

LANGUAGE IN INDIA
Strength for Today and Bright Hope for Tomorrow
Volume 7 : 5 May 2007

Managing Editor: M. S. Thirumalai, Ph.D.
Editors: B. Mallikarjun, Ph.D.
Sam Mohanlal, Ph.D.
B. A. Sharada, Ph.D.
A. R. Fatihi, Ph.D.
Lakhan Gusain, Ph.D.
K. Karunakaran, Ph.D.
Jennifer Marie Bayer, Ph.D.

TOWARDS KNOWLEDGE SOCIETIES
A UNESCO REPORT

CHAPTER 9
LINGUISTIC DIVERSITY AND KNOWLEDGE SOCIETIES

risks, since it tends to sift out indigenous knowledge, leading to recognition of “admissible” knowledge on the one hand, and on the other to the non-recognition or exclusion of representations or contents that have not been selected, more or less implicitly equated with “beliefs” or “superstitions”.

Linguistic diversity and knowledge societies

The question of the future of languages will also be high on the agenda of knowledge societies. Linguis-

Box 9.3 The protection of traditional knowledge and genetic heritage

Over the past decades, biotechnology, pharmaceutical and health care industries have developed a growing interest in the traditional knowledge held by local and indigenous communities. This knowledge is increasingly integrated to the creation process and industrial production of medicine, chemical products and fertilizers. More often than not, traditional and indigenous knowledge is not sufficiently acknowledged and protected by conventional intellectual property legislation. This issue is therefore under debate in many international institutions, among which are those of the United Nations system (WIPO, UNEP, FAO, UNESCO, the International Labour Organization (ILO) and the WTO).

The Convention on Biological Diversity, adopted by the United Nations Conference on Environment and Development (“Earth Summit”, Rio de Janeiro, 1992) provides the first umbrella agreement addressing both the preservation and use of all biological resources. It is also the first international agreement acknowledging the role and contribution of indigenous and local communities in the preservation and sustainable use of biodiversity. The Convention reaffirms the cornerstone principle of state sovereignty over the use of biological and genetic resources, thus granting states the right to exploit their resources according to their own environmental policies. The Convention, however, holds that the conservation of biological diversity is a “common concern for humankind” and that states have the duty to cooperate in the sustainable management of resources found under their jurisdiction.

The Convention also stipulates that all Member States have a duty to preserve indigenous knowledge and practices. In this respect, it provides a general legal framework regulating access to biological resources and the sharing of benefits arising from their use. Over the past few years, different countries and regions have adopted or modified their national and regional legislation over the protection of biological resources and traditional knowledge:

African Union (AU; formerly the Organization of African Unity): A 2000 model law holds that any patent over the genetic sequences of any life form will be rejected.⁹ This applies to the biological resources and to the indigenous knowledge or technologies of all the Member States. The phrase “biological resources” includes the genetic resources, populations and any other component of the ecosystem.

Andean Pact: A 1996 decision applies to *in situ* and *ex situ* genetic resources that could be or are already marketed.¹⁰

Association of Southeast Asian Nations (ASEAN): A 2000 framework agreement defines “bioprospection” as the search for, or the exploration of, marketable genetic and biological resources.¹¹

Philippines: The 1995 bio-prospection law identifies and acknowledges the rights of indigenous cultural communities over local knowledge when it is directly or indirectly submitted to commercial use. All biological and genetic resources are owned by the state.

Australia: A 1999 law recognizes the role of indigenous people in the sustainable conservation and use of biodiversity.¹²

Thailand: A law on the protection and promotion of intellectual property protects existing knowledge on traditional medicine.

Brazil: a 2001 provisional measure states that access to traditional knowledge and genetic resources, as well as its shipment abroad, should only be carried out with the consent of the State, via the Genetic Heritage Management Council (CGEN) created for this purpose.¹³ The law acknowledges the right of local and indigenous communities to develop, hold and preserve the traditional knowledge associated with genetic resources, particularly in the scientific and commercial fields. This law also protects “genetic heritage”, defined as “the information of genetic origin contained in samples of all or part of plant, fungal, microbial or animal specimens, in the form of molecules and substances deriving from the metabolism of such living beings and extracts obtained from such organisms, live or dead, encountered *in situ* or *ex situ* on the national territory”.

