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12-13 July 2016



Edited by
Christine Bernadas and Delphine Minchella

**Proceedings of
The 3rd European Conference
on
Social Media**

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**Hosted by
l'Ecole de Management
de Normandie (EM Normandie)
Caen
France**

**Edited by
Christine Bernadas
And
Delphine Minchella**

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Looking for Tourism Related Information in the Social Media Landscape: an Analysis of Portuguese Tourists' Habits

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Abstract: The ever evolving web2.0 phenomena and the almost daily based spawning of social media applications are producing radical changes in the way tourism destinations are promoted and also in the way tourists get the information they need. Understanding traveler communication and interaction patterns on social media is a key point for improving communication and marketing strategies design for and by tourism destinations. It is no longer a case of emphasizing on the search for a return on investment made on marketing, but rather the understanding the importance of a solid return on engagement with tourists and the long tail effect that this relation may have on a destination. Social media such as Facebook, Youtube and Flickr, packed with User Generated Content (UGC), have gained a center stage role with the online communities of tourists and have reshaped the way tourism related information is distributed, reaches tourists and influences their experience. In fact, social media allows potential tourists to collect a wide variety of multimedia information from different sources and use the experiences shared by others in order to prepare and sometimes enrich their own tourism related experience. This study aimed to understand and outline some aspects of the use of social media by Portuguese tourists throughout their tourism experience. The study is based on data retrieved from 1019 valid answers to an online questionnaire which was part of a PhD research project. The questionnaire reached respondents that, at some point, had experienced a visit to at least one Portuguese tourism region, including the islands of Azores and Madeira, and the data retrieved was used to characterize the respondents and also to identify their habits concerning travel and, in particular, the ways in which they use social media throughout their tourism experience.

Keywords: Interaction; social media; tourism; tourists, web 2.0

1. Introduction

The omnipresence of Information and Communication Technologies (ICT) are a direct cause of profound changes in the way we live, learn, play and work, leading to new ways of being and acting on the part of users and companies. Today's society has become a society of knowledge, where information has become the key element of all human activity (Castells, 2001).

In this highly connected environment, ICT is featured as a powerful instrument of modernization as well as a determining factor for competitive positioning in a complex and constantly evolving market (Roque et al., 2012b).

Through the opening of new paths and the widening of horizons, ICT create new opportunities, revolutionize and redefine how individuals and organizations interact among themselves. Moreover they transform the environment, either within or beyond the organization's' limits making it more competitive (Castells, 2001).

Consequently, the Internet and the World Wide Web, and in particular the web2.0 phenomenon, brought about new ways of doing business, where it is believed that only flexible and dynamic companies will succeed (Roque et al., 2012b).

Presently the competition between tourism destinations is stronger than ever (Mariani et al., 2014, Pike and Page, 2014). The increase of tourism destination flows, once set as a primary goal, has recently, due to several factors, including the financial crisis affecting a number of countries, shifted in many cases to a mindset focused on keeping already existing tourism flows. Within this mindset one of the main challenges is to achieve high levels of cooperation and coordination between the different stakeholders that coexist and are part of a tourism destination. This is sometimes difficult due to the overlap and conflict of interests between these stakeholders (Wang, 2008). Tourists are not concerned at all with these issues, and are more concerned with obtaining flexible means and tools to help them organize their travel as well as being increasingly

demanding in regards to information provided by destinations (Chen and Sheldon, 1997). In a growing mobile device era, where tourism is going mobile, it is interesting to see that most of the tourists use their laptop computer, smartphone or tablet to search for information about tourism destinations (Wang and Fesenmaier, 2013, Santos and Santos, 2014, Kim and Law, 2015, Vallespín-Arán et al., 2015, Wang et al., 2016). These requirements oblige Destination Management Organizations (DMO) to play a more active role in: mediating the interests of the different stakeholders; designing and implementing destination communication and marketing policies; and, according to UNWTO (1999), fostering a collective and unique vision of the destination. Consequently, DMO need to pay attention to how they use their communication channels, in particular social media, since they currently play a key role in effectively promoting and marketing a tourism destination (Mariani et al., 2016).

