

COMMUNICATION & LANGUAGE at work

Community, network or both?

Towards a holistic approach to studying online social structures

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Abstract

This paper overviews scientific narratives surrounding communities and networks both off- and online and criticizes the dichotomous approach to the topic, according to which each social structure can be classified as either a community or a network. It is argued that such a division does not facilitate comprehension of the contemporary online social structures with their complexity and dynamism. The study provides an alternative view on the issue assuming that community and network are not mutually exclusive concepts and can be studied holistically. The proposed theoretical statement is operationalized and piloted on the example of 'Aarhus Internationals' Facebook group – an online venue for international expats in Denmark. A content analysis of the group's posts showed how exactly community and network aspects of social structures may coexist and interact online.

Keywords

Virtual Community, Online Network, Dichotomy, Holistic Approach, Facebook

Acknowledgments

I would like to express my gratitude to Henrik Bødker and Teke Jacob Ngomba who showed sincere interest in the topic of this article in its bud. Special thanks also go to Alona Shestopalova who encouraged me to publish this work.

1 Introduction

The rapid development of the Internet and, in particular, social media, once again raises questions about the nature, meaning, and designation of virtual social structures, including those based on Facebook (Sung, Wang & Kumara, 2018). While many scholars argue that Facebook is a typical network due to the weak social ties occurring there (Lewis & West, 2009; Wu, 2010; Zhao et al., 2012), Mark Zuckerberg declares his commitment to building a global community (2017). While the overall structure of links between Facebook users implies a network approach (Haythornthwaite, 2007; Rui et al., 2015), numerous cases of meaningful interactions on Facebook reveal a community at the core of this medium (Sobré-Denton, 2016; Lim & Pham, 2016).

A list of such contradictions may be continued and, perhaps, a definition question would not have been so acute if not for at least two reasons. First, the words ‘community’ and ‘network’ are burdened with numerous additional connotations (Brint, 2001). By choosing between the terms, one not only entitles a social structure but also characterizes the communication occurring there (Karakayali & Kilic, 2013). Second, since the two terms are often polarized at a theoretical level, there is a tendency to start any empirical research on the topic with asking: ‘Given a group, is it a community or a network?’ (Wenger, Trayner & De Laat, 2011, p. 9). This paper suggests that posing such a question is not always necessary – a holistic approach may be used instead. A detachment from the community/network dichotomy allows not only to identify separate community or network characteristics but also to consider the relationships between them. This, in turn, stimulates the review of the community-building potential of social media and their applicability to the wide range of communicative tasks in the fields of business, education, management, etc. Thus, the purpose of this study is to propose an approach useful for examining virtual social structures in their integrity.

Structure-wise, the paper begins with an overview of the origins of the community/network dichotomy which is followed by the explanation of an alternative holistic approach. Then, the proposed approach is operationalized into the coding frame and piloted on a small-scale sample of posts from Aarhus Internationals (AI) Facebook group. The aim of the empirical part is not to explore the selected case exhaustively but to identify the advantages and limitations of the proposed framework. The paper concludes with a presentation and discussion of the main findings and suggestions for further research.

2 Community/network dichotomy in a scholarly debate

Communities and networks are not a new thing. Both have existed as a consequence of a human’s need for social interaction since the formation of primitive society (Wu, 2010). In general terms, a community refers to the social structure based on shared values, identities, and practices. A network, in turn, refers to the kit of interpersonal ties arising from the private interests of the individuals (Wenger, Trayner & De Laat, 2011). Thus, a neighborhood, a church, or a village are social institutions usually described as communities while kinship and business partnership tend to be labeled as networks (Johnson, 2001). Given distinction is deliberately simplistic, yet it serves as a good starting point to proceed with the more nuanced discussion.

The precursor of the division of social structures into communities and networks can be already found in ‘Gemeinschaft und Gesellschaft’ (‘Community and Civil Society’) by Ferdinand Tönnies (2001 [1887]). This work reflects on the changes in the European social system due to the industrial revolution. Tönnies argues that with the development of manufacturing, cosmopolitanism, and bureaucracy, a traditional communal society (Gemeinschaft) began to gravitate towards associational society (Gesellschaft). While Gemeinschaft implied face-to-face communication driven by emotions and sentiments, Gesellschaft suggested communication rooted in rational reasons. Tönnies’ dichotomy laid a foundation to the polarized approach to the study of social structures and remains actively cited until today (see Johnson, 2001; Haythornthwaite, 2007; Juan, 2012).