Box 9.4 Intangible heritage in knowledge societies

One of the specific difficulties of local knowledge is that it cannot be submitted to the criteria of codification under which scientific knowledge is established. In this context, how can we help ensure the identification and preservation of local "contents"? The Convention for the Safeguarding of the Intangible Cultural Heritage, adopted in October 2003 by UNESCO at the 32nd Session of the General Conference, offers a new theoretical and normative framework, which constitutes a major advance.¹⁴ The concept of intangible heritage thus makes it possible to broaden not only the concept of heritage but also that of preservation and transmission.

In addition to extending heritage status to local cultural contents, the concept of intangible heritage may contribute to the preservation of local and indigenous knowledge and enhance the effectiveness of its protection, whether it be a question of therapeutic and food products used for purposes of gain, without acknowledgement of origin, or the unauthorized collection of genetic data. The many complaints lodged in recent years with WIPO in this regard suggest that the fight against biopiracy will perhaps be of strategic importance for the building of knowledge societies. The biopiracy issue is indeed one that touches on the most urgent issues facing the world community such as the protection of genetic data, ownership of living organisms, genetic diversity, cultural diversity, intangible heritage, research policies and the right to health. Such is the complexity of these debates that it is not easy to reach a consensus on them. However, in a future-oriented perspective, the thorny question of biopiracy and how it is to be dealt with is no doubt one of the key areas in which the future of knowledge societies will be determined. For this is a political issue which, as in the case of GMOs or cloning, cannot be resolved in strictly technical terms and to which no valid answer can be found in the absence of a genuine dialogue between all the actors concerned.

tic diversity is under threat. At least half of the 6,000 languages currently spoken in the world are likely to have died out by the end of the twenty-first century. According to some linguists, the phenomenon of language extinction is taking place on an even larger scale with, ultimately, 90 to 95 per cent of languages doomed to disappear. The problem of the disappearance of languages may well become particularly acute in the emerging knowledge societies, given that the new technologies revolution seems, at first sight, to be speeding up this phenomenon of language erosion. In the past few years this risk of creeping linguistic uniformity has been more and more widely recognized, thanks to the research and awareness-raising action of several non-governmental organizations and a number of intergovernmental organizations, in particular, UNESCO and the International Organization of the Francophonie.¹⁵ At the regional level, mobilization in support of languages has led to the adoption of important legal instruments, such as the *Charter for Regional Languages and Minority Languages* adopted by the Council of Europe in 1992. UNESCO, for its part, has not been indifferent to this problem, as is attested by the relevant provisions of the Universal Declaration on Cultural Diversity (2001), the Convention for the Safeguarding of the Intangible Cultural Heritage

(2003) and the Recommendation concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace (2003).

Why preserve linguistic diversity in knowledge societies?

In knowledge societies, which should in principle promote knowledge-sharing, the values of exchange and the ethics of discussion, is it advisable to encourage the expansion of international and regional lingua francas? Is it advisable to promote the unconditional preservation of full-scale linguistic diversity which, if not properly controlled, might in some cases (in particular for countries where, for example, tens or hundreds of languages are used) check the development and spread of education? Or is it not more suitable to promote balanced policies that allow to reconcile the preservation of linguistic diversity and the promotion of widely spoken languages?

