

## Reijo Savolainen

School of Information Sciences  
FIN-33014 University of Tampere, Finland

### **Providing informational support in an online discussion group and a Q&A site: the case of travel planning**

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#### **Abstract**

The study examines the ways in which informational support based on user-generated content is provided for the needs of leisure-related travel planning in online discussion group and Q&A site. Main attention is paid to the grounds by which the participants bolster the informational support. The findings draw on the analysis of 200 threads of a Finnish online discussion group and a Yahoo! Answers Q&A (question and answer) forum. Three main types of offering informational support were identified: providing factual information, providing advice, and providing personal opinion. The grounds used in the answers varied across the types of informational support. While providing factual information, the most popular ground was description of the attributes of an entity. In the context of providing advice, reference to external sources of information was employed most frequently as a ground. Finally, while providing personal opinion, the participants most often bolstered their views by articulating positive or negative evaluation of an entity. Overall, regarding the grounds, there were more similarities than differences between the discussion group and the Q&A site.

#### **Introduction**

Various forms of user-generated content (UGC) such as blog postings, YouTube videos, and answers offered in Q&A (Question and Answer) sites provide a rich variety of information for problem solving and decision making in everyday contexts, for example, consumption and hobbies. So far, researchers have mainly been interested in how people seek and share UGC-based health information (e.g., Eichhorn, 2008; Savolainen, 2011). In addition, there are studies focusing on the seeking and sharing of UGC in fields such as consumption (Savolainen, 2001), global warming (Savolainen, 2012) and investing (O'Connor, 2013). As a whole, however, there is a paucity of studies examining the role of UGC in everyday contexts other than health.

The present study fills gaps in research by focusing on the provision of UGC-based informational support in the context of leisure travel planning. The social relevance of this context is growing because over the past decades, tourism has experienced continued expansion and diversification becoming one of the largest and fastest growing economic sectors in the world. International tourist arrivals have shown virtually uninterrupted growth: from 25 million in 1950 to 940 million in 2009 (World Tourism Organization, 2011). These developments indicate that leisure traveling is becoming a major global phenomenon. At the same time travel planning is undergoing substantial changes. According to Werthner and Ricci (2004, p. 101), "a new type of user is emerging, one who acts as his or her own travel agent and builds a personalized travel package".

Acting as one's own travel agent requires careful travel planning to enhance the quality of a proposed trip and to decrease the financial, psychological and safety-related risks of traveling. Often, travel planning is complicated because leisure travel belongs to the category of service goods

or “experience goods” that are characterized by intangibility, perishability, heterogeneity, and simultaneous production and consumption (Arsal et al., 2010, p. 401). Since information about service goods cannot easily be determined before purchase, travel is a high-risk consumption. To reduce risks, consumers may seek information from diverse sources such as travel guidebooks and people with travel experience. Easy availability of UGC in online forums has substantially improved the opportunities to evaluate the nature of service goods in the process of travel planning. Prospective travelers can examine hotel reviews, photos, videos and other material that have been posted online by fellow consumers (Xiang & Gretzel, 2010). Virtual tourist communities such as *Tripadvisor* and *LonelyPlanet* provide UGC of this type, enabling tourists to exchange experiences on topics of common interests. On the other hand, the quality of informational support may vary because UGC tends to be “a mixture of fact and opinion, impression and sentiment, founded and unfounded tidbits, experiences, and even rumor” (Blackshaw & Nazzaro, 2006, p. 4).

The present study was inspired by the need to specify the above picture: what kind of UGC-based informational support is available in online forums, how is it offered to users, and how well is informational support of this kind bolstered by providing grounds for one’s views? Further, are there differences in the provision of UGC in online forums of various types? To my knowledge, these questions are unique and there are no prior investigations about this topic. Therefore, an empirical case study was conducted by comparing how UGC-based informational support is provided in an online discussion group and a Q&A site for prospective travelers to Italy. Even though the study is explorative and concentrates on a particular group of people offering informational support in the forums of social media, it nevertheless serves more general ends by elaborating the picture of information sharing in online forums.

The remainder of the article is organized as follows. The next section presents the literature review by concentrating on the features of travel-related UGC and its sharing in online forums. Then, the conceptual framework and research questions of the study are specified and the empirical research design is described, followed by the report and discussion of the empirical findings.

## **Background**

### *Discussion Groups and Q&A Sites as Forums for Providing Informational Support*

Internet discussion groups date back to the 1990s, and they can be characterized as web versions of Usenet newsgroups that were established in the early 1980s. Messages submitted to discussion groups are contained in threads, where they appear one after another so that the first post starts the thread focusing on a topic. A thread is a collection of posts, usually displayed from oldest to latest. A thread can contain any number of posts, including multiple posts from the same contributors, even if they are one after the other.

The use of discussion groups has been reviewed in numerous studies since the 1980s both in work-related and non-work contexts such as health (Eichhorn, 2008; Matzat, 2004). The review presented below concentrates on the leisure context. In a hobby-related study Lee and Trace (2009) examined the ways in which collectors of rubber ducks exchange information and respond to the needs of this special community. They found that the rubber duck community, through its online forums, was willing to help almost anyone interested in such objects. Similar to virtual tourist communities, such forums operate a *gift economy* in which information is shared freely. More recently, based on the analysis of messages posted to eBay online discussion boards, Case (2010) investigated how coin collectors tried to reduce uncertainty in the course of online coin purchases. The findings indicate that collectors experience various uncertainties regarding their objects of interest and proceed down

a series of avenues that might offer additional information. It appeared that the participants offering and accepting advice are not in competition with one another and, therefore, the information exchanged is assumed to be sincere. However, information provided by the coin collectors may not be definitive, giving no guarantee of further help.

