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Additional Information

Sharing emotions through social media. A comparative analysis between the private and public digital affect cultures

Abstract: The research concentrates on describing how emotions are shared on private and public digital affect cultures. In other words, it aims to: (i) identify the relationships established among members; (ii) analyze the emotional content of the posts and comments; (iii) determine the type of emotions that are shared within the digital affect cultures; and (iv) analyze how the emotional flows cross the digital affect cultures. Since the focus is on answering to "how" questions, a case study strategy is employed. Thus, two case study units are selected from private and public environments, namely: TripAdvisor and the Faculty of Management (SNSPA Bucharest). Further, the Facebook page of both units is analyzed and data are collected using Netvizz.App. The collected data are processed using sentiment analysis and social network analysis; the former brings forward the type of emotions that are disseminated within the digital affect communities while the latter is used for emphasizing how the emotions flow among members. The results show that several differences occur between the two entities in terms of behavior and emotional content. On the one hand, TripAdvisor provides the environment and supports members' interactions; as a consequence, its members share neutral, positive, and negative emotions with the moderator (TripAdvisor as a business entity) and also with one another. On the other hand, the Faculty of Management provides the environment and fosters members interaction with the moderator (the entity); as a consequence, it is the main emotional generator while its members act as receivers. These findings have both theoretical and practical implications; on the one hand, they extend the literature on how the emotions flow within the digital affect cultures while on the other hand, they help managers understand how their stakeholders feel and how do they chose to share their emotions through social media.

Keywords: emotions; social media; digital affect cultures; platform society.

Introduction

The post-industrial economy switches rapidly into an Internet-driven economy where millions of people join one or more online communities in order to satisfy their need for communication, information, and entertainment. Within this framework, social media gains popularity and sites like Facebook, MySpace, and Twitter represent more than a quarter of all Internet traffic (Nel & Halaszovich, 2015). Basically, social media create a virtual reality where people can express what they feel and think about products, services, brands, persons, and personalities, or any other issues. These are generally labeled as digital affect cultures.

According to Döveling and colleagues (2018), the digital affect cultures describe the online communities that are "shaped by the social sharing of culturally and discursively constructed emotions" (p. 7). Thus, they define a virtual environment characterized by discourse, alignment, and belonging (Döveling, Harju, & Sommer, 2018) in which each individual leaves his/her "affective trace" (Papacharissi, 2015) by providing an emotional reaction. Being part of an

online community emphasizes the existence of a common interest among the members, and on the same time, it provides an adequate framework for establishing sustainable relationships. Nevertheless, a relationship in a virtual environment involves sharing information but also opinions, thoughts and beliefs that have their roots in individuals' emotions; as Harju (2016) state "invitation to community is, at the same, invitation to disagree" (p. 74). Despite their increased development (Çöteli, 2019; Deuze, 2006; Döveling et al., 2018; Harju, 2017), little is known about how the emotions flow within the digital affect cultures.

This situation may occur due to the fact that several times the concepts of "emotion" and "affect" are used interchangeable. However, emotions are "relatively brief, phasic events that are accompanied by physiological processes, often expressed physically (for example, in gesture, posture, facial features) and may result in specific actions to affirm or cope with the emotion depending on its nature and meaning for the person experiencing the emotion" (Chamberlain & Broderick, 2007, p.202) while the affects define the "processes including emotions (and) moods […]. Thus, affect might be considered as a general category […] rather than a particular psychological process *per se*" (Bagozzi, Gopinath, & Nyer, 1999, p.185). In other words, emotions synthesize what individuals are feeling while affects bring forward the general reaction generated by a sum of emotions, creating an intangible environment for their manifestation. In line with these, several studies have been developed in order to determine the factors that trigger individuals' emotions (Bagozzi et al., 1999; Chamberlain & Broderick, 2007; Housley, Claypool, Garcia-Marques, & Mackie, 2009) and their effects (Haidt, 2001; Izard, 2010; Steigenberger, 2015). The scholars from the first line of research state that emotions "are context-related psychological processes, triggered by verbal stimuli, colors, and others behavior" (Leon & Marcu, 2016, p.145) while the ones from the second line of research emphasize the influence of emotions on decision-making (Achar, So, Agrawal, & Duhachek, 2016; Chung & Zeng, 2020; George & Dane, 2016), information processing (Chung, Tyan, & Chung, 2017; de los Santos & Nabi, 2019; Smeijers, Benbouriche, & Garofalo, 2020), and risk-taking (Leder, Foster, & Schutz, 2020; Morawetz, Mohr, Heekeren, & Bode, 2019; Reniers et al., 2017).

Although each of these studies presents valuable findings, they have their roots in the post-industrial economy and neglect the highly connectedness of the current sharing / collaborative economy. The development of the latter is fostered by the technological progress and the intensive use of social networks. These not only provide new marketing tools but they also support interactions between individuals and organizations, and the dissemination of information, knowledge, and emotions. Since nowadays information travels from one continent to another in just a couple of milliseconds, the visibility of customers' emotions increases significantly and affects organization's reputation (Balaji, Roy, & Quazi, 2017; Meyer, Huber, & Huber, 2019; Ozkan-Tektas & Basgoze, 2017) and profitability (Anagnostopoulou et al., 2020; Binsawad, 2020; Tang et al., 2016). Despite these, the studies developed so far concentrate either on designing the profile of those who tend to use social networks (Glynn, Huge, & Hoffman, 2012; Mazman & Usluel, 2010; McAndrew & Jeong, 2012) or on identifying the reasons that lie behind the use of social networks (Ajjan & Hartshore, 2008; Baek, Holton, Harp, & Yaschur, 2011; Lee & Ma, 2012). They enhance the development of this research field but they neglect the influence that the emotional content of the distributed posts may have on the organization and its stakeholders.

