



IT SERVICES



BPO



SOLUTIONS

Mphasis

Community Services Case Study

© Mphasis. All rights reserved.



Case History

Case Brief	To explore the scope for employment opportunities for the visually impaired people in the IT sector, and understand the job functions they can carry out, their training needs, competency development, difficulties they face in getting accepted. Two visually impaired employees of MphasiS, Vishnu Ramchandani and Fakuuddin Badshah, are successfully involved in carrying out IT related functions.
Main Objectives	To become a more inclusive organization by recruiting larger numbers of disabled people as productive employees
Target Group	Disabled people (physical/hearing/sight impairments)
Project Partners	Victoria Memorial School for the Blind, Mumbai; Enable India, Bangalore

Case Details

Taking the momentum forward, MphasiS formed a partnership with 2 Bangalore-based NGOs - VOICES & Enable India to (a) identify suitable candidates for the BPO business (b) Train them at Company cost (c) Channel them through regular MphasiS recruitment procedure and induct them in mainstream business roles.

The concept

Many disabled people come from the poorer strata of society. MphasiS discovered that these people do not have a) resources to educate/qualify themselves (b) Knowledge/network to seek out new job opportunities (c) The instruments with which to successfully execute a given job. India has the largest number of disabled people in the world (both in absolute terms as well as a % of the population) and it makes eminent business as well as social sense to engage them as productive members of society.

Its impact and its sustenance

Since the programme started, we have provided employment to more than 40 disabled people in our BPO company alone. The numbers are small; however we seek to expand the reach of this programme shortly.

A participative approach to articulate community involvement

MphasiS engages with disability NGOs on a continuous basis to understand the needs and aspirations of disabled people. Our other key partners in this initiative are our training vendors, who conduct the actual training of the candidates before they enter the MphasiS recruitment process.

Outcomes

We have understood the need for a participative approach i.e. collaboration with NGOs, disabled people, their families to remove some of the myths surrounding employment of disabled people.

Case Study: Visually Challenged Employees with MphasiS Software & Services

Note: Employment refers to employment with MphasiS.



Background

Vishnu Ramchandani and Fakruddin Badshah, visually impaired, are employed with MphasiS, and took part in the study. They worked on project assignments together, splitting responsibilities and assisting each other in completing the tasks successfully. They lunch together, and draw strength and companionship in shared problems that are unique to their condition,

Coping with Disability

Vishnu lives alone in Mumbai. His father passed away last year (2005). His mother and brothers are based in Aurangabad. To a question about what his mother feels on his securing employment with MphasiS, the very kind of question nobody would bother asking people with normal eyesight, thus belying the state of employment opportunities for the visually impaired and general perception toward them, he said, “She is not educated, but knows that I do something in computers, and that I earn and can take care of myself even when living alone. That itself is enough to make her very happy. I visit them every 3-4 months.”

Vishnu lives in Jogeshwari at the M.N.B home for the blind. "They give me food. I share a room with four others," he said. "Except for the days on which my computer programming classes are scheduled at GTL in Malad, I take the bus to my hostel in Jogeshwari, else I travel to Malad after office hours, and attend the classes before making my way home to Jogeshwari." When asked how he manages the traveling alone, not without its own uncertainties, he smiled before replying, "I've my white stick."

"I've been directed onto the wrong bus on more than one occasion," he said. "Sometimes the person at the bus stop whom I've requested to alert me when my bus arrives, forgets to tell me that he is leaving after his bus arrives, and I don't come to know of it, and wait there thinking he is still around and will alert me when my bus arrives. But somehow I reach home. I do."

Overcoming Disability

In the interactions during the case study, there were never once any hint of despondency. If anything, they were eager to be given tasks, and at one point even letting on, albeit very politely, that it would help if Project Managers were to explore their capabilities further, setting them challenges that conventional wisdom would hesitate at first thought.

One of the Project Managers made a telling comment when discussing their abilities and skills in the testing domain. He said, "I find them way ahead of testers with normal eyesight. Vishnu and Fakruddin are much better than the others when it comes to certain aspects of functional testing. I can tell you this 100%." The broad scope of any Functional Testing involves testing the system from a logical aspect, covering all the business flows as the business users would see it. Checking for the inter-dependencies and inter-linkages of one scenario with the other is another important event that we test for here. Also, checking for the validity and the sanctity of data and their relationships is confirmed during this process.

Extending Possibilities

Web Accessibility issues are in the forefront today. Designers believe that in confirming to Accessibility guidelines, it's not just simply accessibility to disabled people but also benefit everyone. Accessibility issues typically affect those with disabilities that prevent them from seeing, hearing, and moving, or using tools that interface with information. Disabled readers have access to devices and assistive technologies such as screen magnifiers, screen readers (JAWS) among others. The technologies are no longer merely technologies. They have helped extend employment possibilities.