Another notable ‘wave’ of community and network research reflected on the social consequences of increasing urbanization and modernization in North America in the middle of XX century (Smart & Smart, 2003), and here again, the confrontation of the two concepts is tangible. Wellman criticized the anchorage to the locality in the analysis of communities, in parallel, trying to legitimize an alternative network approach that allowed to ‘search for functioning primary ties, wherever located and however solidar’ (Wellman, 1979, p. 1202). He suggested determining boundaries of social structures not based on spatial parameters of the neighborhoods and districts but on the assumption of one’s own social network regardless of where the

components of this network are situated. Today, this argument sounds even stronger if not superfluous as more and more people are getting mentally prepared and technically equipped to leave ‘little boxes’ (Wellman and Hampton, 1999, p. 648) and design their social circles more flexible.

The latest phase of the community and network research reflects on the advent of the Internet in a person’s everyday life (Johnson, 2001). Obviously, both digitalization and its scientific comprehension are in progress, so only the key aspects of the debate about virtual social structures are outlined further. One of the views on virtual social structures shaped under the influence of studies which searched for the presence of the key community parameters online (Preece and Maloney-Krichmar, 2005). Most of such studies revealed the ‘intense feelings of solidarity, empathy, and support generated by people interacting in virtual environments [which related] well to the emotional and normative dimensions of the community concept, and therefore helped to legitimize the conception of (digitally) networked communication as a ‘community’” (Juan, 2012, p. 666). Some scholars even claim that the Internet has not brought any major changes to the nature of social structures (Wilson & Peterson, 2002). Other researchers express skepticism about the appropriateness of the term ‘community’ in relation to online social structures (Fernback, 2007; Postill, 2008). They believe that on the Internet, social structures became more similar to Wellman’s networks than Tönnies’ *Gemeinschaft*. Some of the arguments behind this view have to be mentioned as they will be incorporated in the methodological tool further.

First, communities tend to have more complex entry and exit procedures than networks (Bregman & Haythornthwaite, 2003). As the Internet serves to reduce the impact of some objective (distance, time...) and subjective (gender, language...) barriers, it offers a favorable environment for networks development. Second, it is believed that the Internet contributes to intermittent and sporadic communication with a lower level of responsibility compared to real life (Juan, 2012). This is associated both with the issues of limited legal regulation of the Internet (the sense of impunity), and relatively impersonal nature of online communication (the sense of anonymity) (Sharon & John, 2018). As Fernback puts it, ‘members of virtual communities speak of mutual respect and caring but demur at the notion of true closeness, so the metaphor of “community” in cyberspace is one of convenient togetherness without real responsibility’ (2007, p. 49). Third, the structural aspect. Since the Internet allows a degree of multiplexity unreachable offline (Haythornthwaite, 2007), virtual social structures overlap each other and are capable of functioning simultaneously. Thus, each Internet user can be seen as a ‘unique intersection of multi-membership’ (Wenger, 2000, p. 230). Depicted graphically, such a structure would indeed look like network as opposed to less complex and usually spherical community.

As we see, regardless of the historical stage, a debate about social structures revolve around certain dichotomies. *Gemeinschaft* or *Gesellschaft*? Lost or Saved? (see Feagin, 1973; Stack, 1974) Community or Network? And, of course, the choice of one or another concept does not end at a theoretical level – it often implies the opposite methodological strategies. The proponents of the community approach tend to conduct qualitative research, for instance, to look at social structures through the lens of anthropology (Wilson & Peterson, 2002, p. 449) while the network proponents focus on mainly quantitative network analysis (see Scott & Carrington, 2011). As these two schools develop in parallel, the scientific discourse itself becomes quite polarized and fragmented. Last but not least, the emphasized juxtaposition of the community and network approaches faces reasonable critique for being culturally biased (Yuan, 2012). In light of these challenges, there is a demand for a holistic view of contemporary social structures.

