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Article

# COVID-19 as a trigger for sustainable tourism and eco-influencers on Twitter

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**Abstract:** The social confinement resulting from the COVID-19 crisis temporarily reduced greenhouse gas emissions. Although experts consider that the decrease in pollution rates was not drastic, some surveys detect a growth in social concern about the climate. In this environment, institutions, city councils and companies have promoted sustainable tourism as a necessary option, even before world society regains freedom of movement. This work analyzes and geolocates the sustainable tourism and ecotourism proposals on Twitter, quantitatively and qualitatively, using the Twitonomy Premium tool, with data extracted at the end of December 2020. The results show an arduous activity in Ireland, Kenya, Sri Lanka, India, Croatia, Spain, Finland, France, Mexico and Pakistan, among others. The accounts that achieve the most impact and engagement are both from public institutions and influencers specialized in travel, writers and chefs, who act as eco-influencers. Ecotourism is promoted as the necessary option for the conservation of cities and landscapes, which will be visited by tourists supposedly more aware after the virus.

**Keywords:** COVID-19; sustainable tourism; responsible tourism; ecotourism; sustainable citizenship; environmental awareness; social media; Twitter.

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## 1. Introduction

In December 2019, a hitherto unknown type of coronavirus [1], named SARS-CoV-2, caused a severe respiratory illness in Mainland China. The virus transmission went from a single area to the entire country in 30 days [2,3,4]. Two months later, after its rapid expansion, the disease began to be called by the scientific community as COVID-19 (an acronym for Coronavirus Disease 19). Throughout 2020, dozens of countries around the world experienced numerous outbreaks, as no effective drugs [5,6] or vaccines were developed. The main factors that contributed to its expansion were the population's high international mobility, and the high population density in urban areas [7,8,9,10].

Preventive strategies, in addition to hygienic ones, included measures of social distancing, community confinement, reduced mobility, and perimeter closures of hundreds of cities [11,12,13]. This social confinement temporarily reduced greenhouse gas emissions. In Spain, the BC3 (Basque Center for Climate Change) and the Observatory for Energy Transition and Climate Action (OETA) predicted that 2020 would close with a historic decrease in these emissions. They estimated a fall of 15%, the largest decrease since 1990 and the year in which these calculations were inaugurated [14]. According to the same study, and according to monthly measurements, in the first months of 2020, the reduction in emissions was due to the decrease in activity of coal-fired power plants [14]. This decline was on the rise, in April and May, as social distancing and home confinement measures tightened.

The data is reproduced in a similar way when studying the phenomenon at the European level, although experts consider that the decrease in pollution rates was not so drastic. The Global Carbon Project (GCP) of the World Meteorological Organization (WMO), in its November 2020 newsletter, estimated that in the most intense period of forced confinement, reductions in carbon dioxide (CO<sub>2</sub>) could fall as much as 17%, in relation to the 2019 data [15]. However, it predicted that the total annual reduction would only be between 4.2% and 7.5%. The best data for the environment came from the level readings of large cities' centers: Helsinki, Florence, Heraklion, Pesaro, London, Basel and Berlin [16]. However, the WMO recommends caution and explains that the high natural atmospheric variability of CO<sub>2</sub> requires more numerous measurements and in more time, since a lower concentration of carbon dioxide is not always linked to a lower presence of fossil fuels.

Until the data are published later, numerous studies and surveys do detect an increase in social concern about the climate as a result of the crisis and confinement. The deadly coronavirus called into question the welfare state and encouraged the world's population to think about climate change more seriously. Keesing et al. [17] already warned of the unbreakable nexus between the climate emergency and the transmission of infectious diseases, a decade before the COVID-19 crisis. They noted that the decline in biodiversity reduced the capacity of essential ecosystem services, the defenses of humans, animals, and plants, and consequently, the increase in infectious diseases [17]. This study called for the need for socio-climatic awareness so that areas of high natural biodiversity serve as a reserve for pathogens that do not have to come into contact, for example, with humans [17]. Currently, this work accumulates 23,000 downloads on the website of the prestigious journal *Nature*, and more than 854 quotations in publications around the world.

