



# The new role of cartography in modern tourism

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**Abstract.** Cartography and maps have historically been valuable tools for tourism and travellers. In the pre-COVID era, tourism had been rapidly growing worldwide, supported by all the newest developments in information and communications technology (ICT). This fact raises concerns about its potential negative impact on tourist destinations. Sustainable management of tourist destinations is thus becoming necessary and stakeholders and individuals are already developing relevant initiatives and actions where cartography and geospatial information could play a special role.

The profile of the modern traveller, however, is concurrently also rapidly changing. Modern travellers now have a wealth of internet resources available to them to aid them in selecting a tourist destination and planning a trip. Online maps are an example of such resources and are usually products of the so-called “new cartography”. The aim of this paper is to present the way in which tourist destinations are presented on the web through maps, what kind of geospatial information these maps contain, whether they follow cartographic standards and lastly, whether they provide an integrated presentation of the destination supporting sustainable management and satisfying the demands of the modern traveller.

**Keywords:** tourist map, cartography, new cartography, sustainable tourism management

## 1 Maps and tourism - from classical cartography to new cartography

Tourist maps, whether in their classic paper form or as tourist information map stand/sign or as travel guide appendices, have always played an important role in displaying and cartographically describing travel destinations and therefore, assisting in travel planning.

Tourism is now evolving dynamically utilizing new technologies, such as geoinformatics and new

cartography which present modern maps for tourist destinations in newer ways. Using ICT tools, new cartography is becoming more and more popular, giving the users the opportunity to create maps, with information based on their own education, interests and aesthetics.

In the past, maps were created by professionals who were educated in the science and art of cartography. After a period of shifting focus on geospatial data management, maps have regained importance and interest to a level of renaissance. Today maps are everywhere. These maps, however, are not necessarily developed by expert cartographers and as such they do not always meet the established cartographic principles and standards.

This new direction coined “new cartography”, does not have a single definition but is described differently. Turner (2006) stated that “Neocartography is essentially about people using and creating their own maps on their own terms by combining elements of an existing toolset”. Parsons (2011) defined new cartography as “map making that is happening outside of the community of professional map makers”.

New cartography products are characterized by prioritizing expression before communication, the evaluation of publication and dissemination as more important than perfection, and the priority of meeting the needs of the cartographer in relation to the needs of the map user (Chilton & Kent, 2016).

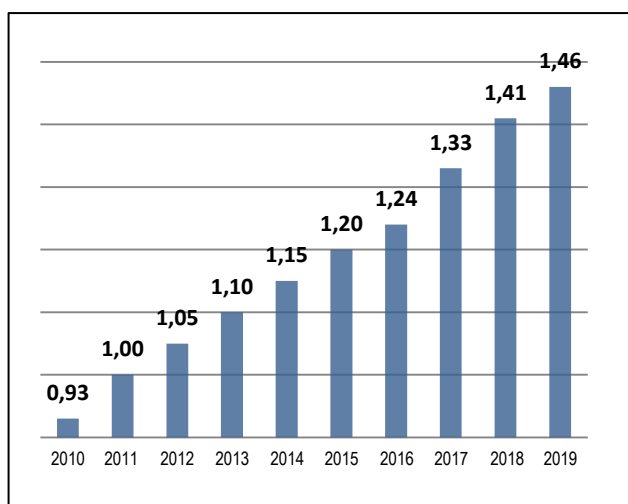
The aim of this paper is to present the way in which tourist destinations are now presented on the web through maps, what kind of geospatial information these maps contain, whether they follow cartographic standards, and lastly, whether they provide an integrated presentation of the destination supporting sustainable management and satisfying the demands of the modern travellers. The paper is part of a research

on the current and the potential link of cartography and responsible tourism.

## 2 Rapid growth of tourism and necessity for sustainable management

The tourism industry is changing with the use of ICT and the evolution of the internet, from being a marketing tool to a knowledge-creation tool (Xiang, 2018). Cartographic platforms find use in tourist promotion websites. The most prominent tourist sales channels such as, Booking.com, Expedia, Airbnb and TripAdvisor have included geospatial information - through Google Maps applications - among other information they provide to their users.

According to the World Tourism Organization (WTO) in recent years, tourism has grown faster than the economy. In 2018, international tourist arrivals reached 1.4 billion (Fig. 1), with an increase of 5% from 2017, a number that exceeded forecasts by two years, while in 2019 international arrivals approached 1.5 billion (UNWTO, World Tourism Barometer, 2020).



**Figure 1: International tourist arrivals 2010-2019 in billions (Data Source: WTO)**

The scientific community is concerned about the massive growth of tourism and the effects of over tourism on tourist destinations (Milano et al., 2018). This mandates the need to reconsider the management of tourist destinations on the one hand, and on the other, to review their development goals, so as to follow the principles of sustainability, to ensure a better future for the tourist destinations and local communities.

In this context, the necessity for the sustainable management of tourist destinations becomes more important. Consequently, stakeholders and individuals have begun developing relevant initiatives and actions to support this.

Sustainable tourism management is being studied and promoted by the academic community and competent bodies, through the formulation of definitions, goals, guidelines and actions. At the same time new terms are being introduced, such as “responsible tourism” (Frey & George, 2008), “ethical tourism” (Mokoena, 2019; Moscardo, 2018; Fennel, 2015; Weeden & Boluk, 2014; Lovelock & Lovelock, 2013), or “ecotourism” (Nistoreanu et al., 2011), all of which have as a common objective the protection of tourist destinations from all the possible negative effects of over tourism.