3 A holistic view of communities and networks

In the core of the holistic approach, there is an idea that community and network can be seen as different facets of the same social unit. These facets complement each other and are interdependent but not mutually exclusive. The community aspect refers to the content of the communication and its qualitative characteristics. The network aspect points to the structural dimension of the issue (Giuffre, 2017) and helps to answer the questions about routes and intensity of communication flows.

Concurring with this idea, Amitai and Oren Etzioni identify two attributes of the social structures: ‘First, a web of affect-laden relationships that encompasses a group of individuals – relationships that crisscross and reinforce one another. Second, a measure of commitment to a set of shared values, norms, meanings and a shared historical identity’ (1999, p. 241). Similar references to the differentiation between the bonding of social structures and their cultural content can be found, in Wenger (2000). Haythornthwaite, in turn, concludes in one of her articles that ‘not all networks constitute communities’ (2007, p. 133) testifying the possibility of co-presence of the two.

Talking about the Internet, in the conditions described by Wellman & Hampton (1999) as freedom from spatiality, people are able to adjust various online platforms for both networking and community building depending on their needs and desires. In this sense, the overall network structure of one or another medium is not a sentence to the solidarity within a social structure or any other features usually associated with a community. In fact, certain communities have much more chances to emerge on the basis of a network than elsewhere, and a good example would be online communities of seriously ill patients (see Shi et al., 2017).

Therefore, assuming the co-presence of community and network elements within a social structure, a holistic approach helps to examine the actual communication acts at the micro-level instead of making inferences about communication features based on the structural characteristics of the medium. This gives us an opportunity to identify communities within networks, and the other way around, as well as to capture the proportion between community- and network-related practices at a certain time period.

4 Looking for communities and networks on Facebook

The study of Facebook-based social structures can be especially fruitful. This social media is one of the first global Web 2.0 platforms (Price, 2016). As long as Web 2.0 emphasizes user-generated content, usability, and interactivity (Dutot & Mosconi, 2016), Facebook provides a fertile ground for the development of both meaningful and complex social structures. In addition, Facebook remains the most popular social media hosting more than one billion active users every day (Donnelly, 2018).

At the same time, the study of social structures on Facebook poses a number of challenges. One is linked to the fickle nature of this social medium which is constantly being developed. Since many scholars draw conclusions about the characteristics of virtual social structures based on the parameters of the medium under research, their findings tend to become obsolete very shortly. For instance, the statement of Price that ‘there is no nuance or separate gradations of “friendship” on Facebook’ (2016, p. 42) is not relevant since such categories as ‘close friends’, ‘acquaintances’, or ‘family’ have been introduced. It is also important to keep in mind that since February 2017, Facebook has officially declared the beginning of a move towards the community, especially in regards to the groups’ management (Nelson, 2017), so this commitment should be considered while comparing this paper with the studies dated before 2017.

Another ‘trap’ in which some researchers find themselves while analyzing social structures on Facebook is related to the multi-levelness of this medium. Thus, Wu, following the ‘either-or’ paradigm, claims that ‘Facebook, MySpace, and LinkedIn are social networks as opposed to communities’ (2010). He makes this inference from the observation of how people are held together on Facebook (multiple yet one at a time connections). However, such an assertion is only true in relation to the overall Facebook structure but not when one considers units of the smaller size like Facebook publics, group chats, etc. In other words, even if one claims Facebook is a pure network, does it mean that it can not be a venue for virtual communities? Apparently, not.

So, the complex structure and dynamic nature of Facebook, together with the limitations of ‘either-or’ approach, explain why some similarly designed studies often reach the opposite conclusions. For instance, Price summarizes that ‘despite the apparent restrictions of an online format, the group [Facebook secret group “Thunderdome”] can and does interact in meaningful ways as a community’ (2016, p. 41). On the other hand, Cruz, Gonzales, and Matanguihan believe that ‘the existence of a community in virtual spaces, specifically, Facebook.com is an illusion’ (2015, p. 182). The following parts of the paper demonstrate that such contradictions are partly a consequence of the dichotomous approach to the study of social structures rather than a display of the actual state of things.