The WMO submitted another report in May 2020, which also openly stated that climate change is deadlier than coronavirus because it includes ocean warming, record sea levels, melting ice sheets, storms and droughts, and proliferation of still unknown pathogens [18]. Likewise, the Convention on Biological Diversity (CBD) of the United Nations (UN) underlined in its report Global Biodiversity Outlook (GBO-5), in August 2020, the need to meet the 20 Goals of Aichi. According to the text, biodiversity is key to all factors of human life, including health [19].

Numerous international media have shown the results and proposals of these studies. Climate awareness has expanded its visibility and importance on the media agenda. And polls from various organizations include questions on these issues, even focusing on areas that were used to be unrelated to climate. The European Investment Bank (EIB), the community financial body of the European Union, published in January 2021, the 2020-2021 EIB Climate Survey. The results reveal that COVID-19 has influenced the perception of citizens about the climate emergency; and climate and ecological recovery are high on the EU agenda [20]. Specifically, the survey shows that 57% of European citizens affirm that the economic recovery after the global pandemic must consider the climate emergency and that European governments must promote an urgent reduction of CO<sub>2</sub> [20]. According to the same survey, citizens of some European countries, such as Hungary (71%), Malta (67%), Spain (64%), Germany (63%), Luxembourg (63%) and France (61%), think that the fight against climate change should be part of the economic recovery [20].

In this new climate-conscious environment, institutions, municipalities and companies have promoted sustainable tourism as a necessary option, even before world society regains freedom of movement. Although the concept of sustainable tourism is not new, the current situation has caused its regeneration. Butler [21] explained that the term was born from the *Brundtland Report* of United Nations, also known as *Our Common Future* [22]. From there it evolved to combine the care of the human environment and the physical environment [21].

The coronavirus crisis has increased the importance of social responsibility in this sector [23,24,25,26,27,28], national and regional tourism [29,30,31] and the need to rehabilitate buildings, monuments and forgotten places [32,33,34,35]. Michopoulou, Al-Qasbi & Melpignano [36] also propose to develop sustainable tourism from the co-creation of value in remote, unique and less exploited destinations. They carry out their study in tourist camps in Oman, where the client also participates as a manager, increasing authenticity, commitment and attachment to the place [36].

In a similar way, Pluskowski, Banerjea & García-Contreras [33] explore the promotion of regional tourism in France, through a reinterpretation of abandoned castle tourism, in relation to its surroundings and landscape. And Coles [37] addresses the tourism and environmental care, relating Brexit in the United Kingdom and air traffic. In his research, tourism appears as a source of income to be exploited after the country leaves the European Union. However, promoting it would contradict the British government's zero-emissions promise [37].

Until the world population regains mobility, the tourism sector also modifies its communication and marketing. The benefits of the destinations that will be visited when the pandemic ends will not stop being promoted. The main way to do this is through social networks [38, 39, 40, 41, 42, 43], which exponentially increased the number of users during the mandatory confinement [44]. At the beginning of 2020, more than 4.500 million people used the Internet in the world and 3.800 million were social media users. This meant that 60% of the world's population regularly accessed the digital world and 45% of the same population also was on social media [45].

According to other international reports, the digital population spends 6 hours and 43 minutes connected every day [45] and at least half of that time runs from a mobile phone. Social media users spent an average of 2 hours and 24 minutes a day browsing and interacting with their profiles, which represents more than a third of all the time they dedicate to the digital world [45]. The social networks chosen were, in descending order: Facebook, with more than 2,111 million users; YouTube, with more than 1.900 million users; Instagram, with more than 1,000 million users; and Twitter, with more than 340 million users [45].

According to the social context and the theoretical precedents discussed, this work proposes an original, unpublished and necessary investigation that discovers and analyzes the connection between the new climate awareness arising from the COVID-19 crisis, the proposals of sustainable tourism and ecotourism around the world, and its communication on Twitter to reach the new eco-conscious audience. This primary objective includes the following secondary objectives:

- Analyze the state of the matter in academic publications and the most current and prestigious research on sustainable tourism.
- Detect, geolocate and analyze sustainable tourism and ecotourism proposals on Twitter, using the Twitonomy Premium tool, with data extracted at the end of 2020.
- Compute and analyze, based on the accounts detected, those with the most users and the most influence.
- Analyze and comment in a mixed, qualitative and quantitative way, how is their activity in the social network, from their original tweets with the hashtag #SustainableTourism. The quantitative analysis will consider total tweets, tweets per day, retweets, followers and hashtags. The qualitative analysis will consider the relationship or reasons of the quantitative data, the most named destinations or tourist attractions in recent weeks, and the most original and eco-conscious proposals for the chosen period: January-December 2020.