The web is currently accepted as a social environment as well as an ever evolving ecosystem of social behaviors and communication paradigms. If we were to take snapshots of the web every 5 years we would easily recognize that trends have come and gone and, in many cases, have evolved according to the role played by users, communities, technology and contexts of use. The web 2.0 prosumer (Toffler, 1980, Bandulet and Morasch, 2005, Hao et al., 2008) uses the web and helps to build its contents and is considered the most important and decisive element of this new social era (Rosa, 2010). The consumer is given the power to express his feelings in relation to all sorts of issues, services, experiences and products. The prosumer, which is both a consumer and a producer of information, becomes part of the media.

These new citizens are increasingly more informed and decide their purchases based on the advice of friends or opinion leaders, a relation in which "trust" and "transparency" are the keywords.

Social media are a group of Internet-based applications that build on the ideological and technological foundations of Web2.0, and that allow the creation and exchange of User Generated Content (Kaplan and Haenlein, 2011). Examples of social media applications are blogs, wikis, social networks (Facebook, Instagram), media sharing websites (YouTube, Flickr) among others. These applications have gained enormous popularity with the online communities of tourists (Gretzel, 2006, Pan et al., 2007) and, due the fact that tourism is an information-intensive industry, it has boosted the growing use of these kinds of applications (Gretzel et al., 2000, Wang et al., 2002).

Based on the understanding that: a) social media is changing the dynamics of communication and decision-making affecting all economic activity sectors including the tourism sector; b) today's tourists prefer to get the information they need online by using social media platforms or looking through search engines, instead of using the traditional tour operators or travel agencies (Xiang and Gretzel, 2010) and c) the web allows potential tourists to collect a wide variety of multimedia information from different sources and use the experiences shared by others in order to prepare and sometimes enrich their own tourism-related experience; this research intends to contribute to the enrichment of the discussion about e-tourism, social media and the 2.0 tourist from a Portuguese perspective.

2. Research methodology

This study investigated the nature and the degree of social media usage by the Portuguese tourists. Quantitative research was chosen as the research method for this study as it aimed to classify, measure and analyze how Portuguese tourists use social media to engage with DMO. Data and information analysis was done according to a set of indicators based on the literature review of current practices in social media metrics and tried to identify trends and practices in the use of social media by the above mentioned group of users.

The research was mainly exploratory in its aim and main focus was the analysis and interpretation of data collected through an online questionnaire.

A questionnaire was used as the main data collection tool based on the fact that it is well-established tool for collecting data in tourism and a very useful instrument for assessing tourists' characteristics and understanding their behavior concerning the usage of social media applications (Bird, 2009).

The questionnaire was developed according to four goals: a) to analyze the target users' social media activity and outline the content shared by the tourists; b) to explore how tourists access tourism related information

made available by the DMO through their official social media platforms; c) the usefulness of the different sources of online information; and to d) collect socio-demographic data about the tourists surveyed, including age, gender, place of residence and education among others.

When developing of the questionnaire different aspects were considered in order to maximize the number of responses, such as:

- The questions were sequenced in a logical order, allowing a smooth transition from one topic to the next (Bird, 2009, Sarantakos, 2012);
- The questionnaire started with general questions, such as collecting personal data, that became more specific as the respondents progressed through the questionnaire. This strategy maximizes the quality and credibility of the information collected and also maximizes the responses provided to the questionnaires (Oppenheim, 2001, Pereira, 2013);
- Closed-type questions were chosen in order to facilitate the statistical analysis of the responses given, their coding and the comparison between responses given by different respondents (Foddy, 1996, Oppenheim, 2001, Hill and Hill, 2008, Bird, 2009, Moreira, 2009, Sarantakos, 2012, Pereira, 2013).

The final questionnaire was structured as a three-section long online document that was easy to complete, quick to answer and made up of the following three sections (23 questions):

- Section A – Demographic information and social media usage (6 questions);
- Section B – Travel habits and search of tourism destinations information (5 questions);
- Section C – Consumption of information made available by the tourism destinations on their social media official websites (12 questions).

