



# **ICEVI European Newsletter**

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## **President's Message**

Dear Members of ICEVI-Europe,

By comparison to previous ICEVI-Europe Newsletter Issues, this newsletter will be more modest in size. This is by no means an indication of a period of inactivity. Articles contained herein and events that have taken place show various activities both in and outside of Europe that contribute to ensuring that people with a visual impairment will be able to live a full and active life.

Tarja Hännikäinen, the ICEVI-Europe Board Member representing the Baltic and Nordic countries sub region reported that a Meeting between all National Representatives of the region was held in Tartu, Estonia at the end of October. It proved to be productive and inspiring, giving rise to a wide view of the situation concerning the education and rehabilitation for the visually impaired in each country.

On October 27, 2015, a Memorandum of Understanding was signed between ICEVI-Europe and the EBU at the 10th EBU General Assembly in London, UK held on October 26-28 2015. This event signalled a historic moment of a new phase of cooperation between the two organizations in order to achieve the mutual goal of ensuring and facilitating the full inclusion of people with visual impairment throughout all parts of the European Society.

The Board of ICEVI-Europe recently returned from a trip to Bruges, Belgium during which it held its Board Meeting and Host Committee Meeting on November 23 -November 24 2015. As usual the activities in the several subregions within ICEVI-Europe were discussed, along with important information regarding upcoming European and International Conferences. noteworthy was the Host Committee Meeting held with the Belgian Host Committee regarding the organization of the 9th ICEVI European Conference, which will be held on July 2-7 2017 in Bruges. ICEVI-Europe was graciously hosted by one of the organizing members of the conference host committee, Spermalie vzw De Kade and had the opportunity to meet the members of the other two organizing members, Centrum Ganspoel and Blindenzorg Licht en Liefde and engage in thorough initial discussions concerning the preparations and logistics of the European Conference. The theme of the European Conference will be "Empowered by Dialogue" and it will be based on the concept of Quality of Life.

During the ICEVI-Europe Board Meeting, the Immediate Past President of ICEVI-Europe, Hans Welling announced that Dr. Vladimir Ruchin, an Associate Professor of Sociology and Social Anthropology at the Saratov State Technical University in Saratov, Russia has accepted to take on the role of Board Member representing the East European countries sub region. We would like



to welcome Dr. Ruchin to the ICEVI-Europe Board family and express our strong desire to engaging in a fruitful and productive collaboration with him.

















Progress has also been made regarding the preparations for the upcoming 7th ICEVI East European Conference in Belarus. It will be organized by the Belarusian State Pedagogical University, the Institute of Technology and ICEVI-Europe and held on 10-14 May 2016 in Minsk. Further information will be announced on the ICEVI-Europe website shortly.



On November 3-4 2015, ICEVI-Europe was invited to participate in the VBS Congress program committee meeting held in Nurnberg, Germany. ICEVI-Europe is one of the Partner Organizations that will be co-organizing this conference together with VBS and other organizations, including the Local Organizer of the Conference, Odilien-Institut. We are very pleased to be cooperating with VBS, which was established in 1873 and is one of the oldest organizations of professionals in Europe. Preparations are well underway and we look forward to what we believe will be a very successful conference, where educational staff from Universities, primary and secondary schools with a specialization in inclusion and special education, scientists, specialized staff and graduate students in the field of medical science and technology, representatives of associations in the fields of impairment, inclusion and care, people with visual impairments and their families, and representatives of public entities who deal with the implementation of the topics of the UN Convention will meet in order to exchange knowledge, best practices and experiences on the topic of Inclusion of the Blind and Visually handicapped. The Theme of the Congress is "Perspectives in Dialogue" and it will be held August 1-5 2016. More information can be found under the calendar of events section on the ICEVI-Europe website.

In this edition of the newsletter you will find significant information regarding various interesting activities that have taken place or are ongoing throughout Europe. One of these is the common research initiative undertaken by ICEVI-Europe and EBU relating to the Availability of Services for Visually Impaired Elderly Persons in Europe. An International Conference has taken place at the University of Thessaly in Greece on October 16- 17 2015, which aimed at investigating the physical and cognitive processes that underlie characteristics of reading and writing braille and correlating them with patterns Moreover, TeachCVI, a European Erasmus + project has of handedness. begun whose goal is to create collaborative tools for teachers and health care professionals who work together with children with cerebral visual impairment. Other interesting reading topics are the paper contained herein which describes the function and advantage of implementing Audio description in order to improve or enhance services to the Greek blind or visual impaired consumers and the Affordable High Quality Tactile Graphics developed at the Indian Institute of Technology Delhi. Particularly noteworthy announcements in this article originate from the World Blind Union in light of Human Rights Day and Universal Children's Day. Likewise, the International Federation for Spina Bifida and Hydrocephalus (IF) announced that the EP adopted the resolution on rights for people with disabilities, calling for more measures to ensure that citizens with disabilities enjoy their right to free movement between the Member States.

Being that the work of ICEVI-Europe is mainly made available to its members and partners through the website and dissemination of the Newsletter every four months, we would like to strongly encourage all National Representatives



(National Contact Persons) and ICEVI-Europe Members to submit any news, events, projects, publications, scientific work or good practices that have been undertaken in their country in the field of visual impairment to the Coordinator of the Newsletter, Mrs. Andrea Hathazi, so that it may be included in future issues of the Newsletter.

