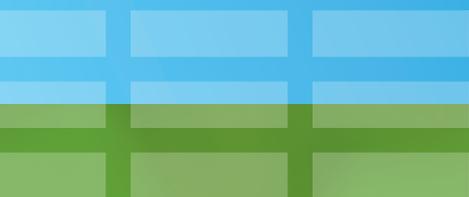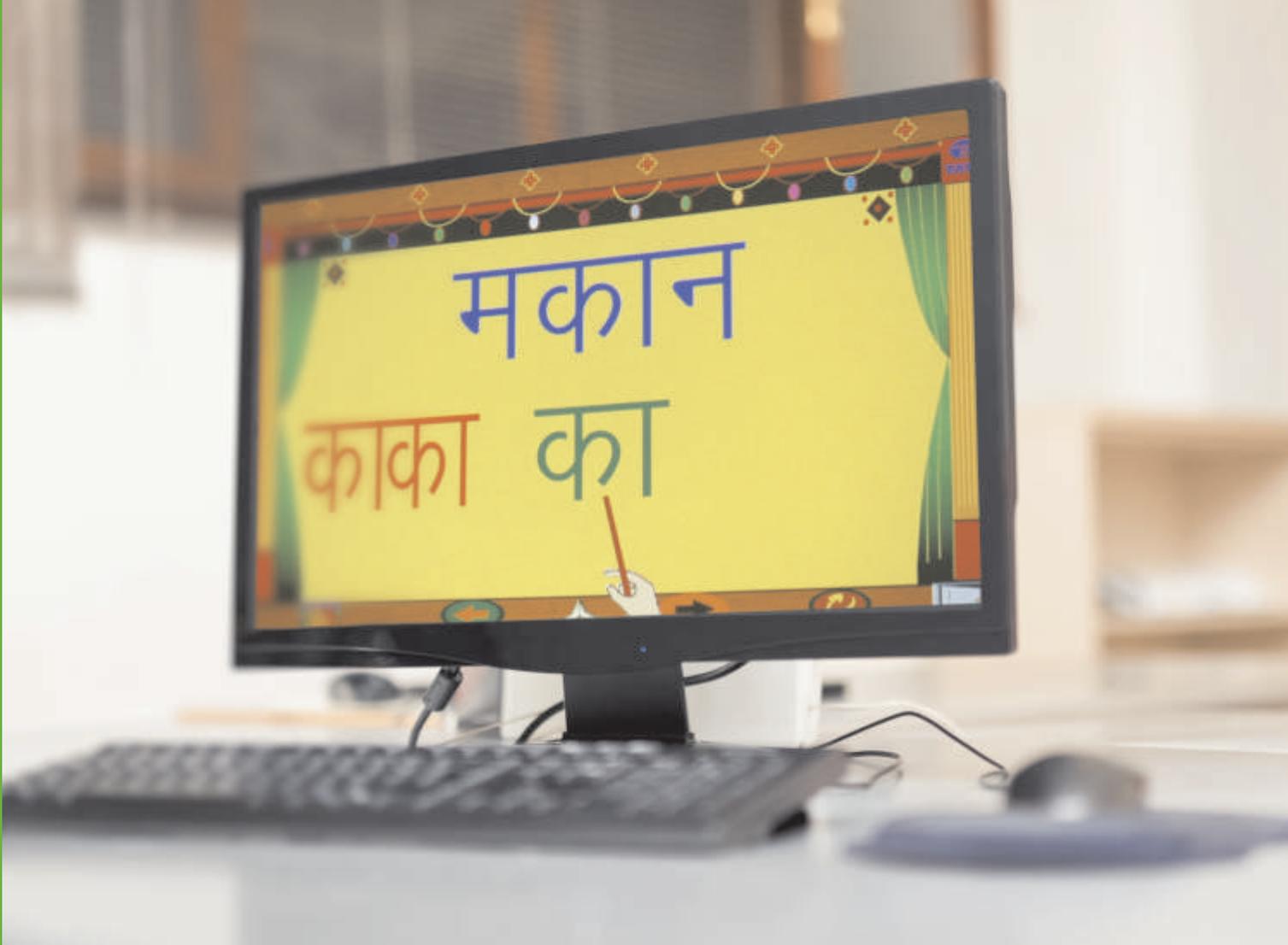# TCS' Digital Solution Accelerates Adult Literacy

Change that empowers

About 17% adults worldwide (796 million people) do not have basic literacy skills, according to UNESCO.[1] Nearly two-thirds of these adults are women. At a national level, according to the 2011 census, India has over 287 million illiterate adults who are unequipped to participate in its emerging knowledge based society. Despite India's rising literacy rate, educating adults remains a challenge.

Tata Consultancy Services (TCS) set up an Adult Literacy Program (ALP) in the year 2000 to augment the Government of India's efforts to address this momentous challenge. TCS developed a Computer Based Functional Literacy (CBFL) solution to accelerate adult literacy in the country. The CBFL solution supports non-literate adult learners to easily achieve literacy in their native language. This flagship program was formulated by a team of experts and spearheaded by Dr F C Kohli, former Deputy Chairman of TCS.