The draft version of questionnaire was completed and then submitted for revision and validation by a panel of peer researchers. The panel included seven peer researchers: an expert in the Portuguese language, mainly due to the fact that the questionnaire was in Portuguese and was going to be applied to Portuguese tourists, five experts in the field of Tourism and an expert in the field of Electronics, Telecommunications and Informatics that focused on the technology issues included in the questionnaire.

The assessment of the grammar, syntax, organization, appropriateness and logical sequence of the statements (Alumran et al., 2012), was evaluated by a university professor expert in Portuguese language.

Content validity was assessed by an expert panel consisting of five experts in the field of tourism and an expert in the field of Electronics, Telecommunications and Informatics. The questionnaire revision and validation stage was essential for assessing the accuracy, tourism terminology, completeness, integrity, relevance, clarity, understanding, extent of the questions and meaning of the items (Yaghmaie, 2003, Roque et al., 2014).

To clarify possible problems related with the comprehension of each of the questions, a pre-test was conducted on five tourists, who were invited to complete the questionnaire and comment on any difficulties experienced in interpreting the questions. As a result of the pre-test two new questions were added and some minor changes were made in terms of grammar and syntax, as well as the inclusion of additional options and the modification of the measurement scales in some questions. The workflow followed throughout the elaboration of the questionnaire is presented in Figure 1.

The dissemination of the questionnaire was a task of the utmost importance in order to guarantee the largest possible number of respondents. The questionnaire was emailed to a considerable number of email contacts provided by DMO and it was also shared on social networks. This strategy enabled the establishment of a convenience sample (Carmo and Ferreira, 1998) which suited the purpose of the research.

The questionnaire was made available online to respondents via LimeSurvey, the app used by the University of Aveiro for questionnaires. It was kept online and available for completion during 39 days between May 3, 2013 and June 10, 2013.

The study was conducted across the NUTS II (Nomenclature of Territorial Units for Statistics) area of Portugal (Figure 2) and the target population included all Portuguese tourists over 18.

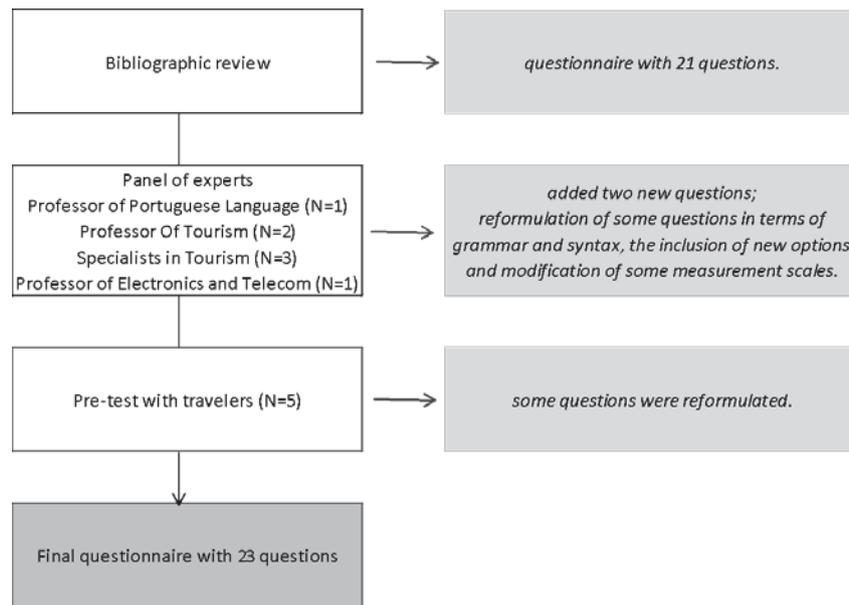


Figure 1: Questionnaire elaboration workflow.

