INCLUSION OF AUDIENCE WITH HEARING IMPAIRMENT

General Objective

The aim of this practical sheet is to overview the existing techniques and strategies to make online materials inclusive and accessible for students with hearing impairments.

In this practical sheet, you will:

- ✓ learn more about hearing impairments,
- ✓ learn about the difficulties they encounter online,
- ✓ learn how to provide inclusive online learning for people with hearing impairments,
- ✓ learn new techniques to adapt your online work so that is more accessible to them.

You will need for the activity:

- ✓ Access to a computer and internet
- ✓ Download and install Movavi Video Editor Plus (https://www.movavi.com/es/video-editor-plus/?gclid=EAIaIQobChMIgvSm0-2X8wIV2vZRCh0OWwjoEAAYASAAEgLoP_D_BwE)

Challenges and issues

The Web is an important resource in many aspects of life: education, work, government, health, entertainment and more. It is essential that online materials are accessible in order to provide equal access and opportunities for people with different abilities. Access to information and communication technologies, including the Web, are defined as a basic human right in the United Nations Convention on the Rights of Persons with Disabilities (CRPD).

The Web offers the unprecedented possibility of access to information and interaction for many people with disabilities. This means that accessibility barriers to audio and visual media can be more easily overcome through web technologies.

Some examples of general barriers for people with hearing impairments are:

- Audio content, such as videos with voices and sounds, without captions or transcripts.
- Media players that do not display captions and that do not provide volume controls.
- Media players that do not provide options to adjust the text size and colors for captions.
- Web-based services, including web applications that rely on interaction using voice only.
- Lack of sign language to supplement important information and text that is difficult to read.

Websites and web tools designed for people with a broad range of abilities benefit everyone, including people without disabilities. It is, therefore, important to consider the broad diversity of functional needs rather than to categorize people according to medical classifications.

Adaptation

Some ways that lecturers can improve online learning for students with a hearing impairment could be the following:

- Do a status check. Do any of your students have any hearing impairment? Inform all your students that moving to virtual classes is an opportunity to update you if they have any challenges in accessing the content through video or audio recordings.

- Use captions. Captioning is not only critical for students who are deaf/hearing impaired; it also aids the reading and literacy skills development of many others. Research shows that the use of video and audio captions benefits everyone.

- Test your video conferencing platform. Zoom, Adobe Connect, GoToMeeting and similar platforms are often used by universities but their accessibility features vary widely and not all of them have features to assist hearing impaired users. Some platforms, such as Microsoft Teams and Google Hangouts, use automatic captions, but the accuracy is not 100%.

- Make sure there's enough light in the room and that it's sufficiently diffused to reduce or eliminate shadows on faces, making it easier for students to lip-read. It's also important to keep the camera at an angle that gives lip-readers a good view of your face.

- Set some ground rules. Setting a few online class rules about communication will reap major benefits when using group communication platforms. Establish turn-taking and participation protocols, such as using the "raise hand" feature, the chatbox, or identifying your name before commenting. Ask students to turn on their video only when they want to ask a question, since limiting the number of participants on screen at the same time can improve video quality. The same goes for sound: tell students to stay in mute mode until they have something to say, to reduce

background noise. These strategies allow students with hearing difficulties to focus on one speaker or interaction at a time.

- Learn more about your learning management system. Use the online tutorials provided by your service provider to learn more about its accessibility features. Ensure that course material (and glossaries) are provided in advance to students with a hearing impairment. Glossaries are extremely useful to explain terminology used in the online class.

- As a presenter, slow down This helps all listeners to follow. Advise students who rely on assistive listening devices that they may need to connect their computer's audio directly to a personal device such as a hearing aid or cochlear implant processor, or to noise-reducing headphones.

- Where possible, record live meetings and lectures in case there are issues with internet connections. Regularly contact your students to check whether they can access and understand the online content.