In recent years, Q&A sites have become popular forms of social reference services. The utilization of these forums is based on the practice in which *askers* post their questions to a public Q&A site and then receive comments from *answerers*, i.e., anyone who is willing to share his or her knowledge about an issue at hand. On the other hand, interaction on Q&A sites is constrained by the setup of the architecture, which has a strict question and answer format. Q&A threads must start with a question, and the participants mainly interact by answering the question, not by addressing one another. Furthermore, different from online discussion groups, one cannot answer more than once within a thread nor can one answer oneself (Adamic et al., 2008, p. 667). Q&A forums also differ from discussion groups with regard to promptness of answering: in Q&A sites, most answering activities tend to take place within the first hours after a question had been posted (Chua & Banerjee, 2013). If multiple answers are provided, the user may select a particular answer as the “best answer” and the system marks the questions as “resolved”. Furthermore, on Q&A platforms such as in Yahoo! Answers there is a time limit: if a question does not get any answers 4 days after being posted, it will automatically expire and be deleted from the system; however, if needed, the questioner may extend this period (Wu & Korfiatis, 2013). In discussion groups, there are no such time limits. Hence, threads can cover periods of several years, and the participants can add new comments as the discussion about a topic goes on.

So far, the majority of Q&A studies are empirical investigations focusing on the types and content of questions and answers, the quality and speed of answers and information-seeker satisfaction in community question answering, and the ways in which Q&A sites are used (Chua & Banerjee, 2013; Gazan, 2011; Oh, 2012; Shah et al., 2009). Similar to studies of discussion groups, however, there is a lack of investigations reviewing how leisure-related UGC is provided and used in Q&A forums.

### *Information Seeking and Sharing in the Context of Travel Planning*

According to Chang (2009, p. 719), prospective travelers are usually occupied by questions such as

- Where to go: selecting destinations and sightseeing locations
- How to get there: deciding on transportation methods
- When to do what: arranging schedules and itineraries
- Where to stay: finding accommodations, such as hotels
- What to be aware of: knowing about safety and cultural issues
- What to budget: controlling expenses, learning about local currency

Other studies have confirmed that the above questions are typical to prospective travelers (Hwang et al., 2009; Jansen et al., 2008). This suggests that travel planning is comprised of a network of sub-decisions regarding the variety of issues such as the choice of destination, travel dates, overall budget, hotel, and attractions (Hwang et al., 2009).

Gursoy and McCleary (2004) forecasted that information seeking for the needs of travel planning will increasingly take place in the Internet, due to the low cost and ease of information searching. Recently, with the growing popularity of social media, much of the research interest has been directed to the role of UGC in travel planning. According to Aarsal and associates (2010, p. 400), travelers tend to favor UGC because it originates from consumers who have experienced the

destination in question. Aye and associates (2013, p. 439) devote specific attention to the role of *electronic word of mouth* (eWOM) which is defined as a type of UGC. The sharing of eWOM is based on unsolicited and self-reported provision of authentic and rich consumer feedback from those with travel experience.

So far, however, there are no conclusive findings about the usefulness of travel-related UGC (Kim et al., 2013). Cox and her colleagues (2009) found that although websites providing UGC are popular among travelers, these sources are not yet considered to be as trustworthy as existing sources of travel information such as government-sponsored tourism websites. UGC is perceived as an additional source of information that travelers consider as part of their information search process, rather than as the only source of information. Burgess and his associates (2009) explored the benefits and concerns of UGC among online consumers. The findings indicate a paradoxical setting. On the one hand, the respondents trusted travel-related UGC because it originates from 'real' experiences by 'real' people. On the other hand, UGC was not judged as trustworthy because the content that is posted may be faked by someone with a vested interest. Further concerns were related to the tendency for people to contribute commentary to UGC only when they had very positive or very negative things to say. Thus, UGC may not necessarily represent the 'average' traveler's experience.

## **Conceptual Framework**

The review of earlier studies provided useful background for the development of the research framework and the formulation of the research questions. First, previous studies showed that prospective travelers seek information in order to decrease risks involved with traveling and to enhance the quality of a proposed trip. Second, earlier investigations devoted attention to the growing importance of UGC in information seeking although the informational support provided by UGC may be subjectively biased.

The present study elaborates the above picture by concentrating on the provision of UGC-based informational support in a discussion group and a Q&A site. The practice of providing informational support for travel planning can simply be described as follows. Individuals motivated to help others in travel planning read messages posted by prospective travelers to discussion groups or Q&A sites. The messages may contain explicit questions directed to the readers. Help providers can offer informational support for prospective travelers by sharing their experiences and making recommendations about the choice of a destination, for example. To bolster their answers, help providers may draw on grounds of various kinds, for example, by providing a reference to a website offering further information about a destination. However, such grounds bolstering the informational support are not necessarily explicated.

The present study concentrates on the ways in which the providers of UGC bolster their views by drawing on grounds of some kind. Since the architectures of discussion groups and Q&A forums differ, this may be reflected in the ways in which informational support is provided and how it is bolstered. We may hypothesize, for example, that discussion groups offer more opportunities to report personal experiences as a ground because different from Q&A, a participant is allowed to post multiple messages.

To identify the types of informational support provided by the contributors, the present study draws on the categories originally developed by Cutrona and Suhr (1992). The same categories were used in an earlier study examining the strategies for providing informational support in blogs focusing on

dietary projects (Savolainen, 2010). Cutrona and Suhr (1992) identified three main types of informational support:

- Suggestions and advice (offering ideas and suggesting actions)
- Referral (referring the recipient to some other source of help)
- Teaching (providing detailed information, facts, or news about the situation or about skills needed to deal with the situation).

Based on the preliminary analysis of the empirical data, the above categories were modified for the needs of the present study so that they correspond better to the nature of travel-related UGC available in discussion groups and Q&A sites. Thereby, three main types of providing informational support were identified.

