How India can provide immediate open access now

Balaram's editorial[1] devotes most of its space to the problem on research accessibility and usage being restricted by costs and copyright. It briefly mentions, but does not clearly explain the simple, proven solution: mandated self-archiving. There are plenty of institutional repositories (IRs) in India, and they are cheap to create, because the software is free. But they are mostly empty, because self-archiving has not been mandated.

Universities, research institutions and research funders the world over are at last beginning to require researchers to deposit on-line drafts of their peer-reviewed journal articles in their IRs. Deposit itself is neither a cost nor a copyright issue, nor is it complicated. All institutions and funders need to mandate deposit of the final refereed electronic draft, the 'postprint', immediately upon acceptance for publication.

Sixty-two per cent of journals are already 'green': they have already formally endorsed making the postprints open access (OA) immediately upon deposit. For the remaining 38% of journals that embargo access, the postprints can be deposited as closed access, and the IRs have a button that allows users worldwide to semi-automatically request a postprint and authors to semi-automatically provide a single copy to the requester with one keystroke. This means a self-archiving mandate immediately ensures 62% OA and 38% almost-OA. This is not only

enough to fulfil 100% of research usage needs immediately, but as it grows it will almost certainly force all publishers to become green.

All of India's universities, research institutions and funders need to mandate immediate deposit. Journal cost-recovery models and copyright policy are irrelevant, although it is likely that mounting pressure from mandated green OA will eventually make subscriptions unsustainable and journals will have to cut costs, abandon unnecessary services (such as the print edition and even the on-line edition), offload all access provision and archiving onto the IRs, and convert to the 'Gold' OA journal cost-recovery model. But since their only remaining costs will be those of implementing peer review – and peers review for free – the minimal costs per paper to the author's institution will be easily covered by only a small portion of the institution's windfall subscription cancellation savings. In addition, copyright will be retained by authors instead of having to be transferred to journals.

But there is no need to speculate about costs and copyright, because mandated self-archiving in India is sufficient to ensure the provision of OA (and almost-OA) immediately to all of India's research output, for the rest of the world, and, in exchange, India will have OA (and almost-OA) to the research output of the rest of the world.

Some relevant documents are listed here[2–10].

1. Balaram, P., Curr. Sci., 2008, 94, 837–838.
2. Harnad, S. and Swan, A., DESIDOC Bull. Inf. Technol., 2008, 28; http://eprints.ecs.soton.ac.uk/14432/
3. American Scientist Open Access Forum; http://amsci-forum.amsci.org/archives/American-Scientist-Open-Access-Forum.html
4. Bibliography of Findings on the Open Access Impact Advantage; http://opcit.eprints.org/oacitation-biblio.html
5. BOAI Self-Archiving FAQ; http://www.eprints.org/self-faq/
6. EPrints Free Open Access Repository Software; http://www.eprints.org/
7. Optimizing OA Self-Archiving Mandates: What? Where? When? Why? How?; http://openaccess.eprints.org/index.php?/archives/136-guid.html
8. ROAR Registry of Open Access Repositories; http://roar.eprints.org/
9. ROARMAP Registry of Open Access Mandates; http://www.eprints.org/open-access/policysignup/
10. ROMEO Registry of Publishers' Policies on Open Access Self-Archiving; http://romeo.eprints.org/

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NKC recommendations 2007 – Are they really going to change the scenario?

Before I quote form the NKC (National Knowledge Commission) report[1], let me mention a few lines from the archives of Current Science. In fact these are the few lines that stirred the Editor (who is also attached to NKC) to initiate a debate which subsequently resulted in exposing the ills plaguing our academic and administrative institutes: 'The scientific establishment is managed by a few extremely powerful people who: (a) control

most of the money, (b) are on all important job, promotion, and national committees, and (c) decide what are the important scientific areas and directions to explore. This coterie of science managers must travel ceaselessly to carry out its numerous commitments and therefore those who control science have neither the time to visit laboratories nor read scientific papers, not to speak, of course of doing experiments or themselves writing

papers. Yet it is essential for them to give the appearance of being India's leading scientists. They must thus go about creating myths to give substance to their pretensions. To do so they engage in a very egregious form of gimmickry, including distributing scientific honours and laurels amongst themselves[2].

