## Do the online and the offline realms of social movements meet each other:

## the case of St.Petersburg observers

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With the rise of the internet use by social movements, their action repertoires have been widely discussed (Rolfe 2005, Garrett 2006, Chadwick 2007), sometimes arousing a bit of disappointment with "insufficient" use of all internet possibilities. Van Laer and Van Aelst (2009) suggest to discriminate between internet-based and internet-supported movements. While the former exist solely online and thus are "100% visible", the relation of the latter to the internet is more complex, and the correspondence of their hidden, offline part to the online-visible part is not always obvious. To what extent does online and offline members overlap? Are their online and offline activities similar in volume or content? Are online and offline leaders the same persons? Is online information able to predict or explain anything about offline, or visa versa?

This work in progress seeks to answer these questions to the extent to which it is possible to address them relying on a case-study approach. This approach is needed at this exploratory stage for getting in-depth data and formulating hypotheses for further more generalizable studies. Social movement here is understood as a group of people, albeit with unclear boundaries, whose voice is underrepresented and who are involved in continuous and contentious interactions with the elites.

The research focuses on the social movement of St.Petersburg observers that emerged during the mass protests against fraud at the national parliamentary elections in Russia held on December 4, 2011, and in the anticipation of the presidential elections that were to be held on March 4, 2012. In between the movement managed to mobilize around 3,500 volunteers that acted as observers and to collect vast data on the methods of electoral fraud. The main method was distortion at the stage of vote count by district election committees, not at the stage of vote collection. The movement did not manage to influence the election outcome, though. However, after the election it succeeded in introducing representatives into almost all district election committees out of 30 existing in St.Petersburg, and 1200 representatives into 1800 voting station election committees. It also refused to register officially in an attempt to minimize state control on it. By the time of data collection it had an "official" list of core members amounting to 85 people who agreed to pay membership fees and a much larger community with indefinite boundaries. Different members of the community also maintain a number of satellite projects: "Open space" (coworking space for social movements, including the observers themselves), "Beautiful Petersburg", "Public utilities control", "Watching municipals" [=municipal authorities], "Help for the arrested in Petersburg", and some others.

The online life of the movement began simultaneously with its off-line activity. In late December 2011 several individuals established 17 group pages in the leading Russian SNS VKontakte corresponding to 17 administrative districts of St.Petersburg. A few days later the all-city group "Observers for fair elections" was also launched. In general, VKontakte groups, if not protected by privacy settings, permit membership, posting, commenting, uploading photos, videos, and other files. All observers' groups are publicly available. The data from all these 18 groups were collected several times with the Lab's software VKMiner; this work uses the download from June 8, 2014. By that time all groups together contained 13,226 members, 2010 of whom belonged to more than one observers' group, plus 35,618 users who contributed to the groups by posting, commenting or liking without being their members (total: 48,844). Together, they generated 18,594 posts, 76,267 comments and 211,142 likes during the entire period of the groups' existence (December 2011 – June 2014). We also collected data on friendship links within each of 18 groups, and between all

13,226 members. Offline, eight in-depth interviews were taken with the movement leaders; the selection method is discussed further below. This research will also include two waves of survey of "offline" election observers carried out shortly before and right after St.Petersburg mayoral & municipal elections to be held on September 14, 2014. This paper, therefore, does not yet present any results on relationship between real observing and online activities.

To provide some descriptive statistics of the VKontakte dataset, age and gender distribution of this community does not differ from the overall VKontakte distribution. A striking fact is that only six accounts out of 48 thousand were deleted - this is an extremely low proportion and it indicates reliably that the groups have not been creating fake accounts to increase the number of their members. In other studies the number of fake accounts could reach one third. 94% of members and 63% of non-members claim to be from St.Petersburg (of those 83% who provide their location, and this share is also very high).