To operationalise the general and secondary objective, the following Hypothesis 1–4 were proposed:

- **Hypothesis (H1).** COVID-19 has awakened and increased a virtual civic awareness of the citizens, who follow accounts that promote sustainable tourism on social media, even months before being able to recover international mobility.
- **Hypothesis (H2).** This awareness of sustainable tourism is promoted by official entities, which must fulfill their environmental commitments, and by influencing users, tourism experts, who can see their core of followers and influence increased.
- **Hypothesis (H3).** Sustainable tourism offers a reinvention of the way of doing tourism, revising destinations or proposing new destinations with a new awareness.
- **Hypothesis (H4).** It is impossible to corroborate whether this eco-tourism awareness will actually translate into more sustainable cities, trips and travelers when the socio-health crisis is over, although Twitter now offers an eco-conscious and perhaps escapist and cathartic call, showing tourism that we cannot realize but we do dream about.

## 2. Materials and Methods

This work analyzes and geolocates the sustainable tourism and ecotourism proposals on Twitter, quantitatively and qualitatively, using the Twitonomy Premium tool, with data extracted at the end of December 2020. The chosen social media has been Twitter because it allows you to view tweets without having to be registered as a user. Likewise, Twitter is considered the social network where governments, politicians and institutions are most present [46,47,48,49,50,51,52,53,54]. Considering the reports of the introduction and underlining that the ecological commitment must come from governments, institutions and companies [55,56,57,58,59], the social media for microblogging was chosen as the most adequate to meet the objectives of the study.

Twitonomy is a web application to analyze the social network Twitter, exclusively. It is used to make publications and to analyze tweets, hashtags, followers, impressions, engagement rate and top domains. It is owned by Diginomy Pty Ltd, an Australian company headquartered in New South Wales. Its use policies include that its users are over 16 years old, human and not systems or bots, and if they opt for the Premium version of payment, that they provide a full name and a valid email address [60]. It is not affiliated with Twitter Inc., or any of its brands, and its features and functionalities are independent of the social network.

The data offered in each search is provided by Twitter's API (Application Programming Interface) and is subject to its limits [60]. Analyzing the general policies and guidelines, directly on the Twitter website, the social network explains that its APIs provide companies, developers and users with programmatic access to their data, with the exception of non-public information or direct messages [61] which implies a necessary compliance with the required ethical standards [62] and proposes a radical rereading of traditional journalism as a primary source of information [63].

The analyzed hashtag is #SustainableTourism, which includes all its forms in uppercase and lowercase: #SustainableTourism, #sustainableTourism and #sustainabletourism. When using the Premium version or paid subscription, Twitonomy allows monitoring up to a full year and dates were entered for the interval "since: 2021-01-01" and "until: 2021-12-31". Likewise, the last 3,000 tweets of the first 9 days of the year 2021 were analyzed in detail, as the tool offers, to confirm that there were no inconsistencies.

## 3. Results

When searching for the hashtag #SustainableTourism, the Twitonomy Premium app offers numerous results. In the left column of results it provides: flow of tweets per day,

most influential users, most engaging users, most active users, top hashtags, top languages and locations on a map. In the right column of results it provides: most retweeted tweets and most favorite tweets, in reverse chronological order, from present to back. Taking into account the main objective of the study, the results that allow a solid, realistic and deductive portrait have been chosen.

### 3.1. Most influential users & most active users

According to Twitonomy, the most influential users are the users or accounts with the most followers; the most engaging users are the users or accounts that gained the most favorites using the selected hashtag; and the most active users are the users or accounts that most mentioned the selected tweet in original tweets, since they do not count retweets, as they are not original content. To meet the proposed objectives, the 5 Twitter accounts that used the hashtag #SustainableTourism and that have the most influence (more users) and the 5 Twitter accounts that used the hashtag #SustainableTourism and that were most active (used the hashtag more times). They are shown in Table 1.