5 Methodology

As stated earlier, the goals of the empirical part of this study are to a) operationalize the proposed conceptual approach into the usable analytical framework and b) to pilot this framework by applying it to the analysis of a relevant online social structure. So, the purpose of the study may be synthesized in the following research question: ‘What are the community- and network-related practices manifesting in a Facebook-mediated social structure?’ This question can be answered using an

integrative methodological tool, in our case, a coding frame (Lofland et al., 2006). To be in line with the declared holistic approach, such a frame has to be capable of identifying both community- and network-related practices at the level of communication acts. This would allow us to see how members of a particular social structure make use of its community- and network-related potential.

In order to focus on the material relevant to the community and network debate, the categories for the frame were designed deductively (David & Sutton, 2011) (see Table 1). Each of these categories is an important criterion for the demarcation of communities and networks at a theoretical level. They were derived from the literature and addressed in the previous parts of this paper. Each category has a reference to the text where it is critically discussed. Such a methodological tool has at least two benefits. It unites the disparate community and network criteria into one universalized system facilitating a holistic analysis. Besides, it builds upon the existing scientific understanding of community- and network-related features so that the results gained through the application of such a tool can be compared and related to the previous studies.

Table 1: A Deductive Coding Frame

№	Category Name	Category Description	Operationalized Subcategories
1.	Geographical Proximity (Wellman, 1979)	Community is tied to a spatial framework Network is freed from it	<i>A) a post tied to the location of Aarhus</i> <i>B) not tied</i>
2.	Appeal to Offline (Bakardjieva, 2003)	Community is backed up by offline contacts of its members Network does not facilitate offline contacts	<i>A) a post suggesting actual or potential offline contact between the group members</i> <i>B) a post not suggesting a real-life encounter</i>
3.	Responsibility (Fernback, 2007)	Community members tend to act more responsibly towards each other Network members tend to act less responsibly towards each other	<i>A) a request-post or a question-post received 3 and more relevant responses</i> <i>B) received 1-3 relevant responses</i> <i>C) was left without a relevant response</i>
4.	Purpose of Communication (Juan, 2012)	Community members communicate because they have common values and interests Network members communicate for mainly rational reasons	<i>A) post aimed to satisfy common interest in the first place</i> <i>B) without specific interest</i> <i>C) self-interest in the first place</i>
5.	Communal History (Wenger, Trayner & De Laat, 2011)	Community has a higher degree of 'continuity' and 'social memory' Network has a lower degree of 'continuity' and 'social memory'	<i>A) a post with the reference to the communal case(s), meme(s), or anecdote(s)</i> <i>B) a post without the reference to the communal history piece(s)</i>
6.	Barriers	Community has more rigorous entrance, participation, and exit	<i>Presence, amount, and complexity of the barriers at the level of group administration: type of the group (public,</i>

	(Haythornthwaite, 2007)	barriers Community has less rigorous entrance, participation, and exit barriers	<i>close, or secret), language requirements, etc.</i>
7.	Normativity (Price, 2016)	Community is a more regulated environment Network is a less regulated environment	<i>Presence, amount, and strictness of the rules at the level of group administration: content, ads policy, censorship and bans, etc.</i>

The presented coding frame was designed following the 'ladder of abstraction' approach (De Vaus, 2001). According to it, the concepts of community and network were broken down into measurable dimensions (categories) in each of which a certain type of communication may occur. This communication can be peculiar to either community- or network-like social structure. So, if the community-network polarization took place in AI, this would manifest at the level of dimensions – in most or all of them a particular communication type would be salient. If the community- and network-like communication were not consistent within and across dimensions, it would signal about the artificiality of the dichotomy in the case studied.

As far as the operationalization of the categories is concerned, it was done with several principles in mind. First, Facebook posts were regarded as the main coding units (Price, 2016). Where it was not possible (categories 6-7), only those parameters were analyzed which are set at the level of a specific social structure hence determined by the group members. It is because the coding frame was made to show not what Facebook is but how Facebook is used in a specific case. Second, the categories were operationalized broadly enough so that they can be applied to the analysis of Facebook groups with different thematic and functional orientation (Jensen & Sørensen, 2014). Finally, for the measurement of category 3, a three-step ordinal scale was used (David & Sutton, 2014, p. 222) to capture the degree of responsibility manifestation more adequately.

