

The politics of the digital divide

Ken Keniston

Extended Abstract

The role of language and localization vis-a-vis the digital divide is sometimes treated as largely a technical problem, the solution of which lies with highly qualified experts in information technology. The problem of localization is thus seen as one of a series of "infrastructural" problems, characteristic of developing countries, which prevent them from joining the "information societies" of the North.

My own perspective does not deny this technological component, but sees the primary importance of local language software as a matter of cultural, and ultimately political, significance. A clear majority of the world's population is without any means of expressing themselves using modern information and communication technologies in their mother tongues. The pace of progress, even for vast linguistic groups like Hindi and Bengali, has been glacial. The major multinationals have been extremely slow to localize, arguing that "everyone speaks English" in the developing countries where they sell their products. Efforts on the part of governments like that of India to develop standards like IISCI are long standing. But these have not been uniformly successful, partly because of a lack of clear mandate for any single government authority to further IISCI, partly because of reliance on hardware rather than software for localization, and partly because of criticisms of the IISCI solution on the part of proponents of important local languages.

In the last five years, however, the outlines of improvement have appeared. Microsoft has at last begun to respond -- partly under the pressure of Linux -- to the need for localization at least to some of the major South Asian languages. (Similar responses have not been seen with regard to major African languages, and much remains to be done). The increasingly widespread adoption of Unicode, which incorporates IISCI, means that more and more of the operating systems used by 95% of South Asian computer users will effectively be able to access their own mother tongues using the market-dominant software solutions. Although different codings for all the major South Asian languages continue to be current, it would appear that IISCI, for all of its flaws, will become the dominant standard, with its problems resolved through software solutions rather than through a wholesale redoing of the basic coding. Despite this progress, even today, programmers, developers, and application writers often note that they must spend weeks or months eliminating the "bugs" in IISCI before they are able to move to the more important task of developing new local language content relevant to the ordinary man or woman in the major South Asian languages.

The development of open-source software is a second and, in the long run, potentially more important move towards a future solution. The recent meeting in Bangalore of the Free and Open Software Group (FOSS) drew, it is said, more than 2,000 passionate programmers and advocates. The enthusiasm and creativity of these young South Asian programmers is moving and convincing.

But the Free and Open Software Movement is a classic "new social movement", in the sense that Alain Touraine defines that. Such movements tend to focus on a single issue, to recruit young, disaffected people, to have a common enemy, to be anti-authoritarian and flat, and to resist efforts to coordinate and harmonize their efforts. They tend to fragment easily and to spend many energies in internal conflicts. With regard to Ind-linux and related efforts, these characteristics stand in the way of coordination and common efforts, producing duplications, contradictions and codings and applications that are often intelligible only to a select view, that are inadequately documented, and that are not easily usable by any except their developers. To be sure, efforts to harmonize and coordinate like those of Hariharan and others here will make a difference. Even

more important, I think in the long run, is the commitment of major companies like HP and IBM to the further development of Linux platforms.

For the moment, we need to acknowledge that the Microsoft platforms, though expensive, are relatively easy to use, requiring less expertise in computer science than the Linux platforms. Thus, the argument over whether the total cost of operation (TCO) of Microsoft as compared with free and open software remains, in my view, unresolved. Microsoft clearly has a vested interest in insisting that TCO for Microsoft products is lower; many states in South Asia, like a number of other nations, have opted for the open-source software on the grounds of low initial cost and, hopefully, low maintenance and equipment requirements. The verdict is not yet in, and doubtless will depend on the particular application chosen.

Finally, in nations like India, Pakistan and Nepal, as in many other multilingual, multicultural nations, the issue of translation from one of the many national languages to the others is vexed and only partially solved. The work of creative researchers like those at the IIT-Hyderabad under Sangal, and other efforts towards machine translation, are a major, world-class step in the direction of machine translation. But it must be admitted that these efforts are, even according to their authors, as yet incomplete, though immensely promising. In the meanwhile, what we have is the de facto adoption of the former colonial language: English in many cases, French in the case of the so-called "Francophone" nations of former French West Africa.

Here we return to the cultural and political problem with which I began. Microsoft once insisted that in India, "Everyone speaks English": the French, eager to preserve the use of their language, insist that countries like Vietnam or Guinea are "Francophone" nations. What this means, of course, is that the elites of these countries, educated in colonial languages, have good access to non-localized software and applications. But if we wish to develop applications and information and communication technologies that serve ordinary people -- if we wish to bridge the domestic digital divide -- reliance on former colonial languages is not enough.

India is perhaps the best example in the world of a nation composed of rich and ancient cultures and literatures, many of them far older than languages like English, German, French, Spanish, and Arabic, whose localization was long since accomplished. These languages are part and parcel of vibrant cultures with major literatures and major contributions to philosophy, science, and technology. Without adequate software in these languages, without the ability to reflect the classics of these languages in modern information and communication technologies, the danger, and, I believe, the fact is that these rich cultural traditions are likely to fall into disuse, becoming the possession of a small handful of scholars dedicated to the understanding of "dead" languages and literatures.

Were this to happen, the repercussions would be not only a vast cultural loss, but also, I believe, political unhappiness and even unrest. Those who believe their traditional cultures neglected or forgotten feel humiliated, restive, and angry. India has been wise in its designation of linguistically-based states and its admission of 18 languages as official languages. But this constitutional act needs to be embodied in vigorous localization and the use not only of English, a convenient link language, but of local languages for computers and electronic communications.