An e-learning company contacted Vishnu for help with functional testing of their e-learning courses developed in line with web accessibility requirements. Vishnu got 6-7 visually impaired people he knew from his days with Victoria Memorial School for the blind and those he met up with on Access India

(a yahoo mailing list set up to provide an opportunity for the visually impaired persons in India to share experiences, questions, and suggestions related to the use of computer technology) to test these courses. Barun Yadav, from the Senior Specialist Group with the e-learning company, is working to develop these courses, vouched for their effectiveness. “We asked them to go through 3 different courses without any help. These courses were either in Html or Flash. Our aim was to test the templates we created and whether those can be understood by them and our conveying what we intend to. These templates also included interactivities. They did well,” he said.

Barun believes that “We (normal eyesight) can see the screen and they (the visually impaired) have to visualize the screen with whatever they hear. As a sighted user we assume a few things because we can see. They don’t.”

Employability Factor

The ability to ‘see’ beyond the sighted coupled with a certain minimum training in computers can go a long way to improve their employability in IT companies.

A Project manager at MphasiS lists ‘proactive’ among the qualities that are mandatory, and believes that a proactive employee will take initiative in trying to sort out problems they encounter in the course of their work. “Other skills expected of them are: Basic computer awareness, proficiency in JAWS or any other similar screen reading software, knowledge of applications like MS Word and MS Excel, and certain tools. Training in tools (e.g. Code Review) such as those used in logging in defects uncovered during testing and passing them on to development teams is mandatory. Together, this constitutes adequate proficiency in computers to help them carry out the following tasks after providing them with supportive training specific to particular tool usage.”

- **Functional testing***: Using JAWS they can read test plans and test cases, and can carry further testing, and write their own test cases if required, besides filling in review logs.
- **Load testing**: They can be trained to use tools like LoadRunner to carry out load testing.
- **ADA Compliance***: They can help with ensuring that sites are ADA compliant.
- **Defect Logging**: They can log calls and defects using systems like JIRA.
- **SQL scripts/Database scripts***: They can write scripts with supportive training.
- **Configuration Management**: VSS management for projects, and maintenance.

* These tasks were successfully completed by Vishnu and Fakruddin.

Training

Training assumes importance in view of their disability. IT industry requires visually impaired candidates to acquire training adequate to prepare them to successfully handle basic tasks involving computers before applying for positions with a company. Such training determines/shapes aptitude required for skills-specific training tailored to the job profile for which the candidate is hired, and which they're expected to learn on the job.

Three institutes based in Mumbai were included in the study to find out the existing training infrastructure for training visually impaired people. They are: Victoria Memorial School (Tardeo), GTL - Foundation (Malad), Tanya Computer Centre at M.N.B home for the blind (Jogeshwari).

Existing Infrastructure and Training

Note: The following data was consolidated from information obtained from the three institutes.

1. The Training Scene

The number of training institutes catering to the IT-skills training requirements of the visually impaired is few. Unless the IT industry recognizes operating areas within its domain that can be ably handled by the visually impaired, and co-opts them within its folds, there will never be any demand for such training courses, and institutes will be few and far between.

The trainers included in this study are Zujar Shabbir Kanchwala (GTL), Swagat Sinha (Victoria Memorial School for the Blind), and Tanya Balsara (Tanya Computer Centre).

Not many trainers undergo training specifically geared to teaching the visually impaired. Mostly, former students enrolled with institutions turn trainers themselves, teaching at their former institutes or starting one of their own. This is partly because, equipped with skills that have few or no takers in the industry (specifically the IT industry), Institutes offer them the only option of getting a job where they can use their knowledge acquired in courses.

2. Training Requirements

Several trainers at the institutes are visually impaired themselves, providing them with a unique insight into the learning difficulties faced by the visually impaired. They can relate to their own experience when learning to reach out and understand the requirements of their students. To a question about teaching difficulties faced by trainers in

training visually impaired students, Tanya, without eye-sight herself, said “I don’t think there are many difficulties in teaching visually impaired people. But if a sighted person is teaching them, then I think they do require a lot of patience.”

Typically, learning an application like MS Word, and MS Excel can take between 1-2 months each to gain proficiency in their operation.

3. Training Infrastructure

Note: The courses dealing with computer applications are categorized: Basic, Refresher, and Advanced to cater to different requirements of the visually impaired students. An advanced course will include C programming, OOPS with C++, Database (Microsoft SQL Server 2000), MS Visual Basic, HTML programming, .NET.

Apart from the mandatory requirement for computers, the infrastructure includes equipment/software specific to the visually impaired: Braille printer, JAWS, Open Book Ruby (for scanning purposes), Home Page Reader, Duxbury (software to translate English into Braille), and Galileo (page reader) among others. Typically, a basic computer course will include among other things, familiarization with keyboard usage, and computer layout before learning to use Outlook express, word editing software, JAWS screen reading software, and followed by Windows, applications such as MS Word, MS Excel, MS Power point, MS Access, and the Internet (Surfing, Searching, E-mailing).

4. IT Training Availability Issues

Lack of employment opportunities in the IT industry has largely resulted in visually impaired people staying away from investing in computer education, resulting in fewer training institutes for their segment. “Some of us enrolled in the regular institutes, but our training needs being different, it was difficult to cope up,” said Vishnu. Employment availability to the visually impaired will in turn drive education opportunities. Vishnu expects internal training for the visually impaired to broaden its scope to include ‘proper’ training in tools and applications specific to project requirements. It is rather weak as of now. Much of what he learnt was on his own initiative and helped by colleagues.

