

Online cloud dubbing: How home recording stormed the dubbing industry

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Abstract

The audiovisual industry has undergone a transformative shift with the rise of home recording and cloud dubbing, challenging traditional dubbing norms. This transformation is fuelled by technological advancements that make recording accessible and affordable worldwide. Moreover, this transition was further accelerated by the COVID-19 pandemic and lockdowns. This article examines the impact of online audiovisual translation and voice localization agencies and provides a comprehensive overview of the evolution of dubbing technology, from analogue to digital recording. It emphasises the irruption of online voice talents and the advantages of remote recording and cloud-based dubbing software, which facilitate collaboration regardless of location. In addition, this article showcases effective translations in audiovisual productions achieved through these cutting-edge technologies.

Keywords: Cloud dubbing; home recording; online voice-over; translation technology.

Resumen

La industria audiovisual ha experimentado un cambio transformador con el auge de la grabación doméstica y el doblaje en la nube, desafiando las normas tradicionales del doblaje. Esta transformación se ve impulsada por los avances tecnológicos que hacen que la grabación sea accesible y asequible en todo el mundo. Además, esta transición se ha visto acelerada por la pandemia del COVID-19 y el confinamiento. Este artículo examina el impacto de las agencias de traducción audiovisual y localización de voz en línea y ofrece un panorama completo de la evolución de la tecnología del doblaje, desde la grabación analógica hasta la digital. Destaca la irrupción de los locutores en línea y las ventajas de la grabación a distancia y del software de doblaje basado en la nube, que facilitan la colaboración independientemente de la ubicación. Además, el documento muestra traducciones eficaces en producciones audiovisuales logradas gracias a estas tecnologías de vanguardia.

Palabras clave: Doblaje en la nube; grabación doméstica; locución en línea; tecnologías de traducción.

Resum

La indústria audiovisual ha experimentat un canvi transformador amb l'auge de la gravació domèstica i el doblatge al núvol, desafiant les normes tradicionals del doblatge. Aquesta transformació es veu impulsada pels avenços tecnològics que fan que la gravació sigui accessible i assequible a tot el món. A més, aquesta transició s'ha vist accelerada per la pandèmia del COVID-19 i el confinament. Aquest article examina l'impacte de les agències de traducció audiovisual i localització de veu en línia i ofereix un panorama complet de l'evolució de la tecnologia del doblatge, des de la gravació analògica fins a la digital. Destaca la irrupció dels locutors en línia i els avantatges de la gravació a distància i del software de doblatge basat en el núvol, que en faciliten la col·laboració independentement de la ubicació. A més, el document mostra traduccions eficaces en produccions audiovisuals aconseguides gràcies a aquestes tecnologies d'avantguarda.

Paraules clau: Doblatge al núvol; gravació domèstica; locució en línia; tecnologies de traducció.

1. Introduction

The audiovisual translation landscape has radically changed in the lapse of two decades thanks to the arrival of cutting-edge technology and the availability and affordability of fast Internet connections, which has resulted in translation entrepreneurs setting up their own businesses as freelancers or SMEs. With the arrival of the new millennium, the AVT industry saw the advent of online voice talents as new professionals within the revoicing sector (mainly voice-over and dubbing). This sector has grown exponentially ever since. This article presents a description, from a professional and industrial perspective, of how these professionals and the services they provide have shaped the AVT industry, a transformation to which I can attest as a professional online voice talent. It starts with a chronological overview of how analogue recording was replaced by digital technology and the impact that early home recording studios and online voice localization agencies have had in the AVT landscape. Next, we will see how large corporations and software developers understood the potential of these new players and how they developed online cloud-based recording solutions, challenging traditional studio dubbing and voice-over practices. A detailed description of these software packages and their interface is given to explain how they work, followed by a presentation of a list of major audiovisual projects recorded using cloud-dubbing technology, explaining their revoicing mode, year, and VOD platform. The following section presents the various training modules for each software package, which could serve as valuable resources for emerging voice talents pursuing training, as well as for translators interested in learning how these platforms work in terms of text segmentation and adaptation. Finally, there is a discussion on the influence these professionals and technology have exerted on the AVT industry, and addresses possible future challenges, especially the rise of synthetic voices, which are presently impacting the voice acting sector. A selection of explainer videos on how these software work and an interview with the Head of Sound at ZooDubs are offered in the last section of the paper.

2. From analogue to digital

Since the first recorded dubbing, back in 1928, when two Paramount engineers recorded a lip-sync dialogue in German for the film “The Flyer” (Ávila, 1997: 45), the way voices were recorded in a dubbing studio has radically changed almost a century afterwards. Before digital audio appeared, analogue recording was the way sound was recorded in professional studios – be that wax, vinyl LPs, or magnetic tape – which captures sound in magnetic form. In the case of film dubbing, magnetic tapes were used, and to synchronize the dialogues with the image, the video tape was cut into one-minute chunks and played in a loop, together with a blank magnetic tape for recording. Each scene was played and recorded in loops until the desired level of synchrony was achieved (Ávila, 1997: 90).

Digital recording is completely different. A digital recorder converts an analogue electrical signal into a set of numbers that are written or stored onto a drive (hard drive, solid state drive, universal series bus, compact disc, etc.). This is possible thanks to a process called *sampling*, in which the audio wave is analysed or sampled many thousands of times per second and a number is assigned to the audio wave’s position at each point (Coryat, 2008: 31). Sampling has also evolved as computers have become more powerful, thus allowing to capture sound with “ever-increasing fidelity” (d’Escriván, 2012: 10). With the arrival of digital audio workstations (DAWs) in the 1980s and their development and consolidation in the 1990s and early 2000s, dubbing recording studios moved gradually from analogue to digital recording. Thanks to this cutting-edge software and technology, audio editing and synchronization in a dubbing studio became much easier than with magnetic tapes. Sound engineers were able to play, cut, delete, drag along the time frame, play in reverse, etc. any piece of audio within seconds, tasks that took significantly longer with analogue recording equipment. Digital recording and DAW setups were acquired by all the dubbing studios, which accelerated the dubbing process. Thanks to these technologies foreign movies, TV series, documentaries, etc. can be dubbed and aired within days of releasing the original version.

