

Session 5: Manufacturer and User's Perspective

The Deaf perspective: Audio-Visual Media without Audio

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There are an estimated 70 millions of deaf people in the World [1]. There are more than 300 Millions of hearing impaired people [2], and this number is increasing constantly. Beyond age of 65, there is about a 50 % probability that people get problems with their hearing. Your own chance to become hearing impaired is high, and probably sometime in the future you yourself will be glad to have captions available in order to understand audio-visual media – without auditive input.

Since the advent of the first silent movies around the year 1880, captioning or interpretation into sign language for any audio-visual production has been a very important topic for the large community of deaf and hearing impaired people. But some very occasional interpretation in sign language started only in the early years of public television. Closed captioning of TV programs for the deaf started around 1973 in the United States of America with the Line 21 system, and 1974 in Europe with the British Teletext system.

But today, interpretations in sign language and captioning have become a growing addition to many TV programs and other modern audio-visual media. And captioning has become a necessary visual information channel - not just as a special service for the deaf, but for any member of today's society.

What is pushing accessibility for audio-visual media?

The continuous increase in audio-visual media supported by interpretation in sign language and captioning is not by chance. It is based on a growing number of recommendations and laws.

The UN International Year of Disabled Persons in 1981 has been a milestone in the emancipation of people with disabilities. One of those groups was certainly the Deaf community everywhere. Due to the real cut-off from most of everyday information, from political contacts, from many social interactions, Deaf people had a hard time to get their needs known to a wider part of society.

But at about the same time, sign language has been more and more accepted as a natural and necessary mode of communication for Deaf people, after a long history of oppression in most countries worldwide.

In addition, broadcasting and communication technology has made the intense development we all know well. It also became visible that some parts of society were left out of this positive development, among them certainly the deaf and hearing-impaired people. As a result, resolutions, declarations and national laws were worked out to make sure, that no one is left out of today's information society. While such documents do not work wonder per se, they are often the starting point for actions, which on the long run really promote progress.

Here, we want to mention only a few exemplary and important examples:

- On the global level: UN Convention on the Rights of Persons with Disabilities (2006) [3]

This UN convention has been signed already by 147 countries. And there are clear paragraphs relative to electronic communication from which we can show only the most important ones from our point of view:

Article 9 Accessibility

1. To enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas. These measures, which shall include the identification and elimination of obstacles and barriers to accessibility, shall apply to, inter alia:

(b) Information, communications and other services, including electronic services and emergency services.

2. States Parties shall also take appropriate measures to:

(a) Develop, promulgate and monitor the implementation of minimum standards and guidelines for the accessibility of facilities and services open or provided to the public;

(b) Ensure that private entities that offer facilities and services which are open or provided to the public take into account all aspects of accessibility for persons with disabilities;

(f) Promote other appropriate forms of assistance and support to persons with disabilities to ensure their access to information;

(g) Promote access for persons with disabilities to new information and communications technologies and systems, including the Internet;

(h) Promote the design, development, production and distribution of accessible information and communications technologies and systems at an early stage, so that these technologies and systems become accessible at minimum cost.

Article 21 Freedom of expression and opinion, and access to information

States Parties shall take all appropriate measures to ensure that persons with disabilities can exercise the right to freedom of expression and opinion, including the freedom to seek, receive and impart information and ideas on an equal basis with others and through all forms of communication of their choice, as defined in article 2 of the present Convention, including by:

- (a) Providing information intended for the general public to persons with disabilities in accessible formats and technologies appropriate to different kinds of disabilities in a timely manner and without additional cost;*
- (b) Accepting and facilitating the use of sign languages, Braille, augmentative and alternative communication, and all other accessible means, modes and formats of communication of their choice by persons with disabilities in official interactions;*
- (c) Urging private entities that provide services to the general public, including through the Internet, to provide information and services in accessible and usable formats for persons with disabilities;*
- (d) Encouraging the mass media, including providers of information through the Internet, to make their services accessible to persons with disabilities;*
- (e) Recognizing and promoting the use of sign languages.*

- On the European Level a declaration by the European Parliament has been issued in 2008

Subtitling of all public service television programmes in the EU : [4]

