Travel Information Search – The Presence of Social Media

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Abstract

In this paper we will study the intersection of conceptual frameworks that deal with travel, information search and social media, in order to investigate the presence of social media in travel information search. Social media could become a communication channel for the hospitality industry. This may offer some benefits for the tourists and travellers - as well as for the hospitality industry. Extensive research has over the years been carried out on methods and technology for travel information search and there has been a growing research on social media and its influence on the lives of its users. There has not been much research on social media as a channel for the search for travel information. Here we will build on a study by Xiang and Gretzel (2009) but shift the focus to specific hotel brand search in order to gain an understanding of how social media influences the search for travel information.

1. Introduction

The year 2006 can be regarded as the breakthrough year for social media. At that point, popular early applications like Wikipedia (www.wikipedia.com) and MySpace (www.myspace.com) had already gathered a significant number of users. Furthermore, social media applications like YouTube (www.you-tube.com) and Facebook (www.facebook.com) were gaining an increasing popularity. The EU has recently acknowledged that social media will have disruptive effects on citizens and their identity, on social inclusion, education, health care and on public governance [11]. The EU commissioner Reding [13] described social media as connecting minds and creativity in a way never seen before.

Social media now appears to become an opportunity for actors in the travel and hospitality industry to get valuable additional exposure, which could translate to increasing business. At the same time, this could be a potential challenge for the industry as social media content, while highly relevant and influential, cannot be easily controlled or manipulated by the industry actors.

The study by Xiang and Gretzel [16] is on finding out how the online tourism domain is represented in search engines. They assess the visibility of destination-related information on the Internet and also examine the visibility of various tourism-industry sectors that are relevant to the destinations. An interesting finding was that only a fraction of the travel domain can actually be accessed by Internet users as a low number of websites dominate the search results. Even though the study does not explicitly discriminate between social and non-social media sites, it does stress that social media and Web 2.0 technologies will facilitate and enhance the search for travel information, and the authors called for new, advanced search technologies that could make the search for travel information faster and more comprehensive. We build on the results of the Xiang and Gretzel [16] study but we shift the focus from a generic type of travel search to specific hotel brand search in order to gain an understanding of how social media influences the search for travel information.

First, in section 2 we will work through a state-of-the-art of social media and studies of travel information; in section 3, we will discuss the research focus and research questions and the methodology we have used; in section 4 we describe the data collection process; in section 5 we will report on the research results and discuss the implications we feel that they justify; section 6, finally gives some conclusions and an outline of the next steps of the research process.
2. Social media and travel information

There is a plethora of definitions available for the term social media (cf. for example 10, 14) and many related terms have emerged, such as social web, user-generated content, social computing, Web 2.0. Social media is understood to take many alternative forms, including blogs, wikis, media sharing, and social networking.

The definition of social media that was chosen for this study is: “Social media are emerging sources of online information that are created, initiated, circulated, and used by consumers with the intent of educating each other about products, brands, services and issues. In contrast, to content provided by marketers and suppliers, social media are produced by consumers to be shared among themselves” [2]. This definition highlights the difference between the media and content created by the marketers against the ones generated by users for users.

Pan et al. [12] carried out research on the formulation of accommodation search queries by processing a significant amount of actual search server log data. Findings show that most travellers search by looking for specific hotels in a destination city. The study also confirms earlier research findings that travellers’ web searches are highly functional in nature and rarely hedonically formed.

Jansen et al. [9] also looked at the process of searching for travel related information on the Internet. They utilized a pool of over 1.5 million search queries by over 500 thousand users and analyzed the data both quantitatively and qualitatively. They found – as a good benchmark - that the proportion of travel related searches of the total number of searches is at 6.5%; of that data set geographical information accounted for 50% of the queries but general travel information for less than 10%.

