## Does India need its own Bayh-Dole?

Pranesh Prakash

Sunil Abraham

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Across the world battlelines are being drawn in the normally quiet areas of academia and research. The opposing sides: those in favour of open and collaborative research and development as a means to promote innovation, and those in favour of perpetuating the profits of big pharma companies and academic publishers. Currently before a Select Parliamentary Committee is a controversial law that will deny basic healthcare to millions by making medicines much more expensive, lock up academic knowledge, and help privatise publicly-funded research. The law titled the Protection and Utilisation of Public Funded Intellectual Property Bill 2008 ("PUPFIP Bill", http://bit.ly/pupfip-bill) was tabled last December in the Rajya Sabha by the Minister for Science and Technology. It was created in utmost secrecy by the Department of Science and Technology, without so much as a draft version having been shared with the public for comments.

The PUPFIP Bill is an Indian version of a 1980 US legislation, the Bayh-Dole Act, and as per its statement of objects and reasons, it seeks to promote creativity and innovation to enable India "to compete globally and for the public good". It aims to do so by ensuring the protection of all intellectual property (meaning copyright, patent, trade mark, design, plant variety, etc.) that is the outcome of government-funded research. The IP rights will be held by the grant recipient, or by the government if the recipient does not choose to protect the IP. This might seem like a good way to enable technology transfer from research institutes to the industry, but that would be a very myopic view, disregarding all evidence related to the failure of the Bayh-Dole Act. Last year Prof. Anthony So of Duke University co-authored an extensive analysis of the Bayh-Dole Act, and warned of the consequences of such legislation in developing countries.

First, such a law will shift the focus of research. Researchers will be inclined to to concentrate their efforts on issues of interest to industry, and which can have immediate benefit. This would force vital fundamental research into neglect since it cannot be commercialised with ease. Research by Saul Lach and Mark Schankerman shows that scientists are influenced by royalty rates, and will thus tend to work on industrial research rather than fundamental research. This creates, or at least exacerbates, what is popularly known as the "90/10 gap": the fact that ninety per cent of medical research money goes into problems affecting ten per cent of the world's population, since that ten per cent is richer.

Secondly, this law will have chilling effects on scholarly communications and promote secrecy. The Bill has requirements of non-disclosure by the grantee and the researcher to enable the commercialisation of the research, and requires researchers and institutions to inform the government before all publication of research. Such bureaucratisation of research publications will stultify intellectual pursuits. Such secrecy and permission-raj culture is anathema to intellectual and academic pursuits, where knowledge is sought to be freely disseminated, to be criticised and further revised by others. In South Africa, academics affected by the recent passage of a PUPFIP-type legislation there are questioning its constitutionality as it restrains freedom of speech.

Thirdly, this will lead to our pillars of learning and research becoming like businesses. US universities like Columbia and Duke have found themselves at the receiving end of criticism for their brazen commercialism, encouraged by the Bayh-Dole Act. Instead of promoting greater access to health for the poor, and spending money on research, the universities were spending money on patent litigation in court. The outcome of one of these cases was the rejection of Duke University's research exemption defence (universities are generally not bound to observe patents when they wished to conduct research). The court held that the university had "business interests" which the research unmistakably furthered. This points at a fundamental divide between universities as places of learning and as places of profiteering. The Open Source Drug Discovery (OSSD) project that the Council of Scientific and Industrial Research (CSIR) is currently pursuing is a good attempt at promoting a culture of openness and transparency and collaboration, and thus ensuring cheaper and more efficient drug discovery. Even the US government is currently seeking to clear the way for generic versions of biotech drugs. In such an environment, it is counterintuitive to bring in a regressive law, and goes against innovative efforts such as the OSSD, and will harm the generics industry.

Fourthly, the Bill assumes — erroneously, as an ever-growing amount of research demonstrates (Boldrin & Levine, Bessen & Meurer, etc.) — that intellectual property is the best and only way to promote creativity and innovation. All forms of intellectual property are state-granted monopolistic rights. At a basic level, competition promotes innovations while monopoly retards it. Much of modern science developed without the privilege of patents. Surely, Darwin and Newton were not encouraged by patents. And even whole industries — like the software industry — flourish without patent protection in most of the world.

The commendable aim of ensuring knowledge transfer can be accomplished much better if we refrain from giving away to private corporations (whether pharmaceutical manufacturers or publishers) exclusive rights to the product of publicly-funded research. Scientists and researchers can be encouraged to be consultants to various industrial projects, thereby ensuring that their expertise is tapped. Importantly, open access publishing which helps to ensure wide distribution and dissemination of knowledge is surely more desirable. That is the trend being followed the world over currently. The US president recently signed into law the Consolidated Appropriations Bill which makes permanent the National Institutes of Health's open access policy. By doing so, he symbolically rejected calls (such as the much-criticised Conyers Bill) to privatise publicly funded research outputs. Thus, there are many ways by which the government

can encourage innovation and creativity, and further public interest. The PUP-FIP Bill, which will have deleterious unintended consequences if it is passed, is not one of them.

The writers work with the Bangalore-based Centre for Internet and Society