We cannot stress how important it is for the Board, National Representatives and Members to contribute to the development of Newsletter Issues by giving content and shape to them, informing all readers of any recent developments in the field of visual impairment ongoing in their respective countries.

Wishing you and your families Happy Holidays and a blessed New Year filled with health, happiness and prosperity.

On behalf of the Board of ICEVI-Europe, Panagiota (Betty) Leotsakou, President



## First movie presented with audio description in Greece?

Aineias Martos<sup>1</sup> and Maria Papazafiri<sup>2</sup>

#### **Abstract**

In this paper we are going to share some thoughts and our experience related to audio description. Although this is not a strictly scientific paper related to the state of the art of audio description, we wish to share our thoughts and experience with ICEVI members who read this issue of the newsletter because unfortunately audio description is something new to Greek blind people. So our aim is to begin a discussion among the ICEVI members about audio description good practices and limitations in order to help the attempts that are now being made to provide audio description in Greece to gain access to knowledge and good practice. We believe that the opinions of ICEVI members can be a very good source for the people related to the field in order to improve their services to Greek consumers who are blind or with visual impairment.

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#### Introduction

**Audio description (AD)**, also referred to as **a video description** or more precisely called a **visual description**, is a voiceover narrative that makes visual experiences accessible to people who are blind or visually impaired. AD can be used to enhance television, movies, media, museums, exhibitions, theater and live performances, educational programming, and meetings.

It consists of a narrator talking through the presentation, describing what is happening on the screen or stage during the natural pauses in the audio, and sometimes during dialogue if deemed necessary. For the performing arts (theater, dance, opera), and media (television, movies and DVD), description is a form of audio-visual translation, using the natural pauses in dialogue or between critical sound elements, to insert narrative that translates the visual image into a sense form that is accessible to millions of individuals who otherwise lack full access to television and film. Occasionally when there is dialogue that is in another language from the main one of the film and subtitled on screen, the subtitles are read in character by the describer.

In museums or visual art exhibitions, audio described tours (or universally designed tours that include description or the augmentation of existing recorded programs on audio- or videotape), are used to provide access to visitors who are blind or have low vision. Docents or tour guides can be trained to employ audio description in their presentations. Audio description of sporting events is now becoming more common, in particular at soccer stadiums.

Researchers are working to show how description, through its use of varied word choice, synonyms, metaphor and simile, not only benefits children who are blind and others who have learning disabilities but can also boost literacy for all children.

Adding video description to a soundtrack is likely to increase the size of the audience of blind and visually impaired people for a videotape or television show, and is almost certain to enhance the viewing experience for the existing as well as the future audience of blind and visually impaired persons, plus family and friends who view the programs with them. Those who are visually impaired are within the demographic groups that watch the most television, as they are disproportionately older and are less likely to be employed.

In addition to the benefits for people with visual impairments, there is some evidence that video description helps people with cognitive impairments or learning disabilities understand and enjoy programming.

It also has been shown that people without disabilities have an interest in description, in situations where it is inconvenient to pay attention continuously or at all to the visual aspects of a show. For instance, they might enjoy listening to television while doing housework or receiving description over the radio or on audiocassette while driving. This parallels the situation with closed



captioning in which people who do not have hearing impairments have found captioning to be convenient when the audio aspects of a show are difficult or impossible to hear, such as in a crowded bar or health club, or at a train station or airport.

#### History

Audio description was invented by Dr Margaret Pfanstiehl and her husband Coby in 1981. In 1990, the National Academy of Television Arts and Sciences awarded Margaret an Emmy for her "leadership and persistence in the development of television for the visually impaired". In 2009, Margaret received the Excellence in Accessibility Leadership Award at the LEAD Conference at the Kennedy Center for her lifetime commitment and enduring advocacy on behalf of audio description and other forms of information access for the visually impaired community. Over the years, the Pfansteihks personally trained hundreds of audio describers around the world. Since then, many of those trained describers have gone on to train other audio describers (Audio Description Coalition, 2013)

In early 2009, the American Council of the Blind (ACB) established the Audio Description Project (ADP) to boost levels of description activity and disseminate information on that work throughout the United States and worldwide.

With respect to description and media, broadcast systems in Canada and the United States are transmitted digitally and access to description on the former SAP secondary audio program channel is no longer available. Ideally, it is now possible to access multiple streams of audio, e.g., Spanish translation, audio description, audio description in Spanish, etc. In the United States, affiliates in the top 25 markets and the top five-rated cable networks are required to provide 50 hours of video-described programming per quarter under the 21st Century Communications and Video Accessibility Act of 2010. Audio description for television is commonly called Descriptive Video Service (DVS) (Downey, 2012)

Similarly, the limited number of DVDs available with description in North America (less than 100—as compared to over 500 in the United Kingdom and over 700 in Australia) is further complicated by the lack of an audio menu on no more than a handful of those DVDs (http://www.mediaaccess.org.au/dvds/dvd\_database).

In August 2009, BBC i player became the first video on demand service to offer Audio Description (Hassell, 2009).

Now, audio description is increasingly available for first-run movies, and more and more movie theaters are being built or renovated with the necessary equipment to offer the description track to patrons.



### **Audio Description Technology**

Broadcast audio description in the U.K. is delivered terrestrially on a separate track containing the narration only, making it possible to adjust the AD volume separately from that of the main audio track from the television programme, before the receiver mixing is performed. However on digital receivers that lack any kind of audio pre-mixing ability such as is the case with a number of digital satellite television or cable television or ATSC receivers, the AD track is provided with the narration already mixed in and has to be manually selected as either a SAP for ATSC or another language for DVB.