An analysis of individual terms showed a high number of searches for travel specific websites like Orbitz, Travelocity and Mapquest; the term pairs that occurred most frequently were location-related such as city, state and specific location (representing roughly 60% of the searches). The frequency of repetitions among the terms was quite diversified - the most frequently occurring terms were 0.2% of all the terms, and these were clustered around location and general information topics. The interpretation was that there is uncertainty in the information retrieval process, something which is also supported by previous studies (Toms et al., 2003, Urbany et al., 1989 cited in [9]).

Several studies have focused on the role of social media and user generated content in the travel domain [3], [6], and [4]. These studies show how user generated content contributes in creating and sharing new experiences among travellers, and this type of content is given high credibility and significance when members in the community make travel plans. Dippelreiter et al. [6] evaluate and benchmark a set of popular travel community websites based on a number of core Web 2.0 and social media criteria and structured on the three phases of a trip: pre-trip, on-site and after-trip. The results provide a multivariate and multidimensional evaluation map that includes some of the prime online travel properties (many of which are also prominently featured in the data produced by the present study).

The previously mentioned study by Xiang and Gretzel [16] worked out the likelihood that an online traveller should come across social media content during a web search process. They focused on US locations and chose a targeted set of ten keywords that could sufficiently well represent the tourism domain: accommodation, hotel activities, attractions, park, events, tourism, restaurant, shopping and nightlife.

The study demonstrated that the social media websites are ubiquitous in online travel information search since they occur everywhere, on various search results pages and for alternative tourist destinations, no matter what search keywords a traveller uses. The principal finding was that approximately 11% of the search results across the first 10 web pages represented social media, which is a first benchmark of what to expect.

The most prominent social media domain names included: tripadvisor.com, virtualtourist.com, igougo.com, mytravelguide.com, yelp.com and meetup.com, which together accounted for over 30% of the total number of unique domain names. The strongest type of social media represented was virtual communities, followed by consumer review sites and blogs, but video and audio media sharing sites were not well represented. The study shows that there was approximately one social media site present on every page including ten search results.

The combined knowledge of all the above studies offers a rich background for the present study. There are, however, some limitations: first and foremost past research has focused on either social media or travel information search and most of the social media-related studies brought out the socio-psychological aspects of social media. They were mainly based on data collected through self-reported questionnaires or controlled experimental settings (for example by asking subjects to conduct a trip planning task online) and thus the degree of objectivity is rather limited (Gretzel and Yoo, 2008 cited in [16]).

On the other hand, there is research about travel information search. Even though the research is quite
extensive, the main focus is on the interaction between the online traveller and the “tourism industry” and social media is hardly touched upon.

A final set of limitations come from the fact that Xiang and Gretzel [16] aimed to cover the whole travel domain and used generic keywords for their studies. A marketer would be interested to see the impact of social media on some more specific areas, such as the brand they represent, which would be a more realistic scenario. Finally, they use only one search engine (Google), they focused on the US market and they used only English for the queries. In the next section we will find out if we can find different results with a different research approach.

3. Research focus, research questions and methodology

We want to gain an understanding of how social media sites are represented among travel-related search engine results if a travel industry actor wants to find ways to employ social media as part of his/her marketing strategy. The general subject area (i.e. social media representation through search engines) is the same as in the Xiang and Gretzel [16] study, but we approach it in another way with a distinct focus on hotel brands.

The research design essentially simulates a traveller’s information search process by using a set of travel-related keywords relevant to a number of city destinations, in two European countries, to query a search engine.

First, it is important to choose specific travel terms that are representative for the travel domain in this study. Obviously there are an infinite number of travel terms that users can use to query a search engine, starting from very generic terms – “holidays in X destination” or “attractions in Y destination” - which is how online travellers usually start their pre-trip research. Typically towards the final stage of the trip planning process, when they already have a rough idea of what they are interested in booking, travellers search for something more brand-specific [5].

Second, an emphasis on brand-related terms has been selected not just to differentiate this study from previous ones, but also to examine the more specific challenges that travel industry marketers are faced with. It is quite important to have a solid idea of what type of content is displayed on search engines, when potential customers are searching for one's specific brand.