Towards the end of the 1990s, project studios, or small-scale recording facilities, began to appear in professional music magazines. These were essentially home studios often consisting of “little more than a well-equipped control room and perhaps a small booth for recording single instruments or vocals” (Théberge, 2012: 82). With the proliferation of personal computers and the emergence of the Internet as a method of music dissemination –based on ever-more-powerful home computers and software-based recording tools– home studios became another kind of professional recording studio.

3. Home recording

Home recording studios basically consist of computer-based DAWs, like ProTools, where recording hardware such as microphones, preamplifiers, guitars, etc. are connected. A DAW requires a computer, some dual hard drives, a sound card, an audio interface, and software (Strong, 2009: 25). The Internet and its development during the first decade of

the 2000s created a new business opportunity within the audiovisual industry: online recording services. This new opportunity worked in two directions, one for voice talents seeking to provide online services, and another for voice localization agencies who wanted to expand their businesses, thus, companies like Voices.com, Voice123, VoiceArchive, Bodalgo, SkillMedia, VoiceOvers.co.uk, and MotherTongue, among many others, emerged in the first decade of the new century, providing voice-over services in multiple languages worldwide.

The services offered by these online companies did not (and still do not) limit themselves to voice-over as conceived within the field of Translation Studies, i.e., superimposing the foreign voice over the original one, which, is in turn, reduced in volume (Díaz-Cintas and Orero, 2006: 477). Here, the industrial conception of voice-over implies any voice recording service, such as: narrations for documentaries, TV promos, commercials, e-learnings, corporate videos and audio guides; dubbing for video games, movies, etc.; or voice-over proper for documentaries, reality shows, etc. In my own experience, most of the projects at that time were mainly narrations for e-learning projects, IVRs (Interactive Voice Response) and corporate videos. Moreover, these companies also worked as voice banks for casting services, as illustrated by Rodríguez Fernández-Peña (2020: 130) when explaining how the voice actor Javier Fernández-Peña was selected as the Spanish Buzz in *Toy Story 3* (2010) through Voice123. For this movie, Pixar needed a Spanish voice that sounded like that of Tim Allen's, the actor playing the role in English, when Buzz Lightyear is changed into Spanish mode by mistake. Pixar, instead of resorting to Jose Luis Gil, the voice actor who plays that character in the Spanish dubbed versions of the Toy Story saga, searched for a voice match in Voice123's voice bank and after listening to several voices, selected Javier Fernández-Peña.

The expansion and emergence of online localization companies worldwide seems to be an unstoppable process (Gaspari, 2015: 590), and most localisation agents work online, from translators and copywriters to voice actors and project coordinators.

3.1 Online voice talents and technology

The other element present in the equation of online voice-overs is the online voice talent. Voice talents, also known as voice actors, voice-over actors or just voice-overs (Pageon, 2007: 03), derive from various backgrounds. In the early days, they were mainly radio jockeys, actors or translators, who saw a business opportunity in the online market. Nowadays, most of the online professional voice talents have been trained or have graduated from one of the several voice acting schools that exist (both online and in person).

What characterises online professional voice talents is that apart from being voice actors, they are also sound technicians or at least knowledgeable in that area. By using DAWs, they have learned the art of audio editing, synchronizing audio and video, mixing and audio producing. This is one of the reasons why the market has been shaken up in past years by online localisation companies (Rodríguez Fernández-Peña, 2018). If the

voice talent can provide professional audio quality and audio files that are in-sync with films, there is no need for hiring a traditional studio and a sound technician, which essentially means saving costs.

The quality of home recording facilities, hardware, and software available has evolved since the beginning of this business. Early home studios could be made of recording spaces covered with egg cartons, old curtains and blankets (Pagoon, 2007: 147) or even duvets, to prevent echo and sound reflection, and to avoid unwanted background noise. Nowadays, most professional voice talents have a soundproofed booth and showcase it on their personal websites to promote their audio quality services. Some of the most widely used booths are the ones provided by Studiobricks, DemVox, or WhisperRoom, which are significantly more expensive than the rudimentary resources of the early days.

Recording hardware and software has also evolved. In terms of hardware, there are sound cards that also work like microphone preamplifiers (Apogee Duet, RME Babyface, Focusrite Scarlett), which reduce the need for a dedicated preamp that converts the analogue signal to digital via USB. In addition, there are several USB microphones that do not need either a preamp or a sound card and these can be used by simply plugging them into the computer's USB port.

In terms of software, nowadays there is a plethora of recording software for different types of computers (Mac and PC) with which anyone can record from home. However, if the recording is going to be edited by an external studio or an external sound engineer, the end studio may request the full recording project and not just the audio files, in which case, the voice talent and the external studio should share the same software. For this reason, most professional voice talents work with ProTools, Logic Pro or Cubase, which are the most common software used in traditional studios.

The affordability and availability of the different types of software and hardware could be one of the reasons why the number of online voice talents keeps soaring. Websites like Fiverr, Freelancer or Upwork are overflowing with voice talents of different nationalities offering audio recording and editing solutions.

