

**The role of ICT policy in promoting access to knowledge  
for persons with disabilities**

Case Study on Tsunami Preparedness of Persons with Disabilities

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# Abstracts

Policy development for assistive ICT and Universal Design concept are key to bridge the digital gap of persons with disabilities. Based on the experience of WSIS participation from Geneva through Tunis as Civil Society Disability Focal Point on behalf of the DAISY Consortium, the author deals with continued his work to implement the WSIS plan of actions. The presentation focuses on policy development for Tsunami preparedness as a model of ICT development with multi-stakeholder approach including development of Assistive Technology and Universal Design.

17 September 2007

Geneva, ITU

## DAISY Consortium members in the world

- 14 full member organizations
  - Australia & New Zealand, Canada, Denmark, Germany, Japan, Korea, Netherlands, Norway, Spain, Sweden, Switzerland, UK, USA(2)
- 58 associate member organizations from 33 countries
- 23 friends from 10 countries
- 7 Individual supporters
- 1 Educator/publisher

# What is DAISY?

- Digital Accessible Information System
  - Open, nonproprietary, inter-operable standards that meets the requirements of persons with print disabilities
  - No license fees
  - Sustainability is guaranteed by the DAISY Consortium ([www.daisy.org](http://www.daisy.org))
  - Identical to ANSI/NISO Z39.86-200X  
(DC is the maintenance body of Z39.86-200X)

# Vision of the DAISY Consortium

Our vision is that all published information, at time of release to the general population, be available in an accessible, highly functional, feature rich format and at no greater cost, to persons with print disabilities.



# Global Partners

- World Blind Union
- International Disability Alliance
- International Federation of Library Associations
  - LBS
  - LSDP
- W3C/Web Accessibility Initiative
- ITU Sector-D membership
- International Digital Publishing Forum  
(Open eBook Forum)
- United Nations World Summit on the Information Society
  - UN Global Alliance for ICT and Development (GAID)
  - UN Internet Governance Forum
- International Publishers Association (IPA)

## Active Participation in WSIS, Geneva and Tunis







DAISY Consortium: WSIS Civil Society Disability Focal Point

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# Who are users of DAISY today?

- “Persons who have difficulties with vision oriented information contents such as ink print text on papers and pictures”
  - People with Blindness or low vision
  - Mobility disabilities
  - Cognitive/intellectual disabilities
  - Psychiatric disabilities
  - Temporary situations that prevents sharing of knowledge and information in print format

# Convention on the Rights of Persons with Disabilities

## Article 4 General Obligations

1 ...States Parties undertake ...

(f) To undertake or promote research and development of universally designed goods, services, equipment and facilities, as defined in article 2 of the present Convention, which should require the minimum possible adaptation and the least cost to meet the specific needs of a person with disabilities, to promote their availability and use, and to promote universal design in the development of standards and guidelines;

# Convention on the Rights of Persons with Disabilities

## Article 2 Definitions

...

“Universal design” means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. “Universal design” shall not exclude assistive devices for particular groups of persons with disabilities where this is needed.

...

# Tunis Commitment

18. We shall strive unremittingly, therefore, to promote universal, ubiquitous, equitable and affordable access to ICTs, including universal design and assistive technologies, for all people, especially those with disabilities, everywhere, to ensure that the benefits are more evenly distributed between and within societies, and to bridge the digital divide in order to create digital opportunities for all and benefit from the potential offered by ICTs for development.

# Case Study on Tsunami Preparedness of PWD

Access to :

- Information
- Communication
- Knowledge

Requirements for survival: getting information for evacuation in the right time, in accessible format, knowledge on evacuation route, and ability to evacuate including necessary support

# Asian Tsunami Disaster 2004



(Wikipedia)



# Convention on the Rights of Persons with Disabilities

## Article 11. Situations of risk and humanitarian emergencies

States Parties shall take, in accordance with their obligations under international law, including international humanitarian law and international human rights law, all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters.