Third, it can be meaningful to examine the opposite scenario, i.e. when a user searches for a generic keyword such as “accommodation in destination X”; Xiang and Gretzel [16] found that for this type of search there is on average an 11% probability for the user to meet social media content in the search results. The social media contact would typically lead to a third-party web page, such as tripadvisor.com or virtualtourist.com, which offers reviews of a large number of destination-specific hotels. From a hotel marketer’s perspective the chances that a user will (i) choose a social media web site out of all the available search results, and (ii) will actually find and read the specific review for that hotel, are rather slim.

Fourth, when a user searches for a specific hotel brand name, e.g. Hilton Helsinki, and if a significant number of the results are social media related, the chances that this content will have a direct impact on the hotel's business can grow substantially. This suggests that hotel marketers should monitor for web search results (including social media results), which are specific to their brand and location rather than for keywords of a more generic type. This conclusion is also supported by Pan et al. [12].

From Finland and Greece a total of 12 city destinations have been chosen. These correspond to the top five cities of Finland and top seven cities of Greece, in terms of population. We have chosen two more cities in Greece because this country has a relatively high number of destinations with a high touristic demand. The respective cities are: Helsinki, Vantaa, Espoo, Tampere and Turku for Finland and Athens, Thessaloniki, Heraklion, Patras, Larissa, Rhodes and Pireaus for Greece.

In every destination the top 10 hotels featured in a Google maps search following the formula “city name + hotels”, will be included in the study. This makes the choice more practical and realistic, but also offers a varied mix of hotels included in the study, ranging from the top hotel chains in the world to small city hotels, reflecting the variety of results that a Google Maps search typically returns. This also makes the scenario more realistic as Google Maps is ranked as the number one travel application online; one of the most common activities performed on Google is hotel search [7]. The study will therefore build on combinations of destinations and hotel brands or names. For example when “City” = athens and “Hotel Brand” = parthenon hotel, the actual query term will be “athens parthenon hotel”.

The results generated by the search engine were registered and documented. A search engine typically indexes a high number of results. However, according to the information retrieval literature [9], most search engine users (>85%) do not go past the third page to view search results. In fact, it has been suggested that searchers rarely go beyond the first results page (Pass et al. cited in [1]). Based on those findings and in or-
order to simulate how most of the real users examine and evaluate the search results, the results of the first three search pages were registered and analyzed in this study. The analysis will address a research problem and answer six research questions. The research problem is to find out how the hospitality industry could reach its customers if more emphasis would be put on the use of social media. This problem is tackled by finding answers to the following research questions:

Q1: What is the proportion of social media related results for hotel name and brand searches?

This will be a straightforward way to evaluate the visibility and importance of social media within a travel search setting.

Q2: Which are the main types of social media that are represented in the top three pages?

For hotel marketers it is not enough just to know if a search on a hotel brand will return many social media websites, but also which are the dominant types.

Q3: Which are the top social media sites represented in the search results?

Knowing with precision the social media websites that are most likely to bring visibility to a hotel brand is a highly prioritized deliverable for this study. We can follow up on this with three more specific questions.

Q4: Do destinations (cities and countries) differ from each other in terms of social media coverage?

Q5: How does the social media content vary from one page to the other across the first 3 pages?

Q6: Which are the hotel names and brands that trigger the highest number of social media results?

Based on these research questions we can now work out the data collections process (section 4).

4. The data collection process

The search engine that is used in the study is Google. In the travel sector, Google is among the top ten search engines that generate upstream traffic to travel websites [8]. We have queried Google on the names of the top ten hotels at each of the 12 preselected destinations, i.e. 120 hotel-related queries. The first three pages of the search results were analysed, with every page containing a standard of 10 results. Each search result consists of a title line, a few lines of summary (also called a snippet) and a URL, as illustrated in Figure 1. For the purpose of this study, the part of the search result that is used for analysis is the URL connecting to the page of a site which could be of the social media type or not.