In movie theaters, audio description can be heard using DVS Theatrical and similar systems (including DTS-CSS and Dolby Screentalk). Users listen to the description on a wireless headset.

In live theaters, patrons also receive the description via a wireless device, a discreet monaural receiver. However, the description is provided live by describers located in a booth acoustically insulated from the audience, but from where they have a good view of the performance. They make their description, which is fed to a small radio transmitter (http://www.visionaustralia.org). It is possible to provide the facility to a theater entirely with portable equipment, delivered to the theater in two equipment cases of suitcase size.

The description of the performance can be augmented with tactile tours of the stage or costumes or both.

## Enjoying a modern movie

Recently in Athens we had the chance to watch a movie called **Little England** (Greek: *Mikra Anglia*) which is a 2013 Greek period drama-romance film directed by Pantelis Voulgaris. The film is based on the novel of the same name by Ioanna Karystiani, Voulgaris' wife, and stars Pinelopi Tsilika, Sofia Kokkali, Aneza Papadopoulou and Andreas Konstantinou. The plot revolves around two sisters, Orsa and Moscha from the island of Andros, dubbed Little England because of its affluence. They are both in love with Spyros; it starts in the interwar period and ends in the 1950s.

The film achieved commercial success in Greece, as it was the second-highest grossing film of 2013 and the first amongst the Greek films. Little England also met critical success domestically and abroad. It was nominated for thirteen Hellenic Film Academy Awards and won six, including the award for Best Film. Internationally, it dominated at the 2014 Shanghai International Film Festival, winning three Golden Goblet Awards for Best Feature Film, Best Director and Best Actress, and it is also nominated for a Satellite Award for Best Foreign Language Film. Little England was submitted by Greece for the Best Foreign Language Film at the 87th Academy Awards, but it was not nominated.



This movie is perhaps the first movie that was presented with audio description.

The audio description was provided by a team called Movement of Artists with Disabilities. This non-governmental organization was founded in 2011 and since then has taken positive steps towards universal access for people with disabilities to the arts. Artists with disabilities have created a vibrant culture within the arts that incorporates the individual and collective experience of disability and contributes to the artistic landscape of our country. At the same time, through their art they have promoted the struggle for civil and social rights of people with disabilities.

After the movie we had the chance to discuss our impressions of the audio description provided. It was a really impressive experience. We will describe our experience and opinion on the initiative in more detail later in this paper.

#### The opinion of a blind movie watcher

At the end of September an announcement appeared in the newsletter of the National Federation of the Blind www.eoty.gr advertising a new event that was going to take place for the first time in Greece and especially in Athens. The announcement mentioned that the famous movie Little England would be presented again but with audio description. As a blind man I am always interested in new technologies especially in applications and technologies that improve accessibility. I was a bit scared because all my experience with audio description was not so good and was actually related to descriptions in a museum. I decided after all to go to the event and to watch the movie. For the first time I was aware of the scenes and events taking place in the movie. For the first time the movie was not like a radio drama for me. Furthermore the narrator's voice guided me to understand better how the players felt in each scene. In my opinion audio description made the movie watching more emotional. Despite all the good that audio description can offer to blind people there are still technical issues that can be resolved in order to make it better. Although it was the first time that I experience the movie in this way I think that the volume of the narrator's voice should be controlled by the user in order to improve the experience. For example sometimes the silence or the sound effects of the movie can help the user to get a clue of what is happening in the scene. So, it is important to the user to be able to control the volume of the narrator's voice so that he/she has the possibility to turn it up or down according his/her wishes for the scene or fragment. In my opinion this was the first time that I was able to enjoy the movie on my own and there is no need to watch the movie again with somebody there to explain to me what is going on. We get the opportunity here to thank publicly the team from the Movement of Artists with Disabilities for their great job and the opportunity that they gave us to approach the movie in a totally different way. Hopefully they will continue to provide us with what is a great service. Last but not least we hope that the feedback that we may get from members of ICEVI who read this newsletter,



will be useful and helpful to service providers in Greece, in order to make audio description a common service for Greek movie watchers who are blind.

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# Reflections on the International Conference "Literacy and individuals with visual impairments"

16-17 October 2015, University of Thessaly, Volos, Greece

An International Conference titled "Literacy and individuals with visual impairments" was held in the University of Thessaly in Greece on the 16th and 17th of October 2015. The conference was part of the project "Handedness and Braille Literacy in Individuals with Severe Visual Impairments (HaBLISVI)" which was implemented under the "ARISTEIA" Action of the "OPERATIONAL PROGRAMME EDUCATION AND LIFELONG LEARNING" and was co-funded by the European Social Fund (ESF) and National Resources.

This project aimed at investigating the physical and cognitive processes that underlie the characteristics of reading and writing braille and correlate them with patterns of handedness. In addition, the project combined the study of the functions of hands, fingers and haptic patterns that Individuals with Severe Visual Impairments (ISVI) produce, when they explore tactile figures and small three-dimensional objects and correlate the results with types of laterality. Specifically, the main research objectives of the HaBLISVI project were: (a) to relate visual impairments and blindness with handedness, (b) to relate type of presentation of stimuli (mechanically or electronically) with the reading and writing ability of ISVI, (c) to evaluate the relationship between tactile



movements (types of active touch) and performance, and (d) to investigate qualities of working memory and relate them to components of Braille literacy.