- *Providing factual information* (for example, The local train ticket from Rome to Naples costs 30 euros)
- *Providing advice* (for example, Remember to stamp your train ticket before entering the train because otherwise you may be fined a penalty charge of 60 euros by the conductor)
- *Providing personal opinion* (for example, In my view, local train tickets are relatively cheap in Italy).

Of the above categories, Providing Factual Information is closely related to “teaching” (a term proposed by Cutrona and Suhr, 1992), while Providing Advice corresponds to the category of Suggestions and Advice. Finally, Providing Personal Opinion is a new category that is lacking from the framework developed by Cutrona and Suhr (1992). This category was identified inductively from the empirical data. The category of Referral identified by Cutrona and Suhr (1992) is not used in the present study because referring the recipient to some other source of help is perceived as a ground that can be used to bolster the provision of factual information, advice, or personal opinion.

The grounds used to bolster the provision of informational support are mainly classified by drawing on the categories of a study examining the use of informational cues among prospective homebuyers (Savolainen, 2009). Most of these categories originate from the study conducted by Zhang and associates (2008). They identified cognitive mechanisms such as Comparison, Explanation and Generalization that people employ while interpreting the relevance of information available in diverse sources. Due to their generic nature, such categories also appeared to be relevant as grounds that an information provider can employ to bolster a factual claim, piece of advice or personal opinion. As a result, the following categories are used to indicate the grounds bolstering informational support.

- *Comparison by differentiation*. An entity is characterized by an individual attribute by pointing out that the entity is different to another entity (for example, Hotel X is more expensive than hotel Y)
- *Comparison by similarity*. An entity is characterized by an individual attribute by pointing out that the entity is similar to another entity (for example, Hotel X is located in the same region as hotel Y)
- *Description*. Presenting a non-evaluative (neutral) characterization of an entity by depicting its attributes (for example, *Pompeii is located south-west of Mount Vesuvius*)
- *Explanation*. The entity is characterized by an individual attribute that is perceived as causal because it is seen as a factor capable of producing positive or negative consequences for actors in the future (for example, *If you walk alone in dark alleys, you may be robbed of your money*)

- *Positive evaluation* of an entity, based on one's beliefs or actual experiences (for example, In hotel X, the staff were very helpful to me)
- *Negative evaluation* of an entity, based on one's beliefs or actual experiences (for example, In hotel Y, the receptionist was rude to me)
- *Positive generalization*. Presenting a positive summary view of the attribute(s) of an entity (for example, Most local residents in Southern Italy are very welcoming to foreign tourists)
- *Negative generalization*. Presenting a negative summary view of the attribute(s) of an entity (for example, In big cities like Rome, local cab drivers often rip off naïve tourists)
- *Reference to an external source of information* (for example, a Wikipedia article on Milan).

## Research Questions

Drawing on the above framework, the present study addresses the following research questions:

- How are the grounds of various kinds employed to bolster UGC-based informational support while offering factual information, advice and personal opinion?
- What kind of similarities and differences can be identified in the employment of the grounds in the discussion group and Q&A site?

In order to sharpen the focus of the study, a few limitations appeared to be necessary. Although online forums can also provide emotional support, the present study reviews the provision of informational support only. This is because the preliminary analysis of the empirical data revealed that the provision of emotional support plays a marginal role in travel-related forums. The data indicated, for example, that only 4% of the answers offered in the Q&A site provided emotional support, for example, by encouraging hesitant travelers to visit Sicily, despite some risk of earthquakes. This finding is consistent with the conclusion drawn by Sun and associates (2012). They characterized online Q&A communities as “issue-oriented,” that is, community users tend to focus on knowledge exchange per se, with little socializing or sharing emotional experiences. Another limitation of the present study is that the information needs giving rise to questions articulated in online forums will not be reviewed. Therefore, no attempt will be made to detail the connections between the questions of various types presented and answers provided in the online forums. Finally, the present study does not review how the prospective travelers assess the relevance of the UGC-based informational support. Given the space restrictions alone, the above issues would have required a separate study.

## Empirical Data

The present study focuses on UGC offering informational support for prospective travelers to Italy. This country was chosen because Italy is one of the most popular tourist destinations all over the world. Globally, Italy is ranked 5<sup>th</sup> measured by international tourist arrivals (43.6 million arrivals in 2010, see World Tourism Organization, 2011). The empirical data were gathered in spring 2013 from Yahoo! Answers, a major international Q&A site, and *Suomi24* (Finland24), a Finnish online discussion platform.

Yahoo! Answers (<http://answers.yahoo.com/>) entails 26 main topical categories, for example, Environment, Health, and Travel. The category of Travel consists of country-specific sub-categories such as Italy. The empirical study focused on this category. To obtain a sufficient number of articulations of UGC-based informational support, only threads containing at least five messages were included in the sample. More specifically, 100 consecutive threads from newest to oldest with 5+ messages posted to the sub-category of Italy (Resolved Questions) were downloaded for the

empirical analysis. These messages had been posted within the period of 18 February - 14 April 2013. The 100 threads contained altogether 736 messages; thus, on average, there were 7 messages per thread. Of the messages, 100 were written by the questioners and 636 by the answerers. The lowest number of messages per thread was 5 and the highest 15. The questioners presented 126 individual questions, while altogether 255 individual answerers provided 967 individual answers.

