

## Exploring Leadership in Facebook Communities: Personality Traits and Activities

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### Abstract

*Leaders of online communities are today becoming key players in social media sites like Facebook. Responsible for the community's participation rules, limits and members' identities, these leaders represent an important population on which to focus. This paper compares 94 Facebook community leaders to 94 other Internet users (N=188) in order to identify differences among them with respect to five major personality traits ("the BIG 5") as well as their online and offline activities. The results of the online surveys show that Facebook community leaders are more extroverted, open to experience, emotionally stable and active online and offline than are other Internet users. Examining the community categories, the leaders who manage Facebook support communities were found to be more introverted and less active online than leaders of other community types. The results are discussed in the context of the unique role of online leadership in the social media environment.*

### 1. Introduction

Community is defined as "a group of people interacting with one another in some fashion" [15, p. 22]. It is known for almost two decades that in online communities, participation is mostly voluntary, and people choose to participate because they likely think that they are benefiting from the experience [15]. Facebook communities, as spaces where everyone can equally express their opinions, feelings, ask questions, get and receive information by posting, commenting and liking [11, 28, 44], are becoming increasingly popular as online social discussions groups within the leading social media site [50]. Facebook communities allow people sharing a common interest or facing a similar issue to freely express their opinions and feelings, receive social support and experiential information [13] and be involved in political activities [57]. Although Facebook has started as a platform allowing individuals to keep in touch with each other,

these days it becomes a place for communities, where strangers can meet and exchange information about shared interests. This notion might be one of the solutions for organizational needs of transitioning from individual to collaborative information behavior, including complexity of information need, fragmented information resources, lack of domain expertise and lack of immediately accessible information [54]. The Israel Internet Status Report (2018) [61] revealed that 89% of the Israelis believe Facebook communities are highly useful. A decade ago, it was found that students join Facebook communities to obtain information about campus activities, socialize with friends, seek self-status, and find entertainment [48]. Today, 1.4 billion people on Facebook use these communities every month and around 200 million Facebook groups have been deemed "meaningful" by the company [37]. Recently, three important social motivations to follow and contribute to communities were identified: tapping into a social network of people with a common interest, developing personal and professional relationships, and the community ethos [33].

The leaders of these communities function as centralized gatekeepers who filter online chatter and lead the discussion to a certain direction [4], are the ones responsible for the information flow and community boundaries [39]. They have an enormous influence on the community's sustainability over the years and their impact is found to extend across discussion entities, resulting in communication homogeneity, and leading to significant network effects that are relevant to participants' interactions [43]. The different articulations of presence online show that leaders' presence is embedded in the content of online discussions either directly with the leader initiating ideas and actively enacting their role or indirectly in the interactions that take place among community members [47].

While some studies have started to acknowledge these leaders' important role in the social media, very little is known about their identity and psychological characteristics. Moreover, studies rarely relate to the

leaders of Facebook communities, which become central squares of virtual community gatherings. This study, focusing on the leaders who initiate and manage Facebook communities, seeks to enhance the understanding of their personality traits, their online and offline activities and the distinct roles they play in different community types.

## 2. Online community leaders

Understanding the online community leaders is important, as not only are they responsible for the community's participation rules, limits, and members' identity and well-being [64], but, as community leaders, they also "play a critical role in bringing people closer together", as defined by Facebook<sup>1</sup>. Though there is no agreement on what is meant by an influential user [55], the leaders are very central in the networks [15] and dynamically lead the forum discussions [17]. Previous research on online leadership behavior has begun revealing this unique area of study [4, 26]. Although somewhat paralleling the behavior of face-to-face group leaders, online leaders' behavior is largely shaped by the lack of physical, geographical and time constraints. They demonstrate different forms of online presence, which include interactive, instructive, stimulating and silent behaviors [47]. They also use content moderation as a mechanism to manage contention and enforce norms within public online spaces [57]. A study acknowledged leaders as the ones who are more knowledgeable and who occupy highly central positions in the network. These positions allow them to effectively provide attendees with access to their expertise and knowledge [34]. Social media make it possible for online leaders to overcome hierarchical and geographic distances to connect authentically with diverse and far-flung followers [41]. Recent studies have shown that these leaders can play an important role in periods of social unrest [51], protect members' privacy as appropriate flow of personal information [57], provide a new conceptual framework for members [49], have a significant impact on the network connectivity and the shared content [17] and that they manage their groups by monitoring information exchanges, helping their members express emotions, and reducing their uncertainties [26].

This study aims to explore Facebook community leaders from a personality perspective. Studies have identified the basic attributes needed to manage online discussion groups [6], including digital literacy skills

[27, 46], emotional focus [38] and vision [6], as well as being highly engaged in the community and having an openness personality characteristics [30]. Community leadership can be predicted by individuals' centrality, membership in the core group, ability to expand group boundaries and use of language, in addition to their administrative roles [39]. In fact, individuals posting numerous positive or concise posts using language that was understandable and familiar to others were viewed as leaders by other group members [39]. Leaders in online forums included in the intranet platforms of large companies showed a higher number of messages sent and received and a lower emotionality and ego nudges [17]. According to a recent study, leaders of online support groups primarily use task messages, with the majority of leaders' behaviors labeled as meaning attribution and use of self [49]. However, despite the apparent emergence of social media leadership [42], little is known as to the personality of the online leaders and their online and offline behavior. This is especially true in the unique platform of Facebook, where every user can open and manage a group without any prior management knowledge or professional training.

