From *Hörspiel* to Audio Fiction: Sound Design Perspectives for Blind and Visually Impaired People

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Abstract. Since the emergence of radio, the *hörspiel* (audio drama) has demonstrated the possibility of incorporating the narratological inheritance to the technical specificities of sound language. The growing demand for accessible content expanded the audio narrative production through new technologies. Audiobooks and screen reader applications also have improved this process. However, they focus primarily on the semantic and verbal aspects of the text. This article endorses that sound design is a way to broaden the narrative potentialities for Blind and Visually Impaired People (BIVP) and at the same time to attract people with all levels of vision to the universe of innovative audio fiction.

Keywords: Accessibility · Inclusion · Sound design · Audio fiction
Well being

1 Introduction

If we consider the number of people affected by damages to the sight, we are dealing with a significant portion of the population. The International Classification of Diseases divides vision into 4 basic types: (1) normal vision; (2) moderate vision impairment; (3) severe vision impairment and (4) blindness. According to the World Health Organization, in 2017 an estimated 253 million people live with vision impairment; among them, 36 million are blind and 207 million are moderate to severe vision impaired [1].

In a society where the visual input is rapidly increasing, with all kinds of images emerging from digital media, the life quality of people with visual loss has new challenges as well as new possibilities. If technology brought new ways of carrying on our daily lives, we could not fail to include this significant amount of the population in the scenario of these changes.

In addition, when we think about creating a more inclusive and accessible society for people with visual impairment and blindness (BVIP), we must defend their right to art and entertainment. Regarding this matter, we consider that narrative constitutes one of the most fruitful artistic fields to exploit for people with vision loss, as for its importance in culture, as for the potential that sound design brings to the development of audio plays.

Oral narratives are of ancient origin but recording and broadcasting technologies only have gained momentum from the first decades of the 20th century. Artists such as

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Kurt Schwitters and Hugo Ball, for example, created poetic compositions using the sound in an innovative and irreverent way. If the European vanguards had opened the way for sound experiences with words, the *hörspiel* (or audio drama) consolidated, from the earliest days of the radio, a path to explore sound narratives.

Almost one hundred years after the birth of *hörspiel*, we have achieved technological resources that the first audio dramas' authors never dreamed of. Nowadays, with the diffusion of digital media and the internet, sound narratives can be produced, stored and listened to in different ways, allowing people to access it more efficiently.

The pioneering experience and consistent production of numerous audio dramas in the past have facilitated the creation of concepts and an entire field of study about the particularities of sound in a narrative structure. One of the modalities of sound narrative that is becoming more and more popular is the audiobook. This kind of adaptation of texts written for the audio environment has several uses because it allows a book to be enjoyed in conditions that are impossible to read (such as when someone is driving or washing dishes). More importantly, it also promotes accessibility for those who are visually-impaired as for other disabilities.

Nowadays France leads the way on the production of book adaptations, allowing BVIP to access several kinds of publications, such as fiction, non-fiction, and cookbooks. Since 2006, French law makes it possible to transcribe them into braille or sound just after they have been launched.

"In the past few years, new technology has brought about major changes in the daily life of blind and severely visually impaired people - 1.2 million in France, 285 million worldwide. Services for downloading audiobooks have appeared in many countries. There are also special players for listening to books. PCs and smartphones now offer similar functions. Braille terminals are available too, with scope for reading and input" [2].

Among the BVIP, sound narratives have the advantage of not needing any special learning, such as Braille books, to be enjoyed. As a tactile reading system, based upon cells composed of dots, Braille has two forms: non-contracted (alphabetic) or contracted (literary). The first one, easier to learn, is used to make brief notes or read urban signs. But the second one, used for reading books and magazines, according to The American Foundation for the Blind, takes an adult one year of weekly lessons to be learned. In this sense, the diffusion of narratives by audio becomes more universally accessible than the texts in Braille.

However, if a pleasant and clear voice-over, along with the use of sound effects can make enjoyable the experience of listening to an audiobook, we argue that sound narratives have specific resources to be used. These enrich the experience of the listener and, for the BVIP can mean the contact with works as complex and instigating as the best achievements of other areas, such as opera, cinema, dance and the visual arts.