4. Online and cloud-based recording tools

Remote recording has always been the dream of many a voice talent. Since the 1990s the evolution of technology has made possible the connection between traditional recording studios and home recording facilities. A phone patch or ISDN (Integrated Services Digital Network) were the most common solutions in the early days of home recording, and while these systems are still in use today, they are rather costly. They consist of a circuit-switched telephone network and require having a codec, which is a coder and decoder, that encodes the analogue input signal from studio A into a digital one and sends it over to the codec to studio B, where it is decoded, thus allowing one to hear and record the talent's voice on their computer. These systems have been commonly used to do "wild" recordings (recordings are "wild" when there is no

picture/video or time codes to synchronize) (Pageon, 2007: 151). However, today there is a wide range of remote recording software possibilities that allows online voice talents to be recorded by any traditional studio anywhere in the world with ease.

In 2005 Source Elements, an audio software company, developed Source Connect, a software to send and receive high quality audio via the Internet. The price of this software, significantly cheaper than an ISDN system, made it a huge success among industry professionals and soon Source Connect's website included a map to locate studios and online voice talents to create a professional network. In Europe, the map identifies over 10,000 studios with Source Connect capabilities. This system allows for recording both wild and to picture, which has changed the traditional way of dubbing films, since it allows voice actors to record from their home studio or a nearby studio without travelling to a distant city where traditional dubbing studios are located. Antonio Banderas, for example, could dub the animation movie *Puss in Boots* from a studio in Madrid, while the dubbing director and sound engineer were in a studio in New York.

Since the arrival of Source Connect, other similar types of Software have appeared. One example is ipDTL, which allows you to send and receive audio via the web browser Google Chrome as well as record wild and to image. The video file is displayed on the web browser's screen so the talent can see the movie while the other studio records and synchronizes the audio. A similar software to ipDTL is SessionLinkPro, a web browser audio recording solution with a dedicated dubbing software that displays the video file on the talent's computer screen so that s/he can see the film while delivering the dialogue lines. In addition to this, some localisation agencies are already developing their own remote recording technology, such as Bodalgo's Bodalgo Call, which allows for up to 6 participants in each session.

4.1 Cloud-based audiovisual recording solutions

While remote recording was a significant development for the recording industry, cloud-based recording solutions are the most obvious breakthrough in the business. Collaborative cloud-based audiovisual solutions can be produced (translated, adapted, and voiced) from home without depending on traditional recording studios (Rodríguez Fernández-Peña, 2020: 415). From voice casting, to the final mixdown, this new all-in-one software allows the different agents involved in the process to connect whenever they want (Díaz-Cintas and Massidda, 2019: 266; Chaume and de los Reyes Lozano, 2021: 09). This means that these professionals do not have to be at the same time and place (physically or online) simultaneously to work on their projects.

According to Chaume and de los Reyes Lozano (2021: 10), cloud-dubbing companies work with traditional recording studios, although they encourage the use of home studios. These home studios have to pass a quality test in order to be approved by the company, which usually consists of a series of computer and Internet network speed tests, and microphone tests to measure the silence level, room noise, echo, and general audio quality. Each company usually recommends some specific hardware (microphone, preamps, etc.) and internet speed connection to work with their software to deliver the

highest possible quality. Netflix also recommends specific recording equipment for cloud-dubbing partners, as stated in their partner help center online documentation. They suggest a series of microphones (USB and XLR) for live action films and animation, and offer recommendations on how to create a suitable recording space at home to work, which is reminiscent of the early home studios described by Pagon (2007).

The sections that follow detail four of the main cloud-based dubbing solutions that operate nowadays: ZooDubs, VoiceQ Actor, Studio.Next and RecordR, including an analysis of the interface of each of the tools from a critical perspective, comparing some of their features where appropriate.

4.1.1. ZooDubs

ZooDubs is a cloud-dubbing software developed by the company Zoo Digital, with headquarters in Los Angeles, and subsidiaries in several cities across Asia, Europe, and the Middle East. It can be accessed online via the Internet or downloaded as an app for iPad, which reduces the studio equipment to the minimum (just an iPad and a USB microphone). This software was developed from Zoo Digital's subtitling solution, ZooSubs, and its interface consists in a screen divided into three main sections: the first is devoted to the video file and rhythm band, the second includes the loops for each character and the third shows the loops to be recorded, the recording control area and the audio. Figure 1 shows a sample of the interface taken directly from the company's website. Although the image is somewhat blurred (no better quality images are publicly available), it serves the purpose of illustrating the distribution of the different operating aspects of the interface. The image is divided into different sections (A to F) to facilitate the identification of each part in the interface description. On the top left side (A) we have the video file where we can watch the movie we are working with. Just below the video box (C), we have the audio wave or rhythm band, where we can see the audio of the original video, and just below it the translated text, which has already been divided into loops or takes by the translator. These looped texts are shown on the right hand side of the screen in a column below (B), under a tab labelled "events". Here we can filter the events or loops according to character, which facilitates the recording process since the software will take us directly to the starting point in the video file where that loop has to be recorded. Once the event or loop has been selected (D), we just need to click on the recording icon shown next to the line (E) and the system automatically plays the corresponding video file and records the talent's performance (F). Once the talent has delivered the lines, s/he can listen back to the audio file, which is shown on the interface. If the talent is satisfied with the delivery then s/he approves the loop by clicking a specific icon. If not, the line can be re-recorded as many times as wished until the desired performance is achieved.