Another part of the empirical data was gathered from a discussion group. To identify a relevant forum of this type, discussion threads available in major international platforms such as Yahoo! Groups and Thorn Tree Forum (Lonely Planet) were read tentatively. However, it appeared that they were not usable for the needs of the present study due to two main reasons. First, the number of relevant discussion threads focusing on Italy appeared to be insufficient in Yahoo! Groups. Second, it turned out that Thorn Tree Forum does not substantially differ from the Yahoo! Answers site. In practice, communication in the former arena is structured according to the format of “question – answers” similar to Q&A sites, although Thorn Tree Forum allows multiple answers from the same participant. Therefore, another forum more characteristic of traditional discussion groups was chosen for the study. *Suomi24* (Finland24) is the largest online discussion platform in Finland (<http://www.suomi24.fi/>). It is divided into 23 main categories such as Health, Hobbies, and Travel. The category of Travel includes a number of country-specific sub-topics, for example, Canada and Italy. Similar to the Q&A site discussed above, the study was focused on the sub-category of Italy. In April 2013, this category contained about 3 600 discussion threads. Similar to the Q&A site, 100 consecutive threads with 5+ messages starting from those with the newest updates were downloaded.

These messages had been posted to the discussion group within the period of 9 January 2006 - 24 March 2013. The periods of individual threads varied considerably. The longest period covered almost seven years (January 2006 - November 2012), while the shortest period entailed only one month (13 October - 13 November, 2012). Although the oldest threads may provide outdated facts, these threads were not excluded because they also contained information whose relevance is less dependent on the time of writing, for example, general opinions about popular tourist attractions. On the other hand, the majority of the messages, i.e., 83.5% were recent, and they were posted to the discussion group within the period of January 2010 – March 2013. The 100 threads contained 1254 messages; on an average there were 12 messages per thread. Thus, compared to the Q&A site, the threads in the discussion group were longer. The number of messages per thread varied from five to 51. Altogether 971 individual contributors wrote messages. Of them, 102 presented questions while 784 participants provided one or more answers, and 85 contributors both asked questions and provided answers. The 1254 messages entailed 360 individual questions and 1213 answers.

The preliminary analysis revealed, however, that a part of the answers are irrelevant from the perspective of providing informational support. In the Q&A site, such answers comprised 7.3 % and in the discussion group, 3.6% of all answers offered by the participants. Answers such as these were excluded from the analysis. It was characteristic of them that they simply were out of scope since they spammed advertisements or URLs of hotels, for example. Irrelevant answers also entailed derogatory comments ridiculing the naïve questions presented by the prospective travelers. Having excluded such replies, the analysis focused on 1140 usable answers provided in the discussion group and 896 usable answers offered by the contributors of the Q&A forum.

## Data Analysis

To obtain an overview, the downloaded threads were first read carefully. Then, the relevant parts of the messages, i.e., a sentence or fewer related sentences providing an answer (or answers) to the question presented by a participant were coded by making use of the categories specified above. An individual answer, (for example, an opinion about the choice of a destination) formed is the unit of analysis. First, the topic of the answer and the type of informational support were identified. In the coding of the types of informational support, *Fact* was understood as something that has really occurred or is actually the case and is potentially verifiable (testable) though not necessarily true. *Personal opinion* was defined as value-based judgment based on one's beliefs and actual experiences. Finally, *advice* was understood as a recommendation offered as a guide to action or conduct. An answer was coded only once for every category, for example, providing advice; other instances of the same strategy were simply ignored. The coding continued by identifying the type of ground by which the answer was bolstered. A code was assigned to each element (for example, Positive Evaluation) when it occurred for the first time within an answer. Again, multiple instances of the same ground were ignored.

In order to strengthen the validity of the coding, the initial coding was checked iteratively by the present author. Because the study is exploratory and does not aim at statistically representative generalizations of discussion groups and Q&A sites, the requirement of the consensus on coding decisions based on inter-rater reliability can be compromised without endangering the reliability of the exploratory study. According to Miles and Huberman (1994, p. 65), check-coding the same data is useful for the lone researcher, provided that code-recode consistencies are at least 90%. Following this idea, check-coding was repeated, and the initial coding was carefully refined until there were no anomalies.

To answer the research questions, the data were scrutinized by means of descriptive statistics. Most importantly, the percentage distributions were calculated for the topics of answers, types of informational support, and types of grounds. Second, qualitative content analysis was conducted. More specifically, the quantitative analysis was complemented by qualitative study that drew on the constant comparative approach (Lincoln & Guba, 1985, pp. 339-344). An attempt was made to capture the variety of articulations of grounds used to bolster the informational support. Importantly, the sample of 200 threads appeared to be large enough for the drawing of a good qualitative and indicative quantitative picture of the nature of UGC-based information provision. It became evident that the inclusion of additional threads would not have essentially changed the quantitative picture of the provision of informational support in travel-related threads. As to the qualitative analysis, the number of answers appeared to be sufficient because the data became saturated.

In the analysis of the data, particular attention was devoted to the ethical issues. Researchers agree that informed consent is not required if the setting of data collection is regarded as public (Eysenbach & Till, 2001). On this basis it can be claimed that messages posted on the discussion groups and Q&A sites are intended for the public and that the contributors to online forums are aware of the possibility that their messages will be read by a wide audience. Due to their public nature, the messages mailed to online forums may also be utilized for research purposes, provided that the identity of an individual writer is sufficiently protected. When using the illustrative extracts taken from messages, the anonymity of the contributors is carefully protected. Their nicknames are replaced by neutral identifiers such as Q&A Thread 12, Answerer 5 or Discussion Group Thread 97, Participant 2. Given the high number of threads discussing traveling to Italy, it is unlikely that such extracts could be associated with individual contributors.

## Findings

Of the 896 usable answers provided in the Q&A site, 84.9 % were supported by one or several grounds, while 15.1 % of the answers were not. In the discussion group, 1140 usable answers were presented; of them, 74.9% were supported by one or several grounds, while 25.1 % remained unsupported in this way. Thus, as a whole, the answers offered in Q&A site were bolstered more frequently by a ground of some kind. The distribution of answers by subject area is presented in Table 1 below. For simplicity, answers with or without grounds are not taken separately.

