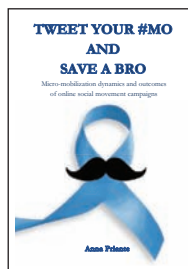


*Pas gepromoveerden brengen hun werk onder de aandacht. Heeft u tips voor deze rubriek of bent u zelf pas gepromoveerd? Laat het weten aan onze redacteur.*

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### **Tweet Your #MO and Save a BRO – Micro-Mobilization Dynamics and Outcomes of Online Social Movement Campaigns**

Anna Priante

In March 2019 Anna Priante from the University of Twente successfully defended her PhD thesis with title *Tweet Your #MO and Save a BRO – Micro-Mobilization Dynamics and Outcomes of Online Social Movement Campaigns*. Anna carried out her research under the supervision of prof.dr. A. Need, dr.ir. D. Hiemstra, dr. M.L. Ehrenhard from the University of Twente and dr.ir. T.A. van den Broek from the Free University of Amsterdam.

#### **Online social movement campaigns**

Anna's dissertation starts from a social problem (cancer) that calls for social change and analyzes what actions people and organizations take (social movements, campaigns) to solve the problem and how technologies (social media) can be used as a possible way to find solutions to the problem.

Phrased in slightly more technical terms, Anna investigated whether micro-mobilization dynamics do explain the effectiveness of online social movement campaigns in achieving social change. Social movement organizations widely use social media to organize collective action for social change such as health awareness campaigns. Social change can be achieved by promoting online conversations of impact and by inspiring people to move from their armchair to the street. In order to understand how the transition from online action to meaningful (offline) action occurs Anna investigated various issues one of which is how individuals interact and communicate with each other before, during and after the campaign.

When people use social media during campaigns they create relations with others via communication processes, which produce communication networks. Such communication networks represent the flow of information during the time period before a campaign has started, during the campaign and afterwards. Social change is then related to a significant amount of individuals interacting, and probably to a high flow of information in the network during some time period.

Such communication networks can be mathematically represented using graphs, nodes represent individuals and edges between two nodes correspond to the exchange of information between individuals. For example, when people use Twitter in campaigns to promote health or in protests to achieve political change, they create relations with others by sending messages called tweets. But what kind of structures are observed in communication networks related to online movement campaigns? Generally the number of nodes is very large, which is due to the fact that online communication has grown immensely during the last decades. Owing to their large size,

online networks are generally very sparse and fragmented because of high levels of local clustering, where people engage in communication processes in and between small groups.

When mobilization is the result of a planned effort, as in the case with campaigns organized by social movement organizations, these networks tend to be highly centralized and have a ‘star-shape’, where the campaign organizer usually occupies the center of the network. In other cases, high centralization is due to the presence of a small group of highly connected and committed (individual or organizational) actors.

During her research Anna realized that communication networks related to online campaigns have one more additional and essential feature, they evolve over time, both structurally and socially. She studied the 2014 US Movember health campaign on Twitter organized by the Movember Foundation, a social movement organization that raises awareness of prostate and testicular cancer. In her dissertation Anna adopted a multidisciplinary, mixed-method approach combining theories and methods from sociology, social psychology, communication science, and computational social science.

In order to study the evolution of the Movember communication network the chronological data was decomposed into four subsequent periods:

