

## 12 *Link between Democracy, Education & the Acquiring of Knowledge*

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**E**ntering a new millennium raises hopes even though for us the millennium has begun badly with the nightmare in Gujarat. The only consolation is that if the rebuilding can be done creatively then the hopes remain. As has often been said the start of this millennium has coincided with new ways of approaching knowledge and more than that, with making knowledge accessible to as many people as possible. Its impact has been compared to that of the printing press, although in another historical context. Given the change in the technology of communication — the use of the chip — and the many directions that this communication can take, accessibility to knowledge should normally be taken for granted, provided the infrastructure is in place. Accessibility has become a subject of discussion although the kind of knowledge to be accessed is less widely discussed and seems to me to be more important.

But the millennium is not just a time marker. It is also symbolic of the coming of a Utopia. Utopias, alas, do not materialise from wishful thinking, but from a watchful assessment of ideas and activities. The start of a millennium, therefore, is a heightened moment for pause for reflection.

A Utopian dream shared by many of us is to make our society a democratic society. For all the mythologies about democracies in pre-modern times, it is only with the emergence of modern institutions and the awareness that goes with them that democratic forms surface. Democracy therefore involves a social mutation. The practice of adult franchise has undoubtedly been impressive despite some shortcomings. But there is much in our way of seeing ourselves that may well require shedding if we are to be fully democratic. For example, the concept that Indian society is constituted of communities identified by religious identities, and that their functioning as pre-determined majority and minority communities is compatible with democratic functioning, is not a view that I would endorse. It annuls the essential feature of equality within a democracy. It denies the other identities that give meaning to our cultural life. But closer to my concern is the link between democracy, education and the acquiring of knowledge.

The system of education as it exists has been described as a kind of apartheid, separating the literate from the non-literate. The simile is more than superficially apt since it is the under-privileged for reasons of social identity and of gender that are often denied literacy. The existing condition is continuously aggravated by rapid changes in the technology of communicating and acquiring knowledge, and by its becoming increasingly the preserve of the few. With more sophisticated technical requirements of education, the divide will become worse. Not only does the lag between the educated and the non-literate in such circumstances become greater but also even literacy by itself becomes inadequate and insufficient. If we had had a commitment to education fifty years ago this lag could have been reduced. As it stands, even if tomorrow, school education is made compulsory and available, there will still be an enormous distance between the literate and those proficient in the skills of modern education. It requires a far more thoughtful education policy than has been proposed to make these skills more widely available. And education is not merely about making millions literate. It is also about citizens realising their rights and their obligations, both necessary to democratic functioning.

The new mantra of Information Technology will not in itself solve the problem since the minimum technological infrastructure required is, as of now, absent in many places. When electricity is irregular and the telephone system unreliable, the new technology is not of much help; still less will it be for those who have had no education. The implications of accessing knowledge in this form also require evaluating existing methods of advancing knowledge, some of which might have to be discarded. At the same time we are introducing what are described as traditional Indian methods of handling knowledge, through the curriculum at both school and university. As

educators we should appraise these and other innovatory methods; else we may end up in further reinforcing the divide even through the kind of education that we impart. As knowledge advances, the methods of advancing knowledge, change. What does remain constant is an attitude of mind that encourages the questioning of theories of explanation and places knowledge *in* a social context.

The central activity of *accessing* knowledge is *still through an efficient* library. We tend to take libraries for granted giving them scant attention even when they are disabled by severe budgetary cuts. Yet the library is at the heart of a university and has to be up-to-date, welcoming and easy to use. Where knowledge is out-of-date in some centres of learning, it is largely because their libraries cannot buy books or subscribe to journals. This also precludes the creation of a library-using culture, a culture dependent on reading that is a necessary prelude to academic excellence. Judging by the ease with which we have donated a vast sum of money to Oxford University for establishing a Chair in Indian History, there is obviously no shortage of funds. One wonders though, why the same kind of funding cannot be extended to financing the needs of Indian universities and more particularly the maintenance of libraries. With new technologies the function of the library will become more complex in terms of storing and retrieving data. The demand for funding libraries will have to be more aggressive.