The very first steps of the analysis clearly indicated that what had first seemed a set of independent groups was the single movement, which later was confirmed through interviews. Around 15% of group members belonged to more than one group, the number of groups being distributed exponentially. Leadership in the number of groups correlated with offline leadership, to be defined further below (Eta = 0.5). Also, 8% of contributors contributed to more than one group; of posts published in district groups (excluding the all-city group) around one third were copied in multiple groups. However, while all district groups contained 52-72% of multi-group members, Pushkin district differed manifestly with only 10% of such members. The group was five times larger than average. In the overall network of friendship it also formed a distinct cluster, while all the others formed an unstructured core. Unlike all the rest who experienced a visible decrease in the number of messages right after the presidential elections, Pushkin was much more active than even the allcity group during the entire years 2012 and 2013. As was learned from the group content and from the interviews, the second life of the group was not connected to elections. Pushkin, in fact, is not an in-city district, but a satellite town of suburban type, isolated geographically and with its distinct identity of imperial summer residence (like Petrodvorets). Contrary to Petrodvorets, it has recently faced a number of ecological and town-planning problems, and the group was used as a resource for the local mobilization. It was renamed "Citizen Pushkin", and elections were not longer mentioned in its goals. This means that structural difference of the Pushkin group from the rest clearly indicated the difference of the off-line part of this sub-movement.

The groups visibly differed in size: from 37 to 498, with Pushkin having 2056 (mean = 381, St.dev. = 288). Initially we hypothesized that groups who "failed" to attract members might have "wrong", or at least different friendship structure. However, the results were somewhat disappointing. All groups contained 20-40% of isolates, while 80-90% of those having friends belonged to the single giant component with no clear structure (modularity 0.23 - 0.34); mean geodesic distance: 2.5-4. The proportion of isolates and the mean geodesic distance increased with the size of the group, while modularity declined, which is a universal trend in networks: the larger networks are always looser and less structured. Group size, however, is related to the total number of posts in the group: r=0.95, but on average 80% (36-100%) are generated on behalf of the group – that is, by its moderator(s) who can not be identified. Group size turned to be absolutely not related to the number of posts generated by other users. This means that successful recruitment depended on the activity of the leader(s). Interviews, too, pointed out the importance of leadership and its connection to the degree of autonomy of districts and their significance as sub-communities. Inactive districts produced isolated activists who joined the observers individually on the city level; these districts did not represent sub-communities. For instance, one of the interviewees discussed Kurortny district, which is actually a suburban area, a narrow strip of land with isolated villages and towns stretched out for 50 km along the Gulf of Finland. It produced no local identity, no leadership and no activity. Strong leadership, on the contrary, could not only mobilize local communities but also to some extent tear them from the main body of the movement, as in Pushkin. Another, somewhat "negative" case of a downtown district was also mentioned where the leader expressed wish to establish a political party and declared formal estrangement from the manifestly non-partizan movement. However, leaders who chose integration produced active district groups within the movement and often administrated satellite projects.

With such importance of leadership we sought to operationalize the concept and to study it in-depth. First, two researchers formed a list of candidate leaders from informal examination of the online data. Then the movement leader was pointed at by independent offline sources. This leader also identified a list of leaders, according to what seemed subjectively right, after which she was asked to name formal district coordinators. Two "intuitive" lists – by researchers and by the offline leader - were highly correlated (Spearman and Kendall coeff. = 0.8, p<0.01, obtained from the list of all group members divided dichotomously into leaders and non-leaders). This means that online data may in principle predict leadership. Both intuitive lists correlated to the formal leaders list with r=0.5, p<0.01. This perhaps indicates difference between formal and informal leadership. We then sought to determine which online properties best predicted the informal leadership. It turned out that all types of online activity and feedback were correlated with all types of leadership with Eta of not less than 0.3. Formal leaders were predicted less successfully than informal, and the lowest values of Eta refer to them. The best predictors were the number of generated comments and the number of generated likes (Eta ranging from 0.77 to 0.95 for different types of leadership). With most posts authorship hidden under the names of groups, it is not surprising that they were less predictive. Feedback – received comments or likes – was related to leadership with Eta ranging from 0.28 to 0.56. It therefore may mean that offline leaders act first of all as content generators, and to a less extent they are feedback generators, thus not quite coinciding with online leaders if the latter are understood as the most "popular" users. The number of groups to which the user belonged predicted leadership with Eta = [0,44-0,6], centrality in the overall network of friendship Eta = [0,661-0,758]. Different types of stepwise logistic regression applied to this dataset suggested that four predictors - generated likes, received comments, degree and the number of groups - produced the best models and indicated moderate strong relationship with the dependent variable (Nagelklerke's  $R^2 \approx 0.57$ ).

It thus may be concluded that online footprints of social movements may be very informative, although these data should not be used straightforwardly. Thus, network data seem to be less useful than activity data. A more detailed examination of this issues is a subject for further study.

## References

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