Abstract Submitted for the MAR09 Meeting of The American Physical Society

Patterns of behavior in an online community<sup>1</sup> LAZAROS GALLOS, Levich Institute, City College of New York, NY, DIEGO RYBSKI, FREDRIK LIL-JEROS, SHLOMO HAVLIN, HERNAN MAKSE — Human behavior can be seen as the expression of inherent motives. Despite the diverse range of these motives, social theorists have long identified a small number of distinct underlying mechanisms, where, consciously or unconsciously, every individual tries to exploit a different aspect of social interactions and/or optimize the efficiency of certain procedures for the benefit of the society or for personal gain. Here we show that users in an online community follow certain behavioral patterns and the choice of their favorite members is far from a random process. More importantly, these patterns are systematically modified with time as a member becomes more involved in such a community. We are able to identify a crossover in the average behavior of the members when their favorites list exceeds roughly 10 favorites. Additionally, this process allows us to identify individuals with a markedly different behavior than the average person. This study can help us understand the process of establishing friendships and the motives behind this process.

<sup>1</sup>NSF-HSD

Hernan Makse

Date submitted: 21 Nov 2008

Electronic form version 1.4