Subject area	Discussion Group (n = 1140)	Q&A Site (n = 896)
Destination	25.1	29.5
Transportation	17.7	4.8
Prices	9.9	4.9
Accommodation	7.2	5.5
Food and restaurants	6.4	3.3
Schedules and itineraries	5.2	6.0
Attractions	4.5	5.2
Social and cultural issues	2.6	9.3
Safety	2.3	4.7
Services	2.3	3.7
Shopping	2.1	1.4
Weather	2.1	2.2
Events	1.9	2.6
Budget	1.4	2.8
Clothing	1.0	4.1
Law and regulations	1.0	1.5
Local habits	1.0	2.9
Reservations	1.0	1.2
Miscellaneous	5.3	4.4
Total	100.0	100.0

Table 1. Percentage distribution of answers by subject areas in the discussion group and Q&A site.

In both forums, most answers dealt with the destinations. In the discussion group, relatively many answers focused on the transportation methods (e.g., train connections and taxi) and prices. In the Q&A site, quite a lot of answers dealt with social and cultural issues. Otherwise, there appeared to be no particularly big differences between the forums with regard to the topics of answers. In both arenas, most answers focused on the nature of destinations, attractions, prices, accommodation, shopping, itinerary planning, and safety issues. As a whole, these topics correspond well to the topics of questions that commonly occupy prospective travelers (Chang, 2009; Hwang et al., 2009; Jansen et al., 2008).

In the following, the analysis will focus on the provision of informational support bolstered with grounds of some kinds. Table 2 specifies the quantitative picture of the types of informational support.

Type of informational support	Discussion Group (n = 1484)	Q&A Site (n = 761)
Providing personal opinion	64.1	62.0
Providing factual information	27.6	15.4
Providing advice	8.3	22.6
Total	100.0	100.0

Table 2. The percentage distribution of types of informational support with grounds in the discussion group and Q&A site.

In both forums, the provision of personal opinion appeared to be the most frequent way to offer informational support: 64% of answers bolstered with grounds in the discussion group and 62% of answers provided in the Q&A site drew on this approach. Interestingly, the Q&A answerers favored somewhat more strongly the provision of advice while the discussion group participants placed more emphasis on factual answers.

To provide background, the extent to which informational support was offered with or without grounds can be specified as follows. In both forums, answers offering factual information were always supported by a ground of some type. Of the answers providing advice in the Q&A site, 74.8% were supported by a ground of some type while in the discussion group, this share was much lower, that is, 54.8%. Thus, advice offered in the discussion group was more frequently based on ungrounded assumptions, since every second piece of advice was not bolstered by any ground. Finally, answers providing personal opinion were supported by a ground of some type almost equally in both forums: 72.3% in the Q&A site and 73.2% in the discussion group.

In the following, the types of informational support will be discussed in order of popularity. The provision of personal opinion will be reviewed first, followed by the provision of factual information and the provision of advice.

### *Providing Personal Opinion*

As Table 2 above indicated, the most frequent type of informational support was the provision of personal opinion. In the discussion group about 64% of the answers were classified into this category while 62% of the answers offered to the Q&A site drew on personal opinions. Table 3 specifies how the participants employed grounds of various types to bolster their opinions.

Type of ground used	Discussion Group (n = 952)	Q&A Site (n = 472)
Positive evaluation	42.7	39.5
Negative evaluation	28.2	19.7
Description	9.2	9.6
Explanation	7.7	4.9
Comparison by differentiation	6.7	14.4
Reference to external source	3.4	4.9
Positive generalization	0.9	2.9
Comparison by similarity	0.6	2.5
Negative generalization	0.6	1.6
Total	100.0	100.0

Table 3. Percentage distribution of grounds used to bolster the provision of personal opinion in the discussion group and Q&A site.

The most popular ground employed in both forums was Positive evaluation. In the discussion group, about 43% of all mentions of grounds could be classified into this category, while in the Q&A site this share was 39.5%. Often, the personal opinions were bolstered by reporting positive experiences obtained from visiting individual destinations or attractions.

My favorites are *Campo di Fiori* and *Trastevere*. They are fascinating places nightly when people walk around and spend the evening in numerous restaurants. (Discussion Group Thread 26, Participant 34)

Italy's landscapes and nature are amazingly beautiful like Lake Como or Tuscany. (Q&A Thread 100, Answerer 2)

In fewer cases, the strategy of providing opinion was bolstered by drawing on negative evaluation of the attributes of an entity, for example, high prices of services. Negative evaluations appeared to be more frequent in the discussion group than in Q&A. They were spread into a broad area, dealing with the quality of accommodations and features of individual destinations, for example.

The hotels in Rimini are poor and they are located far away from the city center. (Discussion Group Thread 97, Participant 9)

Venice. Incredible place but cold in winter and rather damp. (Q&A Thread 99, Answerer 5)

Sometimes, however, personal opinions were grounded by providing a neutral description of the temporal and spatial conditions of action. Such opinions focused, for example, on the sufficiency of time to visit several destinations.

I'm Italian. You have only six days to visit all these beautiful cities. In my opinion not enough these few days. (Q&A Thread 36, Answerer 5)

Comparison by differentiation appeared to be a fairly popular ground particularly in the Q&A site. About 14% of all grounds used to bolster personal opinions fell into this category, whereas the role of Comparison by similarity remained marginal (only 2.5% of all grounds). In the discussion group, the percentages were lower: about 7% of all mentions of grounds drew on Comparison by differentiation, while the share of Comparison by similarity was only 0.6%. Grounds based on comparison were employed in the context of diverse issues, ranging from the features of individual destinations to the price level of services. Often, comparison by differentiation was based on qualitative assessments even though sometimes, quantitative measures such as the amount of prices were referred to.