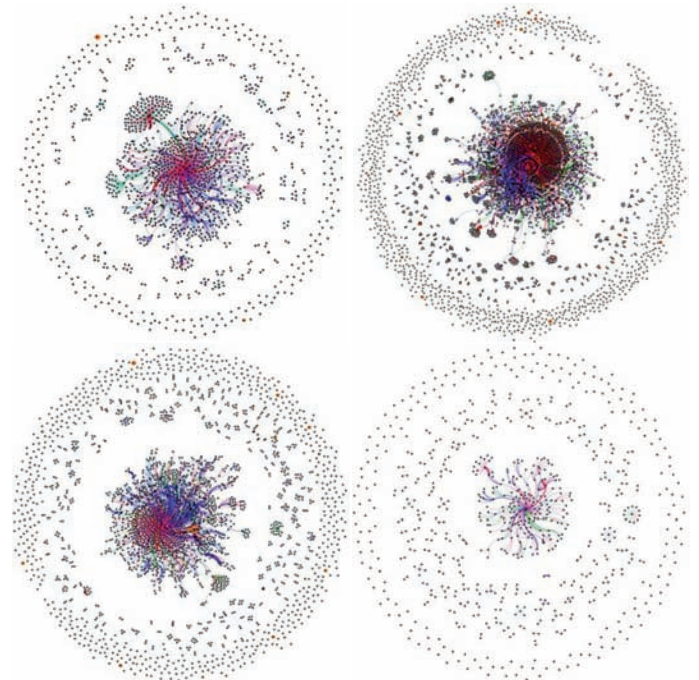
- T1: the pre-campaign, or launching, phase from 15 to 31 October;
- T2: the campaign's first two weeks, from 1 to 15 November;
- T3: the campaign's second two weeks, from 16 to 30 November;
- T4: and the post-campaign phase, from 1 to 15 December.

In Figure 1 a representation of the communication network during these four periods is presented. The campaign's communication network has a characteristic three-layer structure comprising:

1. a network core surrounded by;
2. a constellation of smaller groups; and
3. a periphery of isolated nodes.

Inside this structure, movement members mostly converse with each other instead of remaining isolated. Although the three-layer structure is maintained over time, it turns out that its robustness fades. As the campaign unfolds, the communication network goes through a latency phase during which people decrease their active participation and move to the periphery of the communication or even leave the campaign network.

Analyzing the Twitter data set it appeared that the network was at its largest during the first two campaign weeks (T2), after which the number of nodes decreased by half (T3). Not surprisingly, the post-campaign phase (T4) is the smallest one and shows a decrease of participation after the formal end of the campaign (30 November). The Movember communication network was invariably very sparse over time: Network density was constantly very low, as is typical of large, online networks. Another observation is that a small group of central users is present with a much higher degree than all the other nodes. Among them, the official Twitter account of the Movember Foundation has the highest (in)degree value over time, as it is the most frequent target of movement members' mentions, replies, and retweets. This pattern not only shows the typical power-law distribution of large networks but also suggests the presence of a centralized network structure that is maintained over time.



**Figure 1** Black disks are nodes, whereas edges are colored according to the type of communication strategy: red for mentions, blue for retweets, and green for replies. Self-loops derived from regular tweets are identified by a thin, orange line around the node. The network visualizations were realized using Fruchterman Reingold, Force Atlas 2, and Yifan Hu Proportional algorithms in Gephi. Taken from Anna's dissertation.

### The more personal aspect

Behind all dissertations there always is a person, with flesh and bones, who has endured the long path of a PhD trajectory and has produced the work at hand.

*Anna, how did you experience this path of doing a PhD?* “I had a project-based PhD and only three years to finish it which made it challenging to pursue parallel projects during my PhD. I was mostly, full time into my research. Nonetheless, I was able to do some guest lectures at the University of Twente and in my alma matter university. It was nice to be back to the place where my university education began. I was also part of the board and one of the founders of the PhD Initiative Group (now BMS PhDs for PhD), a voluntary supportive and networking group for PhD students of the Faculty of Behavioral, Management and Social Sciences, University of Twente. One of our core goals was to facilitate multidisciplinary research and this was an important aspect for me as it helped to forge my research vision based on multidisciplinary collaborations.”

*And any stories from conferences you would like to share?* “I really liked the meeting at the Movember Foundation in Silver City, Los Angeles. I could present my work to them twice during my PhD: they were very nice to me, always showing enthusiasm on my research, and I had good advice from them too!”

*Did you enjoy it working in the Netherlands?* “Coming from abroad, I have always felt welcomed by the people of both departments I have been working in. I am very grateful for having a unique, diverse and incredible supervision team, from which I learned a lot both personally and academically, while also having some fun together outside the office walls. I am very glad I completed the goal of my PhD and I am very grateful I was surrounded by many great people.”