Indigenous languages continue to be the main medium of expression of aspirations, intimate desires, feelings and local life. They are indeed the living repositories of cultures. In the general context of the strengthening of multilingualism, there is not necessarily any contradiction between the promotion of lingua francas (those adopted for literacy teaching and that

may ultimately be used, like English, to gain access to the new technologies) and the maintenance of a specific use of mother tongues. Would it not be advisable to try to reestablish a balance between lingua francas and mother tongues in knowledge societies, for example through a twofold course of instruction, one strand being based on the lingua franca and giving access to scientific knowledge, and the other provided in the mother tongue and covering what is called, in different societies, the “humanities”? The “Awakening to Languages” initiative described below (see Box 9.5) seeks indeed to encourage this fruitful co-existence of a mother tongue or local language and a lingua franca. This initiative, which remains in the spirit of the Linguapax project, is designed to provide guides and textbooks to teachers and educational policy-makers who wish to incorporate local languages into national education systems.¹⁶

Moreover, it is important to preserve linguistic diversity in emerging knowledge societies for “cognitive ergonomics” purposes. Indeed, to set limits on linguistic diversity in knowledge societies would be tantamount to reducing the paths of access to knowledge, since their capacity to adapt technically, cognitively and culturally to the needs of their actual or potential users would necessarily be diminished. Preserving the plurality of languages translates into enabling the largest number to have access to the media of knowledge. This is well illustrated by the example of the internet. Basic education and literacy

are preconditions for universal access to cyberspace. The exchange and sharing of knowledge call for multilingualism, however, and in particular for the command of at least one widely spoken lingua franca – the promotion of which is not per se incompatible with the safeguarding of mother tongues and indigenous languages.

Among the tools that may contribute to the preservation of threatened languages, the government implementation of universally proclaimed linguistic rights is especially important.¹⁷ For one of the main prejudices from which linguistic diversity has suffered is the idea that the building of nation-states must be based on a single official language. In the name of national unity and cohesion, policies calculated to weaken plurilingualism and to encourage monolingualism have often speeded up the decline of linguistic diversity. However, monolingualism is far from being the rule all over the world. According to some estimates, the number of bilingual individuals is equal to half the world population, and there is no country where bilingualism is not present. Yet, it is not enough to recognize linguistic rights. Even when national policies favour official plurilingualism (as in most African countries), the great majority of the languages concerned, whether their status is that of “national” languages or “indigenous” languages, have only a marginal position in the world. Official recognition of these languages must go hand in hand with the work of linguistic description, which is

Box 9.5 Awakening to languages

“Awakening to Languages” is an initiative that aims to encourage linguistic and cultural diversity and lingualism, advocated by the Action Plan of the 2001 Universal Declaration on Cultural Diversity. It treats linguistic diversity as a field of educational activities designed to increase pupils’ knowledge of the “world of languages”, to develop in them attitudes of interest and openness towards what is foreign to them, and to foster the acquisition of capacities for observing and analysing languages, with a view to facilitating the learning of those languages in the future.

This type of initiative, supported by eminent linguists and educational scientists, has been introduced in some European countries, in Cameroon and in two of France’s *départements et régions d’outre-mer* (Réunion and Guyana). Conducted upstream of the learning of foreign languages in the proper sense, the Awakening to Languages project seeks to give a self-evident dimension to linguistic diversity and to the speaking of different languages, and to rehabilitate languages that are usually thought to be of less value, allowing them to be seen as legitimate subjects of instruction. This initiative also encourages pupils to address the problem of the transition to writing languages that were traditionally oral. Such an approach consequently enables local languages to be quickly upgraded through the use of writing.

a precondition for their utilization. In some cases (such as, for example, Sängö in the Central African Republic, Lingála in the Congo and in the Democratic Republic of the Congo, Guarani in Paraguay and Beachlamar in Vanuatu), this description and utilization is all the more urgently needed since these languages play an essential role in national construction.

Multilingualism has long been regarded as an obstacle to development, and this idea still holds sway in a number of countries in the world. It is crucial to recognize that linguistic diversity is a source of enrichment for humanity and cannot be seen as a handicap when it is combined with cultural diversity. Nowadays, one language becomes extinct every two weeks on average.¹⁸ The disappearance of a language is a loss for all human beings for it generally means the disappearance not only of a way of life and a culture, but also of a representation of the world and of an often unique form of access to knowledge and to the mind. It is then on the basis of a distorted and erroneous conception of knowledge that some people may form the hypothesis that the expansion of knowledge societies should ineluctably go hand in hand with the ever faster disappearance of languages and a radical reduction in linguistic diversity, both at the level of local or indigenous languages and at that of widely spoken international languages. What is more, there is general agreement among linguists that bilingual persons usually possess a greater cognitive malleability and flexibility than do monolingual persons.

