

Assistive Technology (AT): A Prelude to Better Inclusion

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Abstract

The marvels of assistive technology is to afford accessibility which empower the people with disability to accomplish everyday functions, such as mobility. This promotes good will and positive outlook in them. The assistive device is a source which amend their existence as it's been a motivational factor. Indeed, it has been providing them with a greater independence to participate in the society. Assistive technology includes products and related services that upgrade the functioning of people with disabilities by considering their medical complications or life altering events by both physically and intellectually. This can be eluded with the remedy of using the assistive devices. Impairment makes little difference to the quality of life, sometimes known as disability paradox. Further, every individual have their own respect and rights to perform in this society. This article, titled, "Assistive Technology (AT): A Prelude to Better Inclusion" is all about the prominence and requisite of the assistive devices in the life of people with disability. The article focuses on Jean Little, a Canadian writer who is a person with visual impairment. She radiates as a writer, and credits education for her success in life. Little's books portray children with disability at school, pursuing their dreams. The role of assistive devices in the lives of Jean Little's characters is both, prolific and inspiring at the same time. The article also incorporates a brief interview of an (AT) user, in order to render more comprehension.

Keywords: disability, impairment, AT, education, challenges

Assistive Technology (AT): A Prelude to Better Inclusion

"For most people, technology makes things easier, for people with disabilities, technology makes things possible."

- Mary Pat Radabough

An essential requirement, for people with disability is to enhance their access to assistive technology. Thus, it provides them to enjoy their rights, and participate in things which they value. Also, it bridges the disparities between people with and without disabilities. The enabler of participation includes mobility, education, communication, and self-care. It enhances the quality of life of both, the people with disability and their families. By facilitating the participation and inclusion of people with disabilities in all aspects of life, assistive technology can impact on self-image, self-esteem and self-worth. However, when the assistive technology device is complex, costly or paid for a third party like insurance, requires the trained individuals in providing the services for the appropriate usage. Few specific applications include devices for communication, powered wheel chairs, hearing aids, screen reader, feeding devices, mobility aids and so many. Usage of assistive devices is highly beneficiary and effective for the people with disability. There is a newspaper literature

available on the role of assistive technology in the lives of individuals with disability. This also creates an awareness among public. One new story reports:

“The Coimbatore railway station is known as for taking steps to make premises accessible and disabled-friendly. There are wheelchair ramps and accessible toilets here, initiatives undertaken by the NGO Swarga Foundation. Now the station will be first under the Salem Railway Division to have facilities for visually impaired travellers. This has been facilitated by Bengaluru NGO Anuprayaas. Braille signage and tactile maps have been introduced across the station” (Newzhook).

There is an interview with a person with visual impairment which reveals more about the availability and usage of assistive technology. The interviewee is Dr. Sheela, (name changed) an accomplished academician, who uses assistive technology to a greater length. This interview is not only provides with firsthand experience of a user, but also, clarifies several reservations. The letter ‘A’ represents the interviewer, and the letter ‘B’ represents the interviewee. The interview is as follows:

A: How does technology help the people with disability?

B: Technology helps the persons with disability to carry out certain tasks which they are unable to do. For an example, a person with visual impairment uses a screen reading software in order to use a computer or a mobile phone. ‘Assistive technology’ is the term used to refer to the technology which helps the persons with disability in everyday and special circumstances.

A: What are the most commonly used assistive devices for the people with disability and how are they used?

B: There are many assistive devices which are used by persons with disability. As technology is growing rapidly, there are new devices and software’s being developed. There are many, to name a few - screen reading software’s, navigational applications, wheelchairs, Hearing-aids, and so many others.

A: Why are assistive devices important for people with disability?

B: Assistive devices are very important because, they enable the individuals with disability to act independently. One need not depend on other individuals for help, instead, one can accomplish his or her tasks independently. In other words, they empower the individual with disability.

A: Is assistive device for the people with disability: A boon or bane?

B: Definitely, assistive technology is a boon for persons with disability.

A: How can assistive technology help students with disabilities?

B: Assistive technology can help student in accessing the learning resources. It enables them to read books, attend classes, and take their exams. This is disability specific. For instance, a person with hearing disability can use hearing aid to listen to the instruction in the class.

A: Does the government provide any help for the persons with disabilities?

B: Yes. Government supports the persons with disability by providing with basic assistive devices like, white cane for a person with visual impairment, wheelchair for a person with orthopaedic disability, and hearing aids for persons with hearing disability.

A: What types of assistive technology helps the children?

B: The children use special devices to learn and play. For instance, there are tactile puzzles for children with visual impairment.

A: Do you know about 'guide dogs' for the visually impaired people? What's your opinion on this?

B: Yes, I have heard about guide dogs. Guide dog's services are popular in the West, especially, US and UK. I have never seen anyone using a guide dog in India. There is also this famous TV series, *In the Dark*, where the female protagonist who is visually impaired works in a guide dog academy. As I do not have any first-hand experience, I have not formed any opinion on it, but, from the sound of it, it sounds very useful.

A: Would you like to give any suggestion on the assistive technology in India?

B: I wish they are affordable for all, and not just a few. The availability of such devices can be taken care by the Government.