Figure 1. A typical Google search result including title, snippet and URL

In spring 2010 a group of 36 university students was deployed to review the results, to assess whether they are of social media nature or not, and if social media, to code them based on the specific type of social media they belong to.

There is no formal typology to use as a guide in classifying social media. The categorization developed by Xiang and Gretzel [16] was used in order to make the results comparable. The typology is quite a good fit for the travel industry, since the types of sites that it identifies are the ones which are most commonly found in the online tourism domain; we have organized the social media websites in the following six general categories:

(i) Virtual community sites such as Lonely Planet (www.lonelyplanet.com) and IgoUgo (www.igougo.com); interactive forums of discussion and the possibility for social connections to be established between the members of the community based on common interests.

(ii) Consumer review sites such as Tripadvisor (www.tripadvisor.com) and Virtual Tourist (www.virtualtourist), where the main activity on the website is to post reviews and ratings or comment on other travellers’ reviews about accommodations, attractions etc.

(iii) Personal blogs and blog aggregators such as Blogspot (www.blogspot.com) and Wordpress (www.wordpress.com); the content is always tagged and structured in a reverse chronological order and there is always an option for the readers to write comments.

(iv) Social networking sites such as Facebook and MySpace; general purpose networks of people for which the main components are the possibility to create detailed member profiles, which can be connected to each other and then interact socially, thus forming a social network.

(v) Media sharing sites such as YouTube and Flickr; share media related content, particularly videos and photos while at the same time giving the option for other users to tag and comment on them.

(vi) The “Other” category includes any other social media types that cannot be categorized based on the above classification; a typical example would be the Wiki-type of sites. The students used these categories:
6150 URLs were retrieved and reviewed from over six hundred search results pages corresponding to 120 hotels. 12 touristic cities in Finland and Greece were reviewed.

In order to make the task easier for the students, a web video was created to provide step by step instructions. The data collection process progressed in the following five steps:

(i) Students started by making a Google search on "assigned location + hotels", e.g. "helsinki hotels", "athens hotels".
(ii) Then they clicked on the link "Local business results for hotels near ..." above the Google Maps box and registered the 10 hotels that appear on the 1st page.
(iii) Then they searched Google for each one of these ten hotels. The search terms are in the form "hotel name + location", e.g. "hotel kamp helsinki".
(iv) Students worked with the URLs of the search engine result pages 1, 2 and 3 (30 results total) ignoring sponsored links both on the top of the page and on the right hand side as well as any maps-related results; the total number of page URLs to be reviewed is 300 for each destination.
(v) Then they registered the following information on the database: the URL of the website they reviewed, the website name, whether it is social media or not - and if it is, a social media type based on the provided framework; for every hotel additional information is stored on the type of the hotel, i.e. if it is local or part of an international hotel chain. The students entered and coded the collected data by using a pre-designed Google Docs interface.

Even though every effort was made to make the data as consistent as possible, a number of data consistency issues came up that had to be addressed. The two major ones pertained to instances of mis-classification of websites. Some websites that were not social media contained consumer reviews, and this tempted some of the students to register them as social media. To address that a comprehensive list of "faux" social media websites was supplied to the students, who then made the necessary adjustments. If the social element only was of secondary importance, (when the principal focus is on the bookings for example in websites like Expedia.com and Booking.com) then the respective sites were not classified as social media. In our study we did not allow multiple characterization (Expedia.com is an online travel company but has a social element in the form of a substantial number of customer reviews) of websites.

The students also shared a common online workbook hosted on Google Docs servers. It offered the students the possibility to share and compare their work in real time; they used chat applications in order to discuss their findings and help each other resolve any issue. The information registered by the students on the database was checked before the analysis was carried out.

5. The findings

The principal method used is pivot table analysis with Microsoft Excel with which we examined every possible meaningful correlation among the variables; the type of data set used did not yield more insight with more advanced statistical methods. The main finding is that social media indeed constitute a very significant portion of the search results (Figure 2).