Some attempts have been made in this direction but the research is till in an embryonic stage of development. Thus, Wu and Sukoco (2010) bring forward the emotional flows by emphasizing that individuals share with one another their feelings, perceptions, and emotions, or

their concrete experiences. Cervellon and Carey (2011) go further and state sharing emotional flows fosters the implementation and communication of sustainable practices. Leon and Marcu (2016) adopt a theoretical perspective and claim that the national security agencies use social media in order to share and generate emotions among their external stakeholders while Hook and colleagues (2016) argue that the positive and negative emotions shared through social networks enhance members' commitment to the brand-based social network and their desire to refer the network to non-members. Nevertheless, none of these studies highlights how the emotions flow from one member to another nor do they compare the behavior adopted by the public and private digital affect cultures.

Against this backdrop, the current research aims to describe how emotions are shared on private and public digital affect cultures. Thus, it concentrates on: (i) identifying the relationships established among members; (ii) analyzing the emotional content of the posts and comments; (iii) determining the type of emotions that are shared within the digital affect cultures; and (iv) analyzing how the emotional flows cross the digital affect cultures. In order to achieve these objectives, two case-study units are analyzed; one is represented by a major private digital affect culture (TripAdvisor) while the other one is represented by a small public digital affect culture (FM).

The content of this paper is organized around four sections. Section 2 provides the theoretical foundation of the current approach while Section 3 brings forward the methodological design followed in order to achieve the aforementioned goal and objectives. Further, Section 4 sheds light on the main results, emphasizing the emotional flows that cross the two analyzed digital affect cultures while Section 5 closes this articles by highlighting the main theoretical and practical implications of the research findings and by indicating further research directions.

Literature review

The faster pace of technological progress facilitates communication across boundaries and, at the same time, increases individuals and companies connectivity. Due to Web 2.0 development, information not only travels from one continent to another in just a couple of milliseconds but data, information, knowledge, feelings, and emotions are shared in a virtual environment between individuals and organizations. Social network sites, wikis, chat rooms, forums, and blogs start to act as a bridge between individuals and organizations, and boost the development of the digital affect culture (Deuze, 2006) by creating a new type of socialization (Çöteli, 2019). On the one hand, they bring their members closer, and on the other hand, they provide a relatively safe collaborative environment in which their members can post what they think and what they feel, and they can share various media files (Brailovskaia, Schillack, & Margraf, 2020; Rozgonjuk, Sindermann, Elhai, & Montag, 2020; Xiang & Gretzel, 2009). Thus, social networks manage to shape the digital affect culture through the emotional flows that connect people and organizations around the Globe, revealing the main characteristics of the digital affect culture, namely (Döveling et al., 2018):

- *Discourse*: the social networks provide a unique discursive space (Markham, 2004) in which individuals and organizations post their experiences, opinions or thoughts, and establish emotional connections with one another;
- *Alignment*: is "regularly formed around emotional resonance" (Harju, 2017, p.75). Those who establish emotional connections with others through social networks

share the same value system (Leon & Damasaru, 2017) and / or ideology (Döveling et al., 2018);

- *Belonging*: "is established as global flows of emotion condense into pockets of cultural, social, and ideological intelligibility where one emotion makes sense while others necessarily do not" (Döveling et al., 2018, p.4). Thus, social networks provide this sense of belonging to its members by creating virtual communities in which every member is important and valued due to his/her opinion and/or red of networks.

Among these, Facebook is currently the most influential social network (Joo, Joung, Lim, & Lee, 2015; McCole & Rivera, 2014; Stankov, Lazic, & Dragicivic, 2010; Zheng et al., 2020) and 85% of its users do not feel that their privacy is invaded and encourage its use for educational or business purposes (Masood, Luqman, Feng, & Ali, 2020; Roblyer et al., 2010; Thai & Wang, 2020). Various studies have been conducted in this area and they mainly focus on two lines of research, namely: (i) who tends to use social networks (Glynn et al., 2012; Mazman & Usluel, 2010; McAndrew & Jeong, 2012), and (ii) why are they using social networks (Ajjan & Hartshorne, 2008; Baek et al., 2011; Lee & Ma, 2012).

The scholars from the first line of research state that social network sites like Facebook, Twitter, Flickr, Veoh, Dailymotion, MySpace, and Friendster are preferred by young adults and teens (Hollenbeck & Kaikati, 2012), and they represent an excellent marketing (Coulter & Roggeveen, 2012; Glynn et al., 2012; Leung & Baloglu, 2015), and educational tool (Junco, 2012). Since Smith and Caruso (2010) proved that more than 90% of college students use online social networking sites and of these 97% use Facebook, more and more practitioners and academics started to engage in using social networking sites for educational and business purposes. Thus, Moran and colleagues (2011) argue that 77% of the academics are using social media in their personal lives and only 4% of them have incorporated social networks into their courses curricula; hence, McCole and Rivera (2014) go further and argue that educators use Facebook to improve the pedagogical objectives of their courses. Although social network sites are mostly used for entertainment, they have already crossed the organizational boundaries and started to be used as business tools. Employees are using Yammer in order to share best practices with the team members (Leon, Rodríguez-Rodríguez, Gómez-Gasquet, & Mula, 2017) or supply chain partners (Leon, Rodríguez-Rodríguez, Gómez-Gasquet, & Mula, 2020) while brand managers adapt their advertising strategy so that it exploits the value added of Facebook and Twitter (Alba & Stay, 2008; Inside CRM, 2009; Stankov et al., 2010). Although these scholars emphasize that both individuals and business units use social network sites, several pitfalls occur.