## 3. Personality Characteristics in Social Networks

This study aims to explore Facebook community leaders from a personality perspective. As the leaders of those communities are usually not professionals or selected by other community members [26, 49], leadership endorsement and effectiveness are increasingly based on whether the users' actions in the network are capable to affect the actions of many other users in the network [55]. Yet, as far as we know, there is no research showing the personality characteristics of Facebook community leaders. Overseeing the information flow in the community, the leaders' informational skills as well as their personality characteristics may be crucial to their leadership effectiveness. In fact, individual differences matter in leadership [66] and is particularly interesting to examine according to the Big 5 personality theory [45]. Extroversion refers to the traits of being social, active, outgoing, and experiencing positive emotions. Neuroticism refers to the traits of being anxious, depressed, angry, embarrassed, emotional, worried, and insecure. Conscientiousness refers to the traits of being careful, thorough, responsible, organized,

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<sup>1</sup> Facebook Newsroom. Introducing the Facebook Community Leadership Program Participants (2018). Retrieved from:

<https://newsroom.fb.com/news/2018/09/introducing-the-facebook-community-leadership-program-participants/>

hardworking, achievement-oriented, and persevering. Agreeableness refers to being kind, considerate, likable, helpful, cooperative, courteous, flexible, trusting, good-natured, forgiving, soft-hearted, and tolerant. Openness to experience refers to the traits of being imaginative, cultured, curious, original, broad-minded, intelligent, and artistically sensitive, and to the willingness to try new and different things [45]. As the Internet is nowadays a primary source of information, it was found that openness to experience and curiosity, as well as deep learning strategies, self-efficacy in computer use, and computer mastery affect users' level of information literacy [2]. The personality characteristics of openness to experience, threat, challenge and motivation also predicted information literacy self-efficacy [3].

Over the years, studies have shown how the Big 5 personality characteristics are related to individuals' online behavior e.g. [9, 14]. Openness to experience and extroversion were found to be particularly important. Individuals who display a higher level of openness to experience engage more in virtual discussion groups [30, 32], have more friends on Facebook [1], and engage more in Facebook [29]. Extroverted individuals engage more in social media sites [14, 29], they are more likely to use Facebook media, such as chats, messages and wall comments [56] and they have more friends on Facebook [1]. A recent study focusing on reposting negative information (RNI) found that extroverts are less swayed than are introverts by negative emotions, thus forwarding less negative information on microblogs. In addition, positive moderation effects of conscientiousness and agreeableness were found on the relationship between issue involvement and reposting negative information [65]. A study covering twenty social media groups around the world also found correlations with the other personality characteristics and concluded that agreeableness, conscientiousness and neuroticism were positive predictors of different types of social media use [31]. While the Big 5 personality scale was widely used to predict different kinds of social media engagement and the offline leadership effectiveness, as presented in the next section, the online communities' leaders have not been studied before from the personality perspective.

#### **4. Personality characteristics of leaders**

Previous studies have explored the relationships between offline leadership and personality traits. Leadership calls for the ability to work well with people, communicate, participate in and lead meetings, and often public speaking [25]. Researchers claimed that high extroversion, openness to new

experience and low neuroticism make a leader to be a good one [10]. A meta-analysis that examined the transformational leadership sub-dimensions and their links to leader personality and performance found that extroversion, openness to experience, agreeableness, and conscientiousness related positively to the overall transformational leadership measure [19]. Another research found strong direct effects of extroversion on charismatic leadership, agreeableness on supportive leadership and conscientiousness on task-oriented leadership [20].

Despite the apparent emergence of social media leadership [42], little is known about online leaders' personality traits. One study, focusing on online travel and tourism services, found that users with a high level of openness were more likely to be opinion leaders, to be relied on and asked for information in social media [59]. Another study, examining WhatsApp groups, asked participants to choose their most meaningful group. It found that the managers of the chosen WhatsApp groups were more open to experience and more active online than other group members [29].

In light of the literature cited above and the central role of Facebook communities in the social media environment, we raise the following hypotheses:

H1: Facebook community leaders will be more extroverted than other online community users.

H2: Facebook community leaders will be more open to experience than other online community users.

H3: Facebook community leaders will be higher in agreeableness than other online community users.

H4: Facebook community leaders will be more conscientiousness than other online community users.

H5: Facebook community leaders will be more emotionally stable (less neurotics) than other online community users.

#### **5. Leaders of Different Community Types**

Different community types may require different personality traits from their leaders. While it has been found that extroversion is positively related to leadership effectiveness [36, 40, 66], not all community types measure effectiveness in the same way. Farrell [25] suggests that organizations overlooking the strengths of introverts as leaders are losing out on the potential for effective management. For example, in online support communities, where leaders use the support functions [26, 49], it may not be of great importance for community leaders to be as extroverted as are leaders of other community types. Moreover, "the poor get richer" theory suggests that introverted individuals often voice their opinions on the Internet in order to meet their social and intimacy

needs [7]. Introverts may also use online anonymity to recreate themselves, subsequently expressing themselves much more as extroverts [5, 7]. Although the identities of Facebook community leaders are usually visible to members, support communities often have a "closed" or even "secret" status, which may create the atmosphere of a safe environment in which introverts can share information and be more engaged [32].

