



Date : 08/06/2006

Development of Information and Library Services to persons with Dyslexia - Asian Experiences

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Meeting:	101 Libraries Serving Disadvantaged Persons
Simultaneous Interpretation:	Yes

WORLD LIBRARY AND INFORMATION CONGRESS: 72ND IFLA GENERAL CONFERENCE AND COUNCIL
20-24 August 2006, Seoul, Korea
<http://www.ifla.org/IV/ifla72/index.htm>

Abstract

My presentation describes a Japanese experience and challenge to support persons with dyslexia in equal access to information and library services through the implementation of DAISY (Digital Accessible Information System) technology which is rapidly spreading worldwide. It is followed by a discussion on how information and library services have been developed to target people in Asian countries, while describing the activities of DFA (DAISY FOR ALL) Project organized by the DAISY Consortium in this region.

Introduction

The *Guidelines for Libraries Serving Persons with Dyslexia* authored by Gyda Skat Nielsen and Birgitta Irvall was published by the Libraries Serving Disadvantaged Persons Section (LSDP) of IFLA in 2001.

Inspired by their initiative and enthusiastic work for people with dyslexia, the Japanese Society for Rehabilitation of Persons with Disabilities (JSRPD) started thinking of how we support those people in Japan. People with dyslexia were not well recognized and did not have any legal assistance from the authority in Japan at that time. In order to help librarians to provide information and library materials in an accessible way, in 2001 JSRPD started a new research and development project employing multimedia Digital Accessible Information System (DAISY) technology to ensure access to information for people with reading problems including dyslexia.

This paper describes a Japanese experience to support people with dyslexia through the implementation of multimedia DAISY technology as an effective information and communication technology for this target group. It also explores Asian countries from the perspective of providing information and library services for dyslexics through the Daisy for All (DFA) project.

What is DAISY?

DAISY is an international standard for accessible multimedia which is available for all, including people with disabilities and indigenous and illiterate people, to share information and knowledge worldwide. The DAISY Consortium was established in 1996 by leading not-for-profit organizations around the world serving persons with visual impairment; its purpose being to develop and maintain the standard.

DAISY was originally called Digital Audio-based Information System; and was developed as the standard for digital talking books for persons with visual impairment, replacing the traditional cassette books. Just like the ordinary book, DAISY talking books enable users to jump directly to the specific paragraph, section and page from the contents. Using the latest compression technology, like MP3, they can contain more than 50 hours of speech on one CD-ROM. Moreover, its permanent use and maintenance is also possible.

With the further development of DAISY, more specifically the synchronization of highlighted text, audio and graphics on the same screen, it began to be recognized as an effective technology for people with various disabilities

including people with visual impairment. When the computer is connected with Braille display, the text is shown both on the screen and on the Braille display at the same time. Thus the DAISY Consortium decided to broaden its mission from information services for persons with visual impairments to information services for people with print disabilities. In March 2002, development of the DAISY3 standard was completed and it was authorized as American standard ANSI/NISO Z39.86, which was a great achievement in promoting the standardization. Concurrently, the DAISY Consortium became its maintenance agency.

There are presently 14 full members and 57 associate members as of May 2006 and its secretariat is located in Zurich, Switzerland.

The beginning of DAISY Implementation in Japan

On the initiative of one of the DAISY Consortium founders, Hiroshi Kawamura, DAISY implementation for people with visual impairment in Japan was successfully conducted in the early 2000s. JSRPD carried out the government-funded project to install the DAISY production system in about ninety libraries for the blind all over Japan, with necessary equipment and DAISY players. JSRPD also produced 2,580 titles of DAISY books and a collection of 601 DAISY titles of laws and legislation in DAISY formats to distribute to the libraries for the blind. Even at present, many audio-based DAISY books are being produced by libraries for the blind, public libraries, and by some voluntary groups and lent as CD-ROMs.