If an adaptation of self-help book or detective novel can fit well into a mimetic structure, based on oral interpretation, it may not apply to formally challenging literary works such as *Orlando: A Biography*, by Woolf [3]; *Finnegan's Wake*, by Joyce [4] or *A Clockwork Orange*, by Burgess [5]. How can we allow BVIP to have an experience when listening to such adaptations that is compatible with the impact that these literary works may cause on the reader?

In this case, a more appropriate relationship between form and content would benefit from an inventive exploration of the voice and effects used. To do so is necessary to emphasize the sound specificities that allow exploring its creative potential widely. Thus, in this article we will return to the story of the emergence of audio dramas, from the conception of what was *hörspiel*, to describe the main elements of sound design that can be used in the composition of quality audio fiction.

2 Audio Drama: From Radio and Beyond

The creation and the future consolidation of the radio during the 1920's and the 1930's made this medium develop in its various technical and aesthetic aspects. Radio stations created and experimented, in addition to the musical and journalistic programming - evidenced in most of today's broadcasts - grids with a diverse range of programs.

One of the genres that had significant development in this period was the radio play. According to Scheffner, the first audio dramas (*hörspiel*) came together with the first official broadcast of the medium in Germany on October 29, 1923 [6]. At that time, theater pieces were adapted, called "radio plays." Regarding the genesis of this genre, we must consider a peculiar aspect:

"The new acoustic art - the radio drama - did not arise as painting or architecture, from an organically born necessity - emerged, like cinema, from a technical invention. Few traditional artistic forms had such a synthetic birth. No other, with such a comprehensive transmission system" [7].

The radio play can be defined as a genuinely radiophonic genre (since it emerges and develops at the core of the radio) with the capacity to assume the most diverse narrative forms, from the police novel to the documentary and the children's story. It is evident that, at first, this genre justified itself by remediating media [8] such as theater and literature, especially novels with serialized narrative structure. In the same way as, later, it ended up influencing television genres, such as sitcoms and soap operas.

Over time autonomy was achieved, allowing *hörspiel* to develop its own language, dialoguing with the intrinsic characteristics of the radio medium, but also surpassing it and migrating to other media, where it will be called audio drama, audio play or audio fiction (a term that we prefer for its versatility). This autonomy does not, however, invalidate the existence of hybridizations with forms of literature, music, and dramatic art; but always without being confused with these, since audio fiction has developed as a genre of its own and not as a kind of recorded text or sound theater, for example.

In this sense, one of the leading characteristics of the genre lies in its broad synesthetic and creative potential. By not working with visual images, the narrative sound can stimulate sensations and the imagination of each listener - without giving up their collective task, capable of simultaneously reaching a group of people (audience). Thus, it has the function not only of entertaining or representing a given immediate reality but of overcoming it, reaching the universe of meaning, the imaginary and the adventure of language, which makes it a particularly interesting medium for BVIP.

Audio fiction must be understood, not only as a finished product but complex process, a phenomenon. We will cover here some of the leading aspects present in this process in their dimensions of production [9] and reception.

3 Principles and Elements of the Sound Language

The creation and analysis of an audio fiction presuppose an understanding of what Schafer called the soundscape: the diegetic or extradiegetic (re)creation of a sound environment ("real" or "virtual") in its physical and synesthetic aspects [10]. Just as we can create, describe, and illustrate an environment through words and visual images, we are also able to use the sound to do so. The soundscape of an environment should not only be descriptive but also to capture its sensorial atmosphere.

The design of sound ambiance is vital to establish the setting of a narrative to BVIP. We can compare the soundscape of an audio fiction to the scenario of a movie for a sighted person. It is something that can act as a support to the plot, or it can be so crucial that it is developed as a character of the storyline. An example of this last case, in cinema, is *The Shining* (1977), a film adaptation of Stephen Kings' book directed by Kubrick [11]. In this classic horror picture, the hotel where Jack Torrance's family gets stuck in after a winter storm (called Overlook Hotel) is as important as the story's leading roles.

Each soundscape is composed of two elements, layers, and sound textures. By sound layers we can understand the different layers of sounds that appear in an environment, that is, the number of distinct sounds that can be heard and identified at the same time. Usually, the sounds come in different intensities of volume, and they can be understood as background or as foreground.