**Table 1.** Users and Twitter accounts that stood out the most with the hashtag #SustainableTourism.

Most influential users & most active users	Tweets	Following	Followers	Listed
@visitportugal	98,859	4,730	110,904	2,134
@ecotourismkenya	9,350	3,123	94,280	143
@EU_MARE	32,812	34,560	52,650	1,102
@Comunedigenova	29,890	124	47,050	365
@OldDublinTown	78,016	19,619	31,654	461
@worldlandtrust	14,739	2,650	27,084	660
@SEAI_ie	18,371	570	20,750	260
@FoodDrinkDest	25,090	89,044	87,348	1,106
@utladakhtourism	659	72	3,254	7
@Koonholidays	1074	47	115	4

<sup>1</sup> Source: Self-made from the data obtained in Twitonomy.

Among the 10 selected accounts there are accounts of European organizations (@EU\_MARE), national organizations (@visitportugal, @ecotourismkenya), regional tourism offices (@Comunedigenova, @OldDublinTown), companies dedicated to tourism (@Koonholidays) and influencers (@FoodDrinkDest). Its activity, in number of tweets, is very uneven, between 659 and 98,859 publications. Likewise, the range of followers is very wide, between 115 only and 110,904. Another interesting point, very representative, are the Twitter lists. This tool allows a user to create a list of accounts that interest him so that only the tweets of the accounts that he has decided to include in that list appear in it. It is another way to measure engagement and it is interesting to see that @visitportugal would be the most included in lists, predictably by travelers who want to travel to the Portuguese country. On the contrary, @Koonholidays would only be on 4 lists, despite its activity and its visibility with the hashtag #SustainableTourism.

### 3.2. Actividad de tweets, retweets, hashtags y tweets retweeted

Table 1 provides some very interesting quantitative data for the intended objective, but taking advantage of the features of Twitonomy, the data related to the specific activity of each account was also recorded. It is very interesting to relate the visibility of the account with the work that is carried out by the user or owner of that account; or the

effort that is dedicated from each account to achieve their visibility and engagement. These results are shown in Table 2.

**Table 2.** Users and accounts with their activity in tweets and hashtags.

<b>Most influential users &amp; most active users</b>	<b>Tweets per day</b>	<b>Retweets</b>	<b>Hashtags</b>	<b>Tweets retweeted</b>
@visitportugal	13.77	72%	1.15	24.73%
@ecotourismkenya	3.01	34%	1.06	48.1%
@EU_MARE	6.98	63%	1.23	34.73%
@Comunedigenova	9.09	36%	1.35	42.75%
@OldDublinTown	11.91	84%	0.22	8.97%
@worldlandtrust	2.32	26%	0.61	58.24%
@SEAI_ie	5.65	42%	0.54	38.54%
@FoodDrinkDest	6.25	37%	0.72	14.39%
@utladakhtourism	1.79	57%	1.45	30.80%
@Koonholidays	1.11	1%	12.00	50.4%

<sup>1</sup> Source: Self-made from the data obtained in Twitonomy.

After selecting the 10 accounts with the most influence and activity, the research analyzed, one by one, the activity of each of those accounts. The Twitonomy tool offers a very complete profile analytics: tweet analytic, tweet history, users most re-tweeted, users most replied to, users most mentioned, hashtags most used, tweets most retweeted, tweets most favorited, days of the week, hours of the day (UTC), platforms most tweeted from, tweets, followers, following, favorites, lists following and lists is following. To meet the objectives of the research, it has been considered that the most representative data are those that appear in Table 2:

- Tweets per day: Average number of tweets posted every day.
- Retweets: Percentage of retweets in the total of analyzed tweets.
- Hashtags: Average number of hashtags per tweet.
- Tweets retweeted: Proportion of the user's tweets retweeted by others.

The tweets per day section shows a wide range, between 1.11 and 13.77 tweets per day. This data is remarkably interesting, as it shows profuse activity, especially from official agency accounts (@visitportugal, @OldDublinTown, @EU\_MARE). It must be remembered that the validity of this data is based on the fact that the number of tweets per day arises from the selected period and not from the entire age of the account, since in that second case, the data would not be comparable between accounts that can have very different life spans.

Retweets are another interesting point, in this research and in any other work on Twitter. Remember that the Twitonomy screening excludes posts where the hashtag has been retweeted. That is, it stores and analyzes the original tweets in which the chosen hashtag has been used. However, it does allow you to know how many times that original tweet was retweeted by other accounts, as will be seen later. In this case, the data refers to the non-original publications that each account made, which were retweets, but in all their activity, not only referring to the hashtag # SustainableTourism. This data allows viewing the interaction of the accounts with other users of the social network and is the part of the investigation where the results are more even, because a profuse activity in retweets is observed. This includes @OldDublinTown, with 84% of its publications with retweets that come from original tweets of other users; @visitportugal, with 72% of retweets; and @EU\_MARE, with 63%. This activity, in the tourism sector, is quite common

because accounts can retweet publications of tourists who are visiting or have visited them.

