

# The Internet on the



**MARK TURIN IN LEIDEN** . . . .  
**N**ovember 2000 was an important month for the history of the Internet in Nepal since it marked the publication of the International Telecommunication Union's (ITU) report on the state of the country's IT sector. Entitled *The Internet from the Top of the World: Nepal Case Study*, the 53-page report makes for fascinating reading for

those who want to know the hard facts about telecommunications use in Nepal. The most interesting as well as the most predictable finding of all is that His Majesty's Government emerges badly—rather ironic given that the authors of the report were an ITU team specially invited to Nepal by the National Planning Commission. The same team also published a shorter article,

*Computing at the Top of the World*, in the November issue of *Communications of the ACM*, Vol. 42, #11, in which they offer a distilled and punchy résumé of their findings. A section is enough to show their general level of dissatisfaction with the powers that be in Nepal: "Perhaps the government might best pursue an enabling strategy? It needs to get over the mindset of trying to

## A new study offers hard facts about IT in Nepal. Entrepreneurs and the middle class are winners, the only real loser being HMG and

squeeze every dollar of hard currency from every place it can impose a tariff or tax, and get beyond bureaucratic protectionism for inefficient pieces of government, including the NIC" (page 26). Pretty nice stuff.

In the full report we learn that two of the five membership positions of the Nepal Telecommunications Authority (NTA) remained vacant at the time of going to press, and that as of November 1999, the Nepal Telecommunications Corporation (NIC) employed some 4,661 people, "implying a labour productivity level of 50 lines per employee, around 40 percent of the global average" (page 7). In fact, "indifference", "limited" and "NIC" are words that crop up alongside one another more often than is statistically plausible.

The picture is not unrelentingly bleak, however. According to the authors, the brightest light in an otherwise dark tunnel is Nepal's ISP community, which is "driven by smart, young business people, many educated abroad" (ACM, page 26). Moreover, a genuine "advantage of Nepal's network being relatively young is that it is all-digital with the majority having been installed in the last few years" (ITU, page 9). The importance of the latter point should not be underestimated. The now obsolete and user-unfriendly computers with which people in the West have been battling for years have made many older users wary of adopting new operating systems. This is not the case in Nepal where the first computer many people set their eyes on is a Windows machine with a high-speed modem.

We should not forget that the history of telecommunications in Nepal is relatively short. The first fixed line between Kathmandu and the Indian border was opened in 1914, and it was not until 40 years later that the capacity of the Kathmandu telephone exchange had reached 300 lines. In 1999, the average waiting time to get a line in Kathmandu was more than six years and although some of the districts

have an exchange, no lines are connected. As a form of innovative technology, then, one of the most powerful features of the Internet is that it requires relatively little new infrastructure in order to function. For a country like Nepal, where lines of communication (postal system, roads, etc) are limited and unreliable, the decentralised and low maintenance nature of the Internet may emerge to be a distinct advantage.

The suitability of the World Wide Web as a new mode of communication for Nepal has been shown by the speed at which writers, journalists and academics have embraced electronic mail. On more than one occasion I have met senior scholars in Nepal who were surprised to find that some of their colleagues in Europe had neither Internet access nor email. There is, however, a clear reason for what on the surface appears to be a technological paradox. Whilst European academics might have been content with a fax or a registered letter (knowing that both would arrive), in Nepal the prohibitive cost of international telephone calls (NIC currently gains around 60 percent of its revenue from international operations) together with the unreliability of the postal system left the field open for a fast, cheap and reliable form of communication. This niche has been filled by email. Consequently, Nepal's relatively late involvement with the computer revolution (Internet connections were first established in Nepal in 1995) has had two unexpected advantages. First, the more recent introduction of computers to Nepal accounts for the absence of obsolete hardware. Second, in contrast to the wariness exhibited by some Western professionals, most Nepalis with access to computers have shown only enthusiasm for cheap and instant global communication as offered by the Internet.

Ownership of computers in Nepal is still limited to the urban, educated and well-off minority in the country (PC penetration in

Nepal is at 0.27 per 100 inhabitants). Many more people who do not own computers do have access to Internet technology, largely thanks to the 1,000 or so unlicensed communications kiosks (Public Call Centres, or PCCs) throughout Nepal. These previously provided only phone and fax facilities, but have now added email to their list of services. In Europe and the US, web access and private ownership of computers



**In Nepal the first computer people see is a Windows machine with a high-speed modem**

is increasingly going hard-in-hard (ever more people are buying home PCs, and cyber cafés are usually frequented by people on the move), but this is not the case in Nepal. Students, publishers and individuals working in the trekking and tourism industries may not be able to afford their own computers, but they can afford to make use of them. Low expense and easy access, together with free web-based email

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## Entrepreneurs and the urban middle those they purport to serve.

services, such as Yahoo! and hotmail, are features of Internet communication that have encouraged urban middle-class Nepalis to participate in previously inaccessible global networks. As the ITU report states: "ECOs are helping to grow the next generation of entrepreneurs" (page 10).