For the sciences there are at least some centres with good facilities. But scholars in the social sciences work in a more arid terrain. The argument that there is a financial crunch can be met by suggesting ways of rationalising facilities. If even one institute were to be selected for each discipline, with a full coverage of up-to-date journals and publications — national and international — placed in a properly organised library with facilities of using the library, research would become less of a hassle. Such library centres could for instance, provide material in disciplines where much of the frontline research is published in journals. That so much quality research is carried out under adverse conditions remains almost miraculous. If the facilities could be better organised the quality would be more widespread. This would also force us to focus on what is badly needed, namely, the continual re-assessing and revising of the courses that we teach in universities. Up-dating courses can often be a prior requirement to introducing new ones.

At the other end of the spectrum, children at school need to be weaned away from a reliance solely on textbooks and the system of learning passages by rote and regurgitating them in examinations. The alternative would be to nurture a wider habit of reading. This too requires well equipped school libraries.

It is curious that the Indian middle class which has been so clued into making demands of various kinds, including the virtual reversal of the economy in the last decade, has been silent about the appalling situation regarding schooling. Nor has there been much concern about the quality of what goes into the school curriculum. The intention seems to focus on ensuring high marks in examinations to carry a student forward into higher education. This has been taken to almost self-defeating lengths as the criterion for university entrance. Such an indifference to the potential of the meaning of education results from attitudes that support education as largely an avenue to privilege. Where students come from diverse social backgrounds, and are encouraged to observe the world around them and where education is treated as a form of self-expression, the exploration of knowledge carries a richer promise. Recent activity relating to the education of women and understanding their concerns has provided challenging insights into society as a whole, resulting in a more realistic exploration of knowledge.

Governments have repeatedly denied appropriate budgets for education. One explanation is that this points to the fear of an educated electorate, and of people understanding and demanding their rights and calling for the accountability of governments. We have ample funds for financing nuclear bombs but not for setting up schools, even though it has been said time and again that the fall-out effect of more schools will bring about an infinite improvement of our society.

Universities, too, show little interest in school curriculum, not even at the secondary school level. The catchment area for universities lies in such schools, yet we continue to endorse a top-down education system giving priority to higher education without an adequate infrastructure for secondary schools. There could be far more useful interlocking between school and university. Undergraduate teaching, for example, could have an interface with secondary school teaching, especially with the school leaving years. Some of the liveliest discussions on the nitty-gritty of teaching history that I have participated in have been with secondary school teachers.

If the quality of school education was also to be commented on by those teaching the same discipline at University, then there might be some helpful evaluation of what is being taught. For example, there is a proposal to introduce new subjects at both school and university level: Vedic mathematics in school and Astrology at university. Mathematics plays a pivotal role in the sciences. In recent times it has entered some social sciences as well through the use of statistics, or as in econometrics. Yet one has seen little in the way of informed discussion on the required pedagogy for the introducing of Vedic mathematics. Surely by now those who teach mathematics

should have published analyses of the proposed system with discussions as to whether it is superior to normal mathematics as is claimed. Those proposing the change would be expected to provide annotated bibliographies and manuals for teachers to prepare for teaching an altogether new system. To give currency to Vedic mathematics is a substantial change in the discipline and would also affect the teaching of mathematics at under-graduate level.

Yet few mathematicians have either explained the new system or commented on it or objected to it, in terms of the school curriculum and the kind of pedagogy involved. The occasional comment opposing it argues that there is no such system as Vedic mathematics: that at best it is an arbitrary collection of information, not sophisticated enough to constitute a system. It pertains to methods of calculation and to geometry based on references in the Vedic corpus. The frequently quoted example is the measuring and constructing of altars for conducting Vedic rituals. Those of us who are not mathematicians but can see that such a change would have a range of consequences for education, are waiting for an enlightened debate on how it affect mathematics in India in the context of contemporary systems of knowledge.