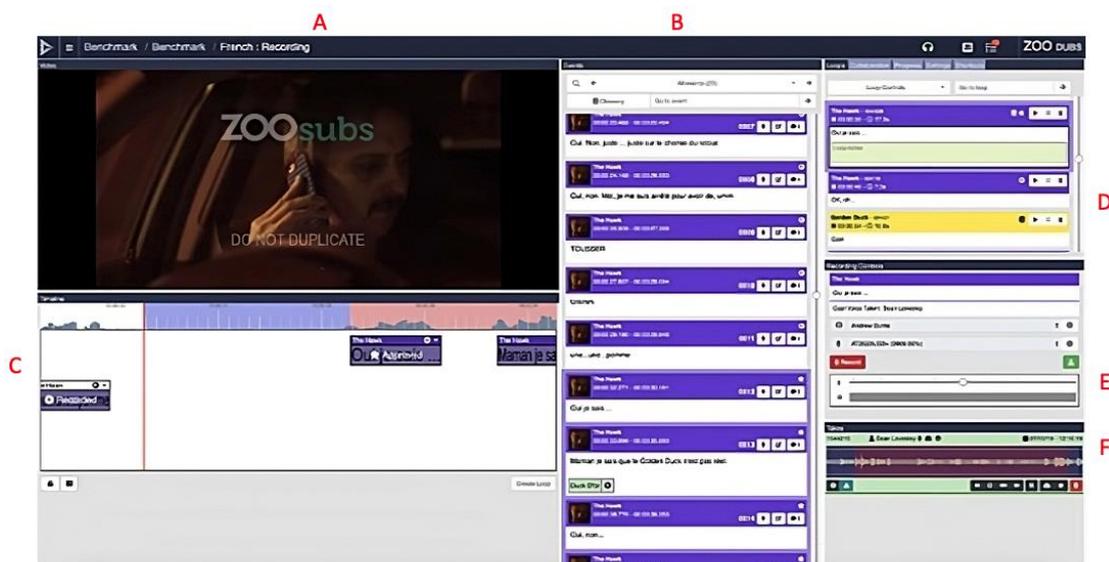


Figure 1. A view of the ZooDubs interface¹

According to Chaume and de los Reyes Lozano (2021), isochrony is guaranteed on Zoodubs because when the translator writes the translation in the corresponding event, the software automatically reduces the size of the text as new characters and words are typed in. This way, when the size of the letters in both events (source and target) is more or less the same in both, “we know that the dubbing actor will be able to fit that translation in the right time, and consequently isochrony is guaranteed” (Chaume and de los Reyes Lozano, 2021: 12). However, it is not clear whether this letter size matching capability could guarantee isochrony since both English and Spanish have different rhythmic patterns and wordcount does not guarantee isochrony (Rodríguez Fernández-Peña 2020: 125).

Once all voice talents have recorded the loops for their events, the dubbing director listens to the whole recording. If any delivery error or unwanted sound (background noise, mouth click, clipping, etc.) is detected, the voice talent responsible is prompted to fix this issue. Finally, when all the audio files have been approved by the dubbing director, these are downloaded by the sound engineers who will take over the process for the final mixdown.

4.1.2. VoiceQ Actor

VoiceQ Actor is a software developed in Auckland, New Zealand, by VoiceQ. According to the information provided on their website, it accelerates generating and replacing speech in the post-production phase of television, film, and video game production, allowing for accurate synchronization and excellent performance. It is a cloud-based and MacOS application for audio dialogue replacement (ADR), audio description (AD), captioning, dubbing, and voice-over. The professionals who use this software during the

¹ Image retrieved from digitalmediaworld.tv’s online article Mixing Artist Dave Concors Tunes up Streaming Localization at Zoo Digital.

production of an audiovisual translation are typically system administrators, creative directors, audio engineers, project managers, translators, adaptors and voice talents (Baños, 2018:11). VoiceQ offers several software performance possibilities, from which VoiceQ Pro, VoiceQ Writer and VoiceQ Actor are the main ones. From these, VoiceQ Actor is the one that voice talents use in dubbing, audio description and voice-over recordings.

VoiceQ Actor is a software that allows voice talents to record their lines in an all-in-one system, similar to ZooDubs. The interface in VoiceQ actor differs from that in ZooDubs. First, when we open the app and run a project, we have one single window that is divided into three sections as shown in figure 2.