The goal of the conference was to present and discuss issues related to the investigation of physical and cognitive processes which take place in the area of braille literacy and correlate these processes with different hand preference patterns. Also, over the two days, the International Conference explored how teachers' training influences blind students' practices, techniques and interpretations within mainstream educational settings. In addition, the conference addressed issues relevant to Arts Access by individuals with visual impairment, as well as dimensions of understanding of visual imagery and aesthetic experience by people with visual impairment. The conference also featured video presentations which stimulated group interaction and discussions from the audience.

In brief, the topics of the conference related to issues such as:

- Development and evaluation of reading skills in the braille code.
- Mapping the hand preference of individuals with visual impairment during braille reading.
- Mapping exploratory movements of individuals with visual impairment during tactile exploration of geometrical shapes.
- Braille literacy and teachers' training in special education.
- Visual Imagery and Arts Access by individuals with visual impairment.

The outcomes of the conference contributed to the formulation of a holistic view of tactile perception, which in turn illuminated the ways in which individuals with visual impairments read and write braille and explore figures and artworks. Also many issues were discussed about guidelines for teaching the braille code in a variety of educational and training settings as well as the appropriate use of assistive technology.

The invited speakers had done extensive research work on the above topics and enriched the multi-dimensional character of the conference. The presenters were academics and researchers from the Kingston University (UK), the Liverpool Hope University (UK), the London School of Economics (UK), the Babes- Bolyai University (Romania), the University of Sofia (Bulgaria), the University of Athens and from the University of Thessaly which was also the coordinating organization of the event.

Brief input is provided below about the background of the presenters:

 Dr. Vassilios Argyropoulos is Associate Professor in the Special Education Department of the University of Thessaly and the coordinator of the Project HaBLISVI. He has participated in national and international projects in the area of special educational and he also runs as a coordinator a number of projects pertinent to research and training in the field of visual impairment and special education as well. He also



serves the International Council for Education of People with Visual Impairments (ICEVI) as the contact person in Balkan Countries. In his opening speech, Dr. Argyropoulos presented the outcomes of the HaBLISVI project with a presentation titled "Literacy in Braille. Current and future challenges".

- Dr. Fiona Barlow-Brown is Principal Lecturer in the school of Psychology, Criminology and Sociology at Kingston University. One of her main interests is research on reading difficulties in blind children and phonological awareness in young Braille readers. Her talk focused on "Parallels in reading development of young blind and sighted children in terms of differences and similarities".
- Dr. David Feeney is Lecturer in Education and Disability Studies at Liverpool Hope University. He is Manager of Visual Impairment Scotland, a research organization based within the University of Edinburgh's Scottish Sensory Centre Teaching and Leadership. His work covers areas of cultural disability, education and health and wellbeing. The title of his presentation was "Visual impairment and arts access: De-ghosting the authorship of aesthetic experience".
- Dr. Simon Hayhoe is Program Director for the MA Special Needs and Inclusion and Coordinator of the Special Educational Needs section of the Ed.D in Canterbury Christ Church School. He is a centre research associate in the Centre for the Philosophy of Natural and Social Science, the London School of Economics. He is involved with social, psychological and philosophical research in the field of visual culture and blindness, the study of disability, methodology, computing, and inclusive technology. His presentation was entitled "Why do we think blind people cannot understand visual imagery?"
- Dr. Andrea Hathazi has great research and teaching experience in the field of education of children with visual impairments and children with multiple disabilities, methods and techniques in the rehabilitation of children with visual impairments, early intervention. She is an Associate Professor in the Babes Bolyai University in Romania. She is involved in initial training and in-service training for teachers of children with disabilities, pre-school and school age. Also, she is involved in national and international projects and she serves ICEVI as a representative of the Balkan Countries and she acts as representative of Romania as well. The topic of her presentation was "Reflections and challenges regarding technology and Braille".
- Dr. Vlamidir Radulov, is the Chairperson in the Bulgarian Association for Education of Visually Impaired Children and Professor in the Sofia University with a leading role in the education of people with VI. Professor Radulov has conducted numerous studies on Braille literacy and means of studying Braille. Also he has organized many training



sessions for Braille and has great experience in teaching and advising special and regular teachers as well. His presentation had focused on "Braille training of resource and regular teachers".

- Dr. Mira Tzvetkova-Arsova is Associate Professor at Sofia University "St Kliment Ohridsky". She has long-term expertise in Special Education and in work on national and international projects. She is the contact person for ICEVI in Bulgaria and has been involved in many workshops relevant to education and rehabilitation of children with blindness and multiple disabilities. Faculty of Primary and Preschool Education Department of Special Education and Speech Therapy. Her presentation was about "Art and the Blind. A study on the tactile perception and the exploration of art forms by blind pupils".
- Dr Filippos Vlachos is Professor of Special Education Department in University of Thessaly. His research interests focus on psychobiological and neuropsychological approaches to learning and developmental disabilities as well as the relationship between brain laterality and cognitive abilities. His presentation focused on "Handedness in individuals with visual impairment and the relationship with skills development".
- Mr Aineias Martos is a PhD candidate at the University of Athens, researching the accessibility of scientific notation for people with visual impairment. He has rich professional experience as a software developer and software engineer at QUALCO IT Solutions & Services and in localization and support of applications and hardware for the blind for Freedom Scientific, Handy Tech and Euro Braille. His presentation was relevant to "Patterns of hand movements through 8-dot and 6-dot Braille code".
- Mrs Sofia Chamonikolaou is a PhD candidate at the University of Thessaly. She is working as an instructor of Braille code in the Association of Individuals with Visual Impairments of Magnesia "Magnites Tyfloi". Also she has participated in many national and international projects, all relevant to the field of visual impairment and blindness. The title of her presentation was "Issues of active touch in geometry".