While observing this rapid development of tourism, it would be an important contribution to identify, highlight and monitor the role of geovisualization and cartography, which have been used successfully so far in other application areas such as land use and planning studies and decision making tools for development. That would be an essential contribution by the scientific community with a shift towards tourism sustainability in a more effective and efficient way.

## 3 The role of cartography in the promotion of tourist destinations

The internet is now the main tool for branding and promoting tourist destinations to travellers. A study conducted and reported in this paper focusses on how tourist destinations and their competitive advantages are presented by official online tourist websites, which today are undoubtedly the main mode of communication.

For the cartographic community it is important to identify how cartography and geospatial information is used in tourist destination websites.

Some important questions are thus posed:

- Is cartography used by official sites of tourist destinations?
- What is the quality of the available maps?
- Does the use of cartography as a key tool for travel destination selection and travel planning follow the speed of tourism development?
- Is the need for sustainable management of destinations being reflected in the way information is presented on online maps?

To answer these questions, a study was conducted looking at what type of geospatial information is available on websites of certain travel destinations, and whether there is any reference to sustainability.

An assessment of available online maps was also performed, looking at their standards and content.

Eighty (80) official websites of countries, cities and islands and regional tourist destinations were included.

The specific tourist destinations were selected according to the following criteria:

- The 10 countries with the highest numbers of arrivals worldwide according to the World Tourism Organization Statistics (Tab.1), in addition to their most popular cities for tourists
- Countries that apply the best practices for tourism development according to World Bank (2018), which are Jordan and Polynesia
- Greece (13th place in arrivals for 2018, WTO Statistics) and its most important tourist areas based on arrivals from Greek Tourist Confederation (SETE) statistics
- Mediterranean island countries, which are Cyprus and Malta

Country	Number of websites
Malta	1
Cyprus	1
Greece	8
Polynesia	1
Jordan	1
United Kingdom	11
Thailand	1
Germany	7
Mexico	1
Turkey	5
Italy	11
China	1
USA	9
Spain	13
France	9

**Table 1: Number of websites studied for each country**

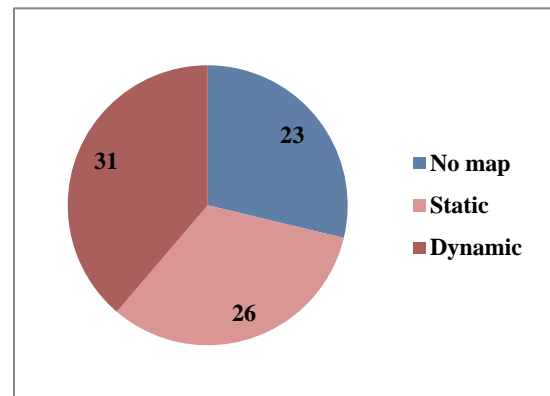
The number of websites studied for each country is presented in Tab. 1. The total number of websites studied are presented in Tab. 2 (Appendix).

The decision to choose official online websites as opposed to numerous private ones, was made taking into consideration the fact that the official competent

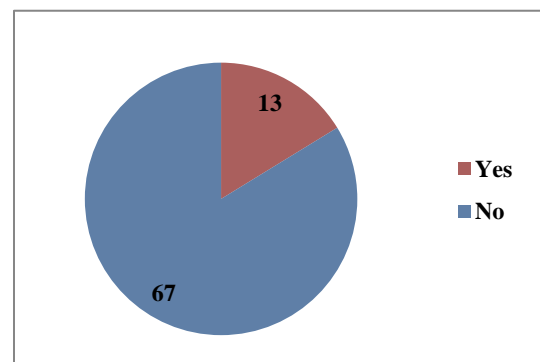
bodies could have specialized staff as well as the necessary financial resources to create such websites.

### 3.1 Maps in official websites of tourist destinations

Among the 80 official tourist destination websites which were studied, 23 (28.7%) did not have a map at all, even countries such as Jordan and Polynesia, which are considered exemplary for their tourism development policy. 26 of them (32.5%) had static maps mainly in pdf format available for download, while 31 had dynamic (interactive) maps with various formats and content (Fig. 2.). Three of them presented a technical problem when loading.



**Figure 2: Map presence in official web sites studied**

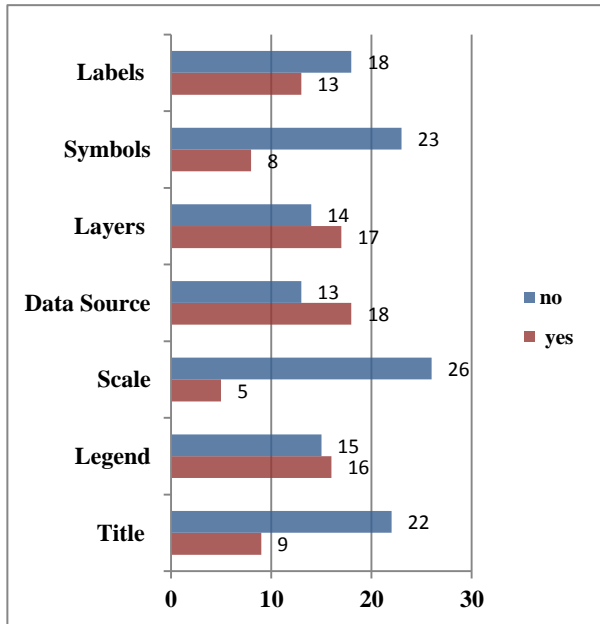


**Figure 3: Map presence on a special webpage**

The position of the map in the content of the websites was also studied and it was found that 13 (16.2%) were presented on a dedicated page, while 67 (83.7%) were found as additional information on pages with a different main topic (Fig. 3.). This finding reflects the importance given to the map as a source of information in the general content of the website.