As much as 27.7% of the hotel search results lead to a social media website. Social media results are present across all search pages (1-3) analyzed and across all the destinations involved, both in Finland and in Greece (Figure 3).

What is also interesting is the high degree of concentration of the websites that contribute the highest number of social media results (Figure 3). A handful of sites represent the overwhelming majority of social media presence in the sample. Most of these sites belong to the consumer review (CRS) type (57%), followed by the virtual community (VCS) type (21%)
and with blogs (BL) a third group (16%). Not surprisingly, first in the consumer review category ranks TripAdvisor, which is a powerhouse of hotel-related social media results (Table 1). Sites like TripAdvisor have a strong influence on the results (considering the size and relevancy of their content).

Table 1. Social media sites

<table>
<thead>
<tr>
<th>Social media site</th>
<th>Frequency</th>
<th>Frequency %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>TripAdvisor</td>
<td>286</td>
<td>28.7%</td>
<td>28.7%</td>
</tr>
<tr>
<td>Real Travel</td>
<td>94</td>
<td>9.4%</td>
<td>38.2%</td>
</tr>
<tr>
<td>Wikio</td>
<td>73</td>
<td>7.3%</td>
<td>45.5%</td>
</tr>
<tr>
<td>Virtual Tourist</td>
<td>61</td>
<td>6.1%</td>
<td>51.6%</td>
</tr>
<tr>
<td>TravBuddy</td>
<td>59</td>
<td>5.9%</td>
<td>57.5%</td>
</tr>
<tr>
<td>Travel Yahoo</td>
<td>49</td>
<td>4.9%</td>
<td>62.4%</td>
</tr>
<tr>
<td>TravelPod</td>
<td>40</td>
<td>4.0%</td>
<td>66.5%</td>
</tr>
<tr>
<td>Lonely Planet</td>
<td>30</td>
<td>3.0%</td>
<td>69.5%</td>
</tr>
<tr>
<td>Ciao</td>
<td>14</td>
<td>1.4%</td>
<td>70.9%</td>
</tr>
<tr>
<td>Hotel Chatter</td>
<td>12</td>
<td>1.2%</td>
<td>72.1%</td>
</tr>
</tbody>
</table>

However, this also limits the choice of online travellers as it effectively confines the travel domain and possibly “pushes” some other sources of information. It was in fact not uncommon to have several instances of TripAdvisor on the first page of the search results, which is a signal of how dominant this website is.

In general there is a clear head-torso-long tail distribution pattern in the 996 social media results linked to the sample. Over 50% of the social media results originate from four sites: TripAdvisor, Real Travel, Wikio and Virtual Tourist. A striking absence was the mainstream social media sites Facebook, Twitter and YouTube. A possible reason is that travel marketers are not using the opportunity to interact with social media users through these channels; another reason may be that the sites so far have been successful in keeping them out; or simply because users are not using them in the context of travel. Our analysis confirms the assumption that social media sites are particularly search engine friendly. Even though search engines do not reveal such information on this topic, the general assumption is that this search engine friendliness is supported by the way social media sites are interlinked, their up-to-date content as well as the variety of content available.

5.1 Destination specific social media distribution

Finnish destinations accumulated 465 social media results, whereas Greek destinations 531. Given that there were seven Greek destinations against five from Finland; it would be more meaningful to examine the average amount of social media results associated with a Greek and a Finnish destination. The result is that destinations in Finland have on average 93 social media related results whereas the Greek ones have 75. Converting this on a per hotel basis means that when users search through the first three search pages for a hotel based in Finland they are likely to find five additional social media results, compared with Greece-based hotels. This is acknowledged as a significant deviation, suggesting that Finnish hotels are achieving substantially improved social media exposure. In Figure 4, the results for each of the tested destinations are illustrated, from which several interesting observations can be made. The first observation is that the size of a destination population-wise seems to play a negative role with reference to the number of associated social media results. Two Finnish cities, Turku and Tampere, appear to be the ones to enjoy the greatest visibility on social media with 129 and 128 cases respectively. Rhodes follows in the third position, but relatively close to the other two, with a score of 115. Then there seems to be a gap compared to the other destinations. It is noteworthy that the largest cities, population-wise, like Helsinki, Athens, Espoo and Heraklion are left at the bottom of the list. One possible explanation for this is that due to their size and role as tourist hubs, the social media results for these locations are overshadowed by search results which are rather commercial in nature, associated with sites such Expedia, Booking, Priceline and others for which these destinations can prove quite lucrative.