#### **TEACH CVI**



Teach CVI is a two year European Erasmus + project. The aim of the partnership is to create collaborative tools for teachers and health care



professionals. To build a bridge between the teacher/educator and health care professionals so they can work together to benefit the target group; children with cerebral visual impairment are herby referred to as CVI.

#### This is done by:

- Making a tool for health care professionals and educators to screen for CVI,
- Creating a common database of tools for CVI detection,
- Producing resources for teachers to support their work in the assessment of CVI,
- Making teaching methodologies to enable the child's access to literacy.
   This includes training and teaching materials for teachers/educators of children with cerebral visual impairment.

In essence, CVI results from damage to the brain and since more than 40 per cent of the brain is estimated to be devoted to visual function it is hardly surprising that brain damage, arising from a number of etiologies, can often negatively impact on a child's ability to carry out visual tasks and thus to learn. As the child's eyes are often intact, the problem of CVI relates to the higher visual functions of interpretation and understanding rather than to the physical structure of the eye itself, thus CVI is often under-diagnosed.

CVI can present poor color and object recognition; depth perception difficulties that can impact on moving through the 3D world; problems in tracking movement and locating objects. It can also lead to visual fatigue, intermittent blindness, orientation and mobility anxieties, poor social and self-care skills, as well as poor reading skills and diminished performance.

In this project we are adopting an action research approach including an action where teachers will be taught how to enhance the literacy skills of children in each of these three broad categories. The project will harness the cross cultural, multi-professional talents of its partners in order to design, assess and deliver a comprehensive, cohesive training package for teachers, social pedagogues, parents and others. It will be available for every teacher in Europe who is struggling to teach a child with CVI.

Elfa Hermannsdóttir, project leader

#### Project partners:

The National Institute for the Blind and Visually Impaired, Iceland (coordinator)

Child Vision, Ireland

Positive Eye, UK

State Diagnostic Centre, Iceland

Royal Blind, UK



KU Leuven, Belgium

Agency for special needs education and schools, Sweden

## Affordable High Quality Tactile Graphics at IIT Delhi

#### 1. The AssisTech Group

AssisTech is an inter-disciplinary group of faculty, research staff and students from Indian Institute of TechnologyDelhi, which is engaged in using technology for finding affordable solutions for the differently abled. The focus of the group is on mobility and education, which we consider are fundamental to enable any person to live independently and with dignity. Visit our website assistech.iitd.ernet.in for details.

### 2. Center of Excellence in Tactile Graphics (CoE-TG)

The Center of Excellence in Tactical Graphics (CoE-TG) at IIT Delhi is an interdisciplinary center set up with support from Department of Electronics and Information Technology (DEITY), Govt. of India with the mission to develop processes including software tools for cost effective and affordable design and production of Tactile Graphics images for visually impaired community.

CoE-TG has all the resources for successful production of Tactile Graphics, including an experienced design and production team, required machinery and a track record of projects delivered.

## 3. What is Tactile Graphics?

Tactile Graphics are images that consist of raised lines and textures produced using embossing or other technologies on physical medium like Swell paper or PVC sheets so that people with visual impairment could perceive images by using the sense of touch. This technology is extremely useful for conveying information and explaining concepts in the fields of science, mathematics, geography etc.

Tactile Graphics could be produced in many ways, but the following three are most popular - Embossing, Thermoforming and Swell paper based. Each of them has their own pros & cons. Based on its extensive research CoE-TG has found that thermoforming is the most cost effective and affordable process and produces good quality diagrams in terms of perceptibility.

Embossing for tactile graphics involves using a special Braille printer to emboss a diagram on normal Braille paper. This Braille printer is of higher resolution than a normal Braille printer.

Swell paper is a special paper that has tiny capsules embedded in the paper. These capsules contain a chemical that expands in size when carbon is deposited using print ink and then heated. In order to produce tactile graphics



the matter is printed on swell paper using normal laser printer and then the paper is heated.

Thermoforming is a common technology – in this technology a mold is used to shape material like plastic, metal etc. For producing tactile graphics using thermoforming, a mold is first created and then used to create multiple copies via thermoforming on PVC sheets. Earlier the molds were created by hand using metal wires, wool, buttons etc. and due to limitations of hand-made processes had problems of accuracy and productivity.

**CoE-TG** has developed the process of creating molds for tactile graphics using 3D printing. Accurate and efficient mold creation is critical for extracting the benefits of cost effectiveness of thermoforming. Accuracy is very important in areas like geography, especially in the subject of maps, where it is critical. Manual processes of making molds would be highly inadequate in such cases. Even in simple geometric shapes, smoothness gets compromised without high accuracy. The CoE-TG process of making molds using software and 3D printing provides the key components for meeting the accuracy needs of molds.

#### 4. Automated Process of Making Tactile Graphics Molds

At CoE-TG the following process is followed for creating accurate molds for thermoforming. The starting point is a 2D graphical image that has to be converted to tactile graphics. There are important guidelines to be followed for these diagrams to be comprehensible by visually impaired. The tactile designers are trained and are expected to follow these guidelines while converting the diagrams from those made for use of sighted readers.