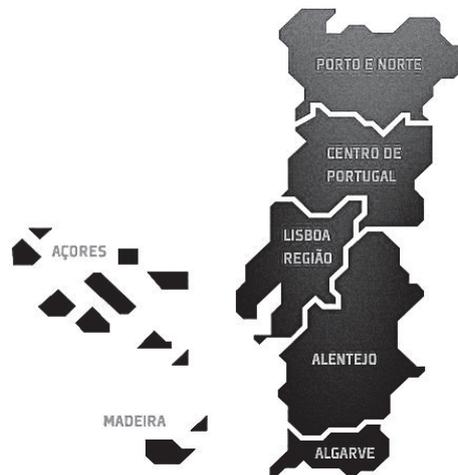


Figure 2: NUTS II tourism areas.

3. Results

The data collected contained 1222 replies to the questionnaire of which 202 were incomplete and one was from a respondent under 18 and, for that matter, had to be excluded. After filtering the 1222 responses collected, 1019 responses were considered valid and suitable for further analysis.

The results obtained will from here on be presented according to the questionnaire structure starting with demographic information and social media use, followed by travel habits and search of tourism destinations information and, towards the end, the consumption of information made available by the tourism destinations on their social media official websites.

3.1 Demographics and social media use

Demographics were profiled according to indicators such as age, genre, place of residence and education.

These indicators enabled us to identify that most of the respondents were female (N=605; 59,37%) and were from the Center region of Portugal (N=464; 45,53%). The average age was 34 years with an amplitude of 53 years in which the minimum age was 18 and the maximum age 71 years (Figure 3). Most of the respondents owned a bachelor degree (N=581; 57,02%), which shows us that the majority of the sample of respondents detained an above average level of education.

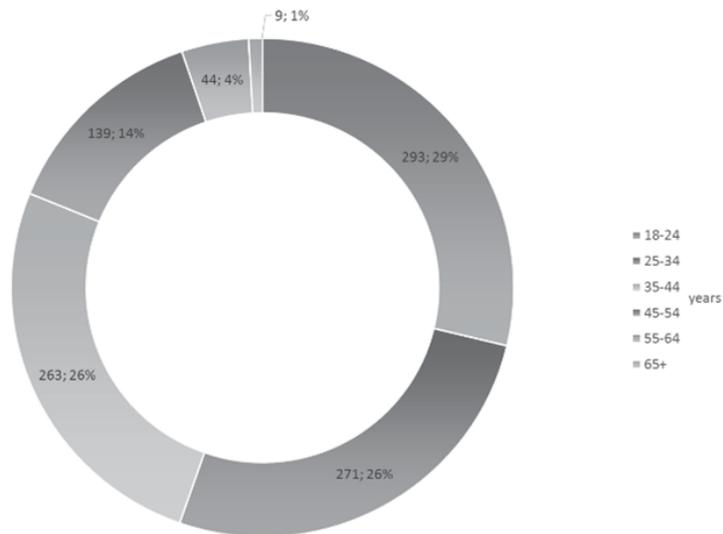


Figure 3: Age distribution of the sample.

Users pointed out social networks (ie. Facebook, Google+) and video sharing platforms (ie. Youtube, Vimeo) as their preferred mean to share content and browse through in search of content.

Table 1: Knowledge of the services frequencies.

		do not know	know but do not use	consult	share contents	Total
Blogs	N	11	353	543	112	1019
	%	1,10%	34,60%	53,30%	11,00%	100%
Social networks (ex. Facebook, Google+)	N	2	101	209	707	1019
	%	0,20%	9,90%	20,50%	69,40%	100%
Micro-blogging (ex. Twitter, Tumblr)	N	72	723	125	99	1019
	%	7,10%	71,00%	12,30%	9,70%	100%
Location-Based Social Networks (ex. Foursquare, Foodspotting)	N	524	413	55	27	1019
	%	51,40%	40,50%	5,40%	2,60%	100%
Share of videos (ex. Youtube, Vimeo)	N	6	136	590	287	1019
	%	0,60%	13,30%	57,90%	28,20%	100%
Share of photos (ex. Flickr, Picasa)	N	157	465	236	161	1019
	%	15,40%	45,60%	23,20%	15,80%	100%
Wiki (ex. Wikipedia, Wikitravel)	N	14	94	822	89	1019
	%	1,40%	9,20%	80,70%	8,70%	100%
Social bookmarks (ex. Delicious, StumbleUpon)	N	642	278	81	18	1019
	%	63,00%	27,30%	7,90%	1,80%	100%
Virtual communities (ex. TripAdvisor, LonelyPlanet)	N	402	261	273	83	1019
	%	39,50%	25,60%	26,80%	8,10%	100%