In order to evaluate the coding frame, a part of the sample was double-coded with the help of the trained coder. The percentage of agreement was $\approx 89\%$ which characterizes the coding frame as sufficiently reliable (Schreier, 2012). Since most disagreements arose in category 4 it was decided to introduce an additional subcategory reflecting the lack of a clearly defined purpose of the post (4B).

It can be seen from the framework that categories 1-5 imply the usage of different methods of analysis compared to categories 6-7. Particularly, the first five categories suggest classifying the user-generated data into one of the subcategories (A, B, or C) in a standardized manner. For this purpose, a content analysis was used as an appropriate method (Lewis et al., 2013). Each of the sampled posts was assigned with a category and a subcategory (e.g. post X: 1A, 2A, 3B, 4C, 5A). If the category was coded without any letter, it meant that it was irrelevant to a specific post (e.g. category 3 was applied only to request- or question-posts).

In turn, subcategories for the categories 6-7 were supposed to be derived inductively through the analysis of the relevant group features and the document 'The Rules_Aarhus Internationals.pdf' (the version dated from April 10, 2018). This suggested a more qualitative approach to the data as it was latent and required a considerable degree of interpretation (Schreier, 2012, p. 16). For this reason, a qualitative text analysis was used when it came to the last two categories. The combination of the two analysis methods was needed to integrate all of the dimensions associated with the community and network debate and to consider the normative context in which the communication took place (David & Sutton, 2011, p. 294-298; Moran-Ellis et al., 2006).

Some of the rationales behind selecting AI as a case¹ for the study need to be mentioned here, too. First, AI belongs to the Internet segment of Denmark which, according to the Digital Economy and Society Index, is 'the most digital country in the EU' (European Commission, 2017). It means that in terms of Internet coverage, speed and pricing, Denmark contributes to the creation and development of advanced virtual social structures. Second, the AI is a group for the communication of internationals living in Aarhus. The study of such a culturally diverse social structure helps to address the point of Juan (2012) about the importance of cultural contextualization. The different cultural backgrounds of the group members serves as a tool of detachment from the study of exclusively Western trends. Third, AI is one of the biggest and the most fast-growing groups of its type in Denmark hosting 21 384 members, as of 18 May 2018.

The time-frame of the analysis covered one week (Monday 14/05/18 – Sunday 20/05/18). Although such a time-frame is too short to be representative, it is acceptable for the declared purposes which are theoretical modeling and method testing (Black, 1999). The sample included posts from each day of the week since both topics and style of communication in Facebook groups vary depending on the weekday (Ferrara, 2012). Ten random posts were selected from each day of the specified period using an online random number generator. The final sample of 70 posts was screenshotted and documented for the subsequent analysis. Date and time of the sampled posts' last update are 20/05/18, 6 pm Eastern European Time.

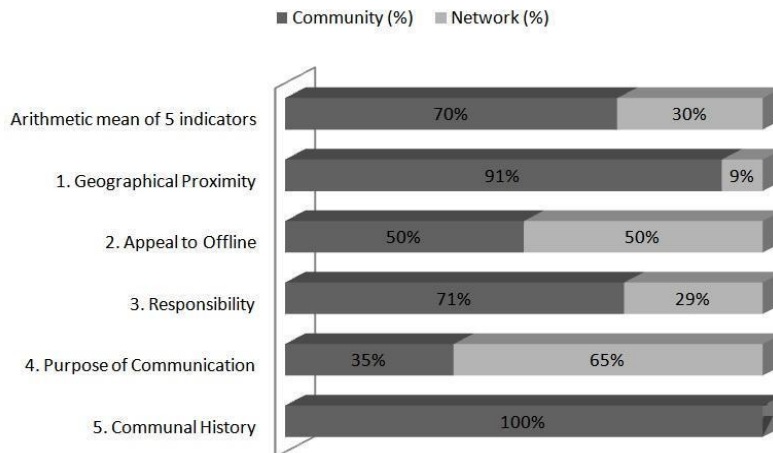
It was obvious from the beginning that the chosen time period coincides with the end of the studying year in Aarhus. This was expected to increase the share of subcategory 4C (communication for rational reasons) as international students tend to use Facebook groups for selling their belongings before leaving the place. Eventually, this proved to be the case. Just to take another week was not an option as there is also 'holiday time', 'election time', 'bad weather time', and each of these periods would have some sort of peculiarities. The only solution was a considerable increase in sample size which was not possible due to feasibility considerations. Nevertheless, the awareness of the special feature of the selected time-frame allowed us to identify some interesting patterns between network- and community-related practices. This finding, along with the others, is addressed in the next section of the paper.