Introverted leaders were defined as those who are shy, analytical, calm and measured, and observe their environments throughout the day while offering quiet support and stability to their followers [60]. Therefore, in groups where support is central for leadership and the atmosphere is more anonymous by nature, more introverted individuals may feel safe enough to lead communities that need their support and encouragement more than other leadership factors. Based on these observations, the following hypothesis is proposed:

H6: Leaders of Facebook support communities will be more introverted than leaders of other types of communities, like social or professional groups.

## 6. Offline and Online Activity

Research has shown that users of social media sites (SNS) tend to replicate the behavior that they exhibit in face-to-face interactions [8, 24]. Indeed, several studies have revealed a correlation between online and offline patterns of behavior. A previous study found that the more active people were offline, the more engaged they were in online groups [14]. An earlier study that examined political online activity prior to the 2008 United States presidential elections revealed a positive relationship between offline and online political activity [62].

A study that interviewed focus groups of active online participants and lurkers found a vast difference between the two groups with regard to the atmosphere in the face-to-face focus groups. The atmosphere at the lurkers' meetings was calm and relatively quiet, with each participant talking in turn, and incidents of participants expressing an urgent need to talk were infrequent. In contrast, the focus groups of the active participants were characterized by great alertness from the participants and a sincere desire to share and express themselves, without fear of disagreements between the participants [32]. A recent study that explored whether the reflection of users' socially situated offline activities can be observed in their online behavior found that a change in the user's offline behavior impacts the level of his/her exposure to social situations can cause a change in the user's

online topical interests and sentiment [24]. In political open Facebook groups, while knowledge resources shared and created on Facebook were important, the groups also used inperson meetings and 'back channels' for organizing purposes because of the inefficiencies associated with large-group decision making [57].

Based on these findings, the following hypotheses are proposed:

H7: A higher level of offline activity will be associated with a higher level of online activity for Facebook community leaders and other online community users.

H8: Facebook community leaders will be more active online and offline than other online community users.

## 7. Methodology

### 7.1 Sample and Procedure

The research sample included 188 participants, half of them Facebook community leaders ( $n = 94$ ) and half other online community users ( $n = 94$ ). The Facebook community leaders were invited to answer an online survey through posts on two main community walls of Facebook community leaders in Israel: [Facebook Community Leadership Circles: Israel](#) and [Community Forward](#). This was carried out with the cooperation of their administrators. Among the 94 leaders completing the survey, 64 were women (68%) and 30 were men (32%). The other online community users were randomly sampled, employing an online survey administered by a survey company. This representative sample of Israeli Internet users maintained the same number and proportion of women and men, 68% and 32% respectively. The survey company administering the survey has the largest pool of Hebrew-speaking online subjects in Israel, with over 100,000 pool members who receive coupons for participating in surveys.

In order to determine whether there were age differences between the two groups, a T-test for independent variables was conducted. The difference was significant,  $t(186) = 8.66$ ,  $p = .000$ , Cohen's  $d = 1.26$ , indicating that Facebook community leaders were older,  $M = 37.14$ ,  $SD = 7.68$  than other online community users,  $M = 28.47$ ,  $SD = 5.95$ . In addition, in order to determine whether there were age differences between leaders of different community types, a MANOVA test was conducted, which showed no significant difference,  $F(2,91) = .25$ ,  $p = .775$ ,  $\eta^2 = .01$ .

The mean age of all 188 participants was 32.7 ( $SD=8.2$ ).

## 7.2 Measures

Researchers used an online survey with five sections: 1) Demographic questions; 2) Questions about the Facebook community (for leaders only); 3) Online activity; 4) Offline activity; 5) The Big Five questionnaire. Each section is elaborated in the next paragraphs:

*Demographic questions.* Questions about gender and age.

*Questions about the Facebook community.* These questions were revealed only to the 94 leaders and consisted of closed-ended questions about: the duration of the Facebook community's existence (from less than one month to more than three years), the number of members, and the community type. The list of community types was compiled after consulting with the leaders of the Facebook community "Community Forward", one of the Facebook communities for community leaders, and contained social (58.5%), professional (33%), and support (8.5%) types.

*Online activity.* Participants were asked to base their answers on the frequency of their social network usage, rating their usage from 1 (never) to 6 (a few times a day). Three questions addressed the frequency of their active participation, asking: 1. how often they commented, 2. shared content and 3. created content. This approach has been applied successfully in previous work in Hebrew [14]. The Cronbach's alpha of these three items was  $\alpha=.84$  and the average of the three items was labelled the "online activity" variable in the research.

*Offline activity.* This questionnaire, originally created for Hebrew-speaking participants [14], contained four items rating respondents' frequency of social activity offline ("I am active in protest groups outside the internet"; "I express my opinions to people outside the Internet"; "I am engaged in social activities (e.g., parents' committee, student council, neighborhood council)"; "I am participating in voluntary activities outside the Internet") on a six-point frequency scale from 1 (never) to 6 (very often). The Cronbach's alpha was  $\alpha = 0.70$ , and the score was calculated as the mean of the four items, which was labelled the "offline activity" variable.

The Big Five questionnaire. Based on the Big Five Personality Traits questionnaire [45], the Hebrew version [23] consisted of 44 items examining the five personality characteristics rated on a six-point Likert scale (1 = strongest disagreement; 6 = strongest agreement). The values of Cronbach's alpha were:

extroversion ( $\alpha = .80$ ); agreeableness ( $\alpha = .77$ ); conscientiousness ( $\alpha = .74$ ); neuroticism ( $\alpha = .84$ ); and openness to experience ( $\alpha = .80$ ). The means were calculated for each personality trait.