While several attempts have been made in order to present the profile of the social network users, at individual level (Brailovskaia et al., 2020; Carpenter, Morrison, Craft, & Lee, 2020; Dhelim, Aung, & Ning, 2020), not the same can be claimed about the organizations. None of the previously developed studies brings forward the profile of the organizations that tend to use social network sites despite the fact that several practitioners and academics state that they can be used for educational (Carpenter et al., 2020; Masood et al., 2020) or business purposes (Leon et al., 2017, 2020). Furthermore, no comparison is made between different types of organizations. Are the educational and business organizations using the same social network sites or do they go on separate ways? Are there any differences between way public and private organizations use social networks given the fact that they have different budget limits and goals? The current article aims to answer to these questions by analyzing the case of two organizations;

one is a small public higher education institution while the other one is a large private business unit. In other words, they have different financial power and purposes but both of them focus on creating and exploiting the benefits of the digital affect culture.

The scholars from the second stream of research bring forward social networks' capacity of facilitating interaction, active participation, resource sharing, status seeking and critical thinking (Ajjan & Hartshorne, 2008; Baek et al., 2011; Lee & Ma, 2012). Unlike, Deuze (2006) who links these characteristics with the digital affect culture, and Pempek and colleagues (2009) who analyze individuals' behavior and emphasize that people tend do look at others people's profile (69.57%), read their news feed (54.35%) and the posts from other people's walls (32.61%), they go further and concentrate on the motives that lie behind this behavior. Therefore, at the individual level, they argue that people: (i) write comments in order to relax, entertain and interact with others (Smock, Ellison, Lampe, & Wohn, 2011); (ii) share news links for information sharing motivation (Baek et al., 2011) and status seeking (Lee & Ma, 2012); (iii) like a post if its content contains similar personal experience, for social acceptance or for displaying belongingness (Shoenberger & Tandoc, 2014); and (iv) become members of an online community if they are loyal and committed to the firm, are open to receiving more information, and are more likely to engage in positive word-of-mouth (Hollenbeck & Kaikati, 2012). At the organizational level, previous studies prove that managers tend to use Facebook and other social networks sites in order to: (i) keep track of their employees (Alba & Stay, 2008; Leon et al., 2017); (ii) foster collaboration among the supply chain partners (Leon et al., 2020); (iii) stay up with their competition (Alba & Stay, 2008; Coulter & Roggeveen, 2012; Leung et al., 2015); (iv) attract potential customers (Alba & Stay, 2008; Leung et al., 2015; Palmer & Koenig-Lewis, 2009), and (v) virally spread brand image and advertisement (Alba & Stay, 2008; Inside CRM, 2009; Stankov et al., 2010).

Thus, the researches developed so far focus on social network's users and effects, and neglect the processes that occur within the social network; they emphasize who uses social networks and why, and oversight what happens within the boundaries of the social networks. They disregard the fact that people are involved in using social network sites and each person is a sum of attitudes, emotions and feelings. In other words, once they become part of an online community, they post or comment on a page, they are not just sharing information but they are exposing their emotions, feelings and beliefs. At the same time, once they access the page of an other user or an organization they expose themselves to an "emotional contamination"; they get in touch with the emotional content of the post, process it based on their internal cognitive structure and then react.

These aspects are extremely important in the context of the digital affect culture, which promotes emotional sharing as a cultural practice (Döveling et al., 2018; Döveling & Sommer, 2012; Wetherell, 2015) and fosters ideological alignment (Harju, 2016). Hence, as Papacharissi (2015) state, in the digital affect culture, "networked publics come together and/or disband around bonds of sentiment" (p.308). Although these "bonds of sentiment" or emotional flows position the individual, organization, and community in relation to the world (Eckert, 2006), none of the previously developed researches analyzes the content of the emotional flows or how the emotions are shared within the social networks by public and private members of the digital affect culture. This article aims to fill these gaps by identifying the emotions shared within the private and public digital affect cultures and emphasizing how these flow among the members.

Research methodology

The research concentrates on describing how emotions are shared on private and public digital affect cultures. In other words, it aims to: (i) identify the relationships established among members; (ii) analyze the emotional content of the posts and comments; (iii) determine the type of emotions that are shared within the digital affect cultures; and (iv) analyze how the emotional flows cross the digital affect cultures.

Since the focus is on answering to "how" questions, a case study strategy is employed; this is the most appropriate research strategy for analyzing a real phenomenon within its natural framework (Järvensivu & Törnroos, 2010; Yin, 2014). Thus, two case study units are selected from private and public environments.

The first one belongs to the business environment and is represented by TripAdvisor, the world's largest travel site. On general basis, TripAdvisor is a fully active community of practice which encourages and fosters members' relationships. Any individual can become a member if he or she wants to and if he or she is interested in travelling. So, the membership is open, the members are volunteers and they interact mainly virtual. Nevertheless, the members are linked through a set of common values and interests, and everything they share within the platform becomes public in just a couple of seconds.

