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Guest Editorial

Bibliometrics, or scientometrics as it is becoming known today, has moved rapidly from being a descriptive subject into a statistical methodology. As the availability of scholarly documents has also moved from the confines of a library into cyberspace, and documents are being counted in the millions and pages in the billions on the ever-growing world wide web, techniques for searching, and evaluating the value and quality of documents are also becoming based on very advanced mathematical and visualisation techniques. Similarly, assessment of the scientific merit of a paper, or the contributions of an individual, to that of higher levels agglomerations like journals, fields and disciplines, and countries and economic regions are being performed with near religious fervour using various scientometric techniques.

This special issue of the *DESIDOC Journal of Library and Information Technology (DJLIT)* on 'Scientometrics' comprises seven papers contributed by leading investigators and scholars from India and abroad. It may be noted that in the year 2007, a special issue was brought out by *DJLIT* on 'Measurement of Indian science'. A similar theme is chosen and the seven papers complement the earlier coverage and also deal with more contemporary issues.

Grant Lewison's 'The definition of cancer research: journals, titles, abstracts or keywords?' is an interesting study which shows how the failure to design appropriate 'filters' to identify papers on cancer research can lead to differing indicators of the performance of countries (numbers of papers and citations) and so could give conflicting messages for science policy.

Ronald Rousseau's 'Lorenz curves determine partial orders for comparing network structures' characterises inequality in network properties using the traditional Lorenz curve and some of its generalisations and associating a Gini-type index to each of these curves. The claim is made that the Lorenz curve and the Gini index are universal tools for studying inequality, including the inequality in network properties.

Nanotechnology has created a great deal of excitement as a key emerging technology. Sujit Bhattacharya, Madhulika Bhati and Shilpa Chaudhary examine the status of research and innovation in this area in India using bibliometric and other innovation indicators in their paper 'Nanotechnology research and innovation in India: Contemporary status'.

BM Gupta and Adarsh Bala contribute an exhaustive study of India's performance in S&T on several quantitative measures, showing the rising curve of India's global publication share, its rank and growth rate, its publication share in various subjects in terms of national and global and also maps the geographical distribution of its research output and identifies its high productivity institutions and characteristics of its high-cited papers in 'Indian S&T during last fifteen years (1996-2010): A quantitative assessment using publications data'.

There is no end to the methods appearing in the literature to normalise the impact factor of journals and most have their limitations. KC Garg, Suresh Kumar, and Bharvi Dutt suggest a simple alternative method to normalise the impact factor of journals based on average impact of journals in their contribution 'A simple technique to normalise impact factor of journals'.

A plethora of indicators now exist to evaluate performance of various actors in the research and academic sector. Forty engineering and technological institutes in India were ranked by Anurag Saxena, BM Gupta and Monika Jauhari in their contribution 'Research performance of top engineering and technological institutes of India: A comparison of indices' using some key indices and a clustering analysis which grouped the 40 institutes into clusters according to their relative performances.

Gangan Prathap in 'Qualifying scholarly impact using an iCX (impact-Citations-Exergy) analysis' proposes that the curious structure of the performance index (*p*-index) which led to an energy-like term X, allows an energy assessment technique (iCX audit for iCX) to be used as a quick and simple tool for visualising the quality and productivity (size or quantity) of a scientist's oeuvre.

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