

Abstract

Viral marketing is a marketing strategy that focuses on spreading information and opinions about a product or service from person to person, especially by using unconventional means such as the Internet or Social Network.

This marketing strategy evolved around 1990's. The assumption is that if such an advertisement reaches a "susceptible" user, that user becomes "infected" and shares the idea with others "infecting them", in the viral analogy's terms. As long as each infected user shares the idea with more than one susceptible user on average, the number of infected users grows according to an exponential curve. As this then began to influence marketing gurus, it took on a life of its own in that new context.

This project revolves around such an algorithm (K-MAX Influence) which focuses on how much users can be influenced if K seeds are given.

This report first introduces the viral marketing and its problem and existing solutions, then briefly discusses the related work. Thereafter our proposed algorithm is discussed thoroughly, in which we introduced influencing probabilities, which comply with predicted outcome value theorem (a human behavioral science theory). Which is followed by a discussion of Map-Reduce version of proposed algorithm, which is more scalable, and more akin to actual results.