The second case-study unit belongs to the public environment and is represented by the Faculty of Management (FM) from the National School of Political Science and Public Administration, one of the youngest Romanian business higher education institutions. Just like in the case of TripAdvisor, the membership is open, the members are volunteers, they share a common set of values, and they may interact either with the moderator (FM as an entity) or with one another. Nevertheless, unlike TripAdvisor, FM acts as a closed environment; what is shared within the platform is visible only to its members except for those posts that are shared by the members outside the virtual community.

Once the case-study units are selected, a three-phase research methodology is involved; each phase is described further.

Phase 1: Data collection. The Facebook page of both units is analyzed and data regarding members' interactions (posts and comments) during 2017 – 2019, are collected, using Netvizz.App. Facebook is selected due to the fact that Döveling and colleagues (2018) labeled it as a proper environment for the development of digital affect cultures. Furthermore, as Lev-On and Steinfeld (2015) highlight, the generated results include "all texts of post and comments published by users or by the pages in a given period of time or most recent posts, subject to the user's preferences, and the Facebook engagement measures for each post" (p. 301). Thus, a database is obtained; this includes information regarding member's name, time stamp, and the actual text of the post, the names of those who added a comment, and the content of that comment.

Phase 2. Extracting the emotional content of the posts and comments. Since the collected posts and comments are written either in English (especially, on TripAdvisor) or in member's mother tongue, sentiment analysis is performed using Lexalytics®. This combines natural language processing and machine learning techniques to assign weighted sentiment scores, and it is based on a multilingual sentiment library. Thus, according to Lexalytics (2017a) the following steps are followed:

- The text is broken into parts (sentences and phrases), using text deconstruction and natural language processing. Within this framework, semantics, syntax, and context are evaluated.

- The sentiment-bearing phrases and components are identified. These usually appear as adjective-noun combinations and carry a tone or opinion. Using a machine learning model based on parts of speech patterns, the sentiment-bearing phrases are selected.
- A sentiment score is assigned to each phrase and component. At this level, sentiment libraries are used; these are large collections of adjectives and phrases that have initially been hand-scored by human coders. Further, in order to maintain constantly the libraries (tweaking the scores, adding new phrases, removing irrelevant phrases), the natural learning process is combined with supervised and unsupervised machine learning techniques, like neural networks and deep learning. As a consequence, based on the developed dictionaries, an initial score is assigned to each phrase. Then, a rules-based system takes into account the negators and intensifiers, and provides a final score for the analyzed phrases.
- A multi-layered sentiment analysis is performed in order to obtain a global image. This brings forward the context that lies behind the expressed opinions and assigns sentiment scores to topics, themes, and categories.

Synthesizing, (i) it acts as an add-in for Excel; (ii) it uses Boolean queries, sentiment phrases, custom entities and concept topics; and (iii) it is highly used in the hospitality, healthcare, and retail industries (Lexalytics, 2017b). Besides, it is based on a lexicon and it makes the distinction among negative, neutral and positive emotions by providing an overall score that ranges from -1 to 1. Last but not least, various sentiment analysis software based on sentiment libraries were successfully used in previous studies (Ahmed et al., 2020; Geetha et al., 2017; Wang et al., 2020; Wei et al. 2020).

Phase 3. Emphasizing the emotional flows. Social network analysis is applied in order to determine the emotional flows that cross the analyzed digital affect cultures since it was successfully used in previous research for emphasizing knowledge flows (Leon et al., 2020), business relationships (Watanabe et al., 2021), and entities' characteristics (Xia et al., 2020). Thus, data obtained in the previous phase are introduced in Gephi® which emphasizes the connections established among the members of the analyzed digital affect cultures and also the attributes of these connections (direction, emotional content). Further, as suggested by Leon and colleagues (2020), cohesion and centrality analyses are applied. The former emphasizes the quantity and quality of the emotional flows that cross the digital affect cultures while the latter brings forward how the cultures are organized and who controls the emotional flows.

Results

Two case-study units are analyzed, namely: TripAdvisor and FM. The former represents a private digital affect culture while the latter is a public digital affect culture. However, as presented further, the economic sector is not the only difference that appears between them. Several differences occur in terms of behavior and emotional content. On the one hand, TripAdvisor provides the environment and supports members' interactions; as a consequence, its members share neutral, positive, and negative emotions with the moderator (TripAdvisor as a business entity) and also with one another. On the other hand, FM provides the environment and fosters members interaction with the moderator (the entity); as a consequence, FM is the main emotional generator while its members act as receivers.