## 7.3 Data Analysis

Data were collected online through an invitation posted in two Facebook leaders' communities walls, using Google forms (for the sample of the Facebook community leaders) and through the online survey administered by a survey company (for the sample of other online community users). The results were downloaded to an Excel sheet and transformed into the statistical program SPSS. Since differences in age between the groups were found, as well as significant correlations between age and other dependent variables ( $r = 1.80-2.90$ ), one-way MANCOVA analyses were conducted: one for personality traits and one for activity, with age as a covariate variable. The Pearson product-moment correlation coefficient was computed for the association between online and offline activity and the five personality traits. A MANOVA test was conducted for the Facebook community leaders to find differences between community types.

## 8. Results

In order to examine the differences in personality traits and offline and online activities between Facebook community leaders and other Internet users, one-way MANCOVA tests were conducted, with age as a covariate variable. The results are presented in Table 1.

**Table 1. Mean, SD and F values of the personality traits and activity types by group (N = 188)**

		Facebook	Internet	F	p	$\eta_p^2$
		leaders (n = 94)	users (n = 94)			
		M (SD)	M (SD)			
Personality traits	Extr	4.58 (.89)	3.97 (.72)	15.93***	.000	.08
	Neu	2.57 (.91)	3.02 (.86)	6.32*	.013	.03
	Agr	4.87 (.70)	4.60 (.71)	0.59	.440	.00
	Con	4.65 (.70)	4.68 (.71)	1.83	.177	.01
	Op	4.97 (.65)	4.13 (.75)	44.58***	.000	.19
Activity	Off	3.95 (.98)	2.98 (.95)	20.37***	.000	.10

On 5.18 (.84) 3.98 (.96) 27.92\*\*\* .000 .13

\*p < .05, \*\*\*p < .001; Ext = Extroversion, Neu = Neuroticism, Agr = Agreeableness, Cons = conscientiousness, Op = Openness to experiences, Off = Offline, On = Online

As Table 1 shows, Facebook community leaders exhibit greater extroversion, openness to experience, offline and online activity than do other Internet users. Facebook community leaders are also significantly lower in neuroticism.

In addition, we found significant differences in extroversion,  $F_{(1,89)} = 3.87, p = .024; \eta p^2 = .08$  and online activity,  $F_{(1,89)} = 6.74, p = .002; \eta p^2 = .13$  among leaders of different Facebook communities. Sheffe post-hoc tests show that leaders of support Facebook communities are less extroverted and active online than are leaders of other types of communities.

Finally, a Pearson product-moment correlation coefficient was computed for the association between online and offline activity of all participants ( $N=188$ ), and between online and offline activity and the five personality traits. Results are presented in Table 2.

**Table 2. Pearson correlations between offline and online activity and the five personality traits (N=188)**

	Online activity	Ext	Neu	Agr	Con	Op
Offline activity	.34***	.40***	-.22**	.27***	.14	.45**
Online activity		.32***	-.11	.25***	.18*	.40**

\*p < .05, \*\*p < .01, \*\*\*p < .001; Ext = Extroversion, Neu = Neuroticism, Agr = Agreeableness, Cons = conscientiousness, Op = Openness to experiences

Table 2 shows a positive significant correlation between online and offline activity  $r = .34, p = .000$ , indicating that the greater the participants' online activity, the greater their offline activity as well. In addition, results show that the higher the participants are in extroversion, agreeableness, and openness to experience, the more they are active offline  $r = .27-.45, p = .000$  and the lower they are in neuroticism the more they are active offline  $r = -.22, p = .003$ . There were also positive significant correlations among online activity and extroversion  $r = .32, p = .000$ , agreeableness  $r = .25, p = .001$ , conscientiousness  $r = .18, p = .016$  and openness to experience  $r = .40, p = .000$ .

## 9. Discussion

Leaders of online communities, responsible for the community's information flow, participation rules,

limits and members' identities and well-being, are today becoming key players in social media sites. This study sought to examine the personalities and the online and offline activities of Facebook community leaders, to determine whether they differed from those of other online community users and to find distinctions between leaders of different community types.

In accordance with H1 and H2, Facebook community leaders were found to be more extroverted and open to experiences than were other online community users. These findings are supported by the notion that extroversion and openness to new experiences are the right personality characteristics for good offline leaders [10, 66] and to previous studies finding higher levels of extroversion among offline community leaders [12, 17] and of openness to experience among WhatsApp group managers [30] and opinion leaders in online travel and tourism services [59]. In order to lead an online community, one has to hold information behavior skills [27, 46], and our findings strengthen the correlations revealed recently between extroversion and openness to experience and information seeking behavior [22], level of information literacy [2] and information literacy self-efficacy [3]. Thus, as we found that Facebook community leaders are more extroverted and open to new experiences, one may conclude that they also have better information skills allowing them to manage online communities successfully.

No difference was found between Facebook community leaders and other online community users with respect to agreeableness and conscientiousness due to age differences between the groups, thus invalidating H3 and H4. These findings suggest that while agreeableness and conscientiousness may play an important role for offline leaders [12, 17] and can be positive predictors of different types of social media use [35, 65], the virtual environment does not necessarily need leaders to demonstrate these attributes. In fact, those who are high in agreeableness are likely be ineffective because they might not be assertive enough on controversial issues [10]. These findings may even serve as a form of encouragement for these leaders, perhaps relieving them of carrying the community burdens of sympathizing with others, demonstrating concern for others, or making extra efforts to comfort others (agreeableness), as well as maintaining plans, keeping order, and paying attention to details (conscientiousness) by themselves.

