## # Influence Maximization resources

Included in this folder are some select papers that were helpful in learning about this topic.

Surveys

* [Banerjee, S., Jenamani, M. & Pratihar, D.K. A survey on influence maximization in a social network. Knowl Inf Syst 62, 3417–3455 (2020).](https://arxiv.org/pdf/1808.05502.pdf) <https://doi.org/10.1007/s10115-020-01461-4>
* [LI, Yuchen; FAN, Ju; WANG, Yanhao; and TAN, Kian-Lee. Influence maximization on social graphs: A survey. (2018). IEEE Transactions on Knowledge and Data Engineering. 30, (10), 1852-1872. Research Collection School Of Information Systems.](https://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=4983&context=sis_research)

Great overview of broader field

[Aral, S., Dhillon, P.S. Social influence maximization under empirical influence models. *Nat Hum Behav* 2, 375–382 (2018). https://doi.org/10.1038/s41562-018-0346-z](https://doi.org/10.1038/s41562-018-0346-z)

**IMInfector** algorithm

[Panagopoulos, George & Vazirgiannis, Michalis & Malliaros, Fragkiskos. (2020). Multi-task Learning for Influence Estimation and Maximization.](https://arxiv.org/abs/1904.08804)

One pager on the **IMInfector** algorithm

[Panagopoulos, George & Vazirgiannis, Michalis & Malliaros, Fragkiskos. (2019). Influence Maximization via Representation Learning](https://www.researchgate.net/publication/332522558_Influence_Maximization_via_Representation_Learning)

**Infector** algorithm

[Panagopoulos, George & Vazirgiannis, Michalis & Malliaros, Fragkiskos. (2020). Inﬂuence Maximization Using Inﬂuence and Susceptibility Embeddings.](https://ojs.aaai.org/index.php/ICWSM/article/view/7319)

Overview of cascades

[Alrajebah, Nora & Tiropanis, Thanassis & Carr, Leslie. (2017). Cascades on Online Social Networks: A Chronological Account. 393-411. 10.1007/978-3-319-70284-1\_31.](https://www.researchgate.net/publication/320759941_Cascades_on_Online_Social_Networks_A_Chronological_Account)

### ## Additional links

CS224W Lecture on this topic

[Lecture 14: Influence Maximization in Networks](https://www.youtube.com/watch?v=hstYPmdW8PU) ([Notes](https://www.youtube.com/watch?v=hstYPmdW8PU))

Greedy algorithm code walk-through

[Influence Maximization in Python - Greedy vs CELF](https://hautahi.com/im_greedycelf) ([Github](https://github.com/hautahi/IM_GreedyCELF))

[Influence Maximization presentation from Microsoft](https://www.microsoft.com/en-us/research/wp-content/uploads/2016/07/kdd12-tutorial-inf-part-iii.pdf) that details different algorithms, computational complexity, and community clustering algorithms.

Graph Theory 101

* [Introduction to Graph Theory | Baeldung on Computer Science](https://www.baeldung.com/cs/graph-theory-intro)
* [Time and Space Complexity of Adjacency Matrix and List | Baeldung on Computer Science](https://www.baeldung.com/cs/adjacency-matrix-list-complexity)