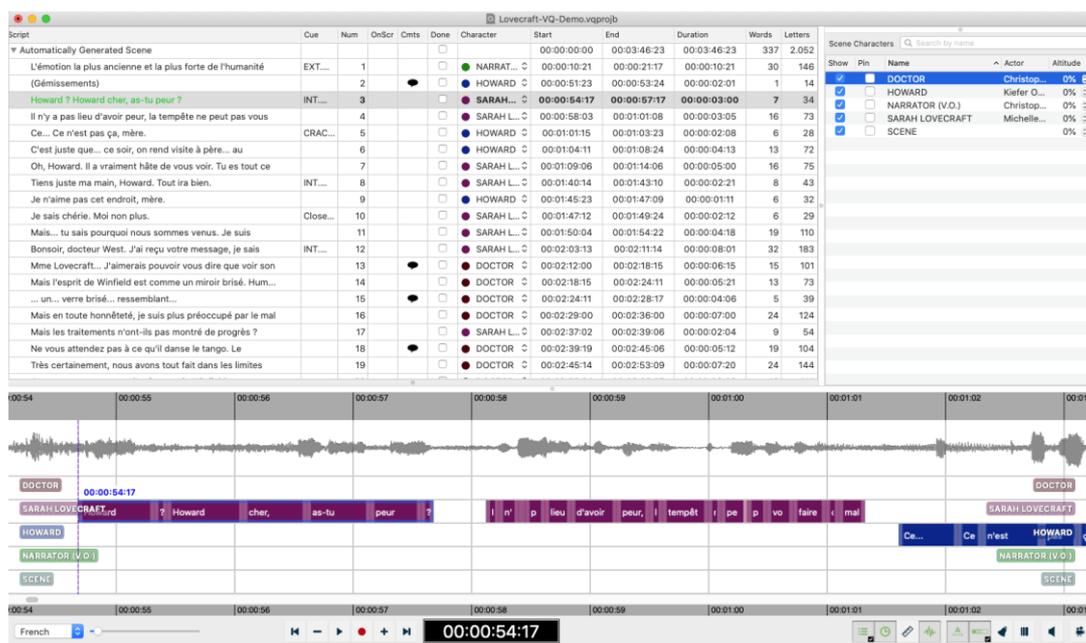


Figure 2. VoiceQ Actor interface²

VoiceQ Actor interface provides three different types of information. In the top right corner, we have the information concerning the characters of the project. We can select the characters whose voices we need to record and their lines will be shown automatically in the top left of the window. There, we can see the text to be recorded, divided into the different takes or loops, together with other information displayed in several columns shown to the right, which can be filtered and shown or hidden on screen. This extra information involves: cue, line number, on-screen comments for actors, comments, done –to check once the line is recorded–, character, start of line, end of line, duration of line, the line word count and number of letters. The bottom side of the screen is devoted to the *bande rythmo*, similar to ZooDubs, where the audio wave on top and the lines of the characters selected just below, can be seen in different colours. The lowest part of this bottom section includes different tools and buttons to record the script. On the left, we have the language of the text to be recorded, which can be selected if there are

² Image retrieved from VoiceQ Actor's demo.

several translations in the project. Next we have the volume knob and the buttons to play the movie, the timecode box, and on the right we have several options. The icon with the camera (on the right of the bottom-right set of icons) opens up a window with the movie file upon which the other icons act. Thus, we can include the audio wave (shown on top), the time code (top right corner), a ruler to measure the length of the project (shown on the centre), a preview text (in an opaque box just below the ruler), and the rythmo band (with the lines of each character in different colours). Table 1 shows the video window with and without all these possibilities.

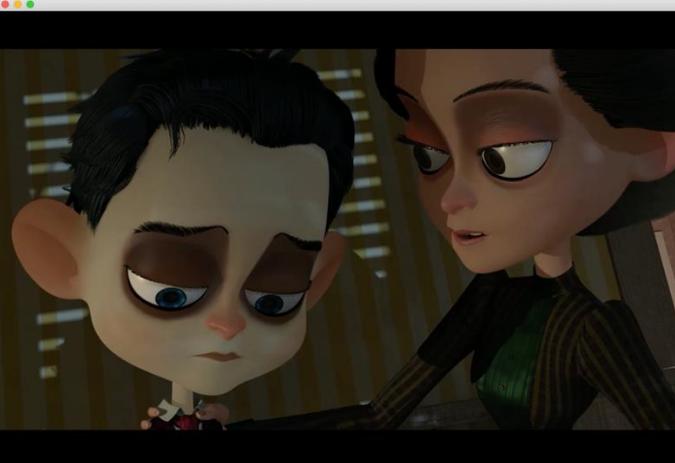
<p>Media Playback Window with no information</p>	
<p>Media Playback Window with the rythmo band</p>	
<p>Media Playback Window with all the information available</p>	

Table 1. Media playback window possibilities with VoiceQ Actor³

Once the talent is ready to record the lines, the red button has to be clicked. Then, a new window pops up showing some information the talent will have to check prior to recording the lines. This window is divided into two parts. On the left, we have the microphone status, the option to mute the audio while recording (if we wish to monitor the audio), the input gain level bars, the converted digital audio file output format (wav or m4a), the option to record continuously, or just the line, and two arrows to navigate to the previous or next line. In the top right hand side of the window is the line to be recorded, followed by the number of takes recorded for that line (from which you can select the best), the audio wave for that take, and a button to export the recorded takes as AAF files. Figure 3 shows the recording window and the options available.

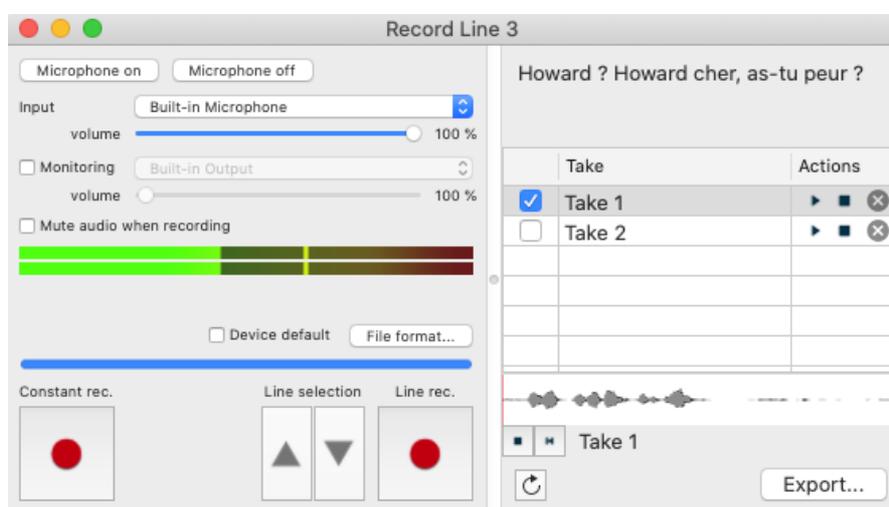


Figure 3. Recording window in VoiceQ Actor⁴

VoiceQ Actor is a great cloud-based recording tool which can be used both by home studios and traditional ones, such as the ones from VSI, as explained on their website. One of its great features is that it is divided into different windows. This way, if a recording takes place in a studio where the voice talent is isolated in a recording booth with a monitor screen, the talent will only be shown the movie window with the rythmo band that includes the lines to record. The information about all the lines or takes, the characters, and the recording settings are stored on the sound engineer's computer. In addition, VoiceQ Actor includes a dedicated plug-in to work with ProTools so sound engineers can record directly on ProTools which will make the audio editing process easier since all the audio files are already in a ProTools project file.