The structural elements of the dynamic maps in relation to the basic cartographic standards were also

studied. It was found that 9 out of 31 (29%) had a title, 16 (51.6%) had a legend, 5 (16%) had the scale, 18 (58%) had the data source, 17 (54.8%) had information organized in layers, 8 (25%) had different symbols and 13 (41.9%) had labels (Fig. 4).



**Figure 4: Cartographic elements in maps of website studied**

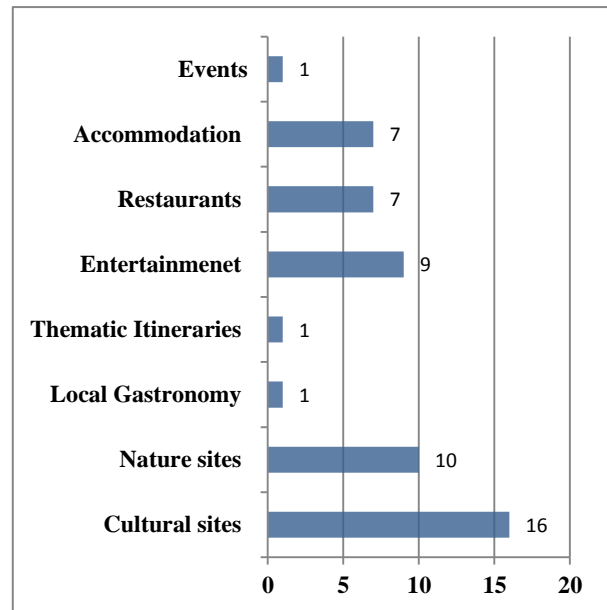
Focusing on the content of interactive maps, Fig. 5 presents the geospatial information layers of the dynamic maps, where 16 out of 31 maps, (51.6%) included information about cultural attractions, 10 (32.2%) environmental attractions, 9 entertainment (29%) and 1 (3.2%) included thematic tours and local gastronomy. These findings are of particular importance in relation to the modern traveller's requirements and will be discussed in the following paragraphs.

Finally, "sustainability" was referenced in only 6 websites out of 80 (7.5%).

A general conclusion from this study is that the presence of maps for the promotion of tourist destinations is limited and there are many shortcomings in terms of standards and content with regard to new tourist/traveller trends and demands.

#### 4 The new tourist

During this era of internet information, in addition to the tourist product, the profile of the modern traveller



**Figure 5: Geospatial information layers and number of maps of the websites studied that were found**

has also changed. The available information presented on the internet is increasing at an extremely rapid pace and the previously "abstract" model of a tourist destination is now becoming a detailed and reliable entity, making it a friendlier and more informative place to visit.

As more and more relevant applications are being developed, they facilitate access to information and services thus influencing the selection of destinations and travel planning, providing the potential visitor with the feeling of security especially, if he/she needs to travel on his/her own, even to remote areas that otherwise may not have been accessible.

Thus, the new tourist profile is shaped by his/her ability to use the internet to choose a travel destination, organize and plan any and all activities at the destination (Wang et al., 2016). As more information, of course, becomes available online and options increase, so do the new tourist's requirements and demands (ibid.).

Questions that may arise now are: to what extent does new tourist use online maps to choose the destination and to organize a trip and to what extent is he/she satisfied with the available online geospatial information?

#### 4.1 The profile of new tourist and his relationship with new cartography

In order to understand and define the profile of the new tourist and his/her relationship with cartography, a survey was launched in August 2020 to find out whether the information provided through internet is considered satisfactory regarding the available cartographic material. This survey focuses also on the role of cartography and geospatial data in the choice of destination and the preparation of the trip.

The survey questionnaire was prepared including 31 open and closed questions in total, concerning:

- the profile of the new tourist
- the characteristics of his/her trip
- the needs and requirements and
- the role of cartography in the process of organizing a journey

The questionnaire was addressed to travellers and virtual travel groups, who use the internet to collect information for the choice of their destination. The questionnaire was distributed via internet specifically to:

- Hotel guests who travelled individually
- International social networking groups with a common interest in travelling (e.g., Blue Ocean, Solo Female Travelers)
- Members of travel blogs (e.g., Travel Stories, Happy Traveler)

302 questionnaire responses were collected from potential tourists. The strong majority was from Greece due to practical constraints, but a significant part of 62 respondents were from 28 different countries from around the world (Tab. 2, Appendix).

Some results of this study are illustrated in Fig. 6-15. More specifically, with regard to the time spent researching their destination, Fig. 6 shows that 131 (43.3%) spend more than eight hours searching on the internet and 64 (21.1%) spend five to eight hours. In total, 64.4% spend more than five hours on the internet collecting information from the platforms presented in online tourist platforms (Fig. 7). In response to the question regarding how much they like using maps, (Fig. 8), with a score from 1-9, nine being the highest level of satisfaction, we see that most people enjoyed using maps.