Findings also showed that Facebook community leaders were less neurotic than other online community users, validating H5. While some previous studies have shown a positive correlation between neuroticism and social media use e.g. [32, 35],

neurotic types might be hostile and panicky towards their followers [10] and negatively influence leadership effectiveness [16]. Leadership calls for emotional focus [38], emotional intelligence [66], the ability to work well with people, communicate, participate in and lead meetings, and often public speaking [25], all of which require higher emotional stability and lower neuroticism. In addition, neurotic users tend to write longer posts and use more negative sentiment words [58], which may be less appropriate for leaders' behavior online. In fact, it was found that the language of leaders in online forums included in the intranet platforms of large companies, is less emotional, but more complex, introducing new knowledge when answering to questions, indicating emotional stability [17]. Thus, our findings strengthen the notion that emotional stability seems to be an important characteristic for online leaders.

Other than differences found between Facebook community leaders and other online community users, we also compared between leaders of different community types. Hypothesis H6 was found valid regarding support communities, with leaders of Facebook support communities found to be more introverted than leaders of other community types. Introverts are introspective, analyze details and think carefully before speaking. The orientation for an introvert is inward as they assess a situation or reflect on what they have learned before forming a conclusion. These can be strengths of introverts and their ability to be effective leaders through their analytical and thoughtful styles [25]. Our findings echo prior research showing that introvert leaders offer quiet support and stability to their followers [60]. Where processes of advice reification are taking place [39a], more introverted individuals may feel safe enough to lead communities that need their support and encouragement more than other leadership factors. Further research should focus on these leaders, who use mostly support functions in their management [26] of communities that may call for calmer and more measured leadership [60].

Finally, H7 and H8, concerning online and offline activity, were accepted. The positive relationship found between online and offline activity is consistent with previous studies [16, 62], indicating that greater online activity correlates with greater offline activities. In fact, Falavarjani et al. [24] found a causality effect, in which a change in the user's offline behavior can cause a change in the user's online interests and sentiment. Our findings also strengthen other studies, showing that while knowledge resources shared and created on Facebook communities are important, the leaders and members also use face-to-face meetings for organizing purposes [57] and for social interactions

[31]. Our finding that Facebook community leaders were more active online and offline than other online community users, thus enhances the understanding of their active personalities. It is consistent with previous research showing that the leaders are very central in the networks, dynamically lead the forum discussions [17], have an enormous influence on the community's sustainability and their impact extends across discussion entities, resulting in communication homogeneity, and leading to significant network effects that are relevant to participants' interactions [43], online as well as offline.

Several additional interesting findings emerged from the results including all participants. The first showed that the higher the participants were in extroversion, agreeableness, openness to experience and emotional stability, the more they were active offline. These results are supported by the relationships found in previous studies between personality traits and offline activity [14] as well as with information seeking behavior [22]. We also found positive correlations among online activity and extroversion, openness to experience, agreeableness and conscientiousness. These findings are consistent with previous studies: extroverts were found as more likely to use the communicative functions of SNS [1, 32, 63], individuals who are more open to experience engage more in virtual discussion groups [30, 32], agreeable individuals tend to make more comments on others' profiles [63] and positive moderation effects of conscientiousness and agreeableness were found on the relationship between issue involvement and reposting negative information [65]. These results indicate the relationships between personality traits and Internet usage. Our findings, focusing both on online community users and Facebook community leaders shed a brighter light on the important role personality traits have on individuals' activities, both offline and online.

## 10. Conclusion and limitations

Although the study of online discussion communities became an early focal point for researchers [11 18 52 53], the personal characteristics of community leaders as individual users who spark communication, shape the conversation, and influence the community's activities and content creation are yet to be investigated in depth. To address this gap, the present study has used the BIG5 personality model [45] as a theoretical framework to investigate Facebook community leaders. The present study places an innovative spotlight on the leaders of these communities and their online and offline behavior. This study is the first of its kind to explore Facebook



community leaders, who are important figures in social network sites, who are responsible for a massive information transfer and who potentially wield enormous influence on millions of community members. Results indicate that online leadership differs not only from social media usage, but also from the known offline leadership. Facebook community leaders seem to be a unique population, with different characteristics than other online community users. Based on previous studies on leadership, it is not very surprising that online leaders are more extroverted and open to experience. However, the findings showing these leaders are older, more emotionally stable and active online and offline than are other online community users make them unique in the leadership field of knowledge as well as in the social media environment, both characteristics requiring further research. As more and more organizations use online communities, the findings of this study may help them select the leaders of these communities with better awareness of their personality and online and offline behavior.

Results also show distinguishing characteristics of leaders of support communities, who are more introverted and less active online than are leaders of other types of communities. The leaders of Facebook support communities manage these important communities, whose members rely on the support leaders for sharing and receiving information and for easing members' pain about mental and health-related issues. Consequently, it is important to pay a particular attention to support community leaders' identities, an issue justifying further study.

This study has several limitations. The first is that as the current study included only Israeli community leaders, we suggest that in order to gain an international perspective, the study should be conducted in other countries as well. The second issue is the age differences found between the leaders and other online community users. Though controlling the age variable, future research should make sure there is a better equivalence between the groups. In addition, a future study may also use qualitative methods such as open questions, interviews and content analysis to supplement the quantitative analysis, and thereby enrich the findings by adding other dimensions to the process.

