Identification of subculture groups and its reflection on topic propagation in the Blogosphere

One of the main principles of social networks is the concept of homophily, defined as the tendency to form and sustain contacts with similar actors. Studies have shown that homophily can be based on race and ethnicity, on informal or ascribed status (e.g., gender, age, religion, education, occupation), or on shared values and beliefs. In this talk, we will investigate the Persian language blogosphere social network to show that the elements that govern homophily vary based on the ethnic and ideological subcultures.

The Persian-language political blogosphere is polarized between conservatives/fundamentalists and progressives/reformists, suggesting that the online social groups are formed based on political beliefs. Closer scrutiny, however, reveals that within the conservative/fundamentalist cluster, gender homophily takes on a more important role. In this online network, women bloggers tend to form a separate cluster, isolated from the male-dominated conservative cluster, despite the fact that their beliefs and issues often coincide. While a study of language use shows that conservative women and men bloggers make use of similar vocabulary, themes, and rhetorical figures, they do not overtly link to each other in the online network. One main difference in topic between women and men bloggers in this group is the importance of issues relating to women's rights within Islam among female bloggers – with a focus on explaining the religious aspects, criticizing the Western view of women's rights and feminism, and defending Islamic society.

On the other hand, homophily in the progressive/reformist network is formed solely around the values and belief systems of the bloggers. The pro-democracy reformists are central to this network, who are then closely linked to a cluster of secular bloggers (often expats living in Europe and the United States). In this social network, there are no signs of gender homophily; men and women tend to link to each other freely.

Although ethnic groups such as the Baluchi network share an oppositional political ideology with the reformists, the linguistic differences and the distinct societal and cultural issues of interest hinder closer connections with the progressive/reformist network. In fact, the latter is only loosely connected to the Baluchi network through a handful of bilingual bloggers.

Our investigation of language use and link structures in the Persian blogosphere shows that homophily in this network can develop along gender and ethnic lines. But more importantly, it was noted that although value homophily is crucial in the formation of the progressive/reformist social group, gender homophily governs the formation of the conservative/fundamentalist subculture. These results suggest that the connections in the online network groups in the Persian blogosphere directly reflect the ideological separations that exist in the physical society along gender and ethnic lines, which will in turn affect the propagation of information and topics in the network.