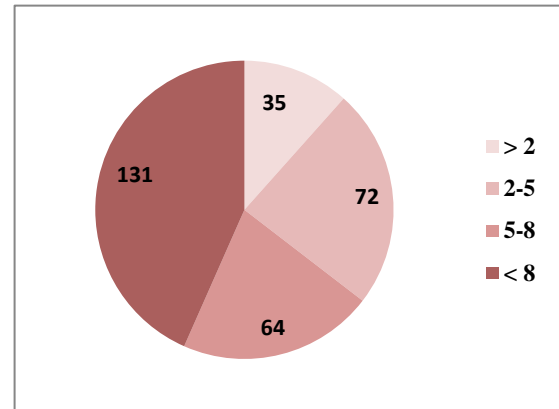


Figure 6: Responds for hours searching online

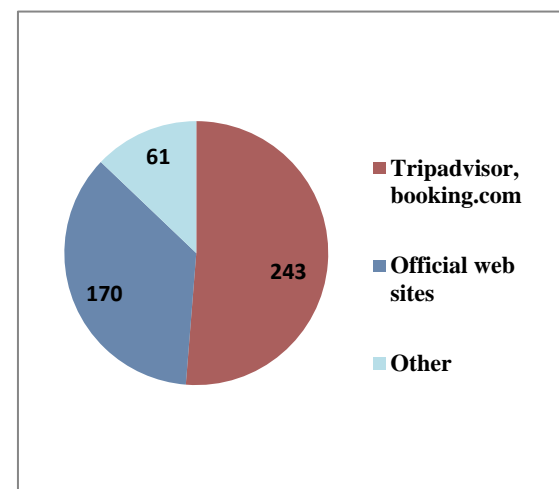


Figure 7: Responds for online tourist platforms used

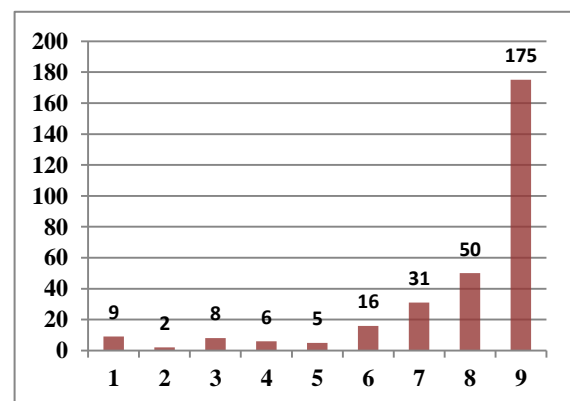


Figure 8: Answers to question "How much do you like using maps?" (score 1-9)

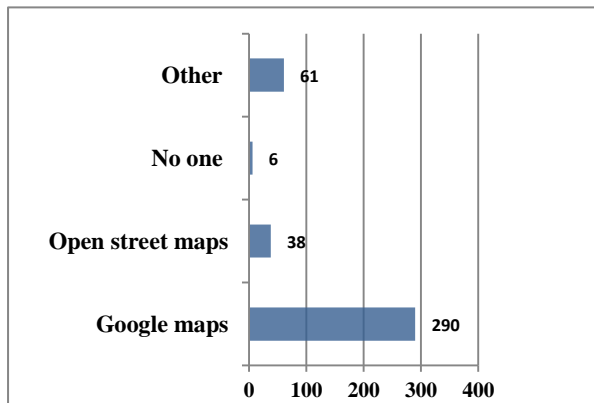


Figure 9: Cartographic platforms used

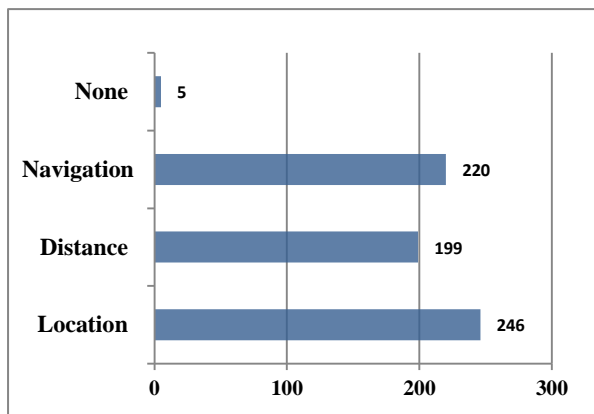


Figure 10: Functions used in Cartographic platforms

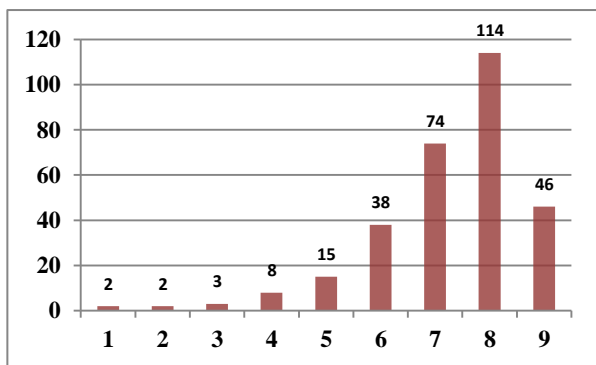


Figure 11: Map content understanding (score 1-9)

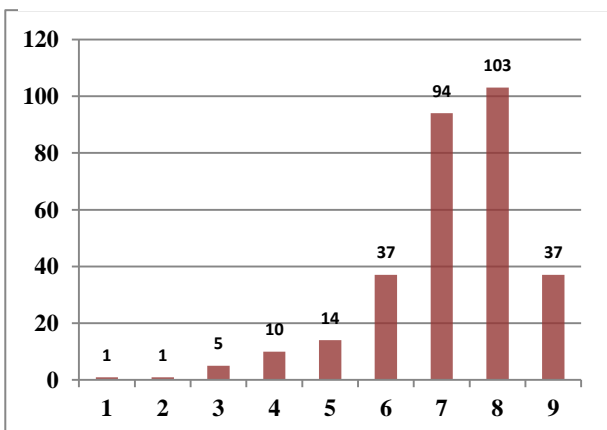


Figure 12: Satisfaction from the map content (score 1-9)