Prices have climbed since the last fall (+10 euros). (Discussion Group Thread 2, Participant 2)

In addition, Explanation was sometimes used as a ground. A ground of this type appeared to be somewhat more popular in the discussion group. Explanations of the type "if – then" were typically employed while commenting on the sufficiency of the travel budget.

In Tuscany you can get along even with small budget if you avoid the biggest tourist traps and prefer restaurants and accommodations located in small alleys, a little bit away from the most popular attractions. (Discussion Group Thread 74, Participant 4)

The role of grounds of other types remained marginal. Sometimes, however, the provision of opinion was supported by referring to external sources of information, for example, websites of travel offices or personal blogs.

Without a doubt, holiday rental is the best choice. I have added a link which has accommodation as well as a huge paragraph about Sicily attractions which will make you familiar with the place. Source: <http://www.vacationrentalplanners.com/vacationrentals/Sicily-Holiday-Rentalsn>. (Q&A Thread 43, Answerer 2)

In a few cases, the answerers bolstered their opinions by drawing on generalizations, positive or negative. Again, the generalizations focused on a variety of subjects, for example, the features of individual destinations, level of services and safety issues.

There has always been earthquakes in Sicily and will in the future, too! Earthquakes also take place in Greece, Spain, America, Australia, Turkey, almost everywhere. (Discussion Group Thread 63, Participant 9)

#### *Providing Factual Information*

As noted in Table 2 above, almost 28% of the answers offered in the discussion group were based on the provision of factual information while in the Q&A site, the share was lower, that is, 15%. The grounds by which the contributors bolstered their factual answers are specified in Table 4 below.

Type of ground used	Discussion Group (n = 409)	Q&A Site (n = 117)
Description	83.6	80.4
Reference to external source	13.0	12.0
Explanation	2.7	3.4
Comparison by differentiation	0.7	0.8
Positive generalization	0.0	2.6
Negative generalization	0.0	0.8
Total	100.0	100.0

Table 4. Percentage distribution of grounds used to bolster factual answers in the discussion group and Q&A site.

In both forums, Description was clearly the most frequently used ground. Four factual answers out of five were bolstered by providing a neutral description of an entity. Description was typically used as a ground while indicating the prices of products and services. Thus, the grounds entailed an exact reference to a quantity depicted by a numerical value.

Museums or attractions run: 6 euro - 13 euro each. (Q&A Thread 12, Answerer 2)

The train ticket from Rome to Naples costs 19-29 euros. (Discussion Group Thread 21, Participant 9)

Description was also used as a ground to clarify the nature of spatial and temporal features or conditions of action, for example, time needed for a train trip or the distances between diverse places. Again such grounds were articulated by describing the quantitative features of the entity.

From Livorno to Pisa is only a 15 minute ride. (Q&A Thread 14, Answerer 2)

Vatican Museum and St. Peter's Basilica are different things. By walking, the distance between their main entrances is over one kilometer. (Discussion Group Thread 3, Participant 4)

Description of the state of affairs was used as a ground while indicating objective conditions that constrain action, for example, traffic rules or money exchange.

The Lira does not exist anymore. We use the Euro here in Italy. (Q&A Thread 75, Answerer 4)

Particularly in the discussion group, factual answers were often grounded by describing one's experiences. It is characteristic of such descriptions that the experiences were reported in a non-evaluative manner. Describing things just as they actually happened suggests that the experience is objective and not biased by a personal opinion.

Having a Roma Pass you can skip the line to *Colosseum*. I tested this, got directly in there. (Discussion Group Thread 4, Participant 9)

In addition, neutral descriptions of personal experiences were used as evidence in cases in which the local residents reported facts about specific occasions such as earthquakes or depicted weather conditions. It is apparent that the indication of being a resident provides additional power for objective evidence.

Actually it is not sunny at all. Of course there are sunny days but the air is still very fresh if not cold, and it is quite a rainy season. Source: I live in Rome. (Q&A Thread 95, Answerer 1)

To support the factual answers, the contributors in both groups almost equally often referred to external sources of information. References to external sources were commonly employed to confirm facts about prices, geographical details, condition of weather and other subjects that can be measured quantitatively. Typically, the evidence was indicated by a reference to a website.

Venice is a city comprising of a cluster of 118 small islands, separated by a maze of canals and interconnected by small bridges. <http://goItaly.about.com/od/thingstoseea> (Q&A Thread 40, Answerer 3)

The latest earthquake in Etna region occurred today at 10:18 AM. <http://www.earthquake.it/particolari.php>. (Discussion Group Thread 63, Participant 12)

The role of other categories such as Explanation remained marginal. Explanation was used as a ground for factual answers to indicate that various choices can lead to different consequences, for example, while considering the health risks involved in swimming.

Normally, there are no medusas here. However, after submarine earthquakes or the eruption of Etna, a lot of medusas come onshore. (Discussion Group Thread 52, Participant 4)

Finally, in a few cases, the provision of facts was bolstered by drawing on generalization or comparison.

In Italy, gasoline (95E10) costs now 15 cents more than in Finland. (Discussion Group Thread 72, Participant 2)

### *Providing Advice*

As Table 2 above indicated, the provision of advice appeared to be more popular among the Q&A answerers since about 23 % of all answers offered in the Q&A site with a ground of some type could be classified into this category. In the discussion group, the share of this approach was lower, comprising about 8% of all answers. Table 5 specifies the use of diverse grounds used to support the provision of advice.

Type of ground used	Discussion Group (n = 123)	Q&A Site (n = 172)
Reference to external source	36.6	71.5
Description	27.6	12.8
Positive evaluation	24.4	5.8
Negative evaluation	8.1	3.5
Explanation	3.3	5.2
Comparison by differentiation	0.0	0.6
Comparison by similarity	0.0	0.6
Total	100.0	100.0

Table 5. Percentage distribution of grounds used to bolster the provision of advice in the discussion group and Q&A site.