# Disaster Preparedness Session of the Global Forum on Disability, Tunis, 2005





# Phuket Conference on Tsunami Preparedness of Persons with Disabilities



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# Phuket Declaration 1

**We, participants of the International Conference on Tsunami Preparedness for Persons with Disabilities, assembled on the eleventh and twelfth of January 2007, at Royal Phuket City Hotel, Phuket, Thailand, declare that:**

**Tsunami disasters can be prevented through:**

**sharing of knowledge and best practices on Tsunami and other disasters,**

- 1. strong commitment and active participation for contribution of all stakeholders including in particular persons with disabilities to eliminate the loss of lives,**
- 2. local community-based initiatives for disaster preparedness and**
- 3. infrastructure building including Tsunami early warning system at all levels to disseminate timely disaster warning to all people concerned,**
- 4. Building of disability friendly infrastructure addressing accessibility issues in all phases of disaster management.**

# Phuket Declaration 2

In a knowledge-based society, ICT development, which includes assistive technologies and universal design concept, will contribute to the success of disaster preparedness development that will meet the diverse needs of all people including those of persons with disabilities and other vulnerable people including women, children, old people, cultural minorities, tourists, etc. in the community.

Such ICT development should be based on internationally-recognized standards that are open, non-proprietary, and have proven track record of accessibility.

In commemoration of the Asian Tsunami 2004 and in support of WSIS action plan, Hyogo Frame Work of Action and Tampere Convention, we recommend that:

1. An educational/training center on Tsunami and other disaster preparedness should be established. All aspects of such center, including physical infrastructure and training materials, should be inclusive and accessible to persons with disabilities.
2. All stake holders should follow the principles of WSIS and UN Convention on the Rights of Persons with Disabilities to implement effective preparedness for Tsunami and other disasters.

## Urakawa Bethel's House – a best practice self help group of people with psychiatric disabilities

- Successful Night Tsunami Evacuation Training in winter
- Group Home members with psychiatric disabilities including people with multiple disabilities
- Active participation in evacuation planning and exercise

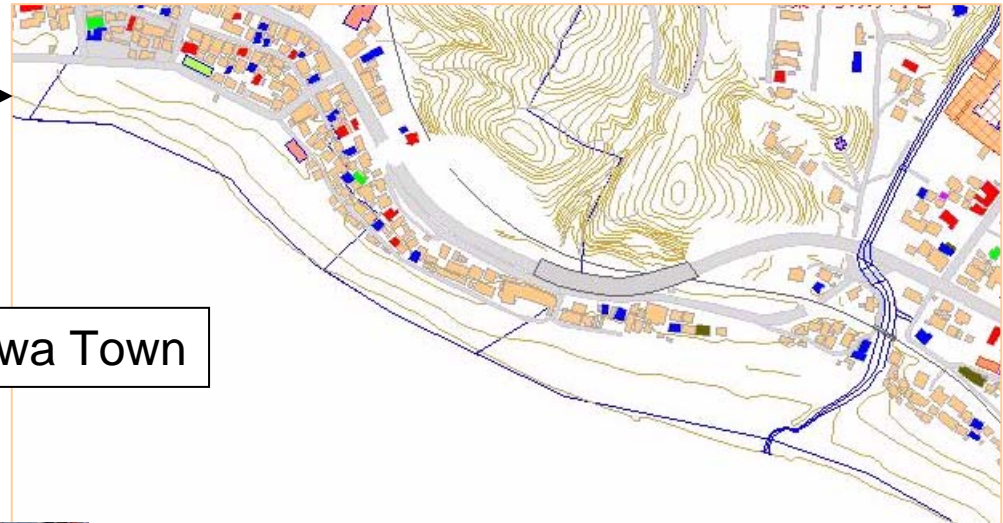


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Geneva, ITU



# Urakawa Town: Tsunami Evacuation Project Site



Urakawa Town



# DAISY Tsunami Evacuation Manual

How to Protect yourself from a Tsunami - EaseReader

The height and time a tsunami arrives can vary between locations depending on where the earthquake occurs.

EaseReader





河村 宏 国立身体障害者リハビリテーションセンター研究所  
障害福祉研究部長

1970年、東京大学総合図書館に勤務。1997年より(財)日本障害者リハビリテーション協会情報センター長、2003年7月より現職。DAISYコンソーシアム理事、WAI / W3C常任委員、アジア太平洋障害者センター支援委員、障害者放送協議会著作権委員会委員長。すべての人が共有する知識と情報のデザインを追求し、読活動に従事。情報アクセス権と著作権の調和を目指した活動に取り組む。また、ソーシャルインクルージョンの立場に立ち、緊急災害時の障害者への情報支援及び国際協力に尽力している。

Monthian Buntan Thailand Association of the Blind (TAB:タイ盲人協会)