The most popular online cartographic platforms according to the respondents can be seen in Fig. 9. Fig. 10, shows that 246 (81.4%) of responders use map functions for location, 199 (65.8%) use functions for

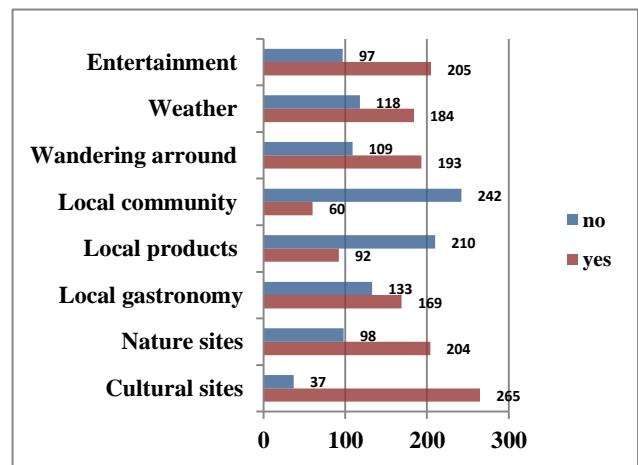


Figure 13: Answers to question “Do you find enough info for cultural sites, nature sites, local gastronomy etc.?”

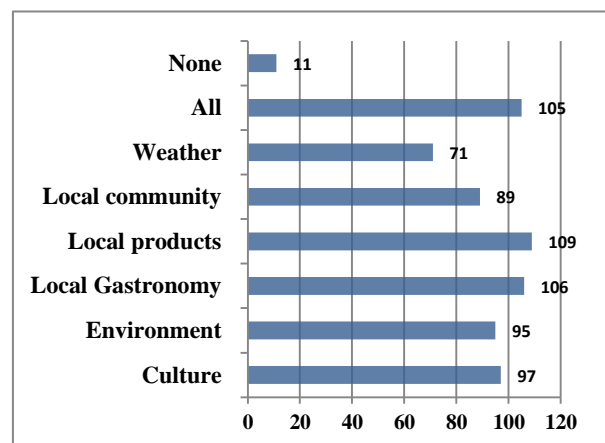
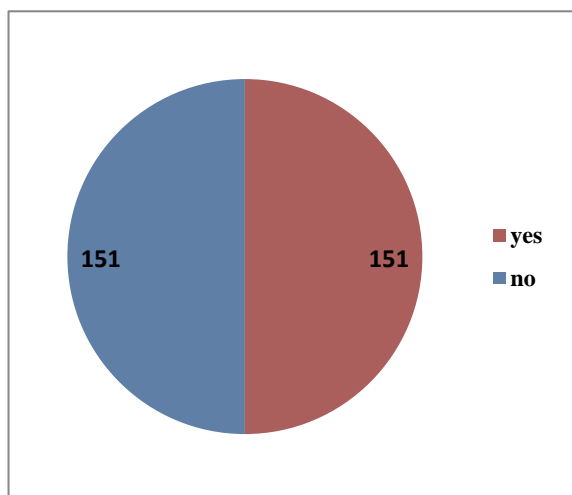


Figure 14: Areas requiring more information

distance, and 220 (72.8%) use functions for navigation. The respondents were asked to score how comprehensive they find the map content and the results can be found in Fig. 11. Fig. 12, presents how satisfied respondents were with the content of the map. Fig. 13 displays the answers to the question “did you find enough information in cartographic platforms with regard to cultural sites, nature sites etc.?”. It is noteworthy that 242 (80.1%) could not find enough information about the local community and 210 (69.5%) about local products. The results from the question “for which areas would you like to see more information through cartographic platforms” focusing on the local characteristics of the destination, are displayed in Fig. 14.



Lastly, in response to a pivotal question regarding the respondents' awareness of the need for sustainable and/or responsible tourism can be seen in Fig. 15, highlighting the fact that 151 (50%) of respondents had never heard of this term.



**Figure 15: Awareness of sustainability**

The findings of this survey reinforce the fact that online maps mostly contain basic information such as cultural or environmental sites, which are traditionally the main attractions when travelling.

What also can be seen, however, is that there is a significant interest in finding information about the local community, local gastronomy and local products, which of course follows well-known new trends and sustainability objectives and goals. These areas of interest are currently not adequately reflected in the available online maps.

It is evident that the modern traveller's needs and requirements are moving at a faster speed than information included in the available maps.

## 5 Conclusions & way forward

Although cartography and tourist maps are key tools for travellers, the use of the map as a basic tool for information-gathering for trip planning and tourism is waning.

New travellers now use the internet and available online maps to search for information, but do identify shortcomings in the availability of geospatial information to cover their needs. According to the research reported in this paper the needs of the new

tourist which are evolving dynamically are not being met by the currently available information in online maps. Furthermore, maps are at present not used for the sustainable management of travel destinations. Maps available on official websites are not enriched with information that can guide travellers to choices compatible with sustainable management of the destination. This is particularly important, as maps with similar content can be, among other things, an educational tool for users.

The assessment of the available cartographic material on official tourist destination websites signifies that cartographers were not involved in the composition of available online maps.

Until now cartography and geoinformatics have been successfully used for development studies mainly at the level of spatial and urban planning. At present, however, the progress in the field of tourism is moving very rapidly, faster than the time needed to run such studies and to keep maps up-to-date.

New cartography is growing through the development of novel applications and trends and is expected to be even more disseminated and utilized, especially in the tourism sector, which is evolving at a very rapid pace. In this era of responsibility, it is important that there is a shift towards sustainable tourism, and sustainable tourist destination management both for stakeholders and travellers.

