Online Social Movements Dynamics in Ideological Spaces

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Extended Abstract

November 2018 marked the start of weekly manifestations in France by the Yellow Vest movement, that would last for over a year. The Yellow Vest have been shown to be very active on Facebook, using the platform for both political discussion and organization of protests [1]. Their motto was "neither right- nor left-wing", while they resisted association with political parties, raising the question for the characterization of their political stance. This setting motivates our study of a methodology for positioning online social movements on *ideological* geometrical spaces, where dimensions act indicators of multiple attitudes towards different issues of the political debate, including left-right cleavages. Our methodology (described in 4 steps, A to D on Figure 1) uses the structure of the French Twitter network to infer latent ideological dimensions that span an ideological space on which to embed user accounts. Using the external URLs (of articles, videos, etc.) cited by Twitter users, we are able to project ideological values onto entities in other platforms, including Facebook groups.
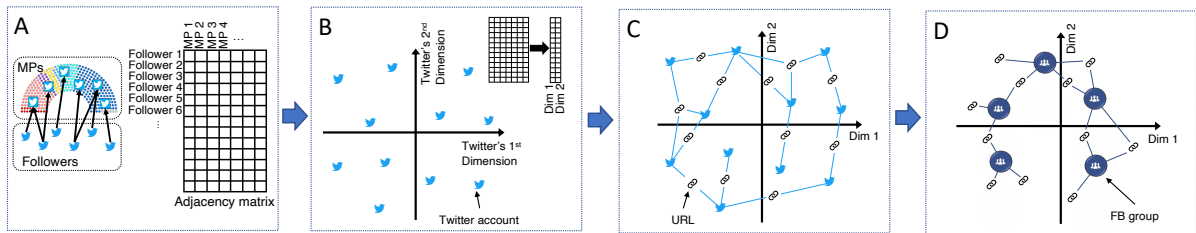

Figure 1: Illustration of the methodology in four steps (A to D) for attributing ideological positions to Facebook groups in a latent ideological space inferred using Twitter data: A) collection of the Twitter followers of parliamentarians, B) embedding of the network in latent ideological space, C) embedding of cited URLs, D) projection of ideological positions onto Facebook groups.

(Step A) We start by identifying the Twitter account of French members of parliament (MPs) and collecting their followers to obtain a network of 5.5M users connected to the online French political debate. (Step B) Using known methods for the inference of latent ideological positions from network structures [2], we embed users in a bi-dimensional latent space. When then follow [3] and proceed to use the position of political users (MPs) as markers. We

compare these positions and with attitudinal positions of the same marker users as given by in polls and surveys attributing stances on more than 40 issues, including stances on left-right values and economics, immigration, multiculturalism, European integration, and attitudes towards élites, among others. This comparison allows us to identify the two latent dimensions of the Twitter network with issues of the political debate. The first dimension (dimension 1 in figures) is associated with left-right cleavages, while the second dimension (dimension 2) is associated with attitudes towards the internationalization of the economy (European integration, trade protectionism, and attitudes towards élites). We call this second dimension the *local-global* dimension. (Step C) Using 22M tweets produced by users positioned in the bi-dimensional spaces we are to project ideological values onto 1.3M unique URLs shared in these tweets. (Step D) Next, we assembled a dataset of public Facebook groups associated with the Yellow Vest movement. For this, we queried public posts including the phrase "Yellow Vest" in any of its variants, listed the groups using it by number of members, and proceeded to inspect them manually selecting only those that self-identify as partisan groups. This resulted in the identification of the 892 most numerous Yellow Vest Facebook groups. The largest group in our dataset counts 340K members, while the smallest one only has a few members. Finally, using the ideological positioning of 1.3M unique URLs shared on our Twitter dataset, we are to project ideological values onto the Yellow Vest groups through their usage of these URLs in more that 10M Facebook posts. The result of this methodology is a position for each Facebook group on the latent ideological space inferred from Twitter, with dimensions identified as *left-right* and *local-global*. Timestamp data of Facebook publications allows us to trace the trajectory of each group at different moments in time throughout the year of mobilization. Analyzing the ideological trajectory of the identified 892 Facebook groups during the first months of mobilization (in four time-windows: t_0, t_1, t_2, and t_3 on Figure 2) we are able to show that –online– the mouvement kept an anti-élite and anti-EU stance, but moved consistently from right- to left-wing stances during this period.
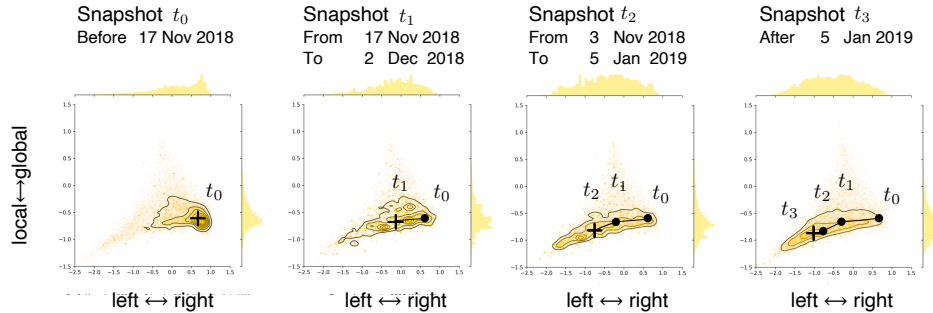

Figure 2: Snapshots of the distribution of Yellow Vest Facebook groups in the ideological space at four time-windows (t_0, t_1, t_2, and t_3) showing the trajectory of the movement from right- to left-leaning stances.

References

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