

...ate and ease the swelling of
lungs and relax the bronchi
leading to proper
oxygenation.
The head of the respiratory

...one or two attacks in a lifetime,
some have attacks till the age
of 14 years and then at 35. No
one can predict the course of
the disease.

...in 1992, developing countries exported 15 per cent more
tobacco than in 1991, but earned \$57 million less. This bene-
fits the TNC's who control the trade.

Panos

A computer with a speech device is the need of the hour

With technology soaring, bringing into reality ideas which were sheer dreams only a decade ago, why do the sightless in India feel so low, asks Preeti Singh

WHenever I enter a bookshop, the smell of books awakes a deep longing within me. A longing to discover all that is in store inside the layers of printed pages. I reach out and pick a book, turn a few pages and all that happens is, I am thrown into despair. I walk out of the shop sad and hopeless. I am not illiterate. I am only visually impaired. With technology soaring, bringing into reality ideas which were sheer dreams only a decade ago, why does a blind person have to feel so low?

The answer is here. It is only a question of awareness and information. The above felt pain can be eradicated from someone who is visually impaired. No, I am not talking about Braille or audio cassettes. This is to do with the electronic and micro chip world.

Braille is a script which can only be used by visually impaired persons for themselves. It cannot be used to communicate with those with sight. Moreover, as there are not enough Braille presses, it is next to impossible for all printed matter to be made available to the blind. Also, as Braille has to be embossed, the paper used has to be thick. As a result, Braille books and magazines become too bulky, making stacking and transportation a problem. To overcome this hazard, blind persons have used voluntary readers to read to them. This meant they had to rely on their memory nearly completely, as the readers were also hard to come by.

Then came the use of tape recorders and it was a kind of revolution. Now books could be read out and recorded simultaneously, which made it possible for the blind to be able to listen to these recordings repeatedly and thus improve the quality of learning. The books on tape are known commonly as "talking books". Talking books are again few compared to the quantum of information requir-



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ed to stay abreast with the fast progressing world.

Computer with speech device is the answer. The speech synthesiser attached to computers can make it possible for the sightless to have access to nearly all the text which is available to the sighted. Computer network had made it possible for people staying in one country to have easy access to articles and books in the others thousands of miles away. This facility is also available here in India.

Most universities having Internet facility make this accessible to students at a very nominal cost. It is also made available to those who are not students but would like to use the system at a higher cost. It is the lack of awareness and information that is keeping this marvellous world of information and knowledge out of the reach

of the visually impaired. All the addition that is needed to this already functional network system is a device known as the speech synthesiser. This device once attached to any computer converts the screen display into audio output, in a near human voice. The cost incurred to obtain the speech synthesiser is negligible in the face of the cost undergone to put up the complete network apparatus.

Since most of the books, magazines and newspapers are made ready to print on the computer, these can be easily copied onto floppy disks so that visually impaired people can read these floppy disks using their computers and speech synthesisers.

In 1993, IIST, Bangalore brought out a speech synthesiser. But due to certain unforeseen problems they could only

supply a few of these gadgets. Although work is still in progress to bring back the speech synthesisers into the Indian market, it is not yet certain when this will take place. Until then we have to import the same. The other alternative is to use the sound bluster card, which also makes it possible to read the screen but it is not as efficient. The reading machine is yet another reading aid. This is constituted of three major parts. The scanner scans the text placed beneath, conveys it to the OCR (optical character recogniser) which in turn relays the scanned information to the actual reading device known as the "Dec-talk". This Dec-talk can also be attached to any computer that has the required software.

Recent research has now come out with a device which had made it possible to get audio output as well as online Braille output simultaneously. It is also possible to operate the entire system from a seven keys keyboard. Also, devices known as 'Jaws' in the US and 'Blindows' in Germany are now designed to read graphics as well as text. Leaving very little that is printed out of reach of a blind person.

Unfortunately, all this is still a dream for blind people in our country. The major cause for this being lack of awareness. A lot of technology from the West is widely in use here, so I am certain there would be no objections to adding speech devices to all the speech synthesiser compatible systems.

Vision impairment is a disability, but given the opportunity and facilities, we blind people can be productive members of the society. The effort and cost of providing the same will certainly not be too much. Printed pages then would not bring despair to sightless eyes.

(This article has been written directly through the computer by the author who is visually impaired)