If Finnish and Greek cities are considered as one group, then the average volume of social media results per destination equals to 83, out of a total of 300 results, which suggests high exposure of social media across all the destinations.

5.2 Social media content on the first three search pages

Understanding the way social media results are distributed across the search engine result pages is vital, since the top results of the top pages get priority. The importance of first page display is particularly high. Interestingly the distribution appears to be quite balanced and homogenous, with approximately one
third of social media results corresponding to each one of the first three results pages.

As shown in Figure 5, there is a slight trend for more social media results in latter pages. But interestingly enough social media appear to be ubiquitous across all three first pages and clearly not “buried at the bottom” or in any way disappearing after the first page. When the data is analysed based on the social media type it is found that customer review sites dominate on the first page (over 70% of social media results on the first page). This seems to be true particularly for the website Tripadvisor that alone accounts for 55% of the customer review sites on the first page, 43% on the second and 48% on the third.

Another key site in this category, Real Travel, follows a declining trend, as it starts strong with 49 observations on the first page, 36 on the second and just 9 on the third one. The distribution landscape, however, changes as we move on to the second and third page. The impact of customer review sites is still high (48% for the second and 51% for the third page), but nowhere as close as in the first page. This is illustrated in Figure 6. With the exception of virtual communities (which are subject to some sharp fluctuations across the three pages), all the other social media types clearly gain ground moving on to the second and third page.
Blogs appear to gain the most, which could be explained by the decline in the number of customer review and virtual community sites on the pages following the first one.

Even though numbers are relatively low the increase of media sharing sites on the pages after the first page is interesting. In most cases these are You Tube videos created and uploaded by users. Another interesting observation is the lack of any underlying pattern for key websites; as an example, Yahoo Travel has 19, 10 and 20 hits on each one of the three pages; Travel Buddy 7, 33 and then 19; Lonely Planet scores 7, 17 and 6 respectively.

![Figure 6. Percentage of SM distributed by type for search pages 1, 2, and 3](image.png)

With reference to locations, Rhodes is the one with the highest number (41) of social media results identified on the first page. Turku has the highest number of social media results (44) on the second page and (56) on the third page - over 50% of all results on the third page for Turku are social media related. This is the top score across all the search pages and cities. On the other hand, Vantaa (18 for the first page), Helsinki (15 for the third page) and Espoo (15 for the second page) are the locations with the lowest scores.

### 5.3 Hotel brands and the number of social media results

There was a wide range of social media results across the various hotels, ranging from 2 hits all the way up to 27 hits, with a median of 7 and an average of 8.44. The majority of the hotels belong to the “Local hotel” category with 837 social media observations in total; the “International hotel chain” category gives the number 160. Interestingly the top of the list is exclusively dominated by hotels based either in Turku or Tampere. Additional hotels from these two cities are also very prominently featured in the list. On a country level, most hotels are Finland-based and relatively few from Greece, with the island of Rhodes being the top Greek contributor.

The Omena hotels case is interesting; it is covered by several social media types, blogs (5), customer review sites (7), virtual community sites (7) and other (8). In a comparison with other top hotels in the search, the number of blogs and other sites single out Omena. The page analysis of the search results shows that the distribution of social media for the top hotels follow page one. Omena hotel has 8 occurrences on page 1, 10 on page 2, and 9 on page 3. Kauppi hotel has page 5 occurrences on page 1, 7 on page 2 and page 3; Park Hotel has 4, 7 and 6 respectively for the first three pages.

