

Opinion exchange dynamics

Elchanan Mossel

Massachusetts Institute of Technology
e-mail: elmos@mit.edu

and

Omer Tamuz

California Institute of Technology
e-mail: tamuz@caltech.edu

Received January 2014.

Contents

1	Introduction	156
1.1	Modeling opinion exchange	156
1.1.1	Modeling approaches	157
1.2	Mathematical connections	158
1.3	Related literature	158
1.4	Framework	158
1.5	General definitions	159
1.5.1	Agents, state of the world and private signals	159
1.5.2	The social network	159
1.5.3	Time periods and actions	159
1.5.4	Extensions, generalizations, variations and special cases	160
1.6	Questions	160
1.7	Acknowledgments	161
2	Heuristic models	161
2.1	The DeGroot model	161
2.1.1	Definition	161
2.1.2	Questions and answers	162
2.1.3	Results	162
2.1.4	Degroot with cheaters and bribes	164
2.1.5	The case of infinite graphs	164
2.2	The voter model	165
2.2.1	Definition	165
2.2.2	Questions and answers	165
2.2.3	Results	166
2.2.4	A variant of the voter model	167
2.3	Deterministic iterated dynamics	168
2.3.1	Definition	168