In order to achieve this, there are many added benefits from the cooperation of cartographers with new cartographers, offering them codified and simplified scientific knowledge, with standards and tools for composing maps that will be easy to make and read. At the same time these maps should be reliable, integrated and focused on information that will meet the needs of users and demands of stakeholders.

The protection of uncontrolled tourism development in tourist destinations can be greatly supported by experts of cartographic knowledge and geography. Additionally, a scientific approach can significantly contribute to the emergence of the map as a tool to promote a sustainable development, but also as an educational tool for the responsible behaviour of travellers.

Cartography should regain an essential role in tourism by contributing to a reliable and comprehensive display and promotion of travel destinations, following the principles and objectives of sustainable management. It

would also offer the visitor a comprehensive and detailed picture of the area and the local community.

In summary, tourist maps provided online to potential visitors should include the following characteristics:

- Be complete in terms of basic cartographic elements
- Contain information compatible with sustainable development policy, where needed
- Use cartographically accepted symbology
- Contain all information required by users
- Contain information that leads directly or indirectly to responsible choices

Tourist maps with such characteristics could meet the needs of users as well as a sustainable management of destination demands.

## References

- Chilton, S. and Kent, J.A.: New Cartographies New Aesthetics. The bulletin of the Society of University Cartographers, Society of University of Cartographers 50(1,2) 3-12, 2016.
- Fennell, D.A.: Ethics in tourism, in Education for sustainability in tourism (pp. 45-57).Springer, Berlin, Heidelberg, 2015.
- Frey, N., and George, R.: Responsible Tourism and the Tourism Industry: A demand and Supply Perspective, in. Responsible Tourism Critical issues for Conservation and development, edited by Spenceley. A., Routledge, London, 107-128, 2008.
- Lovelock, B. and Lovelock, K.: The ethics of tourism: Critical and applied perspectives. Routledge, 2013.
- Mokoena L.: Ethical tourism consumption: should business be concerned? Journal of Hospitality Tourism and Leisure 8(1) 1-10, 2019.
- Moscardo, G.: Ethical issues in tourism and hospitality research. In Handbook of Research Methods for Tourism and Hospitality Management. Edward Elgar Publishing, 2018.
- Milano, C., Cheer, J., and Novelli, M.: Overtourism a growing global problem, The Conversation Trust UK, 2018, <https://theconversation.com/overtourism-a-growing-global-problem-100029>, last access 12 September 2020.
- Nistoroceanu, P., Tucloa, C., and Dorobantu, M.R.: The trilateral relationship ecotourism-sustainable tourism-slow travel among nature in the line with authentic tourism lovers, Journal of Tourism - Studies and Research in Tourism 11, 34-37, 2001.
- Parsons, E.: And Now there is Neocartography 2011. <http://www.edparsons.com/2011/03/and-now-there-is-neocartography>, last access 23 March 2021.
- Turner, A: Introduction to Neogeography, Sebastopol, California: O'Reilly Media, 2006.
- Wang, X., Li, X., Zhen, F. and Zhang J.: How smart is a tourist attraction? Measuring tourist preferences of smart tourist attractions via a FCEM – AHP and IPA approach. Tourism Management, 54(3) 309-320, 2016
- Weeden, C. and Boluk, K. (Eds.): Managing ethical consumption in tourism, Routledge, 2017.
- World Bank, Digital platforms and the future of tourism, World Bank live event, 2018.
- WTO, World Tourism Barometer 18(1), Madrid, 2020.
- Xiang, Z.: From digitization to the age of acceleration: On information technology and tourism. Tourism Management Perspectives, 25, 147-150, 2018.