In the light of the many challenges presented by the expansion of knowledge societies and the need to recognize that linguistic diversity is a treasure contributing to human knowledge and to the many different ways of gaining access to knowledge, and in the light of the challenge of constructing peace in the minds of men and of the usefulness of promoting mutual knowledge of cultures, what policy should guide education systems? UNESCO considers that the school should henceforth encourage the expansion, within pluralistic education communities, of a multilingual culture, reconciling the requirements of the teaching of a mother tongue and of several other languages. This multilingual education should begin as early as primary level since, according to linguists,

age 11 marks the end of the “critical period”, the age when “the ear, until then the natural organ of hearing, becomes national”. Hence it is important in the twenty-first century to promote an education that is at least bilingual and, so far as is possible, in all countries that have the necessary means, trilingual. This policy could be facilitated by massive exchanges of teachers and language assistants within the same region of the world, or indeed between regions.

Lingua francas as vehicles of knowledge

While the humanities, because of the singular character of the experiences that they convey, serve pre-eminently to promote linguistic diversity and the practice of mother tongues, the situation is quite perceptibly different when it comes to the natural and exact sciences or technological knowledge. Indeed as we have seen indeed, the codification of such scientific knowledge is mainly implemented by the industrialized countries, which reflects their current hegemony over the production of knowledge. Moreover, the history of European domination has largely determined the geography of languages which serve as vehicles of knowledge. However, the range of dominant European languages has been considerably reduced in academic literature, and scientific literature is unquestionably dominated by English.¹⁹ While it may be assumed that in the so-called hardcore scientific disciplines the codification of scientific knowledge has attained a level such that its linguistic medium has become relatively unimportant, the ascendancy of a particular language being the price that has to be paid to guarantee the universality of scientific research and debate. Nonetheless, this dominant position of English is far more contested in the social and human sciences. Indeed In this field, as in philosophy or poetry for example, the linguistic medium proves to have a constitutive role and to structure the act of knowledge. As a consequence, the hegemony of English is far more difficult to justify. In the opinion of a number of experts, it is even in danger of jeopardizing the exercise of descriptive and analytical operations aimed at reporting on cognitive or discursive experiences and practices which, at the

individual and the collective levels alike, use language as a medium and as a material.

Reducing the erosion of linguistic diversity, discovering ways to prevent the fast extinction of indigenous languages or promoting the wide use of several common languages, does not mean championing a lost cause for the sake of nostalgia. It means, rather, an acknowledgement that languages are at once cognitive media, vehicles of culture and an enabling environment for knowledge societies, for which diversity and pluralism are synonymous with enrichment and the future.

Linguistic diversity in cyberspace

The issue of linguistic diversity in cyberspace is much debated. Some experts estimate that nearly three-quarters of the internet pages are written in English, while others assert it has lost half of its importance.²⁰ It should be noted that those studies do not cover e-mails, forums, databases or non-public pages.

The danger that the internet thus presents to linguistic diversity is in fact one of the mainsprings of the digital divide, and it represents a serious threat for the diversity of contents in cyberspace. Indeed, four essential conditions pre-exist to the contents themselves: the existence of a language acting as a vehicle of these contents, the possibility to write in this language, the existence of a code allowing the transcription of this written language in cyberspace and eventually the compatibility of such a transcription with existing softwares. Has the future of linguistic diversity abruptly changed tack with the advent of the new technologies? Several thousand languages are practically not used in cyberspace, thus automatically marginalizing those cultures of which they are the vehicle. Among the many factors that account for this state of affairs, one basic determinant in the case of unwritten languages is the fact that, as such, they simply have no chance of being used as a language of communication on the internet. And around 6,000 of the world's languages are not written but spoken.