Social networks were mostly used by 45,20% (N=461), at a rate of three or more times per-day. On the other hand micro-blogging services, location-based social networks, photo sharing platforms, social bookmarking solutions and virtual communities are never used by 64,30% (N=655), 83,30% (N=849), 55,30% (N=563), 85,20% (N=868) and 59,80% (N=609) (Table 2).

Table 2: Services use frequencies.

		never	occasionally	<=2 times per day	>=3 times per day	Total
Blogs	N	208	605	141	65	1019
	%	20,40%	59,40%	13,80%	6,40%	100%
Social networks	N	73	164	321	461	1019
	%	7,20%	16,10%	31,50%	45,20%	100%
Micro-blogging	N	655	267	58	39	1019
	%	64,30%	26,20%	5,70%	3,80%	100%
Location-Based Social Networks	N	849	150	15	5	1019
	%	83,30%	14,70%	1,50%	0,50%	100%
Share of videos	N	81	509	268	161	1019
	%	7,90%	50,00%	26,30%	15,80%	100%
Share of photos	N	563	398	44	14	1019
	%	55,30%	39,10%	4,30%	1,40%	100%
Wiki	N	97	667	193	62	1019
	%	9,50%	65,50%	18,90%	6,10%	100%
Social bookmarks	N	868	130	20	1	1019
	%	85,20%	12,80%	2,00%	0,10%	100%
Virtual communities	N	609	362	42	6	1019
	%	59,80%	35,50%	4,10%	0,60%	100%

3.2 Travel habits and search of tourism destinations information

The questions presented in this section of the questionnaire intended to measure the travel habits of the respondents, regarding the number and the duration of the trips, as well as the types of equipment that were used when seeking information about the tourism destinations.

The most frequent answer for the question about the number of trips done in the last year was 1 to 2 trips 43,00% (N=438). A total of 87 respondents (8,50%) answered that they did not take any trip last year. The trips with an average duration between 3 and 7 days were the most chosen by the respondents (N=590; 57,90%).

The laptop (N=872; 43,00%) was the device most used to search for information about tourism destinations followed by the personal computer (N=416; 20,50%) and smartphone (N=351, 17,30%).

Smartphone and tablet devices together totalized 598 answers corresponding to a 29,50% (Table 3). These numbers place these types of devices just behind the laptops and demonstrate the increasing importance of mobile devices in the tourism experience (Wang and Fesenmaier, 2013, Santos and Santos, 2014, Kim and Law, 2015, Vallespín-Arán et al., 2015, Wang et al., 2016).

Table 3: Information search according to the equipment used.

Equipment type	N	Percent
Personal computer (desktop)	416	20,5%
Laptop	872	43,0%
Tablet	247	12,2%
Smartphone	351	17,3%
Game console	15	,7%
PDA (Personal Digital Assistant)	9	,4%
Aparelho portátil de GPS (Global Positioning System)	116	5,7%
Total	2026	100,0%

Concerning the time spent, during the period of a week, looking for information about tourism destinations on the Internet, 37,40% (N = 381) of the respondents answered that they spent between 31 minutes to 1 hour, 27,70% (N=282) from 1h to 4h and a minority (6,90%, N=70) spend more than 4 hours. The remaining 24,00% (N=245) are on the Internet up to 30 minutes and 41 respondents (4,00%) did not access the Internet to search for information about tourism destinations. In terms of the time of the day the most selected option was between 9 PM and midnight and the less option selected was between 12:30 AM and 2:30 PM (Table 4).

Table 4: Information search according to the time of day.

