UNIVERSITÀ DEGLI STUDI DI TORINO

MultiAgent Systems Course A.A. 2017/2018 Prof. Marco Maggiora

# Influence in social network

Master's Students in Physics of Complex System

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# 2 The Model

The initial world's configuration is given by the instantiation of $N$ Users. The Users live in a world with $C$ companies and are provided with a set of opinions, one for each company. The specific opinion is a positive integer which ranges from 0 to $R-1$, let $R$ denote the opinion range. Each User is denoted by an inclination $I \in \{-1, 0, 1\}$ which represents its average opinion along the companies. The $-1, 0$, and 1 values denote respectively a "bad", "neutral" and "good" average opinion.

The simulation is made up by a series of $D$ temporal steps which we call days. On the first day the Users' opinions are randomly intialized. On each day the Users influence each other by one-to-one interactions in which opinions can be exchanged. Each User has a degree $k$ which is the number of Users with which he can interact during the day.

## 2.1 The User Class

# 3 Graphs and results

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