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Social Networking for Scientists: ResearchGate Metrics of Scientists from Various Branches of Science - a Comparative Analysis

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Abstract

Social networks become still more and more popular, not only among young people looking for entertainment but also among specialists, exporters, researchers that want to establish professional networks, develop business or research projects. ResearchGate (RG) is one of the most popular social network platforms for scientists used to share research, build scientific portfolio or compare achievements with wide group of scientists all over the world. It provides also many interesting metrics that can be sources of valuable information about the scientists, research units or entire universities.

The aim on the article is to show how to collect the data from the social networks using the free statistical software R and to find out the main differences between metrics owned by scientists of different fields of study, both formal, natural and social sciences.

In the article the author presents how to use rvest package to collect the data from university web page and how to use R scripts to download the metrics form RG portal. The author analyses data of 1593 researchers (from 11 faculties) employed at one of the largest universities in Eastern Poland. The paper contains the analysis of the main RG metrics: RG Score, Total Research Interest, Number of publications, citations and shows the significant differences between the researchers from various fields of science.

The performed analysis indicates that more and more researchers use SNS to present and exchange their achievements. Researchers employed at the faculties of formal and natural sciences more often use RG portal, they poses also the higher values of both RG Score, Total Research Interest and citations, than social science researchers. The analysis confirmed also that rvest package allows for fast data acquisition from social network sites and that indicators provided by ResearchGate can be used by university managers in order to compare achievements and progress of single researchers, but also departments and faculties.

Keywords: ResearchGate, rvest package, RG Score, Total Research Interest, comparative analysis, social network, R package