Time of the day	N	Percent
9:00 – 12:30	111	7,9%
12:30 – 14:30	80	5,7%
14:30 – 19:00	184	13,2%
19:00 – 21:00	288	20,6%
21:00 – 24:00	648	46,4%
00:00 – 9:00	86	6,2%
Total	1397	100,0%

3.3 Consumption of information through social media

The questions related with these issues aimed to collect information related with: the consumption of information through social media among the respondents; the use of social media applications to search for tourism information; and the sharing of contents by the respondents about their tourism experiences.

The two most important online sources for tourism information are the DMO official websites and national Tourism official portals. The option less selected was the DMO presence on social media (Table 5). In reality, despite the fact that social media applications are currently very popular, with exponential growth rates in terms of users, it is still not the preferred online source for tourist information in Portugal.

Table 5: Online search for tourism information about destinations.

Search for information	N	Percent
Official web site DMO	824	43,3%
Tourism portals	688	36,2%
Generic portal	317	16,7%
Official social media DMO	74	3,9%
Total	1903	100,0%

Facebook was the social media application most selected in terms of search for online information about tourism destinations followed by Blogs and Youtube. On the other hand, Foursquare and Flickr were the applications less selected among the options given (Table 6).

These results are in tune with previous researches about the use of social media applications by DMO where it was demonstrated that Facebook is the social media application that generates more interaction with consumers/tourists (Roque et al., 2012a, Roque and Raposo, 2013, Roque and Raposo, 2015).

Table 6: Social media applications used when seeking for information about tourism destinations.

Social media applications	N	Percent
Blogues	48	22,3%
Twitter	7	3,3%
Facebook	63	29,3%
Google+	20	9,3%
Flickr	2	,9%
Youtube	44	20,5%
Foursquare	4	1,9%
Pinterest	7	3,3%
Wikis	20	9,3%
Total	215	100,0%

The frequency of use of official social media applications used by DMO was measured through a Likert scale (1-never to 5-always). The value obtained was $3,57 \pm 0,867$ ($\bar{x} \pm s$)=[2,71; 4,43], which means, in average, the respondents regularly consult social media. 29 respondents (39,20%) said they use social media with moderation, 27 (36,50%) said they use some social media for seeking information on tourism destinations.

Only 11 respondents (14,90%) always use social media and 7 (9,50%) reported to barely use social media in this queried context.

On average¹ the respondents agree that the information made available by the DMO in their official social media websites is enough ($3,14 \pm 0,782$ ($\bar{x} \pm s$) = [2,36; 3,92]). Half of the respondents (N=37) stated to "Neither agree nor disagree" about the availability of information. However, 31,10% (N=23), said they agreed and only one respondent fully agrees with this availability. On the contrary, two respondents (2,70%) are in total disagreement and 14,90% (N=11) disagree.

The main reasons to search information about tourism destinations through the DMO official social media websites were "Easiness" and "answers from people with same interests". On the other hand the option "High level of accuracy of the answers" was the option less selected (Table 7).

Table 7: Why social media is used to search information about tourism destinations.

Reasons to use social media applications	N	Percent
Usage easiness	58	30,9%
Reliable information	19	10,1%
Different solutions	22	11,7%
Answers from people with same interests	38	20,2%
Accuracy of the answers	10	5,3%
Share of experiences	41	21,8%
Total	188	100,0%

The degree of reliability of the information about destinations obtained via the official DMO social media applications when compared with the information, obtained through other media, is more or less relevant, because the average² is equal to $3,38 \pm 0,656$ ($\bar{x} \pm s$) = [2,72; 4,04]. Furthermore, the most frequent option selected (N=41; 55,40%) was equal to 3, proving that the majority of respondents have a median confidence in this mean. Only three respondents (4,10%) have full confidence and 4 respondents (5,40%) have little confidence in the information provided through this mean.

Concerning the sharing of media through social media applications the respondents consider that the most relevant type of media shared are "Images" (N=27; 36,50%), "Text" (N=25; 33,80%) and "Video" (N=18; 24,30%). The "Link" option was selected 4 times (5,40%) and the option other media was never selected by the respondents.

