**Strategy for collective change in opinion models**

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In this work we examine the relative efficiency of two learning strategies applied to a multidimensional opinion space system, which is composed of $N$ interacting optimally learning perceptrons, disposed in a Barabasi-Albert graph[1]. We investigate the underlying dynamics for the magnetizations and opinion distributions sampled from a Monte Carlo simulation. We then compare the relative efficiency of the strategies making use of a second-order phase transition found on the model learning parameters $\rho$ and $\beta$, allowing us to analyze a phase diagram for the opinion change. It was found that under two different conditions the system behave in very distinct ways. In the first case, the agents discuss a fixed subject within its neighborhood, while in the second case the agents discuss about the average opinion, making the discusse subject to drift. It was found that in both cases the strategy of selecting examples perpendicular to the student have some advantage in changing the symmetry breaking direction of the system, with lower examples needed for the transition to occur. We also found that agents with a novelty seeker learning style (low $\rho$) have a more susceptible opinion vectors in the fixed subject case, while agents with a more conservative learning style ($\rho \approx 1$) change its opinion faster in the drifting subject case, due mostly to system cohesion.

[1] R. Albert; A-L. Barabsi. Reviews of Modern Physics "Statistical mechanics of complex networks" **E74**, 479 (2002)