4.1.3. Studio.NEXT

Studio.NEXT is a fully integrated home recording application designed just for voice talents. It has been developed by MoGi Group, TransPerfect gaming division, and it

³ Images retrieved from VoiceQ Actor's demo.

⁴ Image retrieved from VoiceQ Actor's demo.

enables voice-over artists to attend recording sessions and work both in professional traditional studios, and from home studios, while recording straight into the cloud without the need for pricey studio equipment. The platform is a component of the company's Media.NEXT software, a package of localisation tools and services including subtitling, voice-over, dubbing, video search optimisation, media packaging, content and metadata creation, intended to expedite production processes and procedures for worldwide media and entertainment sectors.

Studio.NEXT operates entirely in the cloud. It brings together artist, producer, and developer in one user-friendly, collaborative web platform. In addition to preserving all recorded materials in a real-time, online environment, the platform offers an integrated interface for showing all pertinent recording information on a single screen. Dubbing directors or content creators may participate in live recording sessions from any location and offer instant feedback on line readings and how their material is performed, eliminating the need for post-recording changes and re-recording sessions.

Studio.NEXT's interface consists of one single window divided in two. The upper side of the screen displays the time codes and the audio wave of the original video file, together with the lines to be recorded that are highlighted in white within the audio wave. Below this section, in a large central area, we can see the video file. To its right, we have the audio settings, where we can select our input microphone and the output source (headphones, speakers, etc.), the input signal level bar, a knob to increase or decrease the audio output, and a round switch with which we can adjust the volume of the audio coming from the original movie and from our microphone. To the left of the video file, we have the character list, from where we select the characters to be recorded. Below it, we have several icons (microphones, green check, and red cross) that provide the following information from left to right: pending lines, lines recorded, confirmed lines, validated lines and rejected lines. Just below them there is a search box where we can type any word we want and the software will take us to the lines containing that word. Finally, below the search box we are shown the lines from the character selected to be recorded by the talent.

The bottom side of the window shows the rhythm band with the text for each line, the audio wave for the original video, and the audio waves for the lines that have been recorded by the talents. At the very bottom, on the left there are some buttons which move you to the previous or next line, the first or the last line, play the movie, start/stop recording, the timecode for the video file, as well as tools to enlarge or reduce the size of the rhythm band and the sound waves. Moreover, next to these, there are two icons that activate audio editing tools. This software allows you to cut and move the audio file along the scene to place it in the desired spot in order to achieve the perfect synchronisation. This feature is not available on the other two software packages, and seems an excellent option in order to provide a fully synchronized audio file. Finally, on the bottom right corner, there are some buttons that allow us to view online members, chat with them, and activate a meeting room to speak with the agents involved in the project.



Figure 4. Studio.NEXT cloud-dubbing interface⁵

Figure 4 shows Studio.NEXT's interface as described above. We can see that, in the rhythm band, the three lines have different word sizes. This is because during the script translation process, there is a specific time selected for each line to be uttered by the talent. Here, the word size reduces in order to fit in the specified time frame. The text shrinks as it is typed in on the platform, as with ZooDubs (Chaume and de los Reyes Lozano 2021: 12).

StudioNEXT's capacity to efficiently trim, move, and seamlessly synchronise audio files provides a notable advantage compared to other software. This distinctive characteristic distinguishes it from others and serves as a valuable enhancement in order to get professional-quality recordings. The platform's integrated chat and meeting room capabilities emphasise the collaborative nature of the platform, facilitating smooth communication among the diverse project participants.

4.1.4. RecordR

RecordR is a cloud-based dubbing platform developed by the French localisation company Lylo Media Group, established in 2012. After a takeover in 2019, the Lylo Media Group became part of the multinational localisation company TransPerfect, in a move to offer strategic cloud-dubbing technology to their customers.

According to Lylo's website, with RecordR, they have been able to localise over fifty thousand programmes, around 300 hours of content per month, in 2020. This cloud recording platform works both in MacOS and Windows computers. The software interface is quite simple and intuitive, consisting of a single window divided into three (figure 5). In the top left, we have the video file with the timecode on top. The top right side of

⁵ Image retrieved from *Dubbing Academy by TransPerfect*. More images and information are available on *Working from home with StudioNEXT* Youtube video.

the window is devoted to the dialogue script divided into loops, showing the timecode, the character and the text to be recorded in each loop. These two windows shown to the top of the screen are separated by the input level meter, which shows the input volume in a green to red bar. The lower part of the window displays the rhythm band where the text to be recorded runs from right to left. In the very bottom of the window we have the play and record buttons, and two more buttons to play the recorded audio file and to skip to the next loop. Once all the loops are recorded, the audio wave is shown below the text on the rhythm band, and the loops on the dialogue script window are highlighted in green. If a loop is highlighted in red, it means that the audio quality is not suitable and has to be rerecorded.

The audio wave of any recorded loop can be moved along the timeline assigned to each loop to adjust synchronization. Once all the loops have been recorded and appear in green on the system, we can export them as a compressed .zip folder and upload it on YouDub, Lylo's online dubbing management platform, where the project manager, the dubbing director and the client can supervise the process. Then, a sound engineer can connect to RecordR, where all episodes linked to her/his tasks download automatically. Once downloaded, all the files can be imported into ProTools or any other recording software to perform the final editing and mixdown of the episode.

