

Journal Comment

'All men by nature desire knowledge'
Aristotle

'Have something to say, and say it as clearly as you can. That is the only secret.'
Matthew Arnold

This month's issue of the *Journal* carries papers on a wide range of topics in the areas of mining, metallurgy, and mathematics. This gives rise to the question of what constitutes a good paper. Essentially, the subject matter should be of interest or importance to at least some readers; the content should be communicated clearly and logically; and some papers should communicate new knowledge that is worth being referenced by other authors. The 'value' of a paper is a difficult thing to define, let alone to measure, but that hasn't stopped people from trying.

The simplest measure of the worth of a paper is the number of citations it receives. There are numerous publishing organizations that keep track of the references published in a wide range of journals. Probably the best known are the Thomson Reuters Journal Citation Reports and Scopus. The prominence of a particular author can be gauged from the number of his or her publications that are cited many times. The so-called 'h-index' reduces this to a single number. An h-index of 3 means that the author has three papers that have been referenced three or more times. People with a high h-index tend to be older and well established in their fields. A figure of about 20 is truly something to aspire to over a lifetime.

The significance of a journal is widely measured by its 'impact factor'. This represents the average number of times that each article is cited in a year (averaged over two years). For example, the Journal Citation Reports (JCR) impact factor of the *SAIMM Journal* was 0.18 for the calendar year of 2011. The h-index can also be applied to journals, and the *SAIMM Journal* has an h-index of 21.

The advent of electronic publishing and the availability of website statistics have provided further interesting measurements. SAIMM has a policy of making all of its journal and conference papers freely available to everyone via its website (www.saimm.co.za). The amount of data downloaded has grown strongly over the past three years, with annual downloads of 69, 120, and 130 GB respectively. The number of distinct users has also grown over this period, with the average number of visits per month being currently about 35 000.

SAIMM also makes its papers available on the international OneMine database (www.onemine.org), that now contains over a hundred thousand papers.

Subscribers to this database are able to search and download papers from a number of professional societies that include AIME (American Institute of Mining, Metallurgical, and Petroleum Engineers), AusIMM (Australasian Institute of Mining and Metallurgy), DFI (Deep Foundations Institute), EPA (Environmental Protection Agency), IMMS (International Marine Minerals Society), NIOSH (National Institute for Occupational Safety and Health (USA)), SAIMM (Southern African Institute of Mining and Metallurgy), SME (Society for Mining, Metallurgy, and Exploration), TMS (The Minerals, Metals & Materials Society), and USBM (United States Bureau of Mines). It should be noted that all members of SAIMM are provided with free access to OneMine as part of their membership benefits. OneMine has a metric to compare the relative popularity of the various publications it hosts. This measure divides the total number of downloaded papers by the number of papers available from each society. It was particularly gratifying to see from the 2011 figures that the SAIMM's papers were the most popular for that year. The top three societies were SAIMM (4.10 downloads per paper), SME (3.62), and TMS (2.82). Furthermore, four of the top ten downloads for 2011 were papers from the SAIMM.

It remains the goal of this *Journal* to publish the best research in mining and metallurgy, especially that emanating from southern Africa. All of our journal papers are refereed by at least two independent reviewers. This comprehensive reviewing process is there to check and improve the quality of the papers that are eventually published. Approximately 92 per cent of the unsolicited papers submitted to the journal are eventually published. The referees are the unsung heroes of the publication process. The (usually anonymous) expert contributions of these generous volunteers goes unseen by most people, but makes an enormous difference to the quality of the published papers. ♦

R.T. Jones