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Modeling search-dominated Web growth SANTO FORTUNATO, ALESSANDRO FLAMMINI, FILIPPO MENCZER, ALESSANDRO VESPIGNANI, School of Informatics, Indiana University — Our present understanding of the Web growth, beyond the large number of existing models, is very much based on the paradigm of preferential attachment, that reflects a surf-dominated Web. In fact nowadays most of the traffic on the Web goes through and is driven by search engines. This profoundly affects the dynamics behind Web growth, potentially leading to a monopolistic scenario where few nodes attract a large share of traffic and links. We propose a minimalistic model to describe the evolution of the Web based on the interaction between users and search engines. The model reproduces several characterizing properties of the topology and traffic on the Web, and explains apparently counterintuitive empirical evidences. S. Fortunato, A. Flammini, F. Menczer and A. Vespignani, School of Informatics, Indiana University "The egalitarian effect of search engines", http://arxiv.org/abs/cs.CY/0511005

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