

Self-plagiarism and conference proceedings

Plagiarism can be characterized as ‘results plagiarism’, ‘text plagiarism’ and ‘idea plagiarism’. We may wonder at the thought process of those who copy someone else’s results as their own, as a complaint (followed by retribution) is almost a certainty. A more common occurrence is self-plagiarism, especially when the earlier paper is in a conference proceedings and the later paper is in a peer-reviewed journal.

The ‘Academy Policy on Plagiarism’ on the *Pramana* website states that ‘Compared to earlier generations, training of students today seems to have become slack in the sense of not conveying a clear understanding of what is right and what is not in such matters.’ Putting plagiarism and self-plagiarism on an even footing, it states that ‘Self-plagiarism will be treated just as seriously’. It is in this context that this letter is written.

We want our students to participate in conferences. Students in my generation were told to present our initial results in the national symposium in our specialization (its proceedings were published by DAE as edited volumes) and also that this must be already at the level of, or must evolve to the level of, a publication in a peer-reviewed journal.

Many of our national conferences now publish proceedings through ‘conference

series’ of international publishers. Submission of the manuscript is required well before the conference (over two months), and the status regarding publication is announced after the conference is over. The proceedings took a long time to appear and had a limited dissemination earlier, and this is also a common occurrence now. We frequently have a situation where the data are part of an archival paper submitted meanwhile by the student to a regular journal (this is for wide dissemination of his/her work, is a part of his/her usual growth as a researcher, and is also hastened by administrative requirements for upgradation of fellowship or for submission of thesis) before the status of the conference paper is informed. This is when there is some uncertainty on how, and whether, to cite the data submitted to the conference.

We may consider the fact that *Physical Review*, for example, does not cite a reference to an earlier upload on arXiv.org if there is an available reference to a subsequent journal publication. This is irrespective of whether the two papers are identical, or whether the arXiv.org upload is a preliminary version that was modified before acceptance or publication. I do not know of any talk of an arXiv.org upload of a manuscript, followed by a journal publication, being considered as

self-plagiarism. And arXiv.org allows much wider dissemination than the Proceedings of many of our national conferences. If submitting the same data to a conference and to a regular journal for a refereed publication is to be punished as self-plagiarism, then should we ask our students not to submit substantial data to conferences? Or should conference organizers ask that the accepted manuscripts be uploaded on arXiv.org (in view of its many advantages for scientists from countries like ours¹), rather than spending time and effort bringing out a ‘proceedings’ that may only entrap our students for possible self-plagiarism charges much later in their life? I strongly suggest that what constitutes self-plagiarism, and how to handle submissions to our national conferences, require a considered debate within our country.

1. Chaddah, P., <http://www.scidev.net/en/south-asia/opinions/e-print-archives-ensure-credit-for-original-ideas.html>

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An algorithm and benchmarks for making world-class institutions

The statement by Minister Jairam Ramesh that IIT and IIM students are world class but the faculty is not¹, has triggered a much needed debate²⁻⁶. The views expressed in different public fora provided a candid assessment of our premier institutions vis-à-vis world-class institutions like MIT and Harvard⁴⁻⁶. The final incisive commentary was by Balaram⁷. These commentators provided a balanced view²⁻⁷, with data that showed that we have a long way to go before one or more of our institutions can enter the category of ‘world class’ (say, top 50).

A few of our top institutions contribute immensely in terms of human resource development and peer-reviewed

publications. In spite of this, they are far below world standards in order to appear in the top 100. The latest ranking of institutions is given by the QS World University Ranking⁸, the Times Higher Education World University Ranking⁹ and the Academic Ranking of World Universities¹⁰. None of our institutions figure in the top 200 in the Times Higher Education Ranking⁹. The best overall rankings are 218 for IIT Delhi and 225 for IIT Bombay in the QS World University Ranking; some of the IITs and IISc rank in the top 100 in engineering and information technology⁸.