The production process includes these steps:

- 2D diagrams are converted to line diagramsusing CorelDraw tool. Automatic tracing tools built into CorelDraw or in-house tools are used for tracing.
- 2. These line diagrams are converted to 3D diagrams using 3D CAD modelling software
- 3. Mold is printed using 3D printer using the 3D CAD model generated in previous step.
- 4. Text for labels, legends etc are converted to Braille using Duxbury software
- 5. Braille is printed on Braille paper
- 6. Mold is stuck to Braille paper base created in previous step
- 7. Printing is done on PVC using the assembled base on Thermoforming machines



#### 5. Software Tools for Creation of Tactile Diagrams

The group is also working on developing software tools that would assist in efficient conversion of diagrams. Some of the manual processes currently performed by tactile designers using tools like CorelDraw can be automated by using image processing software. We expect availability of first such tools early next year.

#### 6. CoE-TG Production Team

Currently, the CoE-TG team consists of the following – three professors as mentors, three tactile designers, one 3D printing engineer, one thermoforming engineer, two software engineers, one technician and one manager.

#### 7. CoE-TG - Tactile Graphics Projects Delivered

CoETactile Graphics has delivered Tactile Graphics to several premier organizations in India. These include NCERT, XRCVC, Mumbai, National Association of Blind, Center for Blind Women, IyengarYogakshema and National Museum. Details of these projects are given in table below.

In addition certain small but useful projects were done as follows:

- Banking Cheque templates and Pinnacle layout
- Periodic Table

Title	Organization	No of Diagrams	No of Copies	Date Started	Status
Maps	NCERT	26	50	Nov 2014	Ongoing
Maths and Economics	XRCVC	45	3	Sep 2014	Delivered
Physio- therapy	NAB CBW	30	20	Aug 2014	Delivered
Yoga	IyengarYogak Shema	30	50	Feb 2015	Ongoing

### 8. Sample Images of Tactile Graphics

Sample diagrams produced using our own methodology (3D printing followed by thermoforming) along with samples of diagrams produced using other production methods, namely swell paper and embossing, are attached for your evaluation.



#### 9. Cost of Tactile Diagrams

At present the group has the capability onlyto take limited outside work and that too with the objective of getting feedback on tactile diagrams produced from a diverse audience; national as well as international. There are plans to scale and incubate a larger facility in the near future. Production costs and delivery time depend on volume and estimates can be given once requirements are indicated.

## EP adopts resolution on rights for people with disabilities

Clearer and more proactive EP mechanisms are needed to combat exclusion of children and adults with disabilities



Brussels 21 May 2015 // In its resolution on the UN Convention on the Rights of Persons with Disabilities, adopted yesterday, the European Parliament calls for more measures to ensure that citizens with disabilities enjoy their right to free movement between the Member States on an equal footing with others. The International Federation for Spina Bifida and Hydrocephalus (IF) stresses that the EU obligations under the Convention (ratified by the EU in 2010) will not be complete until all children and adults with disabilities enjoy the right to cross-border healthcare without discrimination on the basis of disability.

The UN Convention on the Rights of Persons with Disabilities obliges the European Union to take all possible measures to the ensure the right of people with disabilities to health and personal mobility, among other things. For many Europeans with spina bifida and hydrocephalus (SBH), this means the need to travel to other Member States to receive complex and specific healthcare that is not available in their home country. Although the EU law already protects patients' rights in cross-border healthcare, many people with disabilities who need to use accessible and often more expensive transport and accommodation abroad, and rely on the personal assistant, disadvantaged compared to their non-disabled peers. These health inequalities create great obstacles to living an active life and to giving a meaningful contribution to society.

IF President Margo Whiteford said: "The realization of the right to health for patients with SBH requires a life long **multidisciplinary approach** and access to affordable, adequate, and appropriate services is imperative though not always available in one's country. From my personal experience and from multiple members' accounts we can confirm that **limited or inadequate** 



# access to healthcare can increase the marginalization in society and a risk of developing life threatening complications."

IF is pleased with the overwhelming support that the resolution received at the European Parliament and calls the Parliament to take on a more active role in realising the European Union's obligations towards persons with disabilities. A strong, responsive and proactive EP mechanism able to act quickly and efficiently is necessary to respond to the challenges faced by the EU under the Convention.

MEP Jana Zitnanska said: "The inability of disabled people to access healthcare in other Member states is unacceptable. We, the Members of the European Parliament, the Commission but first and foremost the Members States must work harder to remove the obstacles in the area of transport and in the ways disability is standardised and reviewed across Europe. Only then will the right to the freedom of movement become a reality for all."

#### Contact //

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**About UNCRPD** // The Convention on the Rights of Persons with Disabilities and its Optional Protocol was adopted by the UN on 13 December 2006 and entered into force on 3 May 2008. The Convention is intended as a human rights instrument with an explicit, social development dimension. It adopts a broad categorization of persons with disabilities and reaffirms that all persons with all types of disabilities must enjoy all human rights and fundamental freedoms.

**About IF** // The International Federation for Spina Bifida and Hydrocephalus was founded by people with spina bifida and hydrocephalus (SBH) and their families in 1979. Over the years, it has grown from a voluntary association into a professional disabled people's organisation (DPO) with global coverage, democratic structure and transparent and accountable processes. If's fast-growing membership now includes 51 member organisations in Africa, Australia, the Americas, Asia and Europe. Membership of IF is open to all nationally registered organisations that share IF's vision and mission and actively involve people with SBH in their work.