Sharing emotions through social media in a private digital affect cultures

      The TripAdvisor digital affect culture reunites 33713 members who develop 51907 connections among them. Thus, as it may be observed from Figure 1, no member is isolated and all of them share their emotions publicly.
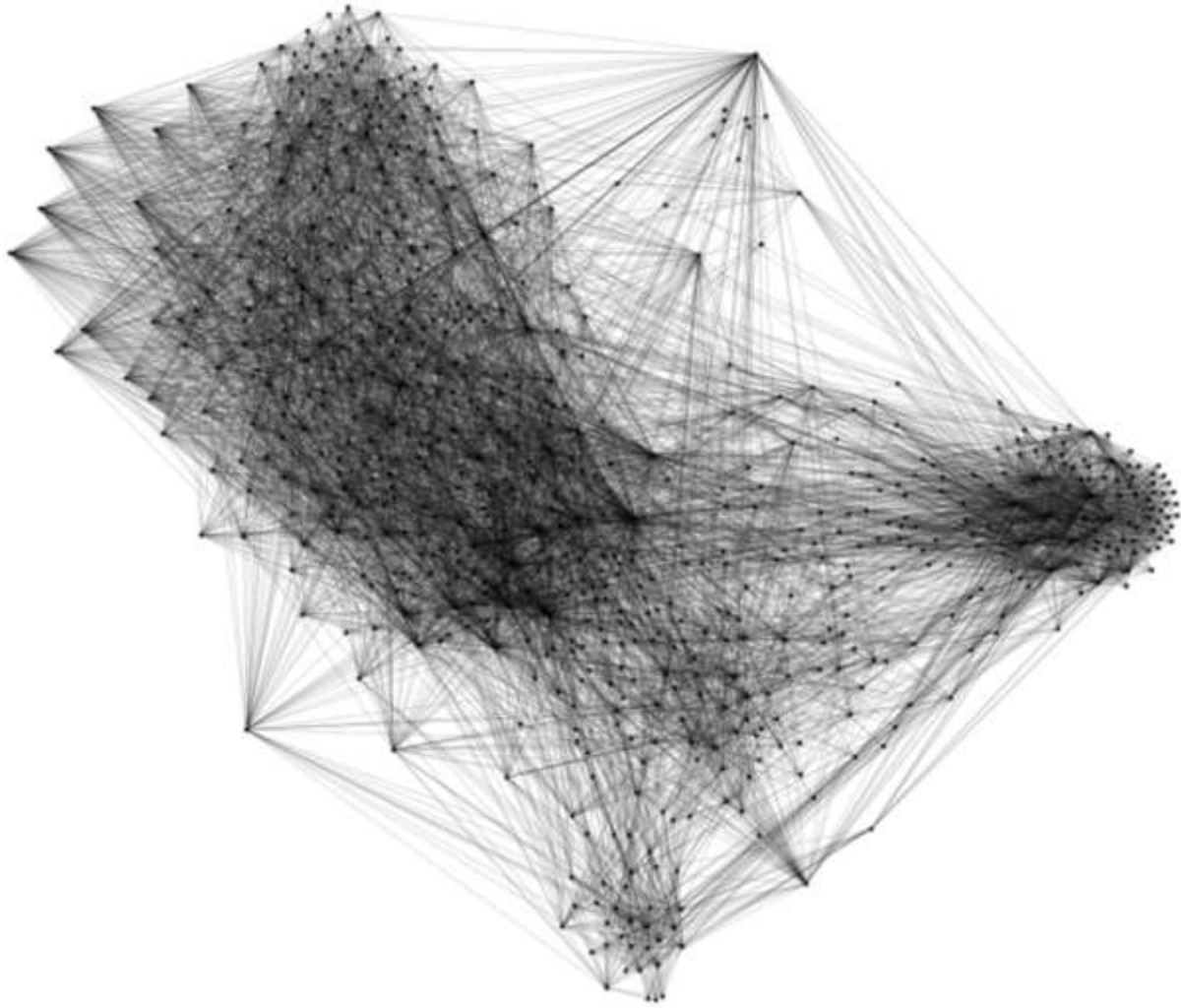

Figure 1. The relationships established among the members of the TripAdvisor digital affect culture

      According to the overall network statistics (Table 1), the average degree is 22.788 which signifies that each member of the TripAdvisor digital affect culture shares his or her knowledge with at least 22 other members. However, the degree dispersion follows a power law pattern and registers a high level, ranging from 0 to a little more than 200. Given these aspects, it can be stated that there are a few members in the TripAdvisor digital affect culture who have a lot of connections, are very popular and gained the trust of the others. They focus on disseminating what they think, feel or believe on a certain subject (vacation experiences, accommodation, trips etc.) and are usually labelled as "experts"; their opinion on the matter weighs a lot, in the eyes of others.

Table 1. The characteristics of the TripAdvisor digital affect culture

Characteristic	Value
Average Degree	22.788
Average Path length	1.000
Diameter	1.000
Density	0.017
Average Clustering Coefficient	0.070

A top ten list of topics can be extracted based on members' appreciation (Table 2). As it can be noticed, most of them include positive emotions, except for two posts that concentrate on recipes and a traveling destination; the latter are based on a neutral emotional content.

Table 2. The most appreciated posts that appeared on TripAdvisor, based on the number of likes they received

Topic	Number of likes	Sentiment Analysis Score	Emotional content
Best meal	8749	0.794	Positive
Solo trip recommendation	5000	0.994	Positive
Tips for amazing trips	2648	0.740	Positive
Landscape description	2154	0.936	Positive
Granola recipe	1942	0.000	Neutral
Top fine-dinning restaurants	1764	0.843	Positive
Trip to Indonesia	1292	0.748	Positive
Sri Lanka – Dream Destination	1136	0.000	Neutral
Trip to Switzerland	1030	0.990	Positive
Food recommendations and recipes	981	0.986	Positive

Given the digital character of the TripAdvisor culture, some emotions that are shared within the community are also distributed outside its boundaries. Thus, the topics that are highly shared outside the TripAdvisor digital affect culture focus on food recommendations and recipes, restaurants and trip destinations (Table 3).