タイ盲人協会の初代副会長。現在は、2002年4月からタイ盲人協会専務理事及び、2003年7月からはDAISY for Allのプロジェクト・アシスタント・マネージャーを務めている。1993年～2002年4月までMahidol大学Ratchasudaカレッジの副学長を務めた。アジア太平洋地域WBU執行委員を務め、アジアの視覚障害者の教育と情報アクセスの急速な改善とタイのDAISY事業促進に大いに貢献している。2001年には、タイ障害者の生活改善に多大な貢献を行った卓越した個人として、タイ首相より栄誉賞を授与。



Dipendra Manocha

National Association for the Blind (NAB:インド国立盲人協会)



NABのIT&サービスのディレクターを務める。Intelコンピューター・ラボ、点字開発部、DAISY録音図書プログラムに携わっている。2002年3月に初のDAISYトレーニングプログラムを行い、現在は全国DAISYリソース・センター (NAB内) の設立に携わる。2002年11月、同氏はインドの団体としては初のマルチメディアDAISYの導入に貢献した。また、視覚障害者当事者として国内・外の学会やセミナーにて、主に視覚障害者のためのITに関する発表を積極的に行い、幅広く活躍している。

山根 耕平 (やまねこうへい)

得意なパソコンの知識を生かし、べてるのHPやシステム、及び町の介護支援センターの仕事や防災プログラムにも携わっている。国連の世界情報社会サミットにて英語でスピーチを行った経験をもつ。べてるの家での仲間とのふれあいの中で、自分はそのままでいいんだと心から思えるようになり、言葉をとり返す。以降、仲間の力を信じ、自らも仲間の力になっている。



浦河べてるの家

Jack Jansen The national institute for mathematics and Computer Science in Netherlands (CWI:オランダ国立情報・数学研究所)



CWIに所属。W3C SYMMワーキンググループのメンバーでもある。現在はマルチメディア・アニメーション、「Ambulant Player」そしてクロス・プラットフォームで拡張可能なマルチメディア再生エンジンの開発に関心がある。GrINSマルチメディアエディターを開発したOatrix勤務の経験を持つ。

Accessible information for people with a print impairment (FNB Netherlands:オランダ盲人図書館連盟)

オランダ在住のソフトウェア開発者。海抜ゼロより4.8m下にあるハーグという街の出身。1991年よりFNB勤務。印字を読むことに障害のある人を対象に情報支援を行う。近年は、DAISY関連のプロジェクトを中心に活動している。



Edmar Schut

逸山 サキ (とおやまさき)

アイヌ文化全般に広い知識と技能・技術を体得した俗承者として地域のアイヌ文化の俗承に尽力し、昭和47年より姉帯民芸品研究会(浦河ウタリ文化保存会の前身)設立当初より積極的に参加し、アイヌ文化の俗承・保存活動を行っている。また、アイヌ文化のに関するセミナー、アイヌ民俗文化財専門教育等研修会、アイヌ民族博物館職員研修の講師を務めるとともに、浦河地方の道立高等職業訓練校機軸科講座の講師、浦河アイヌ語教室の講師や浦河町立郷土博物館セミナーなどの講師を務めるなど、北海道内におけるアイヌ文化の俗承・保存及び普及・啓発に大きく貢献されている。



浦河ウタリ協会



木下 富雄 (きのしたとみお)

浦河小学校PTA、浦河第一中学校PTA、浦河高等学校PTA、浦河町PTA連合会の会長を歴任するとともに昭和54年から東町第5自治会会長、昭和58年から現在まで浦河町民衆議院議員連盟会長を務め、平成10年4月から14年3月まで北海道社会教育委員連合協議会会長と北海道生涯学習協会副会長の要職にあった。平成13年には社会教育功労者表彰(文部科学大臣表彰)受賞。自治会・コミュニティ活動のリーダーとして活躍している。

浦河町東町第5自治会会長  
東町都市開発促進協議会会長  
浦河町民衆議院議員連盟会長

## Towards next step

**Urakawa Project::** a project to develop new data object model which will meet the requirements of disaster preparedness of persons with disabilities, old people, foreign travelers, etc.

<http://urakawa.sourceforge.net/>

Links related to Urakawa Project :

<http://www.cwi.nl/>

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

<http://www.inria.fr/>

<http://www.rehab.go.jp/>

<http://www.w3.org/AudioVideo/>

<http://amis.sourceforge.net/>

# Conclusion

## Key elements of policy for ICT Accessibility development:

- Development of accessible multimedia technology with multimodality
- Use case development including disaster model
- Promote participation of users with disabilities as resource people

Thank you very much for your attention!

3000 residents of Miyake Island in Tokyo were forced to live in shelters for 1600 days due to eruption of a volcano. People returned to reinvent their community in 2005.