# Report on Services for Visually Impaired Elderly Persons in Europe

By Rosaline de Korte (Rosaline.dk@gmail.com)







The International Council for Education and Rehabilitation of People with Visual Impairment, European Region (ICEVI-Europe) and the European Blind Union (EBU) in cooperation with the Vrije Universiteit Amsterdam have carried out a common research study on the Availability of Services for Visually Impaired Elderly Persons in Europe. This research study was conducted by Ms. Rosaline de Korte, a Masters Research Student at Vrije Universiteit Amsterdam, who was supervised by Dr. Hans Welling, the Immediate Past President of ICEVI-Europe, with the goal of capturing sufficient understanding about the policies, laws, type of services and circumstances regarding ageing people with visual impairment in the various European countries.

The need to engage in this research study arose from the fact that the largest and still growing population with visual impairment in Europe is the elderly population coupled with the fact that a comprehensive overview of the availability of services for visually impaired elderly persons in Europe was lacking. The thorough and comprehensive report not only provides greater insight on the current situation of visually impaired elderly persons throughout Europe and but also analyzes the availability, accessibility and affordability of services provided to them. Furthermore, it serves as a good reference source for possible improvements in rehabilitation programs regarding the ageing population with visual impairment throughout Europe.

Data from self-administered online questionnaires regarding different service categories sent to European National Organizations of Blind and Partially Sighted People that were members of EBU and collected and analyzed. The findings of the research study can be used to address service differences within Europe and allow a cross-country sharing of best service options to improve the social inclusion and daily living activities of visually impaired elderly persons.

For further information and a downloadable pdf of the Report, please visit the ICEVI-Europe website (<a href="http://www.icevi-europe.org">http://www.icevi-europe.org</a>/) and click on the Aging People with VI link.

Martha Gyftakos ICEVI-Europe



# Message from the World Blind Union on Human Rights Day: December 10, 2015





International Human Rights Day provides us the opportunity to both celebrate the successes of the global movement of blind and partially sighted persons advocating for their rights, as well as to raise awareness about the barriers to realizing these rights that unfortunately still persist. This year is an especially important observance of this day as it will launch a year-long UN campaign to honour the fiftieth anniversary of the two international covenants on human rights: the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR).

The World Blind Union supports a robust international human rights system that works to defend the rights of all, especially the world's most vulnerable, including the blind and partially sighted. Thanks to the tireless work of many human rights defenders (many of them blind or partially sighted themselves), stereotypes and attitudes about the rights and abilities of blind and partially sighted persons have improved. The Convention on the Rights of Persons with Disabilities (CRPD) has been an instrumental tool for disability rights defenders, providing the international legal foundation for the "movement from viewing persons with disabilities as 'objects' of charity... towards viewing persons with disabilities as 'subjects' with rights, who are capable of claiming those rights and making decisions for their lives based on their free and informed consent as well as being active members of society" (UN Secretariat of the CRPD).

The CRPD enshrines the rights of all persons with disabilities, and lays out the duties of States Parties to protect and promote these rights. Unfortunately, stigmatization and isolation persist, as does the need for continued human rights advocacy. Blind and partially sighted persons consistently face significant and unnecessary barriers to their human rights. Illiteracy unfortunately remains as a major barrier for blind people all over the world, with less than 7% of books being available in accessible formats in richer countries, and that percentage is even lower, approaching 1%, in some developing countries. This is a serious issue as illiteracy is a persistent barrier throughout one's life, diminishing the ability to become gainfully employed, to provide for one's self or one's family, and to become an engaged citizen or



even a potential community leader. Barriers to employment also remain, despite the numerous social and technological advances that societies have made over the last 25 years. The unemployment rates for blind and partially sighted persons have remained steadily high, at 70% in developed countries and over 90% in many developing countries. Discrimination is also a major barrier for blind parents, who still face the very real risk of having their children taken away because of misconceptions that some health care workers have regarding the ability of blind persons to raise their own children.

Under the current human rights system, all blind and partially sighted persons have a legal right to an education, to employment and to a family. As a leading international organization representing persons with disabilities, we work to help our members engage their governments to implement all aspects of the CRPD, as we believe the proper implementation of the CRPD will decrease these barriers and make a significant and positive difference in the lives of blind and partially sighted persons.

You can learn more about the CRPD by visiting our website and downloading our CRPD FAQ sheets and toolkits that were created to help our members better advocate to their governments for the proper implementation of the CRPD:

http://www.worldblindunion.org/English/our-work/our-priorities/Pages/unconvention.aspx

The World Blind Union (WBU) is the global organization representing the estimated 285 million people worldwide who are blind or partially sighted. Members consist of organizations run by blind people advocating on their own behalf, and organizations that serve the blind, in over 190 countries, as well as international organizations working in the field of vision impairment.

For further information contact: World Blind Union Caitlin Reid Communications Coordinator Caitlin.Reid@wbu.ngo

## **Press Release: Universal Children's Day**

Every child deserves the appropriate support and education needed to become an independent adult and active citizen. Unfortunately, many children with low vision and blindness are not given the chance to reach their full potential. The World Health Organization (WHO) estimates that of the 19 million children that are visually impaired globally, less than 10% of them have access to education (largely due to the lack of accessible reading materials), and they are more likely than sighted children to suffer from malnutrition or starvation, abuse (in all of its forms), a lack of recreation, a lack of health care and infant mortality.