While offering advice, the contributors in both forums preferred the reference to external sources of information. This ground was particularly popular in the Q&A site. No less than 71.5% of grounds articulated by Q&A answerers were based on references to external sources, while in the discussion group, the percentage was lower, that is, about 37%. Almost without exception, external sources were websites. The grounds were often articulated very briefly and in some cases they included a URL only. The advice was directed to diverse subject areas, most notably individual destinations and attractions, and the availability of accommodation and train connections. Often, the prospective travelers were advised how to proceed in specific situations.

If you want to visit the Colosseum and you should, consider buying a combo ticket at Palantine Hill/Forum. You may even be able to buy them online before you get there. Then go to the Colosseum and use the "already have tickets" gate. Source: <http://goItaly.about.com/od/romeItaly/qt...> (Q&A Thread 29, Answerer 4)

Fairly often, the provision of advice was supported by drawing on the category of Description. Such experiences were typically related to visiting of tourist attractions, prices, schedule planning, clothing and the use of transportation services.

You can take the city bus to the station in Bergamo and a train to Milano Centrale or take a shuttle bus from the airport in Bergamo directly to Milano Centrale. You can find specific schedules and prices here: [http://www.fsItaliane.it/homepage\\_en.htm...](http://www.fsItaliane.it/homepage_en.htm...) (Q&A Thread 67, Answerer 1)

In the discussion group in particular, the answerers drew on positive evaluation. However, there were also some negative evaluations that served as a ground while bolstering a piece of advice. Naturally, in this context, the advice provided by experienced travelers concentrated on choices that should be avoided.

Never go to Hotel X (anonymized name). It is fairly clean and the cleaning lady comes every day, but there are no other services. The receptionist is unavailable most of the day. (Discussion Group Thread 10, Participant 11)

Help providers quite seldom drew on Explanation while supporting the provision of a piece of advice. Again, the emphasis was placed on the consequences of alternative choices in the form of “if – then”. For example, the daily schedule may be affected considerably if the traveler is not aware of the regulations.

But if you exit the roped off area and then ask, it is too late. They will not let you back in. Too many people try that, without paying the Museum entry fee. So make sure you look for it, and ask, after you exit the Sistine Chapel. (Q&A Thread 11, Answerer 2)

Grounds that were used infrequently also include Comparison (by similarity or differentiation). A piece of advice based on comparison was typically offered to help in the choice of a destination or the planning of itineraries.

I would definitely recommend doing what you have done and staying the extra day in Rome. While both cities (Rome and Naples) are absolutely amazing with loads of history and culture, Rome has so much to see and do that 1 day just would not be enough. (Q&A Thread 10, Answerer 2)

## **Discussion**

The present investigation elaborated the picture of the ways in which user-generated content is provided for users in leisure-related online forums. The findings also shed additional light on the nature of online discussion groups and Q&A sites as forums of information sharing. The study also provides a useful extension of the types of informational support. Three main types of informational support were identified: provision of factual information, provision of advice, and provision of personal opinion. The findings indicate that in both forums, the provision of personal opinion is the most frequent way to offer informational support. In the discussion group 64% of the answers and in the Q&A site 62% of the answers were based on the provision of opinions. The provision of factual information was more frequent in the discussion group while the Q&A site was profiled by a stronger preference for the provision of advice. As a whole, however, there were no remarkable differences between the forums in regard to the provision of informational support of various types. This suggests that independent of the type of the online forum, prospective travelers are most likely

supported by personal opinions offered by fellow travelers, rather than by the provision of factual information or concrete piece of advice.

The major attention was devoted to the ways in which the provision of UGC-based informational support is bolstered by drawing on grounds of various kinds. The study revealed that the popularity of individual grounds varied both with regard to the type of informational support and the type of the forum. Said differently, there were no single dominating grounds employed across the types of informational support or the types of the forums. In the discussion group as well as in the Q&A site, the repertoire of the grounds was broadest while providing personal opinions. Nine individual grounds were employed, while in the case of offering factual information, one ground, i.e., Description clearly dominated as a ground. Four factual answers out of five were bolstered by drawing on this category neutrally depicting the attributes of entities. As a whole, the distribution of other grounds such as External source to information and Explanation was fairly similar in both forums. Thus, one of the main findings of the present study is that independent of the forum type, the factual answers offered for users are bolstered similarly. The findings of the qualitative analysis provided further evidence for the above conclusion by indicating that answers can be convincingly *presented as factual* claims about external reality while depicting the objective features of entities, for example, measureable temporal and spatial distances, and level of prices.

The profile of grounds was less coherent while providing personal opinions. In this context, evaluative grounds, i.e., categories of Positive Evaluation and Negative Evaluation were most popular. In the discussion group, these categories comprised about 71% of the grounds mentioned by the participants, and about 59% of the grounds presented by Q&A answerers. Necessarily, the role of other grounds remained less significant. However, comparative grounds, i.e. the categories of Comparison by Differentiation and Comparison by Similarity were used to particularly in the Q&A site since about 17% of the grounds articulated in that forum drew on comparison. Grounds based on the categories of Description and Explanation were less frequent, and the role of grounds based on generalization (positive or negative) remained marginal. Qualitative analysis of the grounds offered further support for the assumption of the diversified picture of the grounds used to bolster the provision of personal opinions. However, the major characteristic of grounds articulated in this context is that they provide further support for the credibility of personal opinions originating from authentic experiences of “real people”.