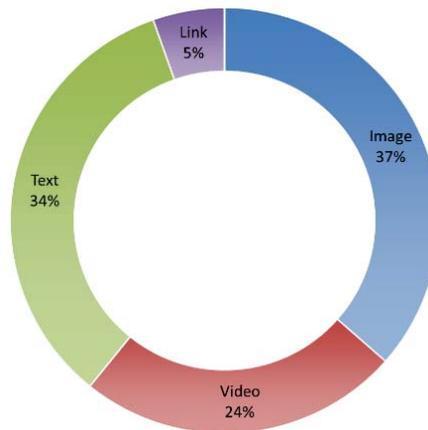


Figure 4: Relevant types of media about the tourism destinations shared through social media

These results show why DMO, on their official social media applications, and particularly on Facebook, privilege the publication of images. In fact, authors like, Hays et al. (2012), Roque and Raposo (2015) and Mariani et al. (2016) have demonstrated that images are the type of media that generate the greatest interaction with users.

¹ measured through a Likert scale "1-totally disagree" to "5-totally agree".

² measured through a Likert scale "1-less confidence" to "5-greater confidence".

From the 1019 respondents only 320 (31,40%) have answered that they share their tourism experiences on social media applications. This subsample was used for the following analysis.

Facebook is the application on which the majority of respondents share information about their tourism experiences, followed, far behind, by blogs, Google+, Twitter and Youtube. The social media applications less used by respondents to share their tourism experience are Flickr, Pinterest and Wikis (Table 8).

Table 8: Social media use to share information about tourism experiences.

Social media applications	N	Percent
Blogs	41	8,8%
Twitter	25	5,4%
Facebook	310	66,5%
Google+	29	6,2%
Flickr	11	2,4%
Youtube	25	5,4%
Foursquare	15	3,2%
Pinterest	6	1,3%
Wikis	4	,9%
Total	466	100,0%

The most shared media by the respondents on social media applications about their tourism experiences, are by order of preference, images (N=315; 53,20%), texts (N=163; 27,50%), videos (N=71; 12,00%) and links (N=43; 7,30%).

4. Conclusions

The results of this analysis of the data collected clearly shows that Portuguese tourists do not use the social media channels provided by DMO for searching and collecting information about the tourism destinations. In fact, they prefer to search for information about tourism destinations in tourism portals or generic portals instead of using the social media applications. Findings allow us to confirm that, in an ever growing mobile device era, tourists turn to their laptop computer, smartphone or tablet as the preferred mean to search for information about tourism destinations.

It was observed that as indicated in the literature review, the results obtained show that social media are not a main channel to search and collect information on tourism destinations by the tourists inquired. However, for those who answered positively the findings shows that most of them access to social networks on an average of 3 or more times per day and most spent between a half-hour to 1 hour per-week searching for tourism related information.

Facebook and Youtube are two of the most important social media applications to search information about tourism destinations by the Portuguese tourists. This result is in line with the results obtained by Xiang and Gretzel (2010), Hays et al. (2012), Munar and Jacobsen (2014), Dijkmans et al. (2015), Roque and Raposo (2015) and Mariani et al. (2016) showing that these applications are also two of the most used by DMO to publish information and make the engagement with their audience.

Visual media (namely images/photos) is the most valued by the Portuguese tourists when seeking for information about tourism destinations and is also the most shared type of media by Portuguese tourists. In the social media landscape considered (Blogs; Twitter; Facebook; Google+; Flickr; Youtube; Foursquare; Pinterest and Wikis) Foursquare was the application less used to search and retrieve tourism related information.

According to Warren (2010) Facebook users tend to access information in the afternoon and evening period, which is also the preferred period (14:30 to 00:00) indicated by Portuguese tourists to surf the Internet and search for tourism related information.

Finally, it was also observed that “usage easiness”, “promote the share of experiences” and “answers from people with the same interests” were the most chosen indicators to justify the use of social media to find tourism related information.

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