The above cited interview is a firsthand source of information and lived experience. Evidently, assistive technology is one of the wonders of science, which instils hope and help for persons with disability. It is a means to a better end. Assistive technology provides confidence and possibility of doing things. Assistive technology makes the persons with disability independent in some ways. It empowers them to live, and depend less on human resources.

There are many individuals with disability using assistive technology, and leading successful lives. The assistive technology enables individuals with impairment to accomplish their day today tasks, not only at personal level, but also at professional level. There are many examples, and instances which prove the above statement. Jean Little's success is one such outstanding example.

Jean little is a famous Canadian writer, who has created extensive awareness about assistive technology and special education through her books. Little has been partially blind since birth as a result of scars on her cornea. Her parents were determined that her disability should not deprive her from the normal activities of childhood. Little counts herself fortunate to have patient and persuasive Parents who took sole responsibility for her early education. For her, books have always been a window to the world. Reading has been Jean's chief delight, even though, She was born blind and has regained only limited vision over the years. When comparing Little's childhood with the contemporary period, technology development is enormous and facile, "For people who struggle to read text, technology can be a lifeline. An audiobook, for example a story they might not be able to access with a traditional book. These assistive technology (AT) tools for reading are inexpensive and easy to find" (www.understood.org).

In the early period, Little's mother helps Jean Little by ordering large-print books from Canada for her reading. Her parents enrolled her in gymnastics and horseback riding, and she went to a regular school. They made so little of her disability, and never let her realise that she was disabled. In fact, that Little apparently did not realise that her vision was different from others until she was five years old. Thus, she opens in her autobiography work, *Little by Little: A Writer's Education*, "I do have Bad Eyes....My mother never said so and my mother is a doctor so she'd know." (55)

Jean is unaware of the fact that she is a visually impaired person and different from others. Little regulates all her sufferings that pulls her down with the support of AT. Fortunately, to help her out in the early struggles with reading and to nurture a love of books, her father presented her with a type-writer of her own. Little's life signifies about the assistive devices and their necessity. The Orca Book publisher, has written an article, titled, *Jean Little* mentions about, "A Special "talking" computer assists her with her writing." Her life and work provide an interesting window into the history of disability in Canada.

Little's love and passion towards language and literature is quite enthusiastic. She completed her Bachelor of Arts in English. It has been possible as a result of using assistive devices like screen reader, talking computer and Braille as a reinforcement. In the *Scholastic*

Canada, a review has done on Jean Little's awards and recognition. The article has specified a small description on her talking computer:

My computer reads back what I write letter by letter, or word by word, or whole sentences, or it will even read an entire file aloud if I tell it to. You just have to punch in the right command. It will also read the punctuation, the menus, e-mail letters, etc. it will read Googled things too. I usually have it reading out the letters as I type and then I get it to read back what I have done only in whole words. It is tricky! The most important thing is that it will read back to me what I write. (Scholastic, 11)

After Jean Little's bachelor degree, she has worked as a teacher for the individuals with disability. The teaching has been continued for several years. In an article titled, *Tragedy builds a new family for children's author Jean Little and sister Pat de Vries*, documented Little's works, "She has written more than fifty books." It leads to write her first children's novel, *'Mine for keeps'*. It won the Little Brown Children's Book Award in 1962. Her Views towards disability have been affected by her own experience of visual impairment. This made her to write more novels. She has embarked on a journey of writing about special education and assistive technology for students with disability.

Since then, Jean has written fifty books, including novels, picture books, autobiography, poetry and short stories. Few of her books deal extensively with issues of disability. Her books have been translated into a dozen languages and have won many awards. The list of her awards includes, "A Canadian Library Association Book of the Year award, the Ruth Schwartz Award, the Canada Council Literature Prize, The Vicky Metcalf Award and the Boston Globe Horn-Book Honor Book Award. She has been nominated for the Astrid Lindgren Award for the eighth time" (Scholastic). Her autobiographical works are, *Little by Little: A Writer's Education* and *Stars Come Out Within*. These portray the real-life incidence of Little which consists of four phases, childhood, education, work and as a writer.

The autobiography, *Stars Come Out Within*, contains publishers review on Little's usage of assistive technology. One reviewer writes, "She battles with depression as she tries to write without vision. Then she discovers two blessings. One is a computer that talks; the other is her seeing-eye dog, Zephyr" (Viking). The name of her beloved assistive device is, "Her writing with a talking computer called SAM" (HarperCollins). Little always associates with these two for the eminent progress and better way of life.

Little has encountered many struggle with loneliness and exclusion in her life. However, these struggles fade away by the provision of using AT systems. Considering her works, major themes are, dealing with a handicap and the responses of others fitting in, and adjusting to new situations and surroundings. Her life and works are interrelated, which obtain the content of disability as a common subject. With the help of talking computer, braille, screen reader etc., she is able to make things easier and possible.

The perspectives behind assistive products and technologies, is to understand the complexity of factors that must be optimized to enhance function. Selecting, designing, or modifying the correct device for an individual and providing training in its use, as well as appropriate follow-up, are complex. Moreover, the importance given to the related services of the assistive technology or products is an impediment to optimizing function and maintain gainful employment among transitioning youth and adults with impairment. This paper as a discourse on person centred perspectives on assistive technology use, and consider meaningful gains and outcomes.

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