CCMA Broadcasting Accessibility: Keys to Success

Corporació Catalana
de **Mitjans Audiovisuals**, SA

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About the CCMA

- **The Corporació Catalana de Mitjans Audiovisuals (CCMA) is a public organization that manages the audiovisual media of the Generalitat de Catalunya.**

- **Its mission is to act as a public service with a firm commitment to quality, independence and the promotion of Catalan language and culture.**

- **Its audiovisual offer includes:**

  - TV: TV3, 33, Super3, 3/24, Esport3 and TV3Cat.

  - Radio: Catalunya Ràdio, Catalunya Informació, CatMusica & iCat.cat

  - Digital Media: website, mobile apps, Connected and Hybrid TV, social networks, Youtube and Podcast.

The CCMA and Access Services

- **Since the beginning of its activities in 1984, the CCMA has been very sensitized to the difficulties of impaired people for accessing to the audiovisual content.**

- **Despite the limited resources of a small country like Catalonia, this organization has been developing and progressively deploying access services to its TV channels and also to its Internet content.**

- **Nowadays the CCMA has become a referent in this matter due to the innovation introduced in production processes and the disruptive technologies applied.**

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Broadcast Subtitling Ratio 2014

- **Each DTT service carries a dedicated component for Catalan subtitling.**
    - Suitable for hearing impaired people.
    - Most of live and pre-recorded programs contains subtitles.
    - The percentile of subtitled content grows every year.
- **An additional component for English subtitling is present in TV3 and CS3/33.**
    - Suitable for all the audience.
    - Limited to some pre-recorded programs such as films and series.

Channel	Accessible Content
TV3	70.4%
CS3/33	97.8%

Broadcast Audiodescription Ratio 2014

Channel	Content with AD		
	For visual impaired (Hours)	Weekly AD ratio (h/week)	News readed subtitles
TV3	438	8.4	620
CS3/33	354	6.8	

- **In DTT broadcasting, a dedicated component is present in main services for Catalan AudioDescription.**

  - Suitable for visual impaired people.

  - Used in some pre-recorded programs such as movies and series.

  - Added a text-to-voice system that automatically reads the on-screen translation subtitles when someone speaks in a foreign language in news and documentaries.

Broadcast of Sign Language 2014

- **The content produced with Sign Language by the CCMA includes:**
  - A daily newsletter that are emitted simultaneously on the channels 3/24 and TV3.
  - The daily news magazine "Telenotícies Vespre" on channel 3/24.
  - The total time of content broadcasted with Catalan sign language is 200 hours and 20 minutes last year.

Access Services on Web Contents

The CCMA's services aims to be accessible for all the users, including those with some kind of impairment:

- **Website:** follows the accessibility standard UNE 139803:2012 "Requirements for accessibility in web contents"

  - Level AA achieved (priority 1&2): nowadays in certification process.

  - Suitable for navigation with screen readers such as *jaws*, *nvda*, *window eyes* and *voiceOver*.

  - Subtitles available in video contents.

- **HbbTV app:** follows accessibility criteria, and includes subtitles in its video contents.

  - Customizable subtitle functions available in short.

How we did it?

The CCMA has focused on innovation as the way to produce more content for access services with less resources while keeping the quality standards:

- **Participation in collaborative projects:** in order to acquire know-how.
  - Nowadays the CCMA participates in the European project Hbb4All that addresses media accessibility possibilities in the new hybrid broadcast-broadband TV(HbbTV) environment.

http://www.hbb4all.eu/

- **Innovation in production processes:** design of new workflows focusing on the reduction of required resources in comparison with the previous systems.

- **Innovation in technology:** development of the modules for providing the required functionality in the new designed workflows.

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Success Case 1: The Live Wheel

- **The CCMA's live subtitling system operates since 2003, before any other Spanish broadcaster.**

- **It is a turn-based system known as the "live wheel" in which up to five people elaborates subtitling in literal style:**

  - Operation requires much less learning time compared with stenotype.

  - Delay of about 8-10 seconds.

  - Used at interviews, debates, daily magazines and any live event with an special informative or social interest.

  - Different languages such as Catalan and Spanish can be alternated.

  - Ratio of 5 man-hours for 1 hour of production.

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Success Case 1: Redit (Live Voice-to-Text)

- **Redit is a development of the CCMA started in 2009 with the target of generating Catalan subtitles in real time with less resources.**

- **Voice-to-text system in which one person "re-speaks" the dialogs and another validates the output before broadcasting them:**

  - Delay of about 8-10 seconds.

  - Trials since June 2015 at the daily magazine "Els Matins".

  - Ratio of 2 man-hours for 1 hour of production.

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Success Case 2: Automatic Subtitling

- **The Automatic Subtitling System for pre-recorded programs is a CCMA's development with the aim of drastically reduce the required resources of the traditional subtitling edition tools. It works in production since 2012.**

- **The system matches the script with the audio of the program to generate the synchronized subtitles file:**

    - Generates also a quality score to decide when it can go directly to production.

    - When rejected, only the problematic contents are revised by a human editor.

    - The ratio with the traditional system is at least 4 man-hours for 1 hour of production now it is reduced to less than 1 man-hour
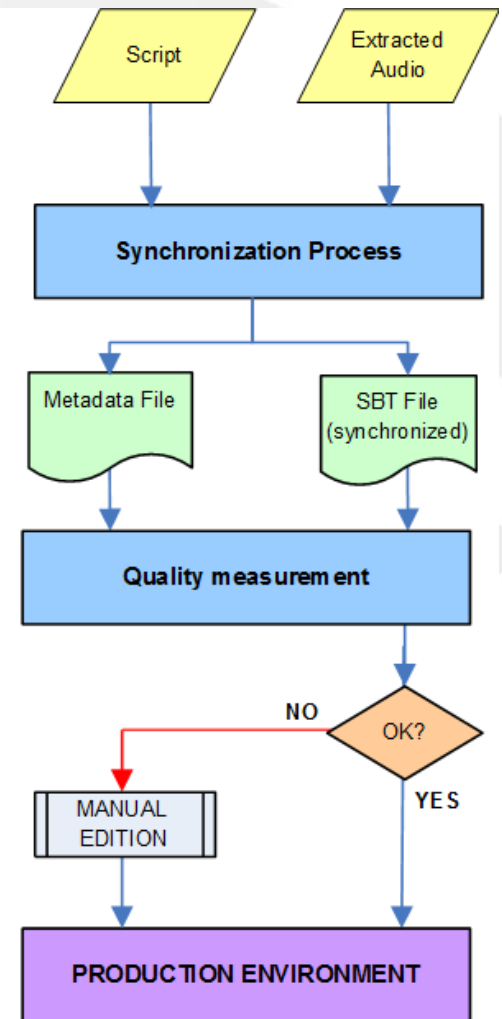
Conclusions

- **The keys are:**
  - Commitment to accessibility.
  - Innovation in production workflows.
  - Innovation in technology.
  - Constant improvement.

- **Access Projects in the scope:**
  - Subtitling in advertisements.
  - EBU-TT-D Subtitling in all platforms: SmartTV and mobile apps.
  - Audiodescription contents in HbbTV.

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