In the last few years, there have been initiatives in the form of establishing IISERs, more IITs and Central Universi-

ties. Here too, we often find concerns about the lack of faculty. While looking forward to the growth of these institutions, we must avoid rhetoric and platitudes, be pragmatic in planning and action, and reflect on the history of how top institutions like Harvard, Stanford, MIT or Rockefeller were established, developed and nurtured¹¹.

The most up-to-date analysis and description of various issues associated with ranking and criteria are given by Levin *et al.*¹² and Salmi¹³. These are ‘must-reads’ for academicians, politicians and planners committed to raise the standard of the existing institutions or establishing new, world-class institutions. A quantitative view of the criteria

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Table 1. Methodology for ranking world universities

Criterion	Indicator	Weight (%)
Quality of education	Alumni of an institution winning Nobel Prizes and Fields Medals	10
Quality of faculty	Staff of an institution winning Nobel Prizes and Fields Medals	20
	Highly cited researchers in 21 subject categories	20
Research output	Articles published in <i>Nature</i> and <i>Science</i>	20
	Papers indexed in <i>Science Citation Index – Expanded</i> and <i>Social Science Citation Index</i>	20
Per capita performance	Academic performance with respect to the size of an institution	10
	Total	100

Source: Academic Ranking of World Universities; <http://www.shanghairanking.com/ARWU-Methodology-2011.html>.

and benchmarks for world university ranking is given in Table 1. A look at this table makes it clear why our institutions, even the best ones like IITs, IISc, BHU, Delhi University and University of Madras, have missed and may continue to miss the epithet of ‘world-class institution’ in overall ranking.

The subject of making world-class institutions has been discussed from the point of upgrading existing institutions or establishing new ones¹³. Concerns about university rankings emanate from the realization that economic growth and global competitiveness are driven by knowledge; universities and research institutions play a pivotal role in this context. Elite status of institutions is not achieved by self-declarations and advertisements, but is conferred based on performance (Table 1) and international recognition^{12,13}. Three complementary factors at play in top universities are: (i) a high concentration of talent (faculty and students); (ii) abundant resources to offer a rich learning environment and to conduct advanced research, and (iii) favourable governance features that encourage strategic vision, innovation and flexibility, and that enable institutions to make decisions and to manage resources without being encumbered by bureaucracy¹³.

The establishment of a world-class university requires strong leadership, a bold vision of the mission and goals, and a clearly stated strategic plan to translate the vision into concrete targets and programmes. Any compromise on following the algorithm suggested^{12,13} would keep our quest a mirage⁷. Some cultural and social weaknesses which perpetually bog us down are as follows. (i) Feudalism, too deep, in all walks of life; institutions

are no exception. This stifles free expression and provides the comfort zone of status quo. (ii) Lack of passion (with some exceptions) to be world leaders, often resorting to Machiavellian ways for positions of power and being comfortable with mediocrity. (iii) Inertia in taking desired actions in spite of best recommendations from different committees. (iv) While aiming at more universities, institutions and Ph Ds, there is concern for numbers only and rarely any mention of quality. (v) Human resources in many institutions are brought in by the routine process of filling up posts. They are often weak in intellectual quotient, a highly desirable trait for creativity and team work.

Only a few of the vision statements of institutions are implemented within the stated time-frame. The physical and intellectual development of institutions must proceed in parallel. The former can be attained through funds and the services of architects and designers. The latter, being the most crucial, can be achieved through human resources of exceptional calibre, intellectual prowess, creativity, managerial acumen and vision. Once the vision and statement of purpose for world ranking are put in place, the impact should be periodically monitored in terms of the algorithm and benchmarks^{8–10,12,13}. Let us look towards the role models in institution-building, like John Harvard (Harvard University), John Davidson Rockefeller (Rockefeller Institute, later Rockefeller University), Leland Stanford (Stanford University), William Barton Rogers (Massachusetts Institute of Technology) and Jamsetji Nusserwanji Tata (Indian Institute of Science), who envisioned and created great institutions.

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