Table 3. The posts that highly shared outside the TripAdvisor digital affect culture

Topic	Number of shares	Sentiment Analysis Score	Emotional content
Granola recipe	1774	0.000	Neutral
Top fine-dinning restaurants	554	0.843	Positive
Food recommendations and recipes	424	0.986	Positive
Best meal	322	0.794	Positive
Traveling mishaps	291	-0.895	Negative
Solo trip recommendation	278	0.994	Positive
Tips for a trip to Milan	197	0.555	Positive
Best restaurants in the world	193	0.952	Positive
Sri Lanka – Dream Destination	156	0.000	Neutral

Although some of the highly shared posts are the same as the highly liked one, several variations appear in the rank. Thus, the granola recipe which has a neutral emotional content and ranks fifth in Table 2 is the most shared post while the post regarding the best meal (that has a positive emotional content and is the most liked one) ranks on the fourth position in Table 3. Besides, if the most liked posts from the TripAdvisor digital affect culture are either positive or neutral not the same can be claimed about the highly shared ones; according to data presented in Table 3, the post regarding traveling mishaps which has a negative emotional content has been shared outside the TripAdvisor digital affect culture 291 times.
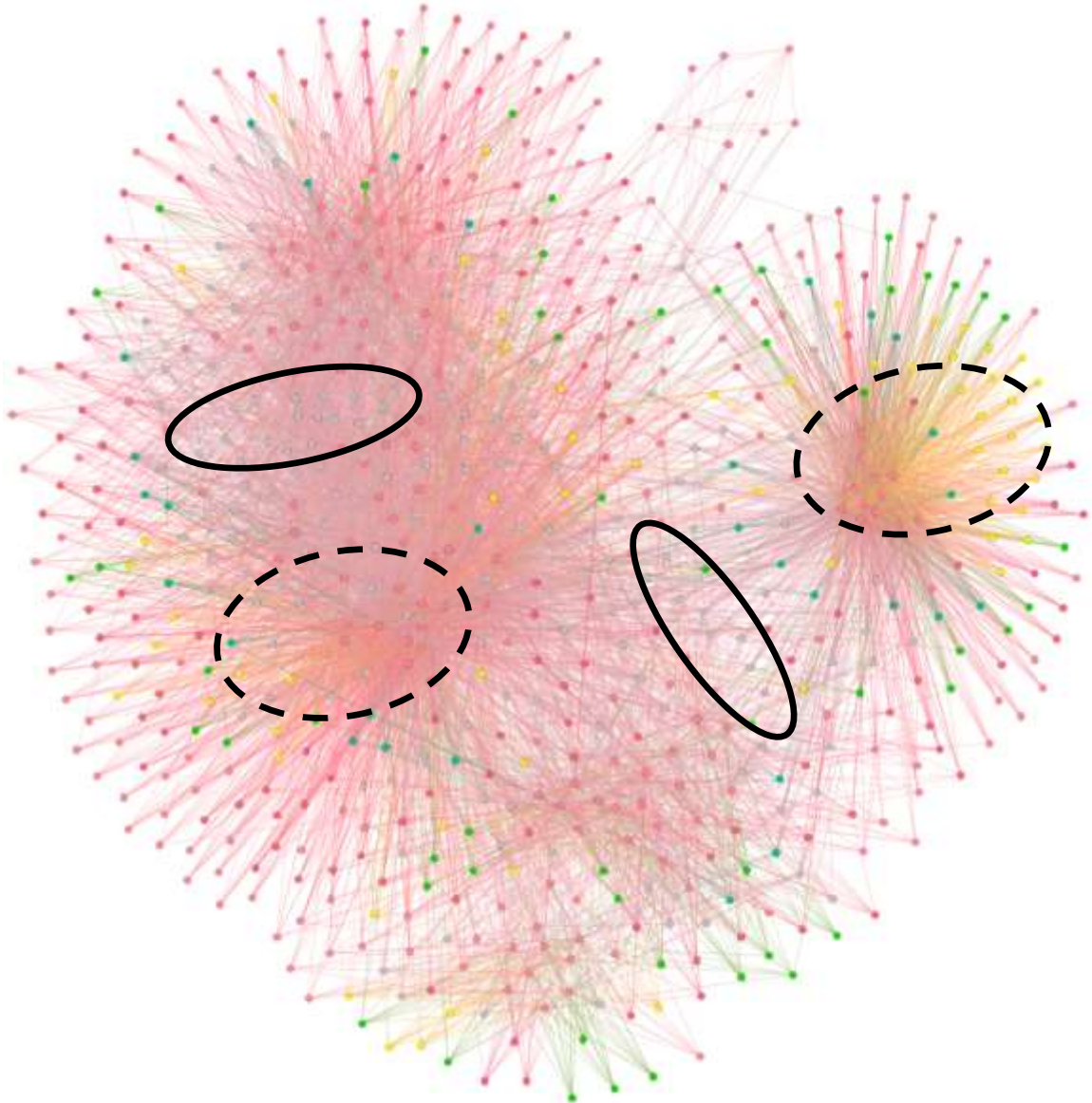

Figure 2. The emotional flows that cross the TripAdvisor digital affect culture
(dashed line circles present the "pure emotions" while the continuous line circles
emphasize mixt emotions)

Against this backdrop, the TripAdvisor digital affect culture incorporates a mix of emotional flows (Figure 2); its members are continuously sharing their neutral (yellow lines), negative (green lines) and positive emotions (red lines). Although most flows have a positive emotional content, it must be mentioned that not all the flows are emotionally "pure" (dashed line circles). Just like in the real life, complex emotional flows are crossing the digital affect culture (continuous line circles). Thus, on the one hand, a mix of positive and negative emotions (gray lines) are distributed within the TripAdvisor digital affect culture while on the other hand, some positive-neutral emotional flows (orange lines) are crossing the community.

