

Online Communication and Offline Coordination in Large Housing Complexes

Daniel Alexandrov, Vadim Voskresenskiy and Kirill Sukharev

This paper is concerned with the problem of the nature of interaction in online and offline communities. In the modern urban space a lot of people live relatively close to each other. In spite of this, an anonymization and dispersion of responsibility between residents of apartment buildings became a very big barrier to their successful communication and cooperation in real life. Recently, more and more online communities of neighbors living in one house appear in the Internet.

Problem of community formation in neighborhoods was investigated by sociologist Siegwart Lindenberg and his colleagues. Scholars stressed main factors which make people interact with each other. According to Lindenberg, individual would like to invest own human capital to community if he/she wasn't sure that it brought benefits. Authors supposed that meeting places (e.g. schools, churches, markets etc.) on the territory of neighborhood can influence a creation of community. Meeting places are places where people can meet occasionally and chat. Apart from that, community exists when on the territory of neighborhood there are important for residents common goods such as playgrounds, trash cans, parking etc (Volker, Flap, Lindenberg 2007) .

There are different views why people join online communities. Some scholars consider online communities as “third places”. Ray Oldenburg argues that third place is informal space where people can meet and converse or solve their own problems. According to author, third places can strengthen social ties between members of the community (Oldenburg 1996-1997). Oldenburg’s followers suppose that online communication can be a mean which helps individual to spend leisure time and take a break from a routine work and stressful households (Soukup 2006). Chinese researcher Limei Li writes that communication in chat forums has an instrumental function. His paper focuses on the importance of chat forums for coordination and mobilization homeowners and the role of online communication in a formation of neighbors’ collective action (Li 2013).

Our main aim is to investigate what is the reason for communication between apartment buildings' residents: is it a way to chat with friends ("third place" hypothesis) or a possibility to solve a common problem? Also we are going to investigate is there distinction between online and offline communication. Besides, this paper studies dependence between cooperation of

residents in real life and their communication in the social network. For this we compare main patterns of interactions which we have studied in apartment buildings located in Vasileostrovsky District and discussions parsed from groups of neighbors in social network "Vkontakte".

"Vkontakte" is a social networking site which has over 200 million accounts. This social network provides an opportunity for participants to communicate in different ways. Users can write private messages to each other or create communities (groups or public pages). Inside communities a number of users can discuss some topics which connected with their interests. Communication can be performed in the overall message flow on the wall of a group or in the discussions which has own specific subtopics. There are closed and open groups. In open groups each user of "Vkontakte" can write messages and comment posts of other users. In closed groups user is allowed to communicate if an administrator of group let him join a community.

We collected data of discussions of open groups of apartment buildings from social network Vkontakte using Application Programming Interface. We searched groups with help of a list of keywords related to neighbor communities in apartment buildings for all streets of Saint-Petersburg¹. We filtered preliminary set of 2232 groups returned by queries excluding spam and non-relevant groups, leaving 420 groups for further analysis.

We divided all apartment buildings' groups into 2 types: active (groups where there is communication between users) and inactive (there is no communication for at least a one year). Analyzing messages dynamic we discovered that all groups has propensity to gradual "dying". But also we can see that the activity of groups depends on the average monthly number of messages. Thereby, the higher frequency of messages the stronger probability of a group activity.

We used Principal Component Analysis on Term Document Matrix treating posts from each group as a single document to do an exploratory analysis of groups discussions content. Simple three factor model showed us that discussions of parking and administrative topics were defining in explaining most of the diversity in group discussions, whereas casual communication, which would conform to the "third place" hypothesis, was not playing any visible role in interaction. Our analysis shows that group discussions are directed to discuss and solve topical apartment management issues. One example of topical issue is a discussion of parking in apartment building surroundings, which is neither strictly regulated nor enforced in Russia.

We surveyed 11 houses of Vasileostrovsky District to identify main patterns of communication of neighbors in offline reality. This district was chosen because it had a big range of buildings with diverse characteristics (year built, number of storeys, size of house territory, number of alleged meeting places) which we could compare. In chosen buildings we interviewed residents to obtain information about their interactions and cooperation practices.

From interviews we observed that interaction between residents of apartment buildings are usually connected with a common problem. Most respondents said that they had cooperated with neighbors when a threat to any common place on the territory of the house had appeared. For instance, there were cases when neighbors collectively collected signatures or organized protest rallies to protect playground or square which were located near their house. Importantly, these social movements were supported by protest groups in "Vkontakte" where neighbors could discuss further actions and administrators coordinated activity of users. In spite of this, there was a little number of people (especially, mothers with children or pensioners) who used these places for communication. Thus, we can suppose that common places influence a formation of interdependency founded on a sense of ownership between apartment buildings respondents. And this interdependency can become a factor of neighbors' interaction.

This research has contributed to an understanding of factors influencing an interaction of apartment buildings residents in online and offline realities. We considered that meeting places on the territory of a house and groups in social network "Vkontakte" as possible areas where people can communicate to each other. Our analysis was directed to discover a nature of this communication. Using PCA we discovered that apartment buildings groups aren't "third places" for residents. Primarily, they have an instrumental function and used by people to solve problems. Thereby, features of communication in little private groups do not differ from discussion on big forums which were observed by Limei Li. Offline communication is connected mostly with a solution of different problems too. To sum up, we can say that relations between apartment buildings residents founded on material needs and directed to improve a building's conditions.

This paper has some limitations. We have data just from discussions of open groups. In our further work we plan to analyze topics discussed on the walls of groups. Also we are going to expand our data adding here posts from those closed groups which provide an access to their content. Apart from that, we want to make more detailed text analysis of topics using topic modelling.

References

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