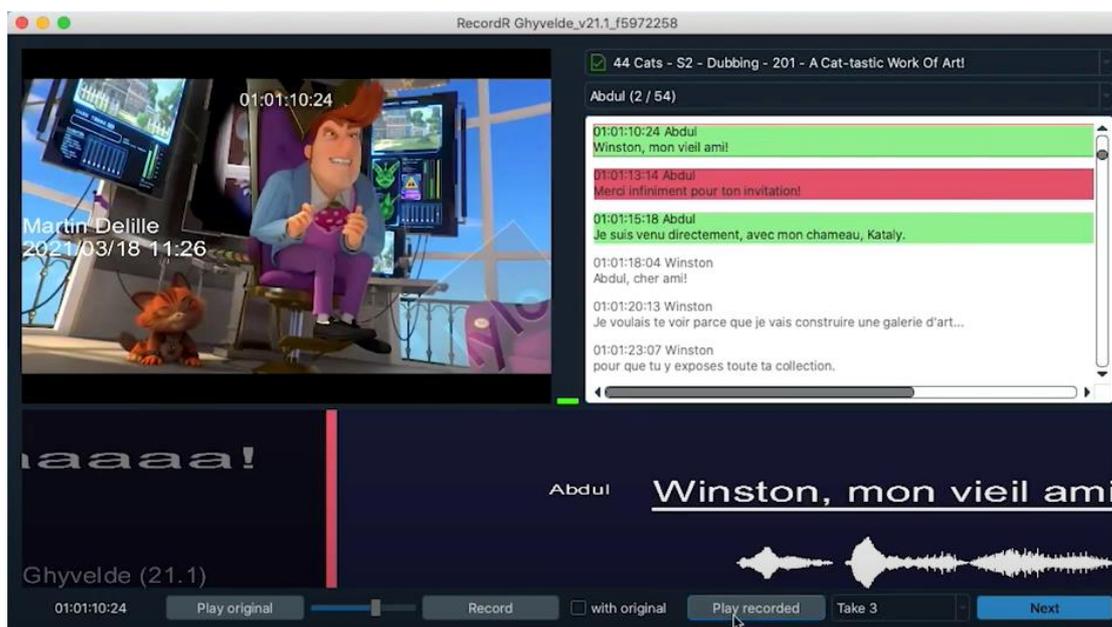


Figure 5. Lylo's RecordR interface⁶

RecordR, in my view, seems to be the simplest and easiest cloud-dubbing platform to date. It does not allow for complex audio editing tools as Studio.NEXT or multiple window options like VoiceQ. With RecordR, voice talents just play the video and record the lines. In addition, thanks to YouDub, all the agents involved in the translation process can access and evaluate the performance and audio quality in order to ensure the result is up to their quality standards.

⁶ Image retrieved from Lylo's RecordR dubbing platform explainer video on Youtube.

5. Audiovisual productions with cloud-dubbing solutions

These cloud-dubbing platforms have already been used to produce revoicings (voice-over, dubbing and audio description) for different types of programmes, such as movies, documentaries and reality shows, broadcast on several video on demand (VOD) platforms, including Netlix, HBO, and Prime Video. Table 2 provides information about some of the audiovisual projects done using these cloud-dubbing solutions. The data provided has been retrieved from the company websites, dubbing databases (eldoblaje.com and animation magazine), and projects in which I have been involved. I have not found any specific information about projects recording using Studio.NEXT, however, I believe that the revoicings done at the different TransPerfect recording studios have been performed with their own software. Moreover, since they have a dubbing academy, it is highly probable that some of those productions – mainly the ones from 2020 during the pandemic lockdown – have been recorded from home studios.

Cloud Dubbing Platform	Programme Type	Title	Year	Revoicing Type	Languages	VOD Platform
ZooDubs	TV Series	American Gods S.3	2021	Dubbing	Japanese, Brazilian Portuguese, Latin American Spanish	Prime Video
	TV Series	Pose	2018	Dubbing	Turkish	Netflix
	Documentary series	(Un)Well	2020	Voice-Over	Spanish European	Netflix
	Documentary series	Connected	2020	Voice-Over	Spanish European	Netflix
	Documentary series	Inside the worlds' toughest prisons S.4	2020	Voice-Over	Spanish European	Netflix
	Documentary series	Fear City: New York vs the Mafia	2020	Voice-Over	Spanish European	Netflix
	Reality Show	Skin Decision	2020	Voice-Over	Spanish European	Netflix
	Reality Show	Say I do	2020	Voice-Over	Spanish European	Netflix

	Documentary Series	The Story of Diana	2017	Voice-Over	Spanish European	Netflix
	Docu-reality	Derren Brown: Miracle	2017	Voice-Over	Spanish European	Netflix
	Docu-reality	Derren Brown: Sacrifice	2017	Voice-Over	Spanish European	Netflix
	Docu-reality	Derren Brown: The Push	2017	Voice-Over	Spanish European	Netflix
	Documentary	72 Dangerous Animals: Latin America	2017	Voice-Over	Spanish European	Netflix
VoiceQ	Movie	Prey	2022	Dubbing	Comanche	Hulu (US) Disney+ (non-US)
	Drama Series	Squid Game	2021	Dubbing	English	Netflix
	Drama Series	Lupin	2021	Dubbing	English	Netflix
	Drama Series	Money Heist	2017	Dubbing	English	Netflix
	Drama Series	Veneno	2020	Dubbing	English	HBO Max
	Drama Series	On the Spectrum	2018	Dubbing	English	HBO Max
Studio.NEXT	Drama Series	Foyle's War (Seasons 1 to 7)	2020	Dubbing	Spanish	Acorn TV (via Prime Video in Spain)
RecordR	Comedy Series	The Gordita Chronicles	2022	Dubbing	Spanish	HBO Max
	Documentary Series	Mind Over Murder	2022	Voice-Over	French, Polish, Turkish	HBO Max
	Comedy Series	iCarly	2021	Dubbing	French	Paramount +

	Documentary	When We Were Bullies	2021	Voice-Over	French, Spanish	HBO Max
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Table 2. Audiovisual projects recorded using cloud-dubbing technology