## APPENDIX

	Timestamp of access	URL	TOURIST DESTINATION	COUNTRY
1	9/12/2020 16:13:44	<a href="http://en.chinaculture.org/">http://en.chinaculture.org/</a>	CHINA	CHINA
2	9/13/2020 11:24:05	<a href="https://www.visitcyprus.com/">https://www.visitcyprus.com/</a>	CYPRUS	CYPRUS
3	8/31/2020 19:02:13	<a href="http://ee.france.fr/">http://ee.france.fr/</a>	FRANCE	FRANCE
4	8/31/2020 19:10:02	<a href="https://en.parisinfo.com/">https://en.parisinfo.com/</a>	Paris	FRANCE
5	8/31/2020 19:17:43	<a href="https://en.nicetourisme.com/">https://en.nicetourisme.com/</a>	Nice	FRANCE
6	9/12/2020 15:00:19	<a href="https://www.visitstrasbourg.fr">https://www.visitstrasbourg.fr</a>	Strasbourg	FRANCE
7	9/12/2020 15:10:59	<a href="https://en.lyon-france.com/">https://en.lyon-france.com/</a>	Lyon	FRANCE
8	9/13/2020 20:50:26	<a href="https://www.marseille-tourisme.com/">https://www.marseille-tourisme.com/</a>	Marseille	FRANCE
9	9/13/2020 20:59:38	<a href="https://www.bordeaux-tourism.co.uk/">https://www.bordeaux-tourism.co.uk/</a>	Bordeaux	FRANCE
10	9/14/2020 8:17:06	<a href="https://www.toulouse-visit.com/">https://www.toulouse-visit.com/</a>	Toulouse	FRANCE
11	9/15/2020 13:57:34	<a href="http://ee.france.fr/en/discover/corsica-5">http://ee.france.fr/en/discover/corsica-5</a>	Corsica	FRANCE
12	9/12/2020 17:06:54	<a href="https://www.germany.travel/">https://www.germany.travel/</a>	GERMANY	GERMANY
13	9/13/2020 12:51:16	<a href="https://www.visitberlin.de/en">https://www.visitberlin.de/en</a>	Berlin	GERMANY
14	9/13/2020 13:09:45	<a href="https://www.heidelberg.de/">https://www.heidelberg.de/</a>	Heidelberg	GERMANY
15	9/13/2020 13:17:08	<a href="https://www.muenchen.de/">https://www.muenchen.de/</a>	Munich	GERMANY
16	9/13/2020 20:36:50	<a href="https://www.cologne-tourism.com/">https://www.cologne-tourism.com/</a>	Kolonia	GERMANY
17	2/4/2021 16:15:03	<a href="https://www.hamburg.com/">https://www.hamburg.com/</a>	Hamburg	GERMANY
18	2/4/2021 16:24:52	<a href="https://www.dresden.de/">https://www.dresden.de/</a>	Dresden	GERMANY
19	9/12/2020 18:07:50	<a href="http://www.visitgreece.gr/">http://www.visitgreece.gr/</a>	GREECE	GREECE
20	9/12/2020 18:22:08	<a href="http://www.rhodes.gr">http://www.rhodes.gr</a>	Rhodes	GREECE
21	9/12/2020 18:23:55	<a href="http://www.santorini.gr">http://www.santorini.gr</a>	Santorini	GREECE
22	9/12/2020 18:29:46	<a href="http://www.rodosisland.gr/">http://www.rodosisland.gr/</a>	Rhodes	GREECE
23	9/12/2020 19:28:45	<a href="http://www.mykonos.gr">http://www.mykonos.gr</a>	Mykonos	GREECE
24	9/12/2020 19:47:46	<a href="https://www.incrediblecrete.gr/">https://www.incrediblecrete.gr/</a>	Crete	GREECE
25	9/12/2020 19:55:35	<a href="http://www.kos.gr/">http://www.kos.gr/</a>	Kos	GREECE
26	2/7/2021 21:24:10	<a href="https://www.thisisathens.org/">https://www.thisisathens.org/</a>	Athens	GREECE
27	9/12/2020 16:22:28	<a href="http://www.italia.it/en/home.html">http://www.italia.it/en/home.html</a>	ITALIA	ITALY
28	9/13/2020 8:35:21	<a href="https://www.turismoroma.it/">https://www.turismoroma.it/</a>	Rome	ITALY
29	9/13/2020 8:44:07	<a href="https://www.destinationflorence.com/en">https://www.destinationflorence.com/en</a>	Florence	ITALY
30	9/13/2020 8:52:46	<a href="https://www.visittuscany.com/en/">https://www.visittuscany.com/en/</a>	Tuscany	ITALY
31	9/13/2020 9:00:44	<a href="https://www.cittadicapri.it/">https://www.cittadicapri.it/</a>	Capri	ITALY
32	9/13/2020 9:08:14	<a href="http://www.visitsicily.info/en/">http://www.visitsicily.info/en/</a>	Sicily	ITALY
33	9/13/2020 11:43:57	<a href="https://www.yesmilano.it/en">https://www.yesmilano.it/en</a>	Milan	ITALY
34	9/13/2020 11:48:53	<a href="https://www.visit-venice-italy.com/">https://www.visit-venice-italy.com/</a>	Venice	ITALY
35	9/13/2020 11:55:48	<a href="https://www.amalficoast.com/">https://www.amalficoast.com/</a>	Amalfi	ITALY
36	9/14/2020 8:27:02	<a href="https://www.comune.napoli.it/">https://www.comune.napoli.it/</a>	Napoli	ITALY
37	9/15/2020 14:37:16	<a href="http://www.italia.it/en/discover-italy/sardinia.html">http://www.italia.it/en/discover-italy/sardinia.html</a>	Sardinia	ITALY
38	9/12/2020 17:44:58	<a href="http://www.visitjordan.com/">http://www.visitjordan.com/</a>	JORDAN	JORDAN
39	9/13/2020 9:18:15	<a href="https://www.visitmalta.com">https://www.visitmalta.com</a>	MALTA	MALTA
40	9/12/2020 16:56:22	<a href="https://www.visitmexico.com/en/">https://www.visitmexico.com/en/</a>	MEXICO	MEXICO
41	9/12/2020 17:51:58	<a href="https://tahititourisme.com/en-us/">https://tahititourisme.com/en-us/</a>	POLYNISIA	POLYNISIA
42	9/12/2020 15:45:21	<a href="https://www.spain.info/en/">https://www.spain.info/en/</a>	SPAIN	SPAIN
43	9/12/2020 15:59:22	<a href="https://www.barcelona.com/">https://www.barcelona.com/</a>	Barcelona	SPAIN
44	9/13/2020 9:37:54	<a href="http://ibiza.travel/en/">http://ibiza.travel/en/</a>	Ibiza	SPAIN
45	9/13/2020 9:45:58	<a href="http://www.visitpalma.com/">http://www.visitpalma.com/</a>	Palma	SPAIN
46	9/13/2020 11:08:56	<a href="http://www.minorca.es/">http://www.minorca.es/</a>	Minorca	SPAIN
47	9/13/2020 11:38:41	<a href="https://www.esmadrid.com/">https://www.esmadrid.com/</a>	Madrid	SPAIN

