WORLD FEDERATION OF THE DEAF

COSP17 Roundtable 1: International cooperation to promote technology innovations and transfer for an inclusive future

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Presentation:

The World Federation of the Deaf is an international non-governmental organisation representing and promoting approximately 70 million deaf people's human rights worldwide. The WFD is a federation of deaf organisations from 136 nations; its mission is to promote the human rights of deaf people and full, quality and equal access to all spheres of life, including self-determination, sign language, education, employment and community life. One of the major themes the WFD is addressing in the last decade is the access of deaf people to information and communication technologies and systems as part of their basic human right to access information in their national sign languages under the application of Articles 9 and 21 of the CRPD.

Advances in information and communications technologies and systems over the past decade have had a profound and positive impact on deaf people's participation in society. Indeed, deaf people make better use of visual solutions such as videos, subtitles, and images to access information and to communicate in the society. From text messaging and e-mail to smartphones with video conferencing technology, there have been many positive developments enabling communication by different means. The video conferencing technologies allow for synchronous and asynchronous communication in national sign languages and are becoming a feature of everyday life in deaf communities, and sign language interpretation services provided through these technologies are slowly advancing, although unevenly and largely limited to high-income countries.

Technological solutions that rely on auditory signals alone create barriers. For example, an intercom system in an elevator is inaccessible to deaf people and is not an example of universal design. In emergency situations such as armed conflicts or natural disasters, auditory based "warning" alerts and radio announcements exclude deaf people. This has had grave impact in several ongoing conflicts current taking place around the world, where deaf people were not given real time access to information on the incoming missile attacks in civilian spaces. There exist however technological solutions that are universally adequate and can be provided to any civilian, including deaf people, but these solutions are not integrated into the implementation of the public authorities' services, but presented as add-ons that are only given upon the advocacy work undertaken by national associations of deaf people. This violates the principle of universal design for all enshrined in Article 2 of the CRPD.

The World Federation of the Deaf emphasizes the principle of Article 4.3 of the CRPD, and the necessity to consult with representative organisations of deaf people when designing services and products that have an impact on the daily life of deaf people. This applies to both governments and private enterprises including the researchers and developers. Too often we see the development of new technologies, such as sign language gloves, that are praised from the innovation sector but are of no real use for deaf people and deaf communities. The innovators and developers who have no prior experience/knowledge of deaf people's realities should not be encouraged to develop new technology solutions based on their assumptions of what deaf people need; but should include deaf organisations, that have an in-depth understanding of deaf people's lives, from the earliest stage.

Regarding the access to information provided by public authorities and media channels, among others, the COVID-19 pandemic saw the surge of the provision of national sign language interpretation during the live broadcasts on national televisions in over 100 countries. This is an important step towards the access of deaf people to public-oriented information in health emergency crises under Articles 9 and 11 of the CRPD. However, the WFD noticed that the format of the sign language interpretation was very different from one country to another. As the international representative organisation of deaf people worldwide, the WFD gathered good practice examples and issued Guidelines on Access to Information in National Sign Languages During Emergency Broadcasts recommending the best formats possible for the sign language interpretation.

Moreover, regarding the access of deaf people worldwide to the information and communication technologies, we, the WFD would like to emphasize that there is a huge gap between high-income countries and low- and middle-income countries that is yet to be reduced through international cooperation under the application of Article 32 of the CRPD. Current modern technology solutions often require access to electricity power, to reliable and fast internet connection, including Wi-Fi, and/or to a high amount of data. Since deaf people communicate in their national sign languages, their use of information and communication technologies consist mostly of accessing to and sending of video files, which require data transfer. This can be costly for deaf people in low- and middle-income countries that do not provide the population with an access to fast internet connection or offer affordable online options. The WFD clearly noticed this huge barrier during the COVID-19 pandemic, where meetings/seminars/health consultations/public authorities' press conferences were virtual, so not everyone sat at the same table. Some of the low- and middle-income countries that are dealing with electricity shortages cannot rely on a stable internet connection; others cannot handle a fast internet connection as 4G nor 5G is not provided everywhere. So, the development of new information and communication technologies and systems should take into account the realities of deaf people in every country in the world, including the low- and middle-income countries, to ensure that everyone has the access to these, including those who do not have high-speed internet connection options. Hence our strong stance to develop and promote the use of "low tech" resources that do not require significant data transfers. This requirement must not be overlooked as deaf people need to have access to visual-based technologies and solutions and be able to participate in society on an equal step with others.

Since the beginning of the current armed conflict in Ukraine, where many deaf people did not have easy access to time-sensitive news and information, deaf people connected to each other and to their representative regional/national organisations through a specific telecommunications app. This app has been and is still used for both as a communication means and as an information channel where information translated into/produced in Ukrainian Sign Language was shared and everyone, including deaf Ukranian people displaced into other European countries. The WFD has worked with the Ukrainian Society of the Deaf (UTOG) to support the provision of remote Ukrainian sign language interpretation to displaced deaf Ukrainians. At the beginning of the armed conflict in Ukraine, anti-aircraft alerts were widely used to warn of impending danger and to let people know that they should seek safe shelter. UTOG worked with the Ukrainian authorities to develop a text-based system. While it is an improvement at this time, it required people to always have their phones with them. In Israel, the Israeli Association of the Deaf has reported the use of smartwatches by deaf people through which they receive warnings via vibratory alerts.

At the same time, this innovative solution is not useful for deaf people in Gaza, as electricity shortages persist and access to the Internet is not always available, hence a current need felt by deaf people in Gaza to be provided adequate technology solutions to keep themselves safe from the conflict. What is noticeable is that the accessibility of warning systems and information and communication technologies and systems continue to be innovated, especially in times of natural disasters and armed conflicts where they can address vital needs of deaf people, but unfortunately the development and deployment of these take time and are put into place after some time. This huge delay puts deaf people in danger in the initial phases of any armed conflict and especially in the occurrence of natural disasters. The WFD emphasizes that it is essential that design processes of new technologies, especially those used in times of crises, take into account the needs of every deaf person, following the principles of inclusive and universal design for all.

Last but not least, with the surge of the artificial intelligence-led technologies, national sign languages have not been addressed sufficiently in their development until today. National sign languages are not written or spoken languages, they are fully flexed languages on their own as recognised by Articles 2 and 21 of the CRPD. Hence, the importance of taking into account the use of national sign languages in the development of artificial intelligence technologies. As of today, innovators and researchers in the field of language translation are developing new translation software between written/spoken languages and national sign languages. These innovations are in their early stages. However, since there are more than 200 national and Indigenous sign languages used worldwide, how would the development of the artificial intelligence-led technologies affect those sign languages? While some of the countries in the Global North have the ability and resources to develop such solutions to their national sign languages, what about the other Global North countries that are smaller in size and those in the Global South as they do not have that ability, both in terms of knowledge and resources? Will it affect the number of languages in the world in the future?

So, there is also another approach regarding AI that involves knowledge sharing. What databases does AI look for to create information? Does the AI use the information produced by the majority, or does it also take into account the specific information produced by some groups/individuals with their own expertise? For example, when addressing disability, some information shared is based from a social point of view but, on the other hand, other resources are produced from a medical point of view. How will the AI collect the information and share it with the users? Where are the limits? How can we prevent that false information or stories to be whitewashed?