The European Parliament ,

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- A. whereas the European Union should ensure that citizens have equal access to information, education and culture,*
 - B. whereas partial or complete loss of hearing is a condition that affects more than 83 million people in Europe; whereas, given the ageing of the European population, this problem will continue to grow,*
 - C. whereas access to television in Europe is universal; whereas public service television has a public service mission consisting, among other things, in informing and educating viewers,*
 - D. whereas today's technology enables television programmes (including live programmes) to be subtitled as they go out, one example of this being programmes broadcast by the BBC, which has undertaken to subtitle all of its programmes from April 2008,*
- 1. Considers the subtitling of all public service television programmes in the European Union to be essential with a view to ensuring that all viewers, including deaf and hard-of-hearing persons, have full access to them; takes the view that this would also help with foreign-language learning;*

2. *Calls on the Commission to put forward a legislative proposal requiring public service television broadcasters in the European Union to subtitle all of their programmes;*
3. *Instructs its President to forward this declaration, together with the names of the signatories, to the Council, the Commission and the governments and parliaments of the Member States.*

This declaration has been signed by a clear majority of the EU Parliament.

An Example on national level: 21st Century Communications and Video Accessibility Act [5]

US president Obama on October 8, 2010, has just signed the very last important document. The Twenty-First Century Communications and Video Accessibility Act will significantly increase accessibility for Americans with disabilities to the indispensable telecommunications technology tools of the 21st century.

From this long and comprehensive law, we want to pick out only two specific requirements:

- *Providing Americans who are deaf the ability to watch new TV programs online with the captions included*
- *Mandating that remote controls have a button or similar mechanism to easily access the closed captioning on broadcast and pay TV*

Those few but important examples of recommendations and legislation at different levels around the world document clearly the growing understanding of the importance and benefits of interpretation in sign language and of captioning.

Sooner than later, this will influence everybody involved in production and dissemination of audio-visual products: sign language interpreters and captioning will become mandatory in a growing number of countries around the world. Therefore it is a good move to start now with building the necessary infrastructure for an increased output of audio-visual productions, which are easily accessible for the deaf and hearing-impaired.

Where is the audience for audio-visual media without audio?

Initially, sign language interpretation and captioning have been regarded as a special service for deaf and hearing-impaired people. It was limited to a very small range of programs on public television channels. But progress with technology, with word processing and beginning political pressure resulted in a stepwise increase in programs being translated into sign language and especially in captioned programs. And in countries like the US and some others, law now mandates 100 % captioning of all TV programs and increasingly also for videos on the Internet.

The result is a continuous expansion of the audience. Today, it is not limited anymore to just the deaf and hearing impaired citizens only.

Captioning is also being used in language learning for children and migrants. For example, a few years ago, a European study of educational success has shown that children in Finland do have the highest reading skills in Europe (PISA study). This has been credited to a considerable part to the high percentage of TV programs with captions on Finish TV. The constant exposition to captions improves reading skills – and captioning is cheaper than synchronisation of voices.

Ordinary hearing people who like to watch a TV program without making any noise for any given reason also use captions more and more.

In fact, and especially in the US, a growing number of TV's in public places are continuously showing captions. This can be in train stations, airports, restaurants, health clubs and any other public place. Sound simply cannot be used in such situations.

Such growing use of captioning is expanding the audience for captions tremendously and it is safe to say, that today more hearing people profit from captioning than deaf and hearing impaired people. Therefore, the audience is basically - sooner or later - the complete population.

However, the increase in captioned programs must not result in a reduction of programs with sign language translation. A large part of the deaf community depends on programs in their native language, which is their national sign language.

Where starts accessibility in practice?

Accessibility must start in the mind of producers of any and all audio-visual media programs. Accessibility must start in the mind of any director of any audio-visual broadcasting media. Accessibility must also start in the mind of politicians, and within all public and private organisations involved in the distribution of audio-visual information.

They all must be aware of their social and legal responsibility towards the minority of deaf and hearing-impaired people. But still more: All of them must have an intense desire to reach the widest possible audience for their products. And this goal can be reached only with the provision of captioning and sign language translation. Without those tools for full accessibility, a wide segment of the population will be lost as recipients of the message to be conveyed by the production.

Where is the technology to replace audio?

All of us are aware of the advanced possibilities of video technology, word processing and voice recognition. These technologies are making insertion of sign language interpreters in the picture, and the production of captions much more efficient than just a few years ago. Results are shorter production time and lower costs per hour of program.