	Timestamp of access	URL	TOURIST DESTINATION	COUNTRY
48	9/13/2020 12:07:06	<a href="http://en.granadatur.com/">http://en.granadatur.com/</a>	Granada	SPAIN
49	9/13/2020 12:42:04	<a href="https://www.visittoledo.org/">https://www.visittoledo.org/</a>	Toledo	SPAIN
50	9/14/2020 14:09:46	<a href="https://www.barcelonaturisme.com/">https://www.barcelonaturisme.com/</a>	Barcelona	SPAIN
51	9/14/2020 14:59:35	<a href="https://www.visitvalencia.com/">https://www.visitvalencia.com/</a>	Valencia	SPAIN
52	1/15/2021 8:25:11	<a href="https://www.spain-grancanaria.com/en/">https://www.spain-grancanaria.com/en/</a>	Gran Canaria	SPAIN
53	1/15/2021 8:45:24	<a href="https://www.visitasevilla.es/index.php/en">https://www.visitasevilla.es/index.php/en</a>	Sevilla	SPAIN
54	2/3/2021 18:27:09	<a href="https://www.tenerife.es/">https://www.tenerife.es/</a>	Tenerife	SPAIN
55	9/12/2020 17:19:15	<a href="https://www.tourismthailand.org/">https://www.tourismthailand.org/</a>	TAILAND	TAILAND
56	9/12/2020 16:45:14	<a href="https://www.goturkey.com">https://www.goturkey.com</a>	TURKEY	TURKEY
57	9/13/2020 20:26:10	<a href="http://howtoistanbul.com/">http://howtoistanbul.com/</a>	Instanbul	TURKEY
58	2/4/2021 9:56:52	<a href="http://www.antalyaguide.org/">http://www.antalyaguide.org/</a>	Antalya	TURKEY
59	2/4/2021 10:13:15	<a href="https://www.goturkey.com/">https://www.goturkey.com/</a>	Ankara	TURKEY
60	2/4/2021 10:29:17	<a href="https://www.goturkey.com/">https://www.goturkey.com/</a>	Ismyr	TURKEY
61	9/12/2020 17:29:30	<a href="https://www.visitbritain.com/">https://www.visitbritain.com/</a>	UK	UK
62	9/13/2020 21:07:27	<a href="https://www.visitlondon.com/">https://www.visitlondon.com/</a>	London	UK
63	1/15/2021 9:05:20	<a href="https://www.visitscotland.com/">https://www.visitscotland.com/</a>	Scotland	UK
64	2/4/2021 13:01:33	<a href="https://www.visitliverpool.com/">https://www.visitliverpool.com/</a>	York	UK
65	2/4/2021 13:16:37	<a href="https://visitbath.co.uk/">https://visitbath.co.uk/</a>	Bath	UK
66	2/4/2021 13:28:21	<a href="https://visitbirmingham.com/">https://visitbirmingham.com/</a>	Birmigham	UK
67	2/4/2021 15:05:49	<a href="https://www.visitbrighton.com/">https://www.visitbrighton.com/</a>	Brighton	UK
68	2/4/2021 15:20:40	<a href="https://www.visitblackpool.com/">https://www.visitblackpool.com/</a>	Liverpoll	UK
69	2/4/2021 15:36:28	<a href="https://www.visitmanchester.com/">https://www.visitmanchester.com/</a>	Blackpool	UK
70	2/4/2021 15:45:48	<a href="https://www.visitmanchester.com/">https://www.visitmanchester.com/</a>	Manchester	UK
71	2/4/2021 15:50:53	<a href="https://visitbristol.co.uk/">https://visitbristol.co.uk/</a>	Bristol	UK
72	9/12/2020 16:05:56	<a href="https://www.visittheusa.com/">https://www.visittheusa.com/</a>	USA	USA
73	9/13/2020 10:08:05	<a href="https://www.nycgo.com/">https://www.nycgo.com/</a>	Ny	USA
74	9/14/2020 16:28:23	<a href="https://www.discoverlosangeles.com/">https://www.discoverlosangeles.com/</a>	La	USA
75	9/14/2020 16:34:52	<a href="https://www.visitflorida.com/">https://www.visitflorida.com/</a>	Florida	USA
76	9/14/2020 17:03:34	<a href="https://www.miamibeachfl.gov/visitors/">https://www.miamibeachfl.gov/visitors/</a>	Miami	USA
77	2/3/2021 19:20:06	<a href="https://sfgov.org/visitors">https://sfgov.org/visitors</a>	San Fransisco	USA
78	2/3/2021 19:39:55	<a href="https://washington.org/">https://washington.org/</a>	Washighton	USA
79	2/3/2021 19:50:56	<a href="https://www.neworleans.com/">https://www.neworleans.com/</a>	New Orleans	USA
80	2/3/2021 20:03:54	<a href="https://www.visitlasvegas.com/">https://www.visitlasvegas.com/</a>	Las Vegas	USA

**Table 2: Websites of tourist destinations studied per country**

Country	Number	Percentage
Austria	1	0,33
Cambodia	2	0,66
Canada	1	0,33
China	3	0,99
Cyprus	7	2,32
France	2	0,66
Germany	2	0,66
Greece	239	79,14
Hungary	1	0,33
India	3	0,99
Israel	4	1,32
Italy	4	1,32
Lebanon	1	0,33
Malaysia	1	0,33
Holland	3	0,99
New Zealand	1	0,33
Norway	3	0,99
Poland	2	0,66
Romania	1	0,33
Russia	2	0,66
South Korea	3	0,99
Sweden	2	0,66
Thailand	2	0,66
Turkey	1	0,33
United Kingdom	3	0,99
Ukraine	1	0,33
USA	6	1,99
Vietnam	1	0,33

**Table 3: Respondents per country**