In 2000, the number of internet users having a non-English mother tongue exceeded 50 per cent and since then the figure has been steadily rising. In actual fact, the internet helps to bring language communities more closely together – as is most strikingly illustrated

by the dynamics of the Spanish-language internet. China should soon outstrip Japan in terms of internet growth. (For an account of the situation in Africa, see Box 9.6.) The domination of English is not always synonymous with cultural homogenization on the Web. India, which also has one of the highest growth rates, is often quoted – rightly – as a counter-example in so far as English, which has been for more than half a century a lingua franca in the subcontinent, also serves there as a vehicle of particular cultural characteristics.

Although the domination of English on the internet seems to be on the decline, only a very limited number of languages are stepping into its place. In their present state, certain technologies, such as webpage referencing methods or search engines, tend to consolidate the position of the most commonly used languages, since they favour the most frequently visited sites. Does this domination of a “select club” of lingua francas constitute the only possible compromise between the hegemony of English and a multilingual cluster of networks that would only be able to communicate among themselves by means of automatic translation? Is this to be regarded as the price that has to be paid for the emergence of a linguistically better balanced internet? However, the risk to be run by knowledge societies is considerable, since oral languages may thus suffer a loss of legitimacy that will accrue to written languages, which alone seem to have some chance of finding a place in cyberspace. Do we fully realize today the acuteness of the problems that will unfailingly be generated by this new linguistic divide?

The preservation of linguistic diversity and its promotion in cyberspace must accordingly take into account the many appropriate levels of action and interventions. Such is the aim of the Recommendation concerning the Promotion and Use of Multilingualism and Universal Access to Cyberspace mentioned above. Multilingualism in cyberspace, considered to be “a determining factor in the development of a knowledge-based society”, must be promoted by states, the private sector and civil society. There are, however, two prerequisites for the implementation of such a recommendation within national policies and legislations, namely – the scientific description

Box 9.6 African languages in cyberspace

Sub-Saharan Africa, with still a very small number of internet users, very great linguistic diversity and usually multilingual national language policies, constitutes a particularly interesting case of the problems posed by the promotion of linguistic diversity in cyberspace.

The findings of a recent survey conducted by Marcel Diki-Kidiri at the request of the *Réseau international francophone d'aménagement linguistique (Rifal)*, concerning the presence and use on the Web of the sixty-five most widely spoken African languages, is however, rather surprising and encouraging. Admittedly, it confirms the predominance of English in African cyberspace, but it also shows the first presence of a number of African languages on the web – 7 per cent of the selected sites (starting from the name of the language sought) are wholly or partially written in that language, 12 per cent give access to texts written in an African language, 19 per cent give a linguistic description of the language (phonological, grammatical and/or lexical outline), and 22 per cent offer fairly good documentation. However, out of the sixty-five languages studied, only twenty-four are used as a language of communication and only twelve in more than two sites (Afrikaans, Kiswahili, Amharic, Hausa, Setswana, Kikongo, Somali, Kinyarwanda, Peul, Wolof, Tsonga and Tamazight).

It is true that 90 per cent of African languages are unwritten languages which, for the time being, considerably reduces their chance of being used as a language of communication on the web. As emphasized by the recommendations of the Bamako meeting (2000) on "The Internet and Bridges to Development", there is still a long way to go, although some authors make no secret of their optimism in view of the growing use of African languages in cyberspace.

and transcription of unwritten languages, so as to provide them with stable writing conventions. In this respect, several initiatives are to be stressed. The first is the generalization of Unicode,²¹ which allows some minority languages to reach a broader audience than it used to. Another is the growing interest of contents industries for new lingua francas, well-illustrated by Microsoft's decision in 2004 to launch a Kiswahili edition of its Office software, Kiswahili being a main East African lingua franca, spoken by over 50 million people.