The profile of the grounds used to bolster the provision of advice differed from the above types of informational support in that the participants drew heavily on the references to external sources of information. In the Q&A site, 71.5% of all grounds were based on this particular ground and in the discussion group, about 37% of all grounds mentioned by the participants. Of the grounds of other types, descriptive and evaluative grounds were almost equally popular while bolstering the provision of advice. Regarding the use of diverse grounds, the profile characteristic of providing advice resembles the profile of providing of factual information in that Description and Reference to external source are the most popular grounds in both contexts. However, the qualitative analysis revealed that the grounds used to bolster the provision of advice are more diversified. The major characteristic of grounds is a mixture of descriptive and evaluative elements that are used to lend further credibility for recommendations. On the one hand, a piece of advice is grounded by referring to external sources of information, while on the other hand, further support is provided by presenting evaluations based on one’s own experiences.

Having looked across types informational support in both forums, descriptive and evaluative grounds appeared to be most popular, followed by reference to external sources of information, comparative grounds, explanatory ground and grounds based on generalization. This finding finds

support from an empirical study examining the ways in which prospective homebuyers interpret informational cues (Savolainen, 2009). It revealed that these subjects drew most frequently on descriptive-evaluative approaches to information use, followed by comparative and explanatory approaches. Thus, particularly in leisure-contexts, people seem to prefer descriptive and evaluative rather than comparative and explanatory approaches while giving grounds to their views in the context of information provision as well as information use. This preference is probably due to the lower cognitive effort required while simply describing the attributes of an entity, for example, a tourist attraction, or judging its positive or negative qualities by drawing on one's experiences. From this perspective, the articulations of grounds based on comparison, explanation and generalization are less popular because they require more cognitive effort.

The study also identified forum-specific similarities and differences in the employment of the grounds. The major similarity between the discussion group and Q&A site is that two of the most frequently articulated grounds were the same in the context of an individual type of informational support. More precisely, Positive Evaluation and Negative Evaluation were preferred in both forums while offering personal opinion, while Description and Reference to External Source were they key categories used to support factual answers. Finally, the categories of Reference to External Source and Description were favored most strongly while offering advice. Since these key categories comprised a major share of the articulations of the grounds, it can be concluded that in regard to the grounds bolstering the informational support, the discussion group and Q&A site exhibited more similarities than differences.

However, there were forum-specific differences, too. In the discussion group, evaluative grounds were favored more strongly, and negative evaluations were articulated more frequently among the contributors to the discussion group. One of the profiling features of the answers offered in the Q&A site was that they drew more frequently on the comparative approaches and provided references to external sources of information such as websites. Q&A answers also employed somewhat more actively grounds based on positive or negative generalization. These findings suggest that the informational support offered in the Q&A site was bolstered by grounds requiring more cognitive effort from the contributors, while the strength of the discussion group is the wealth of answers based on evaluative approaches, both positive and negative. The different emphasis may be partly due to the different architectures of Q&A sites and discussion groups. The latter allow multiple postings from individual participants and thus provide more opportunities to present a variety of evaluative views based on personal experiences. The exchange of views of this kind can be further extended as the discussion evolves. In the Q&A sites, the opportunities for such a discourse are restricted by the norm of promptness in offering answers (Chua & Banerjee, 2013) and the predefined time range for responses (Wu & Korfiatis, 2013).

The novelty value of the empirical findings is rendered difficult in that there are no prior studies providing comparable results. For example, the studies focusing on answer quality in Q&A sites have focused on the importance of user-oriented relevance attributes such as content value (e.g., soundness of answers), cognitive value (e.g., understandability of answers) and socio-emotional value (e.g., gratitude expressed by the users to thank the information providers). Such attributes are useful in surveys focusing on the criteria by which the questioners choose the best answer from among all the answers given to their questions (e.g., Kim & Oh, 2009) or in studies in which the researchers rate the quality of answers available in Q&A sites (e.g., Chua & Banerjee, 2013). The present study complemented user-oriented investigations such as these by approaching the issues of answer quality from the perspective of the providers of UGC. To this end, particular attention was devoted to the ways in which the issues of answer quality manifest themselves in grounds that are employed to bolster the answers. However, the differences in information sharing in the above

forums may also be explained by other factors that are worth of further examination in the future. For example, the contributors may prefer discussion groups or Q&A sites on the basis of their personal experiences of how the opinions and advice provided to others are valued and respected in the virtual community. The preference for a venue of information sharing may also depend on the attitudes toward online forums of diverse types. For example, discussion groups may be perceived as arenas that are most suitable for the profusion of opinions, while Q&A sites are expected to serve better the ends of providing facts.

The findings of the present study primarily contribute to the basic research of information sharing. However, the empirical results also have practical implications. The findings can be used in information literacy education to demonstrate the potential and limitations of UGC as an information source. Because UGC may provide biased reviews, successfully navigating Q&A sites and discussion group threads requires that users develop a new kind of information literacy, combining a threshold of acceptable risk and developing a sense of what (or how many) reviews triggers the formation of an opinion. Even more broadly, the empirical findings are potentially relevant for users evaluating the relevance and credibility of UGC available in online forums.

## **Conclusion**

As platforms of UGC, discussion groups and Q&A sites offer a wide variety of informational support for leisure-related decision-making. Although such support is primarily based on the provision of personal opinions, UGC may importantly complement more traditional information sources such as printed travel guidebooks by offering access to authentic experiences reported by people.

As an exploratory study of the provision of UGC, the present investigation is limited in that it focuses on a single topic of leisure-related information sharing from the perspective of informational support provided to prospective travelers to Italy. To substantiate the above picture, important questions of further research include the ways in which people create UGC to help strangers in online forums, as well as their motivations to help others by bolstering the answers with grounds of some kind. We may assume that users who have benefited from discussion and Q&A travel resources can be motivated to make useful contributions themselves, thus willing to a virtuous circle: those who benefit from the wisdom of a community contribute their wisdom as well. Finally, from the perspective of the users of UGC, relevant questions include the criteria by which people evaluate the credibility and usefulness of informational support available in online forums, and the extent to which support of this kind actually influences their decisions, positively or negatively.

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