Empowering adults through literacy

Combining the power of technology with the theory of cognition and laws of perception, TCS developed CBFL, an innovative teaching method based on Information and Communications Technology (ICT). CBFL uses animated graphic patterns for easy visual and auditory learning, and enables functional literacy in approximately 50 learning hours. The combination of visual graphics and repetition of sound patterns results in improved recognition, retention, and recall of words.

CBFL is available in nine Indian languages – Telugu, Tamil, Hindi, Marathi, Bengali, Gujarati, Kannada, Odia, and Urdu. It is also available in Arabic and two African tribal languages, Northern Sotho (South Africa) and Moore (Burkina Faso – West Africa). The software is provided free of cost and TCS provides technical support by way of training and monitoring of the program.

[1] *UNESCO, Education for All – Facts and Figures, 2011, accessed October 2015,*
http://www.un.org/en/ecosoc/julyhls/pdf11/education_for_all_facts_and_figures.pdf

Benefits of CBFL

- Takes about one-sixth of the time required by conventional learning methods
- Learners acquire a vocabulary of around 500 words, enough for day-to-day needs such as reading destination signs on buses, bank documents, and newspapers
- Lower dropout rates in comparison with other adult literacy programs

The CBFL program: An overview

TCS partners with local governments, NGOs, and others for implementation of the solution. It also trains the instructor or teacher, provides necessary software, and technical support. Let's look at what the program entails:

- The instructor conducts classes using a computer for a batch of 15 to 20 students in a session.

- Each session lasts approximately 1.5 to 2 hours per day depending on the implementing agency's schedule. Taking into account both training and refresher sessions, it takes approximately three months for a batch to finish the course.

CBFL is a user-friendly solution that an instructor can easily operate, even without prior computer training. He or she can learn to use the software in a day. Besides, no large scale infrastructure is required. Basic computers and stationery are sufficient to implement the program. Primers are also required as the program is a supplementary aid to the course content of the National Literacy Mission Authority (NLMA).

For more details please visit: **www.tcsion.com/alp**

Scaling new heights: Extending the reach of CBFL

TCS carried out the pilot CBFL project in March 2000, in the Beeramguda village in Andhra Pradesh. With the help of the program, the village saw a 100% literacy rate as all participants acquired functional reading skills.

Encouraged by the initial results, TCS decided to scale the program. TCS collaborated with various stakeholders, including NLMA, NGOs, corporates, and academic institutions, and successfully deployed the CBFL program across 14 states in India.

In an effort to take the initiative to different sections of society, TCS implemented CBFL in correctional institutions. The program has been rolled out to assist in the rehabilitation of inmates across jails in the country. One of the most comprehensive programs implemented so far has been at the District Jail at Lucknow, where all the 1,431 target inmates were certified as literate as of January 2015. It has been further scaled to reach inmates in the jails of Maharashtra, Tamil Nadu, Telangana, and Delhi.

The solution has provided literacy skills to over 250,000 people across rural and tribal areas, urban slums, and prisons.

Awards and Recognition

- CSR Award for Community Development for FY 2013-14 from HYSEA
- Global CSR Excellence and Leadership Award 2014 in the category of Education & Training – Social Enterprise
- ITsAP Annual Corporate Social Responsibility Award in 2012
- Coffey International Award for Excellence 2011 from BITC, UK
- Recommended for deployment as a National Mission in India's XIth Five Year Plan

Across the globe

In 2002, impressed by the success of the CBFL program in rural India, the First Lady of South Africa, Zanele Mbeki was convinced it would work in her country too. As a result, the TCS team helped design, develop, and initiate the first set of lessons in Northern Sotho, which was implemented in Lephalale, in the Northern Province of Pretoria. South African educationists are now taking TCS' CBFL program forward.

The Stern Stewart Institute, Munich sponsored the development of TCS CBFL in Moore, an important tribal language spoken in Burkina Faso, West Africa. Around 2,000 adults have benefitted from the program in Ouagadougou, Burkina Faso, till date.

Generating widespread impact: A case study

With the support of the NGO HELP, TCS implemented the CBFL program in Kannada at Chitradurga district in Karnataka, in 2014. The 600 learners from three villages enlisted under 10 instructors, can now read the daily newspapers. The program achieved the following results:

Economic: Members of self-help groups (SHGs) can now sign their personal records, rather than using fingerprints.

Socio Cultural: Government primers cover a wide range of topics related to health, environment, and social practices. The ability to understand these primers has increased social awareness. Learners can also better understand government programs as well as benefits provided by their gram panchayat.

Psychological: Several mothers have now acquired the ability to teach their children. Earlier, they could not help their children with their lessons. Moreover, the new experience of operating laptops has further boosted the confidence and self-esteem of both learners and instructors.

"I could not read or write earlier. The night classes conducted in my village have helped me learn to read, write, as well as perform simple calculations. This has also helped me to be aware of superstitions and social evils."

Mahadevamma, Chouluru, Hiriyur

"I did not know about the injustices in our society, as I could not read or write. Through the night literacy classes organized in my village, I have learned to read newspapers as well as short story books. This has helped me to become a representative in a women's SHG."

Shivalingamma, Chouluru, Hiriyur

About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

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