

# Chapter 14

## Research Patterns on the Social Networks and Media: A Scientometric Portrait

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### ABSTRACT

*The study analyses 11,941 total records on social networks and media retrieved from Web of Science database during the period of study. The predominantly records 2,576 (21.57%) of the publications brought out in 2018, followed by 2,281 (19.10%) records published in 2017. A majority of the publications, 2,207 (18.48%), were published from communication area, on account of the specific nature of the research concentrating on Social networks. Computer communications information systems area scores second with 1,172 (9.81%) of the publications. The study found that more than 10 publications contributed by an individual area out of 11,941 records during period. Liu Y has contributed 37 (0.31%) of the publications as top ranked author in the research.*

### INTRODUCTION

A social network is a social structure made up of a set of social actors (such as individuals or organizations), sets of dyadic ties, and other social interactions between actors. The social network perspective provides a set of methods for analyzing the structure of whole social entities as well as a variety of theories explaining the patterns observed in these structures. The study of these structures uses social network analysis to identify local and global patterns, locate influential entities, and examine network dynamics. Social networks and the analysis of them is an inherently interdisciplinary academic field which emerged from social psychology, sociology, statistics, and graph theory. Georg Simmel authored early structural theories in sociology emphasizing the dynamics of triads and “web of group affiliations”. Jacob Moreno is credited with developing the first sociograms in the 1930s to study interpersonal relationships. These approaches were mathematically formalized in the 1950s and theories and methods of social networks became pervasive in the social and behavioural sciences by the 1980s (Fernández-Manzanal et al., 2007).

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## **SCIENTOMETRICS STUDY**

Pritchard (1969) coined the term 'bibliometrics' and defined it as "The application of mathematical and statistical methods to books and other media of communication". Fairthorne defined bibliometric as: "The quantitative treatment of the properties of recorded discourse and behaviour pertaining to it". Sengupta (1992) viewed scientometric as "organisation, classification and quantitative evaluation of publication patterns of all macro and micro communications along with their authorship by mathematical and statistical calculus." Broadus viewed scientometric as "Scientometric is the quantitative study of physical published units or of bibliographic units or of surrogates of either."

## **REVIEW OF LITERATURE**

The study profiles research in the field on a series of measures, such as publications growth rate, global share, citation impact, share of international collaborative papers and distribution of publications by sub-areas. The study also profiles top contributing countries, organisations and authors in machine translation research on a series of bibliometric indicators. The study further reports characteristics of highly cited papers in the field (Gupta and Dhawan, 2019). Dong and Chen (2015) analysed publications during 2000-2015, using Web of Science database. The authors reported the current status of research in machine translation in the field in terms of publications trends, geographic distributions, core literature, and the distinctive research areas of machine translation research: theoretical translation studies, translation and interpreting training and descriptive translation studies. Gile (2015) investigated the origins of bibliometric investigations in translation studies (TS), its history and recent developments, inter alia in China. Zanettin, et al (2015). Studied the subfields within translation studies were defined and how research interests and foci have gradually shifted over time. The data for the study was sourced Translation Studies Abstracts (TSA) online database. Baskaran (2013) analyzed Relative growth rate (RGR) was found to be fluctuating trend during the study period. The doubling time (DT) was found to be increased and decreased trend in this study. Degree of collaboration and its' mean value is found to be 0.963. The top three institutions with Alagappa University are Central Electro Chemical Research Institute, National Cheng King University, and Anna University. Baskaran and Rameshbabu (2019) discussed the growth of the publications, RGR and DT of the research output, Collaboration of authors, Collaborative co-efficient etc. in the study. The result of the study found that publications growth rate between 11 (0.26%) in 1989 and 447 (10.76%) in 201. The largest output in was found 447 publications in 2013. It is found the DC between 0.64 and 0.94 and overall DC measured to be 23.08 throughout study period. The study could be found DC was an increased and a decreased trend appeared in the whole study period. Saravanan and Baskaran (2018) explained on map the number of publications, growth rate and doubling time, scattering of publication over journals, and its impact on publication output, authorship patterns and Global citation score of bioremediation research publication in India using the HistCite, VOSviewer software. Indian Institute of technology, Baba atomic research Centre and CSIR are the major producers of research output in the area of bioremediation. Baskaran (2018) analyzed majority of publications 44.15% representing by the two authors in the analysis BM. Guptha was published 18 papers in DJLIT, who is a ranked 1 author. It followed by Chenupathi K. Ramiah shored second his publications 11. University of Delhi was top ranked institution. It is followed by NISTADS (24), DRDO (22), Pondicherry University (13), Banaras Hindu University (11), and Indian Institute of technology (11) and University of Kashmir (10).

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