The hashtags section provides the number of tweets used by each of the accounts in their publications. The average number of hashtags is very similar, in all cases, and almost all accounts use only one hashtag, thus giving it all the prominence. Some accounts have an average hashtag per tweet below zero and this is an interesting circumstance, since the absence of hashtags can worsen the visibility of the tweet and the account; but this would not have happened in all these cases.

### 3.3. Five most named destinations or attractions for each account

After the quantitative analysis of the two previous subsections, a mixed analysis of the content of the accounts was necessary. Its variety, age and origin are quite different, as already mentioned, and that makes the destinations and attractions that they promote are also very varied, as shown in Table 3.

**Table 3.** Last five most named destinations or attractions.

<b>Most influential users &amp; most active users</b>	<b>Last five most named destinations or attractions.</b>
@visitportugal	Algarve, Azores, Lisbon, Madeira, Porto
@ecotourismkenya	Amboseli, Massai Mara, Naivasha, Nairobi, Tsavo,
@EU_MARE	Antartica, Black Sea, Bulgaria, Den Helder, Stockholm archipelago
@Comunedigenova	Castello della Pietra di Vobbia, Monte Liguri, Passeggiata Anita Garibaldi, Sampierdarena, Waterfront di Levante
@OldDublinTown	Belcamp Park, Dublin Castle, Dun Laoghaire Marina, Meath Street, Nelson Pillar
@worldlandtrust	Atlantic Forest, El Silencio Reserve, Garo Hills, Patagonia, Sierra Gorda Reserve
@SEAI_ie	Clare, Dublin, Dunleer, Leitrim, Mulranny,
@FoodDrinkDest	Death Sea, Kilkenny, Rhine River, Singapore, South Korea Khelo India Winter Games, Ladakh Winter Conclave,
@utladakhtourism	Mamani Food Festival, Thiksay monastery, Zanskar Sports & Youth Festival
@Koonholidays	Ademspeak, Coconut tree hill, Nelligala temple, Sri Lanka's Hill Country, Sri Pada

<sup>1</sup> Source: Self-made from the data obtained in Twitonomy.

The most popular destinations and attractions in recent weeks bring together the appearance of cities, specific tourist attractions, places and nature reserves, and fairs and festivals. The options are very varied and offer forms of sustainable tourism for all ages, tastes and budgets. As some studies cited in the introduction indicated, Twitter allows viral tourism communication and marketing, which can bring the benefits of a destination to any part of the world. In later research it would be interesting to study the specific appearances of certain destinations, especially those most vulnerable or threatened by biosystemic change.

## 4. Discussion and conclusions

The previous results, according to the objectives of the research, must be commented and discussed in depth, from the perspective of the authors to the state of the art and the previously exposed working hypotheses.

**Hypothesis (H1).** *COVID-19 has awakened and increased a virtual civic awareness of citizens, who follow accounts that promote sustainable tourism on social networks, even months before being able to recover international mobility.* Climate awareness is one of the concerns that has grown the most after the SARS-CoV-2 social and health crisis [14,15,16,17,18]. Although it was already on the political agenda of governments and parties, it is now also on the social agenda, as revealed by commented international polls [19,20]. It is confirmed that eco-sustainable awareness is a top concern and as the media share the results of reports and surveys, they get the audience interested and expand their data and knowledge on the matter in social networks [22].

The decision to search for this information in social media can respond to the exponential growth of these during confinement. Although they were already an important part of our lives, the prohibition of physical socialization promoted the increase of virtual communication through social networks. In future research it would be interesting to see if there are more reasons to choose social media as a source of information on sustainable tourism, for example: political disaffection of citizens, distrust in official reports, suspicion of the mass and traditional media for their relationships policies or their business interests, detection of little relevant presence of ecological issues on the political and media agenda ... Likewise, it would be very suggestive to interrelate the presence of a hashtag on social networks with searches for the same term in search engines, as allowed by the Google Trends tool.