## 11. References

[1] N. Aharony, "Relationships among attachment theory, social capital perspective, personality characteristics, and Facebook self-disclosure", *Aslib Journal of Information Management*, Vol. 68 No. 3 (2016), pp. 362-386.

- [2] N. Aharony and H. Gur, "The relationships between personality, perceptual, cognitive and technological variables and students' level of information literacy", *Journal of Librarianship and Information Science*, Vol. 51 No. 2 (2019), pp. 527-544.
- [3] N. Aharony and T. Gazit, "Students' information literacy self-efficacy: An exploratory study", *Journal of Librarianship and Information Science* (2019), <https://doi.org/10.1177/0961000618790312>
- [4] A. Al-Rawi, "Facebook and virtual nationhood: social media and the Arab Canadians community", *Ai and Society*, Vol. 34 No. 3 (2019), pp. 559-571.
- [5] Y. Amichai-Hamburger, "Personality, Individual Differences and Internet Use" In A.N. Joinson, K.Y.A. McKenna, T. Postmes and U-R. Reips (Eds), *Oxford Handbook of Internet Psychology* (pp. 187- 204), Oxford: Oxford University Press (2007).
- [6] Y. Amichai-Hamburger, *Internet Psychology*, New York, NY: Routledge (2017).
- [7] Y. Amichai-Hamburger, T. Gazit, J. Bar-Ilan, O. Perez, N. Aharony, J. Bronstein and T.S. Dyne, "Psychological factors behind the lack of participation", *Computers in Human Behavior*, Vol. 55 No. 1 (2016), pp. 268-277.
- [8] Y. Amichai-Hamburger and T. Hayat "Social networking", In: P. Rössler (Ed). *The International Encyclopedia of Media Effects* (pp. 1-12), Hoboken, NJ: Wiley (2017).
- [9] Y. Amichai-Hamburger and G. Vinitzky, "Social network use and personality", *Computers in Human Behavior*, Vol. 26 No. 6, (2010), pp. 1289-1295.
- [10] J. Antonakis, N. M. Ashkanasy and M. T. Dasborough, "Does leadership need emotional intelligence?", *The Leadership Quarterly*, Vol. 20 No. 2 (2009), pp. 247-261.
- [11] J. Bar-Ilan, T. Gazit and Y. Amichai-Hamburger, "Leading factors that explain engagement in closed Facebook groups", *Information Research*, Vol. 25 No. 3, (2020), paper 866. <http://informationr.net/ir/25-3/paper866.html>.
- [12] P. T. Bartone, J. Eid, B. Helge Johnsen, J. Christian Laberg, and S. A. Snook, "Big five personality factors, hardiness, and social judgment as predictors of leader performance", *Leadership and Organization Development Journal*, Vol. 30 No. 6 (2009), pp. 498-521.
- [13] J. Bronstein, "Is this OCD?: exploring conditions of information poverty in online support groups dealing with obsessive compulsive disorder", *Proceedings of ISIC, the Information Behaviour Conference*, Leeds, England, 2-5 September, 2014: part 1 (paper isic16). Retrieved from <http://InformationR.net/ir/19-4/isic/isic16.html>
- [14] J. Bronstein, T. Gazit, O. Perez, J. Bar-Ilan, N. Aharony and Y. Amichai-Hamburger, "An examination of the factors contributing to participation in online forums", *Aslib Journal of Information Management*, Vol. 68 No. 6 (2016), pp. 793-818.
- [15] A. Bruckman and C. Jensen, "The mystery of the death of Mediamoo: Seven years of evolution of an online community", In: K. A. Renninger and W. Shumar, *Building Virtual Communities: Learning and Change in Cyberspace* (pp. 21-33). Cambridge: Cambridge University Press (2002).