Table 2 shows a series of examples of the different types of programmes revoiced using cloud-dubbing software, ranging from movies, documentaries and comedy series to drama series, docu-realities, and reality shows. The corresponding VOD platforms are listed on the right side of the table. It is noteworthy that some platforms collaborate with various providers. For instance, Netflix features productions recorded with both ZooDubs and VoiceQ, while HBO Max airs those produced by VoiceQ and RecordR. This varying engagement with providers could be attributed to the vast quantity of audiovisual content requiring translation and revoicing. The range of languages employed in the dubbing process is significant. The examples from table 2 show traditional dubbing countries like Spain and France, as well as emerging ones, including English-speaking countries that obtain the English dubbing. Nonetheless, although English dubbing is no novel creation, its recent integration into popular culture is still a novelty, considering that Netflix’s move to translate foreign productions for an English-speaking audience “disrupted industry norms for mainstream audiovisual translation (AVT) into English” (Hayes 2021: 02).

6. Cloud dubbing and training

It seems undeniable that the future of dubbing is going to be democratised among the different players thanks to cloud-dubbing solutions. Voice actors no longer need to be based in –or commute to– the big cities where the traditional studios are located to work in audiovisual productions. Thanks to this cutting-edge technology, voice talents already established in the online market will be able to work remotely on even more projects. In addition, I believe this technology will have a knock-on effect and more actors will join the dubbing industry. This new technology is accessible to anyone: with a small investment in recording hardware and software usage, the dubbing acting sector will become more democratic and enrich audiovisual productions with a wider range of voices than before.

In terms of software usage and training, each software company has its own e-learning platform where anyone interested can apply, or simply pay a small fee to learn the insights of the software. ZooDigital has Zoo Academy, an online platform where students can learn the different localization solutions this company offers, from subtitling via ZooSubs, to dialogue adapting, and voice-over and dubbing with ZooDubs. Moreover, Zoo Academy has partnered with several educational institutions such as the University of Sheffield, the University of Malta, and the West University of Timsoara (Romania). Thanks to these partnerships, translation undergraduate and graduate students from these institutions will work with professional technology in a real-life environment.

VoiceQ also has its own e-learning modules through Udemy, an online training portal, where people can buy courses on VoiceQ. There are currently three options: VoiceQ for adaptors, VoiceQ for directors, and VoiceQ for engineers. This company also offers partnerships to educational institutions to include their software in the localization curricula of their syllabus. Examples can be found in the Victoria University Wellington (New Zealand), the University of Auckland (New Zealand), EICAR (the International School of Audiovisual Creation and Realization) in Lyon and Paris (France), and the Collège d'Alma in Quebec (Canada), among others. According to the employment website of VSI, a prominent localisation company, expertise in VoiceQ training and familiarity with additional VoiceQ products, such as VoiceQ Writer, are among the desired qualifications for potential employees.

TransPerfect offers two e-learning courses on how to use its cloud-dubbing software Studio.NEXT within their online Dubbing Academy. These two courses are divided into five modules in which students will learn the basic skills needed to become voice actors. Unlike ZooDigital and VoiceQ, whose content is addressed to translators, directors and actors, Studio.NEXT's e-learning is specifically devoted to actors or voice acting wannabes.

No e-learning courses on how to use Lylo's RecordR software have been found, which could be reserved to in-house voice talents and studios. However, as Lylo is part of TransPerfect, I presume that those voice talents with home recording capabilities who are registered in TransPerfect database could be eligible to work with this software.

The possibility to learn how to use these software packages is at hand, and these training courses are available both for audiovisual translation professionals and dubbing enthusiasts aiming to start a career in the dubbing industry. In the light of the data gathered, it seems probable that more dubbing platforms may emerge in the near future and that home recording will become the new normal way of revoicing audiovisual productions thanks to these training courses, accessible and economical recording hardware and the recommendations that VOD platforms, like Netflix, offer for home recording setups.

7. Conclusion

Cloud dubbing technology is a newly emerging field that requires further investigation and exploration to gain a more comprehensive understanding of its advances and application in the production of final translated audiovisual products, as well as its reception among industry professionals in comparison to traditional dubbing and voice-over practices. In addition, given the existing gap between translation professionals and academics (Franco 2000: 34, Bogucki & Díaz-Cintas 2020: 22), this study seeks to bridge that divide and provide valuable insights into innovative revoicing technologies.

Since the irruption of ZooDubs back in 2017, the race for online cloud-dubbing solutions has not stopped and more cloud-dubbing platforms have stormed the audiovisual industry. The evolution of the dubbing sector in the past 20 years has been

dramatic. We have seen how digital recording revolutionized the traditional way of recording seeing off magnetic tapes. The digitalisation of sound recording is no longer a revolution, it is a transformative process of economic, technological, social and cultural change (Théberge, 2015: 329). Voice acting entrepreneurs foresaw the direction the audiovisual industry was taking at the end of the past century and, in a pioneering fashion, set up home recording facilities, creating the figure of the online voice talent. Online voice talents with their home studios and cloud-dubbing platforms saved the audiovisual translation industry in Spain and France during the lockdown periods caused by the COVID-19 pandemic, when all the traditional studios were closed. Three years later, we are now witnessing the expansion of cloud-dubbing solutions and the flourishing of new online voice talents who, thanks to the training provided by the software companies, are enhancing the audiovisual productions with more voices than ever before. Nonetheless, the audiovisual industry and the revoicing technology is still in motion and there are new players joining the game. Synthetic voices are starting to make their way in the industry and the chance that cloud-dubbing platforms include them in the near future is real. This, undoubtedly, could mean farewell to human voices in the business who could be replaced by digital technology, similar to what happened with magnetic recorders, landline phones, VHS systems, and DVDs.

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