

Intellectual property rights

Raha in 'Intellectual property rights in India—some suggestions for a new strategy' (*Curr. Sci.*, 1993, 64, 502-504) makes a series of assumptions—some stated, others not—about the current and future trajectory of India's industrial (primarily chemical) economy; presumes their likely continuation; endorses these and proceeds to advocate a regime of intellectual property rights in India, specifically for patents, in such a trajectory of development. In doing so Raha displays (as do very many others, albeit subliminally) a belief that what is right for 'globalized' Indian business is right for all the close-to-a-billion people of India, with perhaps no more than a million recognizing the word 'patent' and perhaps a few thousands fully understanding it. However, even this category of globalizers might be interested to know what their current foreign lodestar—the laws of the United States—says is the *raison d'être* of the purely statutory nature and purpose of the [US] constitutional authorization. These are stated explicitly in the United States Copyright Act (1909):

The enactment of copyright legislation by

[the US] Congress under the terms of the [US] Constitution is not based on any natural right that the author has in his writings, for the Supreme Court has held that such rights as he has are purely statutory rights, but on the ground that the welfare of the public will be served and progress of science and useful arts will be promoted... Not primarily for the benefit of the author, but primarily for the benefit of the public such rights are given. Not that any particular class of citizens, however worthy, may benefit, but because the policy is believed to be for the benefit of the great body of people, in that it will stimulate writing and invention to give some bonus to authors and inventors.

The above quote makes it plain that in that great republican country (which, when it was founded, and for a century thereafter was very much a developing country relative to Europe, where patents originated) there was, and is, recognized only one good—the public one.

It is necessary to keep emphasizing this point as there is spreading a persistent (false) belief that in matters of intellectual property rights there is some sort of balance to be struck between private gain and public good. Not so. There is only one good to be promoted, the public one; to wit: 'for the benefit of the great body of people'. Legally protected private rights to intellectual

property are granted by the State to the extent, and only to the extent, that such rights serve the public good. It is for this reason that matters relating to intellectual property rights are resident in the domain of domestic and international political-economy and related power-play. These matters are not subjects in the realm of moral philosophy or ethics.

More specifically, such words as 'theft', 'mis-appropriation', 'piracy' and allied expressions are inappropriate to the discussion on intellectual property rights. These concepts are only appropriate to discourses on the ethics of scientific publication or on moral rights which latter are a separate philosophico-legal category. Unfortunately, much confusion has been caused (world-wide) by incorporating these concepts also into laws dealing with intellectual property, a happenstance arising from the regrettable confluence of legal convenience and fuzzy thinking.

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UK government research

Regarding 'How will Britain run its science now?', (Nature, 361, 581-584), Hermann Bondi writes:

Although much of the support for science, from the public or private sectors, must clearly be for science with an application in mind, it is essential that there should be adequate funds (wholly or largely provided by government) for curiosity-directed research. This is a cultural requirement, just as public support for the arts is. The amount provided needs to be secure, and the only objective in its disbursement should be to help create the best science possible.

Wherever given funds are employed

to create science, whether basic or applied, the division of funds between supporting scientists on the one hand and equipping them on the other must be governed by the need to get the best science for the sums supplied. Inability to fund good proposals is a clear sign that, for the money available in the field in question, there are too many scientists working in it. Fruitlessly chasing funds is an inefficient use of scientists' time.

As there is good reason to suppose that in many fields the cost of properly supporting a scientist with equipment is growing faster than the funds likely to be available, it follows that in any such field the number of working scientists should diminish year by year. It may be

difficult to attain the optimum numbers in a field, but the objective of matching the numbers to funds available should be kept firmly in mind. Failure to do so is unfair to the provider of funds, and bad for science.

Where researchers are supported because of the prospective benefit to British industry, it is essential to ensure that companies are in a position to exploit a research success. A repetition of the liquid crystal fiasco would be hard to accept.

It is important to have a system that can take account of the basic differences between applied sciences such as engineering and the fundamental sciences such as chemistry and physics. For

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many of the ablest pure-science undergraduates, research in their field is the principal ambition, whereas many of the ablest engineering undergraduates aim to practise engineering as soon as possible. Thus whereas in science one can expect to fill a research studentship with the highest level of graduate, this cannot be taken for granted in engineering.

The weakness of the connection between defence and civil research and development is particularly noticeable in Britain, as the recent POST report made clear. One would hope that at

least a beginning can be made on bridging this gap.

The forthcoming White Paper will address questions of organization. It is important that the bureaucracy should be aware of the needs of the working researchers. In particular, those disbursing funds must visit the laboratories where the work is actually being done.

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Basic science

[*Curr. Sci.*, 1992, 63, 505]

I think the basic science issue is faced not only in India but even in the UK where Thatcherian led to focus on commercial applications rather than fundamental research.

The idea of a cess may be a good strategy. In the meanwhile, as an intermediate stage, I would like to suggest that—

(i) We can follow the strategy of the Asian tigers which in the area like electronics have focused on niche markets and started from the manufacturing and are going to the fundamental research area.

(ii) We should also actively look for strategic alliances with developed R&D laboratories abroad, so that funding does not become a constraint for providing challenging opportunities for our young Indian scientists in exciting areas of theoretical science.

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It is well known that we in India spend very little money on basic research, compared to other countries. While we have had some spectacular successes in the fields of atomic energy, defence related products, space research etc., we are still way behind the developed countries in all other spheres. Numerous

studies have been conducted in supporting scientific activities in academic institutions, industry and elsewhere. However, we have not made much headway in putting the results of scientific experiments in day-to-day use.

One of the important reasons for the insignificant position that Indian scientists and researchers today find themselves in is the atmosphere and culture of 'controls' imposed by the Government on various activities of the industry. With the recent liberalization measures, I am quite hopeful that the competition from superior technologies to be procured from abroad will goad our scientists as well as industrialists into paying greater attention to basic and applied research and deriving their benefits.

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1. There is a general feeling among the faculty that research is not necessary for the promotion of their careers.

2. There is no mechanism for encouraging research careers in medical sciences. The clinical faculty is heavily occupied with patient care and the preclinical faculty with ever-increasing teaching load.

Creation of a permanent research cadre would certainly be a positive step for the total commitment of research. However, it should not discourage the teaching faculty from involving in research which is very very essential for

the development of the faculty and the department.

3. There is no clear signal from the Government that it wishes to encourage research. For the past several years there has not been creation of new posts in the basic sciences departments. You are aware that the new specialities and clinical disciplines are born out of basic science research. Basic sciences need adequate support and heavy funding and without the nurture of basic research we cannot expect the new and sound technologies to develop in this country. Even the World Health Organization fellowships etc. have been earmarked for clinical disciplines and more for training in modern research techniques. There is tremendous advance in basic technology and the young faculty needs exposure to the new technology which is being developed at very fast pace. We have to create an environment, to encourage creative scientific activity, it has to be promoted to create improvement and competitiveness otherwise the gap between the developed and developing countries will widen and in future we will not be able to cope with the advanced technology in advanced countries.

The basic sciences departments are not given adequate funds for the purchase of research equipment. The Institute budget is so meagre that it is not possible to meet the day-to-day requirement for teaching undergraduates. This is not part of research activity. The number of journals subscribed to by the library is decreasing every year for want of funds. It has become worse in the recent years which is again affecting the researchers.

4. The competitiveness and improvement in overall quality of work will come only when there is some scientific policy. The Government policy makers should not expect new technology to develop without making a commitment to nurture the scientific activity.

For this one needs to spell out clearly objective goals of research plan, chalk out a plan and provide resources to support it.

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