- [16] F. Cavazotte, V. Moreno and M. Hickmann, "Effects of leader intelligence, personality and emotional intelligence on transformational leadership and managerial performance", *The Leadership Quarterly*, Vol. 23 No. 3 (2012), pp. 443-455.
- [17] A. F. Colladon and F. Vagaggini, "Robustness and stability of enterprise intranet social networks: The impact of moderators", *Information Processing and Management*, Vol. 53 No. 6 (2017), pp. 1287-1298.
- [18] T. Correa, A. W. Hinsley and H.G. De Zuniga, "Who interacts on the Web?: The intersection of users' personality and social media use. *Computers in Human Behavior*, 26(2), 247-253. (2010)
- [19] A. Deinert, A. C. Homan, D. Boer, S. C. Voelpel, and D. Gutermann, "Transformational leadership sub-dimensions and their link to leaders' personality and performance", *The Leadership Quarterly*, Vol. 26 No. 6 (2015), pp. 1095-1120.
- [20] R. E. De Vries, "Personality predictors of leadership styles and the self-other agreement problem", *The Leadership Quarterly*, Vol. 23 No. 5 (2012), pp. 809-821.
- [21] K. T. Dirks and D. L. Ferrin, "Trust in leadership: meta-analytic findings and implications for research and practice", *Journal of Applied Psychology*, Vol. 87 No. 4 (2002), pp. 611-628.
- [22] S. Halder, A. Roy and P. K. Chakraborty, "The influence of personality traits on information seeking behavior of students", *Malaysian Journal of Library and Information Science*, Vol. 15 No. 1 (2017), pp. 41-53.
- [23] D. Etzion and S. Laski, ("הגדולים" 5) שאלון מאפייני אישיות [Personality Traits Scale ("The Big" 5)]. Hebrew Version by Permission. Tel Aviv University, Faculty of Management (1998).
- [24] S. A. M. Falavarjani, F. Zarrinkalam, J. Jovanovic, E. Bagheri and A. A. Ghorbani, "The reflection of offline activities on users' online social behavior: An observational study", *Information Processing and Management*, Vol. 56 No. 6 (2019), pp. 102070.
- [25] M. Farrell, "Leadership reflections: Extrovert and introvert leaders", *Journal of Library Administration*, Vol. 57 No. 4 (2017), pp. 436-443.
- [26] R. Farzan and C. Jonassaint, "Exploring dynamics of Facebook health support groups: a leadership perspective", *Proceedings of the 50th Hawaii International Conference on System Sciences* (2017). Retrieved from: <https://scholarspace.manoa.hawaii.edu/bitstream/10125/41612/1/paper0463.pdf>
- [27] J. Garcia-Martin and J. N. Garcia-Sanchez, "Pre-service teachers' perceptions of the competence dimensions of digital literacy and of psychological and educational measures", *Computers and Education*, Vol. 107 (2017), pp. 54-67.
- [28] T. Gazit, "Engagement in Facebook learning groups", *Proceedings of iConference*, March 31 – April 3, 2019. Retrieved from <https://www.ideals.illinois.edu/handle/2142/103310>
- [29] T. Gazit, N. Aharony and Y. Amichai-Hamburger, "Tell me who you are and I will tell you which SNS you use: SNSs Participation", *Online Information Review*, Vol 44 No. 1 (2019), pp. 139-161.
- [30] T. Gazit and N. Aharony, "Factors Explaining Participation in WhatsApp Groups: An Exploratory Study", *Aslib Journal of Information Management*, Vol. 70 No. 4, (2018), pp. 390-413.
- [31] T. Gazit and J. Bronstein, "An exploration of the leadership strategies of Facebook community leaders", *Online Information Review*, in press (2020).
- [32] T. Gazit, J. Bronstein, Y. Amichai-Hamburger, N. Aharony, J. Bar-Ilan and O. Perez, "Active participants and lurkers in online discussion groups: a qualitative analysis of focus groups", *Information Research*, Vol. 23 No. 2, (2018), paper 791, Retrieved from: <http://www.informationr.net/ir/23-2/paper791.html>
- [33] S. Gilbert, "Portraits of participation: Exploring the relationship between social motivators and facets of participation in a Twitter-based community", *Proceedings of the 50th Hawaii International Conference on System Sciences* (2017). Big Island, HI. Los Alamitos, CA: IEEE.
- [34] S. Gilbert and D. Paulin, "Tweet to learn: Expertise and centrality in conference Twitter networks". In T.X. Bui; and R.H. Sprague, Jr. (eds): *HICSS. Proceedings of the 48th Hawaii International Conference on System Sciences*, Kauai, Hawaii, 5 January – 8 January, 2015. (pp. 1920–1929). NY: IEEE.
- [35] H. Gil de Zúñiga, T. Diehl, B. Huber, and J. Liu, "Personality traits and social media use in 20 countries: How personality relates to frequency of social media use, social media news use, and social media use for social interaction", *Cyberpsychology, Behavior, and Social Networking*, Vol. 20 No. 9, (2017), pp. 540-552.
- [36] A. M. Grant, F. Gino and D. A. Hofmann, "The hidden advantages of quiet bosses", *Harvard Business Review*, Vol. 88 No. 12 (2010).
- [37] R. Holmes, "Are Facebook groups the future of social media (or a dead end)?" *Forbes*, (2018, October 29), Retrieved from: <https://www.forbes.com/sites/ryanholmes/2018/10/29/are-facebook-groups-the-future-of-social-media-or-a-dead-end/#1539c1211d23>
- [38] J. L. Houpt, R. W. Gilkey and S. H. Ehringhaus, "Learning to Lead in the Academic Medical Center: A Practical Guide". New York, NY: Springer (2015).
- [39] S. L. Johnson, H. Safadi and S. Faraj, "The emergence of online community leadership", *Information Systems Research*, Vol. 26 No. 1, (2015), pp. 165-187.
- [39a] J. Introne and S. Goggins, "Advice reification, learning, and emergent collective intelligence in online health support communities", *Computers in Human Behavior*, Vol. 99, (2019), pp. 205-218.
- [40] T. A. Judge, J. E. Bono, R. Ilies and M. W. Gerhardt, "Personality and leadership: a qualitative and quantitative review", *Journal of Applied Psychology*, Vol. 87 No. 4, (2002), pp. 765-780.
- [41] S. S. Kahai, "Leading in a digital age: What's different, issues raised, and what we know" In M. C. Bligh, and R. E. Riggio (Eds.), *Exploring Distance in Leader-Follower Relationships: When Near is Far and Far is Near* (pp. 63–108). New York, NY: Taylor and Francis/Routledge Publishing (2012).