Sharing emotions through social media in a public digital affect cultures

Analyzing the messages and comments posted on FM's Facebook page, it can be noticed that FM's digital affect culture is highly active (Figure 3). More than 3739 connections are developed and organized around 62 topics.

Figure 3. The relationships established among the members of the FM digital affect culture

Based on members' appreciation, a top ten list of topics is extracted (Table 4). FM makes all these posts and although they aim to share mainly good news (students' career achievement, faculty's events, and organizational progresses), their emotional content ranges from negative to positive. For example, the post regarding the progresses made by FM in the previous academic year had a negative emotional content despite the fact that it mainly celebrated an institutional development; the content is basically bringing forward the fact that: (i) several entrepreneurs were invited to a master program to share their practical knowledge with the students; (ii) an international conference was organized; (iii) a lecture was given by an international partner; (iv) a new issue of faculty's international journal was launched; (v) two new courses were introduced at the master programs; and (vi) a workshop on digital marketing was performed. Each and every one of these represents a milestone in the development of any business school. However, the message was constructed in such a manner that its overall emotional impact was negative. This

result appeared due to the excessive use of words with neutral (like, "numbers", "talk" etc.) and negative background (such as, "a / an", "single" etc.).

Table 4. The most appreciated posts that appeared on FM's Facebook page, based on the number of likes they received

Topic	Number of likes	Sentiment Analysis Score	Emotional content
Faculty Open Days	780	0.981	Positive
Selfie from the future contest	517	1.418	Positive
Secret Santa. Christmas party!	349	0.409	Positive
Promoting an international event: academic conference	264	0.484	Positive
Monthly review: October	183	-0.699	Negative
New master programs launching	177	0.000	Neutral
Students' career achievements	168	0.300	Positive
Freshman career achievements	165	0.000	Neutral
Graduation Day	132	0.500	Positive
Culture Mix launching	114	0.400	Positive

On the other hand, it must be taken into consideration the fact that most of the messages shared within the FM digital affect culture do not remain in a closed environment; on the contrary, they are shared outside FM's community boundaries. Against this background, the posts that are intensively shared have a positive emotional content and focus on the opportunities students have for their personal and professional development (Table 5).

Table 5. The posts that were highly shared by the members of the FM digital affect culture

Topic	Number of shares	Sentiment Analysis Score	Emotional content
Faculty Open Days	22	0.981	Positive
Selfie from the future contest	17	1.418	Positive
Events	13	0.000	Neutral
Students' projects	11	0.600	Positive
Secret Santa. Christmas party!	11	0.409	Positive
Students academic conference	10	0.000	Neutral
Promoting the master programs	10	0.000	Neutral
National event: New business models in the digital age	10	0.227	Neutral
Workshop on digital marketing	10	0.000	Positive

Nevertheless, it must be noticed that, from a total of 3200 members, only 60 persons actually interact with FM and with one another by posting their comments, thoughts and ideas. As a consequence, network's diameter is 3 and the average path length is 1.821 (Table 6); the former emphasizes the largest distance between two members while the latter highlight the average distance between the two. Within this framework, it may be stated that information circulates easily from FM to its members; in the worst-case scenario, in order for the information shared by FM to get to its final receiver, it must pass only through one intermediate member.

Second of all, FM remains the main emotional generator while its members act almost exclusively as receivers; network density is 0.026 and the average clustering coefficient equals 0.029. Therefore, it may be argued that the FM digital affect culture is a "small world" in which only 2.60% of the potential connections are established.

Table 6. The characteristics of the FM digital affected culture

Characteristic	Value
Average Degree	3.115
Average Path length	1.821
Diameter	3.000
Density	0.026
Average Clustering Coefficient	0.029

In this "small world" represented by the active part of FM's digital affect culture, neutral (yellow dots), negative (green dots) and positive emotions (red dots) are shared (Figure 4). Except for FM and four other members who share all three types of emotions (neutral, negative and positive) through their posts and comments, all the other members maintain constant the emotional content of their posts and comments; they are either distributing neutral or positive emotions. Still, a special attention should be given to the emotional flows that appear on the left side of Figure 4; if there is a high similarity between the emotions distributed by FM and those shared by the members with whom it is directly linked to, not the same happens with the "satellite" member. He/She is a member of FM's digital affect culture but he/she does not comment on FM posts; he/she is among the ones who use FM's digital affect culture in order to interact with other members and not directly with FM. Regarding the emotional content of his/her posts, it can be remarked that both the received and distributed emotional flows are positive.
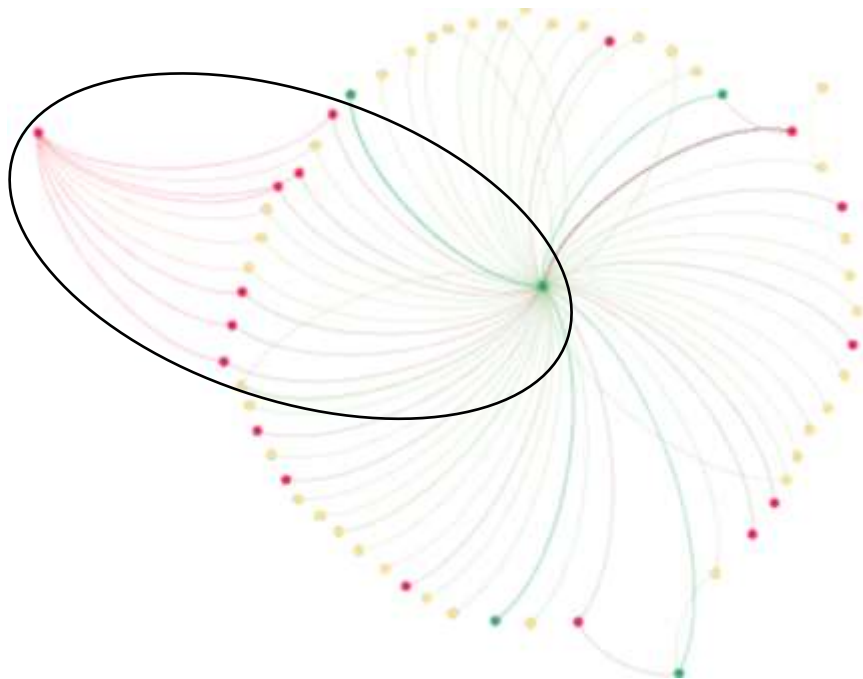