In subsequent debates, no one tried to refute the above opinions, although many expressed opinions that differed on other

matters. Hence, it is quite legitimate to ask: Can NKC recommendations change the above scenario? It will not be a surprise if IRAHE (Independent Regulatory Authority on Higher Education proposed by NKC) itself is taken over by the above coterie. Presume that 15% GER (gross enrollment ratio), as desired by NKC, is achieved by 2015. In other words, 85% of the eligible population would still be deprived of enrollment. And one would still find the same rhetoric as of now in 2015 as well, from various groups of people and NKC constituted in 2015 would once again come up with the same three keywords –expansion, equality and excellence. If the present numbers are inadequate, can doubling the number deliver the goods and achieve excellence? Without appreciating the basic problems and ground realities in the already existing institutions, what is the point in starting more number of institutions? Is it not tantamount to accepting the failure of the giant UGC system of university education and research?[3,4]. Even with the present numbers, if more than one-third of the colleges and universities are nonviable[5] and a large number of the remaining in different states of survival, how can further expansion achieve excellence? Just because there is a heavy increase of budget, some steps to sharing resources are suggested? This increase in budget and other steps no doubt were required even to strengthen the already existing number of institutions and provide quality education to the existing num-

bers. In fact, even in 1994 a requirement of at least 50,000 dollars per faculty member per year had been suggested[2]. So the recommended expansion in education and the accompanying increase in budget would once again result in the same overall quality and situation as is present now. It is a well known fact that out of the total budget, a lot (70–90%) would go to brick and mortar, salaries and maintenance, etc. with little left to impart training or to do any sensible research. To use the exact phrase of the author[4], 'leaving precious little for the raison d'etre, namely teaching, research and development'. Of course, it has one major advantage. It will keep the social unrest at a lower level. Keeping the unemployed and unemployable youth engaged in higher education is a good strategy to contain the youth and social unrest.

Let me end by appreciating some lines from the NKC Report. The remark by the NKC chairman in the foreword; 'Our country is too large, too complex and too diverse for "one size fits all" solutions'. It is implied in this statement that whatever you may suggest to the best of your integrity and calibre, there will always be enough number of people to oppose and sabotage what you suggest, because it genuinely does not fit them. Hence it is probably better that we have separate policies framed, keeping in view the state of affairs in different zones of the country. Maybe a similar idea is reflected in the NKC Chairman's statement, 'At present we are engaged in discus-

sions with about 17 states . . .'. Hope at the end of these discussions another report would highlight the specific policies being adopted in different states.

Secondly, NKC has rightly pointed out to provide access to Government-held data. 'Data from different sectors need to be analysed holistically so that planning becomes more data-driven and reflects the ground situation. This means that data that are traditionally collected and managed separately, unrelated to each other, should now be seen together.' Hope the Editor and others would make use of RTI (right to information) as recommended by NKC and publish the above-required data in *Current Science* and once again initiate a debate, which I feel would be far more useful to the nation.

1. www.knowledgecommission.gov.in/reports/report07
2. Mahajan, S. M., *Curr. Sci.*, 1994, **67**, 503–508.
3. Burma, D. P., *Curr. Sci.*, 1994, **67**, 681–682.
4. Balasubramanian, D., *Curr. Sci.*, 1994, **67**, 512–515.
5. Srivatsava, P. N., *Curr. Sci.*, 1994, **67**, 508–512.

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Urbanization and biodiversity loss – Where is Hyderabad heading?

Urbanization is a universal phenomenon and its negative effects on biodiversity, especially in terms of irrecoverable habitat fragmentation and loss, associated physical changes and local extermination of native species is slowly being understood by the urban populace[1].

The greatest challenge to biodiversity due to urbanization is its current and growing geographical extent and more and more surrounding areas being converted into urban expanse by real-estate and infrastructure-developmental activities. It is known that semi-urban areas are rela-

tively better in terms of biodiversity in comparison to urban cores where non-native, exotic and invasive species tend to dominate. The native species tend to become rare and are restricted to sites that have escaped high-intensity development[2], such as city parks, graveyards, university campuses, areas adjacent to railway tracks and roads, avenue plantations, etc.

With the recent spurt in growth resulting from the recognition of Hyderabad, as an upcoming IT hub and with a newly acquired metropolitan city status, the urban

expansion has seen a manifold increase, resulting in large-scale destruction of semi-wilderness areas and hacking of thousands of avenue trees. This loss of carbon sink not only affects the burgeoning pollution levels, but also renders thousands of species homeless which are dependent on these trees.

The GMR Hyderabad International Airport Limited has constructed a futuristic international airport with A-380 compatible runway and a passenger capacity of 12 million passengers per annum. This airport is located in Shamshabad, which