What is it? – Academic Influence Analyzer

This web application is a tool to measure author influence.

Definition: Influence

This tool's definition of influence is as follows: given an Author, how many times does his/her citing papers make repeated citations to him/her. This relation is visualized in **Figure 1.**

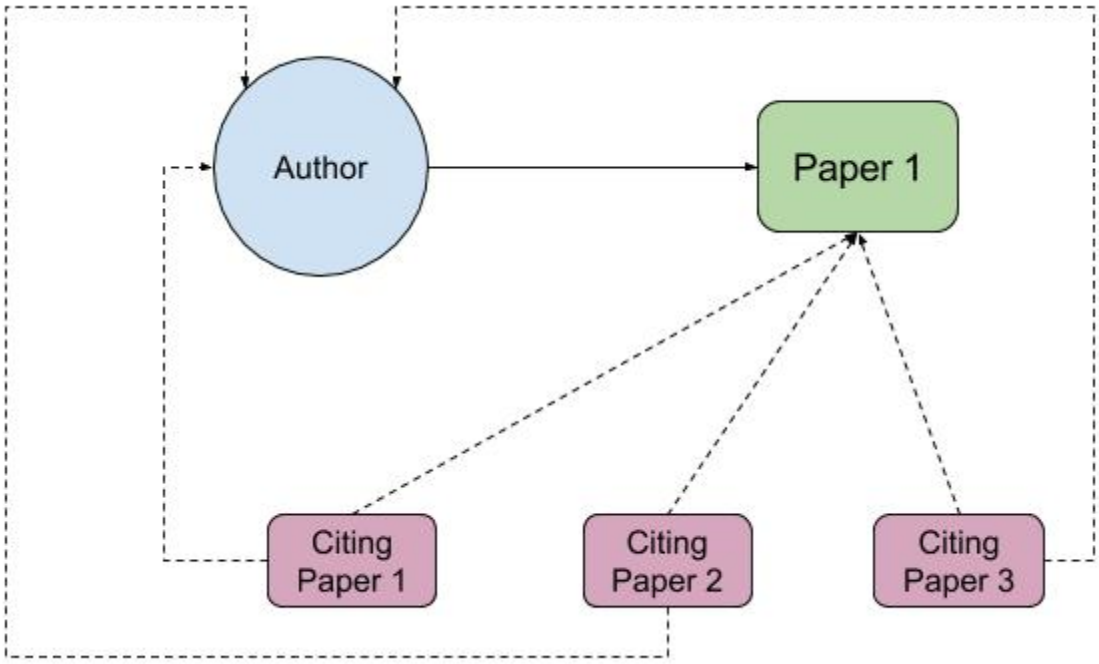

Figure 1: Diagram depicting influence relation. Measure how many time each of citing papers 1, 2, and 3 cite Author.

Lower and Upper Influence.

We define lower influence as an author's influence among his/her least cited citing papers. We define upper influence as the influence among an author's most cited citing papers.

In other words, the lower influence of an Author X measures how many times each citing paper of X cites X, for the citing papers of X that are least cited by other papers, and the upper influence would be the opposite.

The below section outlines the file outputs of the program which.

File Purposes

Data analysis is based on two parameters of Author X: N papers and M citing papers for each paper. The N papers are the N top cited papers of Author X. Then from these N papers, upper and lower influence is generated. Upper influence data is taken from the M most cited citing papers from each of the N papers. Lower influence data is taken from the M least cited citing papers from each of the N papers. Then 3 types of files are generated.

For each type of file below, there is an "upper" and a "lower" version for upper and lower influence respectively.

1. **Influence_authorx.csv**

   The influence CSVs give data in a spreadsheet. It sums the number of times each citing paper of Author X cites Author X in total for the given data.

2. **Bar_authorx.png**

   The bar graphs show the top 25 citing papers (or all of them if there is less than 25) ordered by the number of citations they make to Author X.

3. **Hist_authorx.png**

   The histograms show the frequencies of all papers with greater than ten citations to Author X.