Post-employment

Post-employment, training in applications/tools specific to job profiles was made available to the employees, enabling them in carrying out several aspects of functional testing successfully. Companies can ensure, at little cost, time, and effort, familiarization with tools to carry out the assigned tasks by providing training in them.

Employee profiles

Note: Two visually impaired employees with MphasiS were included in the case study.

1. Vishnu Ramchandani

- Joined MphasiS in September, 2003.
- Educational qualifications include BA (Political Science), and
- English Braille Stenography Course,
- NAB Workshop for the Blind, Mumbai. Shorthand and Typing Course,
- Basic Computer Course: Computer Fundamentals, MS Windows, MS Word, MS Excel, MS Outlook and Outlook Express, Internet and E-Mail, (Using Screen Reader Software: JAWS) Page Scanning and reading. (Using Open Book Ruby).
- Currently pursuing: Computer Programming Course in C, C++, MS SQL Server 2000, VB, HTML and .net.

2. Fakruddin Badshah

- Joined MphasiS in September, 2003.
- Educational qualifications include BA (Arts), and
- Rehabilitation course (duration: four months) at the National Association for the Blind learning Braille, Mobility (as in getting about on their own as in traveling), Communication skills (structuring story telling sessions, communicating logical concepts in science etc.), Social work/craft skills (making candles, paper bags, liquid soaps).
- Telephone Operator course (3 months), and Basic computer skills (MS Word, MS Excel, JAWS).

Post-employment training/experience:

Note: The following details apply to them both.

Projects successfully completed:

- **Virtual Tax Room (VTR):** The task involved consolidation of documents into a master document, and creating hyperlinks. Over 50 documents from different locations were compiled and modified as required, into a single master file. Hyperlinks were put in to assist user navigation through the document. **Application used: MS Word.**
- **Candidate's Resume Database:** The task involved collating information from over 1000 resumes sent in by applicants, categorize information from the resumes under separate headers (Name, Address, Tel no., Mail ID, Date of Birth, Qualification, and Experience) in a single worksheet to facilitate quick access. **Application used: MS Excel.**
- **Employee's Resume Database:** The task involved collating employee information for the Usability Engineering Team, and categorizing them under various fields to facilitate search and sourcing requirements (skill-sets) for projects. **Application used: MS Excel.**
- **Functional Testing:** The task involved testing websites for functional integrity using Rational Sweet Enterprise Software. It involved testing websites for accessibility as well as usability for a conventional user, as in field sequencing, presence of incomplete/broken links, data population, page loads, and the like.

Training Challenges

Beyond a point, the only difference between the visually impaired and the rest is eyesight. Their (Vishnu and Fakruddin) performance has been heartening for its thoroughness and efficiency. The study learnt that apart from the initial catch-up time spent in in-house training to familiarize them with tasks requiring completion, they were on par with the rest for the same tasks.

Speaking of his experience in training the visually impaired in using software applications, Swagat Sinha, a teacher with Victoria Memorial School, said “First and foremost we had to learn to speak to them softly. Since they are not able to see facial expressions, anything said in a high tone constitutes shouting, affecting them. Secondly, the fact that they are not able to visualize the screen meant we had to make paper/cardboard models they could touch and feel, only then would we explain them the concepts. Once they were clear with what’s on screen, terms like icon, button, popup, word wrap, scrolling and the like were explained, and from then on it became easy for them to learn, before acquiring a proficiency that was comparable to the sighted. We followed this up with more abstract concepts like File, Folder, and Saving files etc. These concepts were used in getting them to relate them to the Internet and the possibilities it offered. There was no looking back then.”

Acceptance

A senior manager with MphasiS is of the opinion that “our own expectations of the visually challenged restricts the scope we provide them. People with normal eyesight significantly scale down their expectations from the visually challenged people, applauding them for completing ‘simple’ tasks thus restricting them to similar tasks. This in turn constrains us from visualizing beyond the simple tasks they can perform, when in fact they are capable of much, much more as is evident with Vishnu and Fakruddin.”

Project Managers need to be proactive in identifying roles and assigning responsibilities and believing in their (the visually challenged) ability to deliver. It is a principle that applies across the board. Belief in another’s ability to deliver drives performances, and hence outcomes. All trainers the study talked to looked forward to employment opportunities in the IT sector for their students. Vishnu keeps in touch with his friends over the phone and messenger, sharing developments, experiences, and opportunities on the Access India mailing list. “My friends ask me if there are any openings for the visually impaired in the IT sector that they can avail of and put to use their education,” he said.

He finds much satisfaction in working with MphasiS. “Good, good, good,” was how he reacted on being asked of his feelings. “I worked with the National Association for the Blind workshop before but that was regular as everyone was in the same boat, but here it is particularly satisfying to be working among people with normal eyesight. It makes me feel I am equal, and it is a great feeling.”

Conclusion

In the end it is about leveling the playing field for all, and providing equal opportunities, for equality echoes from proactive action else it is condemned to remain yet another theoretically viable idea, languishing in a blind alley.