Multimedia DAISY Research and dissemination project

In 2001, as was mentioned earlier, JSRPD started an innovative research on the production of DAISY multimedia contents to meet the needs of people with reading problems including dyslexia. The Project Committee, consisting of researchers on dyslexia and LD (Learning Disabilities), people from parents' associations for children with intellectual disabilities and LD, experts on DAISY production, and managers of workshops for persons with intellectual disability, was set up. Based on their advice, JSRPD worked on research and development of DAISY production that meets the needs of people with reading problems including dyslexia.

From April 2001 to March 2006 JSRPD held workshops for educational staff, librarians, members from parents' associations for children with learning

disabilities including dyslexia, their supporters, and persons with dyslexia themselves to introduce the benefits of multimedia DAISY books and to provide instruction on how to use DAISY players. In Japan dyslexia is included in the category of learning disabilities. JSRDP also organized training courses for supporters, school teachers, parents of children with dyslexia, and librarians to learn how to produce multimedia DAISY titles using its production manuals. As for DAISY production, JSRPD provides multimedia DAISY production software that it developed (Sigtuna DAR3.0) free of charge to non-profit organizations including libraries for the blind and public libraries in Japan and developing countries, as well as DAISY Consortium members.

Since 2002, JSRPD has also developed multimedia DAISY player software called AMIS (Adaptive Multimedia Information System). AMIS can play multimedia DAISY talking books containing full text, audio and graphics as long as they are produced in DAISY 2.02 specification. By adding plug-in functions, AMIS can use a game controller or a touch panel monitor, a Braille display instead of a keyboard, can have a display in large print in a different window, or can play DAISY books by just pushing a button. Thus the concept of developing AMIS is “everyone can use it.” Its development was finished by JSRPD in 2003 and will be continued as open source development through a Daisy for All (DFA) project, which is explained later.

JSRPD makes lots of efforts to produce multimedia DAISY samples to use at the DAISY seminars, workshops and training courses. In order to promote people’s understanding of LD or dyslexia, which is not familiar in Japan, we produced a brochure in DAISY multimedia format. Most of the samples are in Japanese and two DAISY titles are available in English. It takes a lot of time to produce them since we ask the users and their supporters to monitor those DAISY digital books; we then try to meet the requirements from users, but we really enjoy doing this.

In 2003 and 2006 JSRPD held Multimedia DAiSY Campaign seminars to show some best practices of DAISY Production and provide opportunities for researchers, educators, parents of LD children, support groups, and librarians to exchange opinions about DAISY production and share knowledge of DAISY related issues such as development of DAISY technology and copyright issues. Reports from those seminars are valuable to promote this DAISY project and with a view to reaching a wider audience, are available on the website of JSRPD.

The result of the JSRPD Approach

As a result of the above activities, researchers, educators and the related people in the field of dyslexia and LD have shown interest in DAISY. Since the establishment in December 2004 of the *Law for Supporting Persons with Developmental Disabilities*, enacted to promote awareness and understanding of developmental disabilities and to establish a comprehensive support framework for persons with developmental disabilities, even more people have showed their interest in this information technology as an educational support tool for children with developmental disorders. However we feel that one of the barriers preventing the promotion of DAISY further is copyright law since we cannot create any books in DAISY format for persons with LD including dyslexia without permission from the author; unlike Sweden where copyright problems were solved in July 2005 and provision of DAISY contents through the internet with full text and audio to persons with disabilities such as visual impairment and dyslexia became available.

A children's book in multimedia DAISY format which JSRPD produced with its author's permission was selected as the Best Book for Disabled Young People 2004 by IBBY (The International Board on Books for Young People), which was very good news for us.

A report on multimedia DAISY production from a young man with dyslexia was presented during one of the seminars. He said that he read a multimedia DAISY book entitled "About dyslexia" and understood for the first time about what his problem was despite having been diagnosed as dyslexic. When he was at school he always asked someone to read school books or other materials. He wishes he could have had such a digital book. His inspirational words were meaningful enough for all staff of the DAISY project to get further incentive to continue to work on this project.