6 Findings and discussion

Analysis of the sampled posts showed that AI is neither a community nor a network in a pure form. On the contrary, it organically integrates both. According to some of the indicators, AI functions more like a community while according to others – more like a network. The proportion between the community and network features of AI is not stable. This section summarizes the key outcomes of the study and put them into a broader perspective. The findings are organized by categories with the usage of verbatim quotes to illustrate the specific arguments which is a common way to present research findings (Schreier, 2012, p. 221).

Graph 1 shows the proportions between the community- and network-related practices in AI, according to the first 5 indicators, as well as the mean of all indicators for the total period of research. The data is presented in percentages since categories 3 and 5 were applied only to specific types of posts, namely request/question-posts and communal history posts respectively. For the sake of presentation, subcategories 3A and 3B, as well as 4A and 4B, are merged together. This does not distort the results since the mentioned subcodes show only a degree of the community aspect.

¹ The term 'case' here is denoted as a 'spatially and temporally delimited phenomenon of theoretical significance' (Gerring, 2017, p. 21). The spatial frame is bounded by the cyberspace of AI, the time frame corresponds to the sampled time period while the theoretical significance is determined by the role of the case in illustrating a theoretical argument of the study.

Graph 1: Community and Network Profile of AI

Geographical Proximity. The overwhelming majority of AI posts (91%) revolves around the location of Aarhus and its suburbs. This is not surprising since the group is conceived as a forum for people living in a concrete place. From this perspective, AI is indeed a ‘community of practice’ (Haythornthwaite, 2007) and the common practice here is ‘being an expat in Aarhus’. Such a feature of AI helps the group to develop in line with the community model. Members of the group walk along the same streets, shop at the same malls and know when the traffic in downtown is the most horrible. Some of these everyday issues were raised explicitly in the analyzed posts while others are likely to exist at the imaginary level which is crucially important for the notion of solidarity within a group (Anderson, 1991 [1983]). Nevertheless, six out of seventy posts were ‘torn off’ from the location of Aarhus. Four out of those six were related to nationwide or pan-European issues and the other two deserve some special attention in the context of the relationship between community- and network-related practices.

In the first post, a user who spent 5 years in Aarhus and then returned to the home country shares one of the episodes from her life in Denmark. In the second post, a user writes about his intention to move to Aarhus and asks some specific questions in connection with future relocation. These two examples show how the network aspect of online social structure (detachment from the locality) is capable of facilitating its community aspect in at least two ways: by supporting the membership of the people who have physically moved away from the social structure and by providing a smooth entrance for those who are only going to become members. On the one hand, this observation is completely in line with Wellman’s claim about social structures liberated from the spatial constraints, thanks to communication technologies. What is interesting here is that a characteristic typically associated with networks, in fact, empowers community. This observation gives us another hint that the network often serves merely as a means through which a community may be or may not be maintained.

Appeal to Offline. The presence of a specific location at the core of social structure suggests that its members are more likely to meet each other offline than the members of the ‘venue free groups’. This is the case with AI where half of all analyzed posts either actually or potentially led to the real-life contact between at least two members of the group. In principle, such face-to-face contacts are considered to reinforce community as more and more people from the group stop being strangers to each other (Probst & Borzillo, 2008). However, what are the reasons for AI members to meet? This question can be answered by looking at the value of category 4 (the purpose of communication) for each of the posts with subcategory 2A (actual or potential offline meeting). The matching revealed that in 60% of the cases, the group members met each other for exclusively pragmatic reasons (4C), mainly the purchase and sale of goods. Leisure, socializing, and ‘other’ account for the rest 40%. Here is a typical example of the post coded as 4C (self-interest in the first place):

‘80x60cm storm trooper painting
kr. 500
[suburb], Aarhus, Denmark

Absolutely beautiful storm trooper painting needs a new home! I love it but sadly can't take it with me when moving' as opposed to the post coded as 4A (public interest in the first place):

'We had our first book club meeting today and decided to read *The Jade Cat* by Suzanne Brøgger for next month. To stay up to date about the book club's activities, join our group...'