- [42] S. S. Kahai, B. J. Avolio, and J. Sosik, "E-leadership", *The Wiley Blackwell Handbook of the Psychology of the Internet at Work*, (2017), pp. 285-314.
- [43] J. Y. H. Lee, C. S. Yang, C. Hsu, and J. H. Wang, "A longitudinal study of leader influence in sustaining an online community", *Information and Management*, Vol. 56 No. 2 (2019), pp. 306-316.
- [44] S. Naveh, and J. Bronstein, "Sense making in complex health situations", *Aslib Journal of Information Management* (2019), Retrieved from <https://doi.org/10.1108/AJIM-02-2019-0049>
- [45] R. R. McCrae, and O. P. John, "An introduction to the five-factor model and its applications", *Journal of Personality*, Vol. 60 No. 2 (1992), pp. 175-217. doi:10.1111/j.1467-6494.1992.tb00970.x
- [46] B. Mehra, E. S. Sikes, and V. Singh, "Scenarios of technology use to promote community engagement: Overcoming marginalization and bridging digital divides in the Southern and Central Appalachian rural libraries", *Information Processing and Management* (2019). Retrieved from: <https://doi.org/10.1016/j.ipm.2019.102129>
- [47] N. Panteli, "On leaders' presence: interactions and influences within online communities", *Behaviour and Information Technology*, Vol. 35 No. 6 (2016), pp. 490-499.
- [48] N. Park, K. F. Kee and S. Valenzuela, "Being immersed in social networking environment: Facebook groups, uses and gratifications, and social outcomes", *CyberPsychology and Behavior*, Vol. 12 No. 6 (2009), pp. 729-733.
- [49] E. A. Paskewitz and S. J. Beck, "Exploring member-leader behaviors and interaction in an online support group", *Small Group Research*, Vol. 49 No. 4 (2018), pp. 452-474.
- [50] A. Perrin and M. Anderson, "Share of U.S. adults using social media, including Facebook, is mostly unchanged since 2018" *Pew Research Center* (2019). Retrieved from: <https://www.pewresearch.org/fact-tank/2019/04/10/share-of-u-s-adults-using-social-media-including-facebook-is-mostly-unchanged-since-2018/>
- [51] T. Poell, R. Abdulla, B. Rieder, R. Woltering and L. Zack, "Protest leadership in the age of social media", *Information, Communication and Society*, Vol. 19 No. 7 (2016), pp. 994-1014.
- [52] J. Preece, B. Nonnecke, and D. Andrews, "The top five reasons for lurking: improving community experiences for everyone", *Computers in Human Behavior*, Vol. 20 No.2 (2004), pp. 201-223.
- [53] S. Rafeali, and F. Sudweeks. "Networked interactivity", *Journal of Computer-Mediated Communication*, Vol. 2 No. 4 (1997), JCMC243.
- [54] M. C. Reddy and B. J. Jansen, "A model for understanding collaborative information behavior in context: A study of two healthcare teams", *Information Processing and Management*, Vol. 44 No. 1 (2008), pp. 256-273.
- [55] F. Riquelme and P. González-Cantergiani, "Measuring user influence on Twitter: A survey" *Information Processing and Management*, Vol. 52 No. 5 (2016), pp. 949-975.
- [56] T. Ryan, and S. Xenos, "Who uses Facebook? An investigation into the relationship between the Big Five, shyness, narcissism, loneliness, and Facebook usage", *Computers in Human Behavior*, Vol. 27 No. 5 (2011), pp. 1658-1664.
- [57] M. R. Sanfilippo and K. J. Strandburg, "Privacy governing knowledge in public Facebook groups for political activism. Information", *Communication & Society*, (2019). Pp. 1-18.
- [58] J. Shen, O. Brdiczka and J. Liu, "A study of Facebook behavior: What does it tell about your Neuroticism and Extraversion?", *Computers in Human Behavior*, Vol. 45 (2015), pp. 32-38.
- [59] S. Y. Song, E. Cho and Y. K. Kim, "Personality factors and flow affecting opinion leadership in social media", *Personality and Individual Differences*, Vol. 114 (2017), pp. 16-23.
- [60] D. Stephens-Craig, M. Kuofie and R. Dool, "Perception of introverted leaders by mid to high-level leaders", *Journal of Marketing and Management*, Vol. 6 No. 1 (2015), pp. 62-75.
- [61] The Israel Internet Status Report (2018). Retrieved from [https://www.bezeq.co.il/media/PDF/doh\\_2018.pdf](https://www.bezeq.co.il/media/PDF/doh_2018.pdf).
- [62] J. Vitak, P. Zube, A. Smock, C. T. Carr, N. Ellison, and C. Lampe, "It's Complicated: Facebook users' political participation in the 2008 election", *Cyberpsychology, Behavior, and Social Networking*, Vol. 14 No. 3 (2011), pp. 107-114. doi:10.1089/cyber.2009.0226
- [63] J. L. Wang, L. A. Jackson, D. J. Zhang and Z. Q. Su, "The relationships among the Big Five Personality factors, self-esteem, narcissism, and sensation-seeking to Chinese University students' uses of social networking sites (SNSs)", *Computers in Human Behavior*, Vol. 28 (2012), pp. 2313-2319.
- [64] H. Weinberg, "The Paradox of Internet Groups: Alone in the Presence of Others". London: Karnac Books (2014).
- [65] C. Yin, X. Zhang, and L. Liu, "Reposting negative information on microblogs: Do personality traits matter?", *Information Processing and Management*, Vol. 57 No. 1 (2020), 102106.
- [66] S. J. Zaccaro, J. P. Green, S. Dubrow, and M. Kolze, "Leader individual differences, situational parameters, and leadership outcomes: A comprehensive review and integration", *The Leadership Quarterly*, Vol. 29 No. 1 (2018), pp. 2-43.