Teaching Astrology at university level will run into confrontations with established knowledge. If it is introduced as a specifically Indian contribution it will be contradicting the history of the ideas with which it claims association. The history of Astrology in India is often confused with the history of astronomy. In the texts from the early past, the interface between astronomy, mathematics and astrology was initially close but gradually astrology attracted different practitioners from astronomy and mathematics. Even where in some writings a degree of overlap was projected, the significant feature of the discourse was that it was cosmopolitan and acknowledged as such. Varahamihira states that the Hellenistic Greeks, the Yavanas, were worthy of being treated as *rishis* because of their advanced knowledge, even though they were socially *mlecchas* — outside the pale of caste society. The interweaving of astronomy and mathematics in the study of solar movements and the planets from the mid-first millennium AD has to be differentiated from earlier systems. The great leap forward in the theories of Aryabhatta and Bhaskara was not in astrology but in mathematics and astronomy. There were long and continuing debates during the next few centuries over the relatively new theories. The significant point was the precision of the data (within the framework of their knowledge), the rational and logical basis of the argument and the manner in which the theory was formulated. Views earlier thought to be heterodox, if they advanced knowledge were frequently incorporated. There was a continuing exchange of ideas on mathematics, astronomy and medicine with Arab centres. These in turn were to have links with emerging centres in Europe.

Ideas developed in astronomy and mathematics may be reflected in some notions of astrology but the distinction was recognised. This distinction is significant to understanding what is now sometimes referred to as Indian knowledge. In the making of this knowledge and in various other systems of knowledge from the past, there were contributions from scholars elsewhere in Asia and the Mediterranean, even if some of the breakthroughs, as it were, came from Indian thinkers.

It is repeatedly said that a university is an institution that imparts knowledge. Perhaps we now need to emphasise that it is as much an institution that explores and experiments with knowledge. This is conceded for the sciences, but less so when it comes to the social sciences. Part of the reason for this may be that the sciences are thought to be value free and more technical and therefore only the trained scientist can assess the value of new ideas. Literary studies can sometimes hide behind the 'linguistic turn' made popular through Post Modernism which can at times obscure the evident argument. But the social sciences investigate the institutions of society and can therefore pose a threat to those who find social change uncomfortable. Being edged towards the margins of a school syllabus can scuttle social sciences. They can also be made less relevant by arguing that since many themes in these disciplines are descriptive and therefore less technical, their relevance can be commented upon even by people untrained in the discipline. Both methods are currently in use.

In the transition to democratic functioning within the parameters of the nation state, the social sciences are viewed as more sensitive to national needs and among them, history in particular. There is an assumption that anyone can speak with authority on history, irrespective of whether such a person can handle the technical complexities of the sources, or at a further remove, the theoretical underpinnings of historical societies.

Disciplines in the social sciences have in recent decades lost their innocence. Generalisations are now being subjected to cross examinations that take into account the validity of the sources and the logic of the argument and the applicability of the ensuing generalisation. At a serious level therefore, there is bound to be a distancing from the non-professional. This has become normal in contemporary high education in advanced centres, even though it introduces another set of concerns in the public communication of knowledge. I am not arguing that disciplines have a pristine purity that has to be protected from non-professionals. But I am arguing that non-professionals, be they politicians or media persons, need to be modest enough to acquire some knowledge of a subject and how it is being handled, before they pronounce upon what they regard as its findings.

There is a brief history of these changes in the social sciences and let me go back to the earlier years of Delhi University. The late 50s and 60s saw a paradigm shift in the social sciences in India with strengths particularly in areas concerned with the study of under-development, of caste, of class, of problems relating to rural and urban issues. Inevitably history provided a contextual background to these themes. The questions asked by historians also began to differ from what had gone before. A dialogue was started between the disciplines, each refining its analyses and defining its purpose. These were heady days of discussion and debate and many of us teaching at Delhi University were participants. There was the excitement of breaking away from colonial frameworks and discovering new knowledge and in arguing over methodologies and generalisations. The boundaries between disciplines were happily crossed and much was learnt in the process. Conclusions that were tentative and searching to begin with, were tested, and gradually began to replace earlier theories.