Theoretically, this observation signifies that the presence of offline contacts between the members of the online social structure is not a priori evidence of meaningful communication. One could argue that in the case of AI, contacts between the group members contribute to the development of the social structure not so much towards the community as towards the network model since the purposes behind personal meetings are too often rational in their nature (Juan, 2012). Besides, the finding shows how problematic is delimitation of community- and network-related communication in practice even when social structure is examined quite formally.

Responsibility. In this study, a sense of responsibility within the AI group was measured based on whether its members ignore the question- and request-posts or respond to them, and if the later – how active. Despite the fact that 25 out of 28 request-posts concerned the author's private interests, people were still willing to help in 83% of the cases. Half of the group members received from 1 to 3 helpful comments while another half – 3 and more. Besides, there are reasons to assume that the amount of help coming from AI members is proportional to the complexity of the situation that certain AI participants face. For example, one of the users has left the following 'alarm' post:

'Dear friends! I really need your help with my questionnaire. Last time, I was asking the same but all my data got destroyed :(now I have to do it again in only one week, otherwise, I will not be able to finish the thesis...'

In two days, the author of this post got 127 questionnaires filled in while some other, not so desperate requests, were left without attention. It means that the sense of responsibility within a social structure may vary depending on the situation and communication style. Similarly, in his classical case study 'The Community Question: The Intimate Networks of East Yorkers' (1979), Wellman notes that 'some intimates can be counted on to provide assistance in dealing with everyday matters; a good many more, but certainly not all, give assistance when emergencies arise' (p. 1225). This serves as a reminder that even though there are particular patterns of typical reactions in established social structures, social media still holds a unique mobilization potential. In this regard, a community and network profile of virtual social structures can be seen as constant or final in no respect.

Purpose of Communication. This category is central to the analysis as it reveals a lot about the meaning of interactions between the group members. 65% of the sampled AI posts aimed to satisfy one's own pragmatic interest (request for recommendations, purchase, and sale of goods, search for fellow travelers to save on gasoline, etc.) The rest 35% of the posts were either oriented on public interest (e.g. a reminder that supermarkets will be closed due to the holidays) or did not have any specific purpose. At first sight, this indicates that AI members are mainly networking to solve their own problems when needed, and, technically, this is true. However, by asking about the conditions of SU (Danish student scholarship) or the cheapest supermarkets in the area, AI members help not only themselves but all the others perplexed with the same questions. This turns Facebook groups into chronologically ordered 'directories' on a variety of relevant issues. One can learn about the issue of interest by using the 'search this group' option and numerous filters. AI administrators are aware of these opportunities and urge members of the social structure not to be lazy to use Google:

'...Questions are welcome! However, www.giyf.com is our favorite website. So, please try to sharpen your Google skills. Also, your question has probably been asked here before. Please use the group search tool (...) If searching through the group or Google does not result in a satisfactory answer or one that is confusing, go ahead and ask...'

So, in Facebook groups, as they are nowadays, the assistance to individuals in their private matters tend to generate knowledge valuable and available for the broad public which is traditionally considered to be a community feature. Thus, Wenger, Trayner and de Laat believe that 'the learning value of community derives from the ability to develop a collective intention to advance learning in a domain. This shared commitment to a domain and to the group of people who care about it is a learning resource' (2011, p. 10).

Communal History. Although the pieces of the group's inner history were recognized by the other members in 100% of the cases, the category was applied only 6 times. However, there is no specific 'norm' in this regard, so it was decided to count not the proportion between the posts with and without communal history pieces but the proportion between the cases when the communal history posts were decoded by the other AI members and when not. For example, one of the users wrote:

'I remember someone was looking for Kronenbourg blanc [specific beer brand]. It's available at Føtex in Sankt Nicolous Gade, near Radission..'

Two other users thanked the author of this post in the comments section because they had been looking for this particular beer brand for a while. Such a situation became possible since one of the users memorized a question which was posted earlier in AU and then got back to this question after coming across the answer. His feedback, in turn, was also recognized by the interested users. All this sequence is a manifestation of a social group memory which is believed to be an important attribute of communities both off- and online.