**Hypothesis (H2).** *This awareness of sustainable tourism is promoted by official entities, which must fulfill their environmental commitments, and by influencing users, tourism experts, who can see their core of followers and influence increased.* The analysis of the hashtag #SustainableTourism has corroborated this hypothesis, although it has shown that the accounts with the most influence and activity are those of official entities, well above individual or personal accounts. According to the commented authors, Twitter is the social network most chosen by official entities, governments, political parties or politicians in office [46,47,48,49,50,51,52]. The research data confirm that the most active accounts in sustainable tourism are of this nature and maintain the validity and timeliness of these previous research [23,24,25]. It is true, as has been raised in the research that it is necessary to distinguish between more influential accounts and more active accounts. Influence is usually measured in the number of followers and official entities have an easier time scoring points in this regard; while an influencer or individual person must win each follower, one by one, for the content they offer.

According to the research data, the European Union's commitment to sustainable tourism is tangible and among the 10 accounts analyzed there are several European organizations that work on water, fishing or food. They would comply with the commitments of the 2030 Agenda and not doing so would be a serious incongruity. It is also particularly positive to see how European countries ostensibly adhere to this commitment (Portugal, Italy, and Ireland, in the first places) and how other countries outside the European Union also embrace these commitments (Kenya, India, Sri Lanka, and Mexico, in the first places). It would be interesting, in subsequent research, to filter the search for activity on Twitter only to European countries, to analyze and compare which would be the most active and responsible in social media; and compare their proposals with those of countries that stand out in each of the other continents. Likewise, it would be relevant to compare the activity on Twitter in those countries that are especially active and influential in the social media but did not have a high rate of tourists before the pandemic. This would allow assessing, when mobility recovers, if the strategy has benefited them and the number of tourists actually grows.

**Hypothesis (H3).** *Sustainable tourism offers a reinvention of the way of doing tourism, revising destinations or proposing new destinations with a new awareness.* The state of the matter outlined high-impact academic works, with experiences in the five continents and the proposal of new destinations, previously considered exotic or more inhospitable [28,29,30,31,32,33,34,35,36]. In the same way, it showed responsible sustainable tourism

campaigns, on social networks and outside of them [23,30,36,38]. These investigations were considered to elaborate this hypothesis, which stood as one of the fundamental preconceptions to make a mixed analysis that included the qualitative. The hypothesis has been corroborated with the most named destinations and attractions, listed in Table 3. Based on these results, future research could focus exclusively on analyzing the Twitter accounts of a country that promote all national destinations from a sustainable way. It would be important to detect if these destinations are more underlined by official entities (governments, parties, municipalities), by tourism companies, by influencers, by anonymous tourists who share their travel experiences, or by citizens who live in those places and they want to share their value with the rest of the world. Other investigations could examine whether the forgotten destinations, the protagonists of those tweets during confinement, actually come alive again in physical visits when international mobility recovers.

**Hypothesis (H4).** *It is impossible to corroborate whether this eco-tourism awareness will translate into more sustainable cities, trips and travelers when the socio-health crisis is over, although Twitter now offers an eco-conscious and perhaps escapist and cathartic call, showing tourism that we cannot realize but we do dream about.* As mentioned, surveys on problems that concern European and international society, of course, contemplate climate awareness [20]. This awareness includes, in some studies, new eco-tourism awareness and a promise or anticipation of being more aware and sustainable tourists when it is possible to travel again. When the desired group immunity has been achieved, the virus is overcome, and freedom of movement regained, studies will have to assess whether that awareness has been translated into reality or was only promises; and how long that awareness lasts, whether it is temporary or long-lasting.

Unfortunately, there are still many months to go before these studies can be done. Meanwhile, this research has corroborated the hypothesis, showing Twitter as the field where that commitment, at least now, is visible. And it is due to the number of accounts, the number of users, their activity, the engagement they achieve and the internationalization of the proposals. The impossibility of doing tourism has not prevented the continued talk of tourism and that it is reinterpreted with a sustainable environmental awareness and committed to countries, cities, heritage and of course, nature. From this it is proposed that future research compare the activity of the most influential accounts, contrasting their activity on Twitter, YouTube, Facebook, Instagram and TikTok, to detect successes and errors, similarities and differences, or the best exploited and most chosen networks by the audience. Likewise, it would be interesting to conduct surveys or focus groups with followers of these accounts, to find out which groups choose one social network over another and why, when raising awareness about sustainable tourism.

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