These changes had significance even for studies of the societies of the past. Civilisations were no longer graded in terms of which was superior, nor were historians too bothered about which was earlier, or for that matter how indigenous each may have been. Instead attempts were being made to understand the structures of early societies. Some areas of knowledge underwent a major re-orientation and Indology was one of these. We often forget that Indology is in essence a colonial construction. Indologists were by definition non-Indians studying some aspects of India, using methods developed by European scholars in the nineteenth century. The development of the social sciences also influenced Indological studies. Textual and linguistic analyses were continued, but were now accompanied by questions relating to agency, audience and intention. The context became significant and analyses moved closer to specific-disciplines.

This has relevance to up-dating the system of knowledge and the inheritance of pre-modern and colonial education. Indian universities, it is sometimes said, are divorced from the Indian tradition of learning and are colonial interventions in education. Knowledge therefore also needs to be removed from the colonial mould and to be replaced with an Indian form of knowledge or an Indian perception. Unfortunately in some fields, the latter is frequently reduced to being merely a reversal of what has gone before rather than the pursuit of fresh questions emerging from innovative analyses. For example, we are familiar with European Indological scholarship which maintained that the Aryan race invaded India, subjugated the indigenous population and established Vedic culture. The currently popular reversal of this is that everything was indigenous — the Aryans, their language and their culture and they go back to the start of Indian civilisation. Nothing came from outside and the culture was in

form in language and activities. But this reversal takes us nowhere. The reconstruction of the history of these times has to investigate more relevant questions. How do we define Aryan — as a language, an ethnic group, a way of life? How did the range of societies evident from archaeology relate to the making of Vedic cultural forms? Given the prevalence of at least three diverse language systems — Indo-Aryan, Dravidian and Austro-Asiatic — what was the process by which Sanskrit became the dominant language in northern India? What is the explanation for the close links of language and concepts in Iranian *Avesta* and *Rigveda*?. The nature of historical questions has changed and reversing an earlier Indological argument does not necessarily enhance knowledge. The replacing of one homogenous history by another - and a questionable reversal of the first - hardly contributes to our understanding of that society. The history of the multiple cultures of India has parameters other than the usual and we still have to reflect this in the questions we ask of historical sources.

Debating with heterodoxy is one of the ways of advancing knowledge. But this is not an abstract exercise since the presence of both the orthodox and the heterodox have a wider social context. This was recognised in the Sufi Khanqahs. Thus, the significance of Nalanda lies not just in its being a monastic centre of Buddhist learning but also in the fact that sectarian controversies were aired at such places. The Chinese Buddhist monk, Hsuan Tsang, came to Nalanda to collect texts and also to acquaint himself with the controversies.

The pursuit of ideas in centres of learning is also linked to patronage. Nalanda was maintained through a grant of at least one hundred villages. Did these grants influence the prominence given to particular sects and doctrines? Or were institutions of learning expected to accept the patronage, frequently from royalty, but remain independent? Did patronage determine ideology — a question that often faces up today? An Indian ruler in the past, be he a Maurya or a Mughal, patronised a range of religious sects irrespective of his own religious identity. Since much of the pursuit of ideas was carried out in monasteries, *mathas*, *khanqahs*, *madarassas* and seminaries, all receiving patronage of various kinds, it would be worth trying to assess the impact of this patronage on learning and knowledge.

Let me conclude by saying that I have expressed some fears and have made some suggestions. But if this is a moment to pause and to reflect then I think that as a University community our reflections should consider how best we can handle what we are essentially concerned with, what is popularly referred to as the imparting of knowledge. But to use the old cliché, the knowledge has to be relevant. This lies in continually assessing the quality of what is taught. Some may feel that I have been

tilting at windmills in expressing my fears, but let me say that the process of titling can often be a useful preliminary to giving form to the future.

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