One of the most web-affected sectors in Nepal is the media. The People's Movement and new Constitution of 1990, brought

people to use them. It is quite likely that a number of the most widely used fonts will emerge as Internet standards for Nepali text, such as Kantipur, Himali, Jaipur, Preeti and Sagamatha.

As a direct result of these changes, the Internet rather than the national archives in Kathmandu may now be the first port of call when searching for specific information on current issues in Nepal. Whilst some of the more established academic publications of Nepal do not yet have their own dedicated websites (most notably *Kailashard Contributions to Nepalese Studies*), these journals can be found in libraries all over the world. Many newer publications do have sites where the contents of previous volumes as well as submission guidelines are available. The real changes, however, have not been in the field of specialist journals but rather in news media. Daily updates, keywords search facilities and good archiving mean that online information is taking on a paradoxical 'semi-permanence' previously not associated with newsprint. At present, most online newspapers and magazines in Nepal have issues dating back a few years available online, and one would hope that these archives may soon be extended further to include electronic copies of older and unavailable issues.

The digital revolution has also had a major impact on the lives of Nepalis living abroad. As the number of expatriate Nepalis grows, so too does their social and economic importance back home. Some choose to settle in their host countries, but there are many who eventually return to Nepal after years of study or work abroad. For many expatriate Nepalis, Internet-based communication is a key element in their contact with their home country. Internet news sites, free web-based telephone services (VOIP) to America (such as dialpad.com) and cheap email have cut down the cost and increased the frequency of communication with friends and family in Nepal. Having made good use of the new technologies during their time abroad, it comes as no surprise to learn that Western-educated, English-speaking and computer-literate Nepalis returning to Nepal have capitalised on the possibilities of Internet entrepreneurship. The ITU report states that "funds transfer" is an area ripe for Internet involvement: Nepali "expatriates often send funds, and a trustworthy mechanism for electronic funds transfer should be provided" (page 32). If successfully implemented, facilities would cut out those middlemen whose chosen career is creating a percentage off the salaries of hard-working expatriate Nepalis.

Success stories? There are a few, although limited to the private sector of course. By January 2000, there were eleven licensed Internet Service Providers (ISPs) of which at

least nine were operational and Nepal had the lowest dial-up Internet tariffs in all of South Asia. Conventional communication technologies (telephone and television) are still state-controlled, but Internet Service Providers (ISPs) have been largely left to their own devices. One direct result of this freedom has been fierce competition between the different ISPs in Nepal to secure customers and provide technical support. Moreover, the authors of the ITU report have singled out HealthNet for special praise for "actively pursuing network connectivity", and Pradhan's expansion plans are greeted with approval.

Amusing and unexpected paradoxes? Well, the success of .np as a Top-Level Domain (TLD) may in part be down to the fact that .np is related to 'Nippon', which would explain why according to the ITU report, "there seem to be a relatively large number of Japanese hosts using .np".

Overall, the report is a mine of information about the state of telecommunications in the Kingdom. There are a few entertaining and unexpected revelations, but the real strength of the study is that it offers some hard facts about the use of Information Technology in Nepal. Entrepreneurs and the urban middle class emerge as the winner, the only real loser being HMG and those they purport to serve: "some Ministry Secretaries who were contacted did not even know if their ministries had web sites". Oh dear. ♦

The ITU report is freely downloadable from the Internet at <http://www.itu.int/itu/casestudies/nepal/nepal.htm>

(Mark Turin is working on a grammar of Thangmi, a Tibeto-Burman language spoken in Nepal, and is the webmaster of the Himalayan Languages Project at Leiden University.)

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about by the actions of the Movement for the Restoration of Democracy, marked a genuine watershed in the history of Nepal, especially for the print media. Over the last decade, many newspapers, magazines and journals have been established or revived. Whilst increased literacy and greater political awareness have encouraged the growth of print media, the traditional obstacles of printing cost and physical distribution have not yet been overcome. Partly in response to these challenges, many newspapers have created web sites in the past five years. These home pages differ in quality and breadth, ranging from cursory overviews of the publication, with excerpts of a lead story and some contact information, to well-archived, interactive sites with identical content to the printed physical copy. Opinion letters and other comments can now be submitted through the home pages of the publication or by email to the editors, leading to a much higher rate of feedback on articles and features.

The Devanâgarî font compatibility problem is en route to being resolved by making the fonts used in online Nepali-language HTML downloadable and free, thereby encouraging more