Pluralism, translation and knowledge sharing

Knowledge societies will only be able to avoid the danger of cultural relativism or cultural homogenization if they highlight the need to assert *shared values*, on whose basis true *pluralism* becomes possible. To say this is to recall the exact nature of the universalistic mission that is vested in knowledge. The advent of knowledge societies cannot be viewed, purely and simply, as a harbinger of the triumph of techno-scientific dogmas in the world – especially since these dogmas usually express no more than the point of

view of stakeholders best placed in the world knowledge economy. Keyed to *learning, openness* and *curiosity*, the emergence of such societies should be seen, on the contrary, as an enhancement of our capacity for questioning, or indeed calling into question, our certainties. Accordingly, in knowledge societies, the safeguarding of pluralism should entail an active, critical tolerance towards oneself. As is stated in the 1995 Declaration of Principles on Tolerance,²² it is important in this regard to take measures to thwart

the current rise in acts of intolerance, violence, terrorism, xenophobia, aggressive nationalism, racism, anti-Semitism, exclusion, marginalization and discrimination directed against national, ethnic, religious and linguistic minorities, refugees, migrant workers, immigrants and vulnerable groups within societies, as well as acts of violence and intimidation committed against individuals exercising their freedom of opinion and expression.

It is also vital to promote "respect, acceptance and appreciation of the rich diversity of our world's cultures, our forms of expression and ways of being human" to and encourage "knowledge, openness, communication and freedom of thought, conscience and belief", that are at the ground of pluralism. Such a programme requires a set of shared values that must be underpinned by firm political will.

Towards translation societies?

In these circumstances, knowledge societies can become true societies of mutual understanding and dialogue between civilizations. Of course, such mutual understanding is not automatic. As has been noted by Paul Ricoeur, it calls for the patient process of translation, which “creates resemblance where there seemed to be only plurality”.²³ Translation introduces understanding where only tumult and confusion reigned. However, translation does not spell the end of diversity, since it does not mean sameness but merely equivalence. Translation is pre-eminently the means of mediation between cultural diversity and the universality of knowledge. In this sense, the bottom line is that there is no universal language but only exchanges between cultural and spiritual heritages in quest of a common language. It follows that the *knowledge societies* will have to be *translation*

societies, if we are to avoid the snares of fake universalism and relativism, both of which are sources of misunderstanding and conflict.

The spreading of the new technologies in emerging knowledge societies offers promising prospects. Still deficient today, machine translation systems, which have nevertheless made considerable progress, represent a real opportunity for the preservation of linguistic diversity. Research in this field, after being rather slow for want of funding, has in the past few years been given a new lease of life through the globalization of the internet market. Some products are now capable of translating internet pages almost simultaneously into the languages most commonly used on the web. Eventually machine translation systems might be made available to the public at large, or through their direct incorporation into hardware for professionals. This should contribute to greater linguistic transparency on the Web.

Background resources

Ali (2001); Ammon (2002); Appadurai (2001); Bain (1974); Becerra (2003); Candelier (1998); Carneiro (1996); Chanard and Popescu-Belis (2001); De la Campa (1994 and 1996); Dietz and Mato (1997); Diki-Kidiri (2003); Diki-Kidiri and Edema (2003); Dortier (2003); Echevarría (2001); García Canclini (1994 and 2001); Goody (1977); Hagège (2000); Hamel (2003); Himona (2003); Hopenhayn (2002); Hountondji (2003); Leach (2002); Martín Barbero (2002); Monke (1999); Murthy (2001); Nakashima and Roué (2002); Omolewa (2001); Philipson (2001); Ramakrishnan *et al.* (1998); Ricoeur (2004); Tu (2004); UNDP (2004); UNESCO (1945, 1960, 1970, 1972, 2000a, 2001a, 2003a, 2003b and 2003f); UNESCO-ICSU (2000); United Nations (1992a); Van der Veken and De Schryver (2003); Wildhaber (2001); Yúdice (2002); Zerda-Sarmiento and Forero-Pineda (2002).