Article 7 of the UN Convention on the Rights of Persons with Disabilities (CRPD) explicitly calls for States Parties to ensure that the "best interests of the child shall be a primary consideration." What is often best for the child is ensuring that their parents or caregiver(s) have all of the information and support they need in order to enable their child's development into an independent and employed adult, capable of advocating for their own rights.

Many parents of visually impaired have reported feeling poorly prepared for raising a low vision or blind child, often receiving less than adequate support and information from medical professionals, educators and social workers. Parents can be the best, or worst, advocates for their children's well-being. What parents need is support of their own, and associations of parents of children with visual impairment are an essential way to help parents better know how to raise a visually impaired child. The WBU's Representative to the NGO Committee to UNICEF and Executive Director of the National Association of Parents of Children with Visual Impairments (NAPVI – link: <a href="http://www.napvi.org">http://www.napvi.org</a>), Susan LaVenture, explains the importance of Parent Associations:

"Parent Associations have made an impact within communities and have affected public policies on the national level for improvement of education and services for families. National Parent Associations of Children with Visual Impairments have emerged around the world and should be recognized by NGOs and governments as part of the solution as being a resource for families and encourage collaboration to provide parental education and support services."

Parents and caregivers also need to reach out to organizations of the blind in order to connect their children to mentors and possible role models that will further their development into independent adults. Parents cannot always be there for their children, and while it is important to ensure your child is supported, it is also important to know when to let children begin taking care of themselves and advocating for their own rights, and the rights of others in the visually impaired community. Organizations of the blind can help parents navigate this difficult but crucial process.

For families to learn more about the role of parents and mentors in effectively supporting children's educational and personal development, follow this link to Family the Friends and page on our Project Aspiro (http://www.projectaspiro.com/en/friends-and-family/Pages/default.aspx). The World Blind Union's Project Aspiro is a comprehensive career planning and employment resources for individuals who are blind or partially sighted. It offers many resources and tips to help low vision and blind people gain employment, live independently and become strong self-advocates.

To learn more about organizations of the blind, follow this link to our Member Organizations page:



http://www.worldblindunion.org/English/aboutwbu/membership/Pages/Member-Regions-and-Organizations.aspx

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For further information contact: World Blind Union Caitlin Reid Communications Coordinator Caitlin.Reid@wbu.ngo

# "Right to read" for blind and low vision Europeans still denied – access to literary works locked

European Blind Union Press release Paris, 10/12/2015

International Human rights day reminds the over thirty million blind and low vision Europeans of the ongoing failure of the EU and its member states to guarantee the implementation of their right to read. Currently only 5% of all published books in the developed countries and less than 1% in the developing countries are ever produced in accessible formats - such as braille, large print and audio - that visually impaired people need for equal reading enjoyment.

The conclusion of the "Marrakesh Treaty" by the UN World Intellectual Property Organization (WIPO), on 27th of June 2013 offers the historic chance for blind people all over the world, to finally exercise their right to read. The "Marrakesh Treaty to Facilitate Access to Published Works by Visually Impaired Persons and Persons with Print Disabilities" establishes legal fundamental grounds for access to literature by empowering authorized entities to convert inaccessible published books into formats which are accessible for vision impaired users. It also allows the legal sharing of accessible book collections across national borders. While a range of countries such as India, Mexico, El Salvador, Argentina, Paraguay, Mali and others have already ratified the Marrakesh Treaty, the EU and its members are still failing in doing so.

In October 2013 the Copyright Unit of the European Commission presented a proposal to the Council which authorizes the European Union to ratify the Marrakesh Treaty on behalf of all EU member states. 14 months after the Commission had tabled its proposal the Council has still failed to reach an agreement on EU's ratification of the Marrakesh Treaty, although the legal



services of EU Commission, Council and European Parliament have insisted on the clarity of exclusive EU competence which is supported by ample European Court jurisprudence. Right from the start council negotiations were accompanied by tough battles about legal competencies leading to the fact that the commission proposed a second legal compromise. While 21 EU member states have expressed their consent to the proposed compromise, which would allow a swift ratification of the Marrakesh Treaty, seven EU member states led by Germany and Italy have rejected the compromise and are forming a blocking minority which stalemates the ongoing ratification negotiations. The lack of commitment in reaching a constructive agreement is a clear infringement of the right to accessible information enshrined in the UN-Convention On the rights Of Persons with Disabilities, which Germany and Italy have ratified. "Germany's delaying tactic demonstrates an appalling ignorance of Europe's blind people's right to read. Their unsubstantiated arguments and diverting strategy is a stab in the back for blind readers all over the world, and prevents their prosperity and equal social participation." Says German EBU President Wolfgang Angermann.

The European parliament has regularly expressed its dismay about the procrastinating council negotiations and has urged the current Luxemburgish presidency to seek a swift solution to the conflict. While the EU-Commission has sent the case to the European court of Justice and has released a legislative proposal aiming at describing, how the treaty can be legally implemented, blind European readers urge the EU and council to stay focused on swift ratification. Only ratification will make the treaty work and will bring us our deserved right to information. We have waited long enough, it is time to act.

#### More information:

<u>Commission's proposal legislative initiative to implement the Treaty of Marrakech</u>

EBU update council negotiations

#### **About EBU**

EBU is a non-governmental, non-profit making European organisation founded in 1984. It is one of the six regional bodies of the World Blind Union. It protects and promotes the interests of blind and partially sighted people in Europe. It currently operates within a network of national organisations of the visually impaired in 45 European countries.

#### **EBU**

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