Barriers. In terms of the barriers for entrance, participation, and exit, AI functions more like a network than a community. First, it is a public group meaning that everybody can see its members and posts. People can join the group without any special procedure even before they arrive in Aarhus and after they leave (see Geographical Proximity section). English is promoted as the main language of the group which simplifies communication for internationals. However, some barriers to participation do exist resulting mainly from the strict norms of the public.

Normativity. The text analysis of the document 'The Rules_Aarhus Internationals.pdf' (the version dated from April 10, 2018) showed that AI is a highly regulated social space where the rules do not only exist but are also being enforced by a team of administrators and moderators. There is a set of available sanction options if required, including removal, muting and blocking of certain posts or members. Such features make AI even more regulated than traditional offline communities where the members could be marginalized by the majority but not discarded as easily as a mouse click. The high degree of normativity distances AI from the ideals of a network where 'boundaries are more permeable ... and hierarchies (when they exist) are flatter and more recursive' (Hampton and Wellman, 1999, p. 648). The AI rules regulate general behavior in the public as well as activities connected to advertisement and buying-selling of goods. Most of the norms restrict the communication associated rather with networks than communities (e.g. the prohibition of selling high-value items). Many of the rules are rooted in the Danish legal norms and Danish lifestyle which once again highlight geographical hence cultural coordinates of the public.

7 Conclusion

The analysis showed that in AI – a Facebook group for international expats in Denmark – both community- and network-related practices are evident and closely interconnected. The exclusive presence of one particular communication type was identified neither within nor across the dimensions. The only exception is dimension 5 where all of the communal history pieces were decoded by the group members. However, this category was applied only six times, so the weight of the observation should not be exaggerated. Importantly, even despite the prevalence of communication for rational reasons (4C), which was predicted in section 5 of the paper, the community-related practices are still more salient in AI when one considers all the dimensions in their integrity. Particularly, the group manifests itself as a community in terms of attachment to geographical location, degree of mutual responsibility of its members, recognition of communal history pieces, and normativity level. This means that despite the overall structure of Facebook, AI functions not only as a lot of scattered people preoccupied with their private concerns but as a virtual model of the expat community of Aarhus. In other words, what we witness here is a community within a network which emphasizes the active role of the Internet users in determining the features of communication online. All things considered, there is no conflict between community- and network-related practices in case of AI. In fact, the researched material provides no support for the idea that the concepts of community and network should be opposed at a theoretical level either.

At the same time, the application of the framework designed in accordance with the traditional understanding of what communities and networks are, showed that in the digital age, the perception of community- and network-related features, as well as the relationship between them, should be reconsidered. Thus, it was found that some network-associated features like independence from spatiality do not necessarily imply shallow communication. In contrast, if there is a social demand, they

can empower communities by maintaining the membership of the temporarily absent individuals or by providing a smooth entrance for the new members. The same goes for the consideration of offline contacts as a community-related practice. First, the contextualization of the purpose behind the contact is needed to determine if it is a sign of meaningful communication or not. Second, the whole idea that online communication is not as meaningful as face-to-face interaction is doubtful today, when Internet technologies are so advanced and all-pervading. Even when it comes to such straight-forward indicators as a search for the solution for personal problems, when this search is a public act, it indirectly generates public good which can not be ignored while speculating about community- and network-related features. As we see, the Internet blurs many of the traditional delimitation criteria and brings community and network as close as never before. As Wellman puts it in one of the recent books reviews: '[With the Internet and mobile technologies] communities have become networks; networks have become communities' (see Giuffre, 2013). In this situation, a holistic approach to the study of virtual social structures is a need.

As far as suggestions for further research are concerned, the proposed framework can be used to obtain a primary understanding of how actually a particular social structure functions and which communication type is prevailing there. Such knowledge could be valuable guidance on how to direct further research – in more qualitative or quantitative direction, using network analysis or a user- / communication-centric approaches. The proposed holistic approach could be fruitfully used in comparative studies since it will give more ground to interpret one or another piece of results. The larger samples are needed to talk about statistically representative findings. Besides, the topic deserves development in the applied direction. In particular, it could be promising to examine the community building potential of online social structures within formal and informal organizational contexts. The results of such studies may be of interest to individuals and organizations present online.

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