But with regard to captioning, lower cost must not be at the expense of reduced quality. Reading captions is not the same as listening to a voice. It requires a continuous and consistent effort from the side of the consumer. And captions with only a few errors distract very much, causing unnecessary stress and finally confusion when one cannot follow the meaning anymore. Therefore, captions require a careful and conscious editing for readability.

Still too often, captions get lost on the way from producer to consumer. There are complaints about this from deaf people in many countries. There is transmission equipment still in use within the wide TV network which simply cuts off captions at one or another point of transmission. And too often there is no control for correct transmission of captions at all at such switch points - be it for lack of awareness of this part of a production, or just for the lack of suitable technical equipment.

With regard to sign language interpretation, it must be ascertained, that the video insert is of a sufficient size to read sign and face mimics of the interpreter clearly enough.

Therefore, it is of outmost importance to include the topics “translation into sign language” and “captions” in any and all international and national standards, recommendation, or whatever for all audio-visual media with the same importance as for picture quality, colour, sound and control of transmission.

And at any point of transmission of audio-visual productions, quality of video inserts and of captions must be checked with the same dedication as for picture quality, colour and sound!

And then, the picture insert with sign language interpreters and captions should arrive at their final destination - on the screen of the consumer.

But again, captioning is still too often not arriving at its final destination. This may be partly due to problems with transmission as just explained.

This may also be to a large part due to unsuitable equipment for the end-user, and there is still really much to be improved.

Today’s consumers are most often “zapping” through a wide range of available TV programs. One cannot expect that consumers are checking each program for the presence of captions.

It is possible – and it must become a standard menu item – that consumer can choose a setting of their TV or satellite receiver, that captions are always shown automatically when there are captions available. This menu item must be a fixed setting which remains set also after switching off and on again. The 21st Century Communications and Video Accessibility Act of the US now requires explicitly a button on the remote control for captions.

And the consumer should have the choice to select his preferred language of captions, and not just for a single language. This is especially important in Europe where there are many different local languages, but most consumer do also have a good knowledge of English or another language and can use captions in several languages.

Without such an automatic display of captions, a lot of captions are simply missed and will not arriving at the intended place: on the screen of a consumer who depends on this visual information for whatever reason. And then all efforts of other people in the production of captions are in vain.

What is developing in new audio-visual media?

Broadcasting is now increasingly moving to the Internet, and in the US it is now becoming law that TV programs shown on the Internet must be captioned also. But there are also a growing number of movies on the Internet, of videos on demand, videogames, and software including audio-visual sequences.

Deaf consumer already complains the lack of captions on video downloads either on pay TV or over the Internet.

Consequence is that accessibility issues must be considered in all new audio-visual media and products. It is easier to include those requirements from the beginning and not looking for fixings afterwards. It becomes also necessary to establish standards for the transfer of captions and sign language inserts between different audio-visual medias.

And for new features, for example tactile input and output, accessibility requirements must be taken into account.

Deaf and hearing-impaired people are also consumers, which are willing to pay for a service that is useful for them; this is a market worth to care for.

The chain for full accessibility to audio-visual media:

Effective interpretation into sign language and captioning are a chain with the topics just discussed in our presentation.

This chain can work only as a whole thing. If only a single part of this chain is not working correctly, the chain is broken and the efforts of many people to offer the best possible service are lost.

To summarize: These are the parts of the chain:

- Awareness: Awareness about an invisible handicap
 Awareness for social and political responsibility
- Realization Include accessibility in all Audi-visual products form start on
- Transmission Check for correct transmission at all levels
- Reception Ensure simple and continuous reception on AV equipment of consumer

You are a part of this chain; make sure this chain is working all the time. Sooner or later, you may also depend on it.

Thanks for you attention now, and thanks for your attention to effective interpretation and captioning into the future.

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[1] <http://www.wfdeaf.org>

[2] <http://www.ifhoh.org/>

[3] www2.ohchr.org/english/law/disabilities-convention.htm

[4] [www.europarl.europa.eu/sides/getDoc.do?reference=P6_TA\(2008\)0127&language=EN](http://www.europarl.europa.eu/sides/getDoc.do?reference=P6_TA(2008)0127&language=EN)

[5] www.coataccess.org/files/S3304_Senate_Passed.pdf