The local hotels show higher numbers in the whole sample; nevertheless, proportionally speaking there was a lower percentage (27.1%) of related results that had social media content. International hotels show approximately one sixth of the total number of search results compared with the local hotels and the rate of social against non-social media was 31.4%. This shows that hotels belonging to international chains could trigger additional social media connections.

### 6. Discussion and conclusions

The present study builds on the work of Xiang and Gretzel [16], but our study has a different scope. Xiang and Gretzel use generic search terms and looked deeper into the search results (including up to the tenth search page) whereas we shifted the focus to specific hotel brand search.

The main finding is that social media indeed constitute a very significant portion of the search results. As much as 27.7% of the search results when using a hotel brand search lead to a social media website, a finding that confirms the high importance of social media for the travel industry. This is a proportion that cannot be ignored by the travel searchers. In fact, considering the high credibility of consumer-generated content, it is very likely that travellers will be exposed to social media sites. On its own right this is an important finding for the hospitality industry, especially as there is an ongoing shift of media attention to emerging media, not just in the online channel but on...
an overall level, too. This finding challenges the established marketing practices to use the traditional channels of communication. Social media results are omni-present across all search pages (1-3) analyzed and across all the destinations involved, both in Finland and in Greece.

What is also obvious is the high degree of concentration of the websites that contribute the highest number of social media results. Most of these sites belong to the consumer review type (57%), followed by the virtual community type (21%) and with blogs having a decent presence too (16%).

Another notable finding relates to the way social media results are spread over hotels in cities of various sizes. Contrary to what could be expected, i.e. more social media results for hotels in larger, touristy destinations, the picture is rather the opposite. Medium-sized destinations such as Turku and Tampere in Finland prove to be the social media leaders, Leaving far behind popular, touristy destinations such as Athens and Heraklion in Greece. A possible explanation for this is the higher availability of commercial search results covering the most popular destinations. In general, Finnish hotels seem to be more exposed to social media in comparison with the ones based in Greece. Moreover, even though most hotels in the sample have been classified as local, it appears that searches of international chains have more chances to return social media content.

With respect to the key websites identified through the analysis process, four sites stand out, with a combined share of social media contribution exceeding 50% of the total. These four sites are Tripadvisor, Real Travel, Wikio and Virtual Tourist. All of them have consistently had a very strong presence, independently of destination. The one site, however, that has by far been the most frequently displayed in the search results is Tripadvisor. The social media site not only has captured 29.7% of all the social media results, but it is often displayed multiple times in the same search page (often the first one). We examined the link popularity of Tripadvisor with Yahoo Site Explorer. The results show that Tripadvisor has 14,100,918 inbound links, compared to Wikio 3,672,633 and Virtual Tourist 3,550,749 (excluding links that originate from within the websites themselves). This result is an indication of the search power that Tripadvisor has when compared to the other top websites. An additional reason for Tripadvisor’s high visibility is that it was launched in the year 2000 and it appears that search engines often return pages with an established history. Moreover Tripadvisor shares its review databases with several other sites and this naturally creates a flow of inbound links from sites which are both relevant and popular.

In both our and Xiang and Gretzel’s studies the general outcome is that social media are ubiquitous and have a strong presence in the search results pages. There is a difference, however, that in Xiang and Gretzel’s study [16], the proportion of social media is substantially lower compared with the results we got by using brand/name-specific terms and focusing on the hotel industry. Xiang and Gretzel [16] show that approximately 11% of the search results represent social media; we found the same proportion to be 27%. It is interesting to note that for the term “hotel + destination” the results from Xiang and Gretzel’s study [16] were even lower in terms of social media content, at just 7% and for “accommodation” at 8%. Common in both studies was the relative homogeneity in the distribution of social media across the search results pages.

