

An Inspection Model of Learning in Networks

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Abstract

We propose a tractable model of social learning on directed networks. Before adopting a new innovation (e.g. an electric cars), an agent sees the adoption decisions of her neighbors, and then chooses whether to inspect the innovation to assess its quality. We characterize the learning dynamics of the unique equilibrium via a system of ODEs, and investigate how learning depends on the network structure. In tree networks, all direct and indirect links contribute to an agent's learning; moreover, one direct link is more valuable than an infinite chain of indirect links. But not all links are beneficial: An agent's learning decreases when her neighbors also learn from her, and when her neighbors are linked to each other.