, such as surgical masks, disposable gloves, components of Covid-19 test kits, syringes, packaging, hygiene products, water bottles, disposable plates and cutlery, and even toothbrushes. (McIntosh, 2022) Much of this disposal was buried in landfills. A small portion ended up incinerated, and almost 25 thousand tons were released into the oceans, more than 12 thousand tons in the form of microplastics – fragments of less than 5 millimeters. (McIntosh, 2022)

Although more difficult to observe than contamination from surgical masks or plastic bottles, the pollution of marine environments with microplastics is considered one of the most critical environmental crises of the 21st century. (McIntosh, 2022)

210 The topic was addressed during the XI Annual Meeting of ILSI Brasil (International Life Sciences Institute of Brazil). Seemingly harmless, these particles are gradually but continually accumulating and persisting in the surface waters of the oceans. (McIntosh, 2022)

There is important debate about the potential threat they pose to human, animal and environmental health. After all, it has become increasingly clear that these pollutants are entering the numerous food webs that support life on the planet, and that they can return from the seas to terrestrial environments through the process of aerosolization, resulting in atmospheric contamination that can travel long distances in the world. wind. (McIntosh, 2022)

According to Douglas McIntosh, who is a microbiologist and professor at the Federal Rural University of Rio de Janeiro. These types

of incorrect disposal has become increasingly clear and the pandemic has only intensified this type of aggression against the environment, these pollutants end up entering the food webs of our marine lives, and microplastics are strongly associated with other pollutants, such as antibiotics and heavy metals. When looking at this situation we can see that these contaminated microplastics result in the formation of microbial communities, which are known as biofilms. These are places that are conducive to the exchange of genetic material, this includes antibiotic-resistant genes. And all of this being discarded in this way means that our marine animals, including fish and crustaceans, ingest these incorrectly discarded components, leading to contamination and can be consumed by humans, mammals and birds.

This chain results in the spread of antimicrobial resistance genes and contributes to a global pandemic that is expected to result in more than 10 million deaths annually by 2050. Now, if bacteria become stronger, we will have fewer and fewer antibiotics available to combat them. (McIntosh, 2022).

FINAL CONSIDERATIONS

The analysis of publications on the video platform about the positive and negative impacts of the pandemic on the environment addresses various topics ranging from covid-19, the incorrect disposal of hospital and residential materials, to the decrease in carbon dioxide that occurred during the pandemic, and addresses what can happen due to all this contaminated material discarded in our ocean. It is possible to observe that even though video views are high, people do not interact, do not comment on the videos, and do not want to debate the subject. It is also observed that what is most currently found are videos, it is the approach to the negative impacts of discarded waste, which, due to the pandemic and social isolation, had to be applied. It can also be seen that the number of videos available today is large, even after the pandemic is under control due to the vaccination of the world population, the issue of aggression to the environment that was caused always comes to the surface and this should be addressed more and commented on by society, but unfortunately the number of comments is significant given all the views, society should be more aware of this issue because now we may not feel it but later we can feel great impacts on our lives.

REFERENCES

BARROSO, R de F. et al. **A comparative study of positive and negative warnings from the environment in times of pandemic.**

BEZERRA, Arthur Correa; MILAN, Stefania; MALINI, Fabio. Presentation: disinformation and hyperinformation in contemporary digital networks. **Liinc in Magazine**, Rio de Janeiro, v.13, n.2, p. 282-284, November 2017.

CARMO, RL do et al. Population, environment and covid-19. **Themes**, v. 28, no. 55, p. 314-341, 2020.

Correia, Mauricio de Vargas; Rozados, Helen Beatriz Frota. **Netnography as a research method in Information Science**, v 22, n 49, p. 1, 2017.

FERRAZ, CP Digital ethnography and the foundations of anthropology for studies in online networks. **Aurora:art, media and politics magazine**, 2019, v. 12, no. 35, p. 46-69.

Ferro, Ana Paula Rodrigues. Netnography as a research methodology: a possible resource. **Education, Management and Society Magazine**, v 5, n 19, p. 1-5, 2015.

LUCENA, CC; HOLANDA FILHO, ZF; BOMFIM, MAD Current and potential impacts of coronavirus (Covid-19) on goat and sheep farming. Goat and Sheep Intelligence and Market Center. Embrapa Goats and Sheep – **Technical Note/Scientific Note**, Bulletin No. 10, Sobral, CE, April, 2020.

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MARTINS, TMO **Netnography as a methodology to understand the work of digital culture teachers**, 2012.

MARTINS, TMO; MAMEDE-NEVES, MAC **Media in and beyond the classroom**. Rio de Janeiro: PUC-Rio, Department of Education, 2011.

MELO, MR da S.; MELO, GAP de; GUEDES, NMR Conservation Units: a reconnection with nature, post-covid-19. **Brazilian Journal of Environmental Education (RevBEA)**, v. 15, no. 4, p. 347-360, 2020.



PradoA. D., PeixotoB. C., da Silva AMB, & Scalia LAM The mental health of health professionals in the face of the COVID-19 pandemic: an integrative review.**Acervo Saúde Electronic Magazine**,(46), e4128, 2020.

SANTOS, FM; GOMES, SHA Virtual ethnography in practice: Analysis of methodological procedures observed in empirical studies in cyberculture.**7th National Symposium of the Brazilian Cyberculture Association**,São Paulo, 2013.

SILVA, CLF et al. Socio-environmental impacts of the SARS-CoV-2 (COVID-19) pandemic in Brazil: how to overcome them? **Brazilian Journal of Environmental Education**(RevBEA), v. 15, no. 4, p. 220-236, 2020c.

SOARES, SDS; STENGEL, M.**Netnography and scientific research on the internet**.2021. PUC Minas. Belo Horizonte, MG, Brazil.

SOUZA, L. da P. de. The COVID-19 pandemic and its repercussions on the relationship between the environment and society.**Brazilian Environmental Magazine**, v. 8, no. 4, 2020.

VENTURA, D. de FL et al. Challenges of the COVID-19 pandemic: for a Brazilian research agenda in global health and sustainability.**Public Health Notebooks**, v. 36, p. e00040620, 2020.