- Work with the university/school's disability rights office to meet the accessibility needs of students. Use one-on-one video chats or text messages if the student needs additional support.
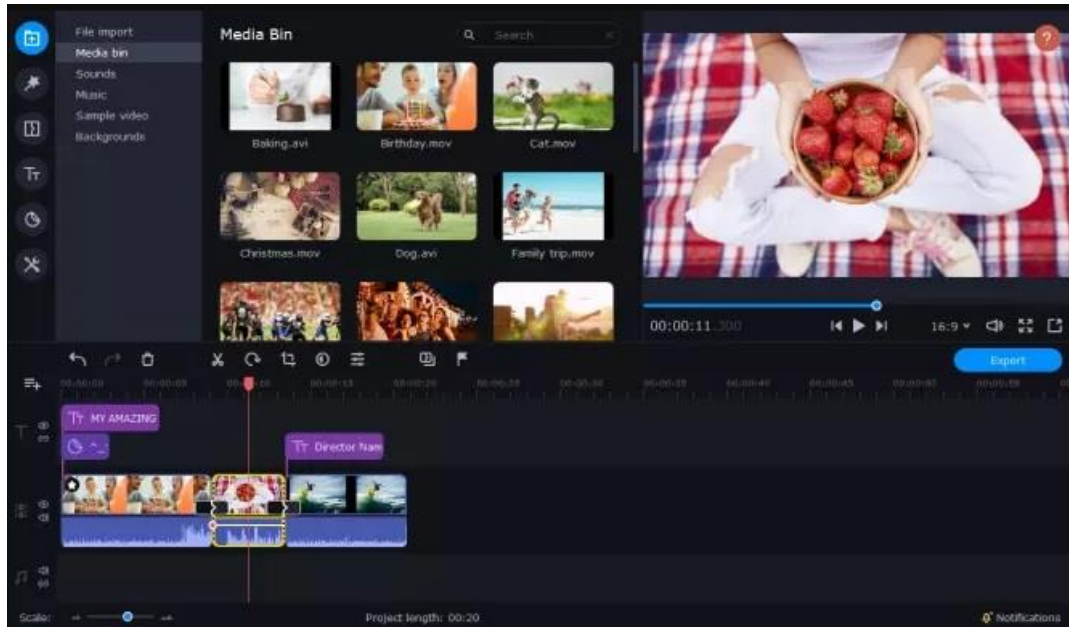
Practical examples and inspiration

Audio content is not available to users who cannot hear. Having this information synchronized with the portion of the media that can be accessed is critical to providing equivalent access to the information.

That is why here we are going to show an example on how to add subtitles (captions) and audio description on our video content.

We are going to use Movavi. This program lets you easily add subtitles to your videos, and it offers multiple editing features that can help make videos look and sound more professional. This desktop video app gives you the power to create engaging, polished videos that are inclusive and cool. Along with

subtitles and captions, you can also include titles, transitions, filters, stabilization, and other features to take your video to the next level.

Instructions:

1. Download and install Movavi Video Editor Plus.

2. Open the subtitle embedder and click Add Files.

3. Drag your videos onto the Timeline.

4. Click the Titles tab on the left and select the basic or animated caption style you prefer.

5. Drag your chosen title style over to your Timeline.

6. Double-click the title and add the text you want to include.

7. Click Clip Properties to adjust the duration and speed of your subtitles or captions.

8. Adjust the font to a style you like by clicking Font Properties and changing the font settings to fit your needs.

9. If you want to change the color of your captions or subtitles, click Color Properties.

10. Click Export, then Start.

Now you have a better view of a way to add captions to your videos. There are lots of free and low-cost options for online services and software that you can download, and you can even add captions on your phone if you need to.

Additional resources

- W3C : Strategies, standards, resources to make the Web accessible to people with disabilities : https://www.w3.org/
- Creating an Accessible Digital Future | Judy Brewer | TEDxMIT : https://www.youtube.com/watch?v=Wb2X9kYEvXc
- A community for people with hearing loss: https://www.hearinglikeme.com/
- To improve video skills: https://www.movavi.com/learning-portal/
- "The Conversation" provides informed comments and debate on issues of global relevance: https://theconversation.com/es