Collaborative work with librarians

The Committee of Library Services to Persons with Disabilities was established by the Japan Library Association to promote information and library services to people with disabilities at all libraries in Japan. It consists of librarians from the library for the blind, public libraries, the national library, a publishing company and JSRPD. Some of the librarians are themselves blind. Committee members actively educate librarians by holding a seminar or training course for

them to serve disadvantaged people, especially those who have not a visible disability, but one such as dyslexia. As one of the committee members I provide information on how to support people with dyslexia in library services and make presentations explaining the benefits of multimedia DAISY books which are accessible for those target people in cooperation with librarians who have already started producing DAISY materials. As a result of the efforts done by the committee members, more librarians have come to understand people with reading problems and started thinking of using DAISY materials at their libraries. With a view to reaching more librarians across the country, a DAISY resource book for librarians will be published by the Committee under the auspices of Japan Library Association.

Challenges

Copyright is a big problem in Japan and can hinder the production of accessible multimedia DAISY materials or books for people with reading problems despite the fact that DAISY technology can change the life of a person with reading problems. Disability organizations have formed a committee to work on revising the copyright law and to negotiate a revision with the government. They are seeking to work in cooperation with other related organizations including the Japan Library Association. To achieve this goal people have to mobilize potential DAISY users to join this activity so that the government might listen to their appeal.

DFA (DAISY for ALL) project

The DFA project was initiated in 2003. Funded by the Nippon Foundation as a five-year project, its mission is to promote DAISY technology in developing countries in Asia to help counter the digital divide and to ensure access to information for the information disadvantaged, such as people with print disabilities, language minorities in a community, indigenous populations who do not have their own script, and those who are illiterate.

Led by Hiroshi Kawamura, staff, including me, from around the world representing India, Thailand, France, the United States and Japan, are working together through the internet getting over the time difference.

One of the main activities each year is focal point development to find a key organization that can produce and disseminate local knowledge contents in DAISY format as a catalyst in the target country. The second activity is to hold

International train-the-trainers workshops to prepare core trainers who can support on-site training at each focal point country. The third activity is to work on the development of local languages for playback/production software tools and to hold a localization workshop of DAISY Playback, AMIS.

So far focal point development was successfully conducted in India, Thailand, Sri Lanka and Malaysia, Nepal, Bangladesh, Vietnam, and Indonesia. And DFA will start focal point development in Philippines, Bhutan and Pakistan soon.

At present, DAISY books can be distributed to people with visual impairment or libraries for the blind. Since people with dyslexia are not identified as such in many developing countries in Asia, the Daisy for All project emphasizes the concept of DAISY for all and trains people to produce both audio-based and full text DAISY books so that they can serve not only the blind but also people with reading problems such as dyslexia. I am sure they are ready to serve people with reading problems who want to use DAISY materials or books although many issues, such as infrastructure and the social system, have yet to be dealt with.

Conclusion

Through the use of DAISY, librarians can provide information and library materials for people with reading problems in an accessible way, thereby ensuring the right of access to information. However in order to reach this population more awareness raising activities to promote people's understanding of the target people in the community are necessary and librarians should facilitate such initiatives in Asian countries.

References

DAISY Consortium: <http://www.daisy.org/>

DAISY FOR ALL homepage: <http://www.daisy-for-all.org/>

Irvall, B. and Nielsen, GS: Guidelines for Library Services to Persons with Dyslexia (IFLA Professional Reports; 7) The Hague: International Federation of Library Associations and Institutions 2001

Nomura, M: Development of Library Services to Disadvantaged People – a Japanese Perspective, Health Information and Libraries Journal, pp.69-71, Health Libraries Group 2004

IBBY Best Books for Disabled Young People
<http://www.ibby.org/index.php?id=271>

Cabinet Office Japan: Annual Report on Government Measures for Persons with
Disabilities (summary) 2005
<http://www8.cao.go.jp/shougai/english/annualreport/2005/mokuji.html>