Figure 4. The emotional flows that cross the FM digital affect culture

Synthesizing, FM's digital affect culture represents a safe environment in which emotions flow from one member to another. However, when it comes to emotional content, FM remains the main generator while its members act as receivers. Only 60 members (1.87% from the total community) use the platform to express their emotions, ideas and thoughts, and only 18 persons (0.56% from the total community) interact with other members within the FM's digital affect culture. Besides, most of them chose to distribute neutral emotions.

Conclusion and further research directions

The current analysis focuses on describing how emotions are shared in public and private digital affect cultures. As presented in the previous section, although both types of entities provide the environment and support members' interaction, they adopt different behaviors. Thus, the public digital affect culture (the FM) acts as the main emotional generator, controlling all the emotional flows that go in and out while the private digital affect culture (TripAdvisor) adopts a more dynamic approach, fostering members' "emotional contagion". As a consequence, the emotional flows that cross the public digital affect culture are mainly neutral while the flows that cross the private digital affect culture are a mix of positive and negative emotions. Therefore, it can be stated that unlike the private digital affect culture, the public one is more oriented to control what goes in and out of the community.

These results have both theoretical and practical implications. At the theoretical level, they are in line with the findings of Döveling and colleagues (2018) and Wetherell (2015) who state that the digital affect cultures promote emotional sharing as a culture practice. Hence, 51907 emotional flows crossed the TripAdvisor digital affect culture and they included a mix of positive and negative emotions. On the other hand, the analyzed public digital affect culture (FM) was crossed by 3739 emotional flows that were mainly neutral.

Secondly, these results complement the previously developed studies (Döveling et al., 2018; Leon et al., 2017, 2020; Shoenberger & Tandoc, 2014) by bringing forward the differences between the public and private digital affect cultures. As aforementioned, the public digital affect culture tends to control the emotional flows that go in and out of the community, using social media as a marketing tool while the private digital affect culture adapts its behavior to market's demands and provides an environment that fostered interactions among the members. In other words, the private digital affect culture focuses on exploiting members' alignment and sentiment of belonging, two main characteristics of the digital affect cultures (Döveling et al., 2018; Harju, 2017), while the public digital affect culture remains concentrated on the discursive component (Markham, 2004). In light of these, it can be stated that the current article extends the specialized literature by providing a nexus between the two main lines of research, namely: who tends to use social networks (Glynn et al., 2012; Mazman & Usluel, 2010; McAndrew & Jeong, 2012) and why are they doing it (Ajjan & Hartshorne, 2008; Baek et al., 2011; Lee & Ma, 2012).

Furthermore, these findings help managers understand not only how their stakeholders feel about their organizations but also how exposed they are to emotional contamination. Some emotions that are shared within the digital affect culture are also distributed outside its boundaries, fostering the emotional contamination of the indirect stakeholders. Thus, the members of TripAdvisor digital affect culture shared mostly positive emotions but also some negative and neutral ones while the members of FM digital affect culture shared mainly neutral

emotions. This kind of information can help managers decide what is the most appropriate communication strategy for their organization's needs.

Last but not least, the current research is limited by the fact that the characteristics of the analyzed case studies. Although both of them present the online behavior of an organization, they are different in term of size, access to resources, aim, internal politics, and long-term perspective. While TripAdvisor is the expression of a business unit that aims to ensure its position on the market by adapting itself to customers' needs, FM represents a small higher education institution that encounters itself not only at the beginning of its development but also in the process of finding an equilibrium between customers' demands and institutional requirements. From this perspective, it could be argued that is easier for TripAdvisor to support the development of a digital affect culture since its organizational structure is flexible, and its existence on the market depends on customers' satisfaction which influences its access to resources. On the other hand, FM must act as a mediator between the customers (students) and the policy-makers from the national educational field; thus, the national authorities define its internal procedures and policies, and its access to resources. Different results may have been obtained if similar organizations in terms of aim and size would have been compared.

In light of the aforementioned limits, further research should be developed in order to determine whether the type of activity, the size of the organization and the experience on the market influence the behavior of the public and private digital affect cultures.

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