A key difference comes from the social media types and specific sites that contributed the most social media results. Xing and Gretzel’s study [16] identified virtual community sites (40%) as the most frequent ones; in our study consumer review sites (57.1%) were the most frequent ones. Tripadvisor was the top social media results generator in both studies, but in Xiang and Gretzel’s study [16] the site contributed 8.3% and in our study 28.7% (Table 2).

The rest of the lists of key social media sites, turned out to be rather different. This is probably explained by the fact that the two studies used dissimilar keywords on separate geo-locations and at different points in time.

Table 2. Comparison of the top social media sites between Xiang and Gretzel’s and the present study

<table>
<thead>
<tr>
<th>Site (Xiang and Gretzel’s study)</th>
<th>Cumulative %</th>
<th>Site (present study)</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripadvisor</td>
<td>38.10%</td>
<td>Tripadvisor</td>
<td>28.7%</td>
</tr>
<tr>
<td>Virtual Tourist</td>
<td>35.10%</td>
<td>Lonely Planet</td>
<td>69.5%</td>
</tr>
<tr>
<td>Yelp</td>
<td>33.00%</td>
<td>TravelPod</td>
<td>66.5%</td>
</tr>
<tr>
<td>Meetup</td>
<td>30.70%</td>
<td>Travel Yahoo</td>
<td>62.4%</td>
</tr>
<tr>
<td>TravelPod</td>
<td>24.90%</td>
<td>TripAdvisor</td>
<td>51.6%</td>
</tr>
<tr>
<td>Associatedpages</td>
<td>23.60%</td>
<td>Ciao</td>
<td>70.9%</td>
</tr>
<tr>
<td>Yellowbot</td>
<td>15.10%</td>
<td>Hotel Chatter</td>
<td>72.1%</td>
</tr>
</tbody>
</table>

In our study, Real Travel, Wikio and Virtual Tourist. All of them have consistently had a very strong presence, independently of destination. The one site, however, that has by far been the most frequently displayed in the search results is Tripadvisor. The social media site not only has captured 29.7% of all the social media results, but it is often displayed multiple times in the same search page (often the first one). We examined the link popularity of Tripadvisor with Yahoo Site Explorer. The results show that Tripadvisor has 14,100,918 inbound links, compared to Wikio 3,672,633 and Virtual Tourist 3,550,749 (excluding links that originate from within the websites themselves). This result is an indication of the search power that Tripadvisor has when compared to the other top websites. An additional reason for Tripadvisor’s high visibility is that it was launched in the year 2000 and it appears that search engines often return pages with an established history. Moreover Tripadvisor shares its review databases with several other sites and this naturally creates a flow of inbound links from sites which are both relevant and popular.
In conclusion, the present study takes the research on the social media presence on the search for travel information content a step further by showing that the number of social media results highly depends on the nature of the travel keywords, i.e., whether they are generic or brand specific. By taking a brand-specific approach it was possible to find out that the relative importance of social media for the travel industry could be significantly higher than what the previous study by Xiang and Gretzel [16] has shown.

The core message based on our study is that social media cannot be ignored nor can they be controlled by the industry players. The fact that social media are so ubiquitous in the search results means that this phenomenon is having a real influence on hotel business. Being aware of information about the way social media results are distributed across the search pages, knowing the hotels which have adopted best practices and understanding the key trends and relationships between size of cities, languages, locations, search engines and associated amount of social media content can help marketers work on the right strategies and tactics.

There are several directions in which we can take the next steps in this research. We should repeat the search for social media links with other destinations and combinations to test if the patterns we found can be confirmed. It would be beneficial to test alternative keywords such as “accommodations,” “bed and breakfast”, and “lodgings” that are used as synonyms to hotels. It would also be of interest to repeat the study for travel products and services other than hotels. Future research should also incorporate multiple search engines for a more representative results range. The dominance of TripAdvisor suggests that we could look for combinations of activities and sites and/or hotel brands and activities as travellers probably have some activities in mind if they visit smaller cities like Tampere and Turku in a distant country. Activities may generate more hits on social media links.

References


[19] www.youtube.com