The sound designer's sensibility is fundamental to decide how to choose between the varieties of resources. Not always the excess of distinct sonorities works in the soundscape; on the contrary, it can often result in noise pollution. Likewise, the intensity of the different volumes (measured in decibels) is fundamental to reinforce an idea of likelihood, when this is the case.

We can also identify a proper tone, a specific low or high tessitura, at each layer of sound that is called the sound texture. In other words, it is the characteristic or set of gathered features that make a given sound to be understood as such and not like any other.

Creating elaborate soundscapes requires extensive knowledge of sound design, besides the simple use of foley and sound effects. By sound design, we must understand the whole process of research, selection, application, and adequacy of a sound element. Some people nowadays use the term sound designer, rather than audio technician, to designate the professional responsible for this task, because, in a way, the sound designer makes with sound, what the designer traditionally does with the visual. In addition to sensitivity and technical mastery, the professional responsible for sound design should understand the characteristics and relationships between the five different elements of sound design: voice, music, foley, sound effects and "silence."

By voice we understand all types of intelligible or unintelligible sound (above or below the semantic level) emitted by the human speech apparatus - and therefore, not

only "speech." Each voice is unique and depends mainly on three factors: physical, psychological and sociocultural. The first factor is defined in part by genetic inheritance, in part by different training techniques; the second, by the very way of being or acting of a person and its personality; and the third one is defined by the relationship of the self with specific groups in their life in Society.

Voice is undoubtedly one of the leading elements of audio fiction since it allows a rescue and an update of orality, mediated by sound technologies [12]. The voice on the radio is a mediated orality because in the first instance the microphone picks up the voice in a way different from what the human ear will do, what explains the strangeness of hearing one's own voice when recorded. Secondly, once recorded and stored, the voice can become raw material for further manipulation in its most diverse spectra. It can be thought and used in three different ways: speech, vocal possibilities and other sounds of the voice.

According to Klippert [13], up until the early 1960s, *hörspiel* was considered a work of art because it lacked many post-production resources. The use of music in the sound narratives was expanded until it came to be used in three main ways: as "ambient," incidental music or as a leitmotiv. In the first case, the music serves to create or to reinforce a certain developed atmosphere:

"Composers dedicated to *hörspiel*, such as Hugo Pfister and Winfried Zillig, understood music in its dramaturgical function as a means of complementing, intensifying or structuring processes of spoken dramatic action. Hugo Pfister wrote that Hörspiel's music has the power to give atmosphere to a scene, staying in the background, perhaps almost inaudible. (…) There was a consensus that the music of radio drama should never be an end in itself" [13].

Incidental music is the music that is "playing" in the scene, and that can be confused with the other sonorities of a given scene (diegetic). It differs from the previous category in its essence because in this case, it represents the sonority of a sound body present in the scene and not of a soundtrack "evoked" by the director (extradiegetic), although it can be used with a similar function.

Music as leitmotiv has the function of associating a musical sonority to a specific dramatic situation, returning, usually, countless times during history, whenever this situation (re)appears. Thus, the same narrative can present more than one leitmotiv, which, in turn, can be performed with different executions. However, it is not a standard procedure in radio plays, unlike television, the presence of numerous leitmotivs in the same story, because the listener does not count with the support of visual images to facilitate these associations about a dramatic situation.

The foley is equivalent to what many call sound effects - we shall see later the distinction between the terms - that is, the sounds emitted by the sound sources present in a given dramatic scene.

"The first and main difference between the various sounds our ears hear is the difference between noise and musical sounds… We realize that, generally, a noise is accompanied by rapid alternation between different kinds of sound. Think, for example, in the rattling of a carriage, in the granite of the pavement, in the water spreading and swarming in a waterfall or the waves of the sea, in the rustling of leaves in a forest. In all these

cases we have fast and irregular, but distinctly perceptible, alternations between various kinds of sounds, which manifest intermittently" [10].

Two different categories can be thought about the use of foley: natural or artificial. The natural foley corresponds to the use of a sound whose actual sound reference exist "outside the studios" (diegetic sound). It may have, in this case, a figurative function, that is, the sound is used as an immediate correspondent to that sound source; in a scene that happens in a farm, it is heard the neighing of a horse, for example. Already as a function of metaphor, we use a sound recognized as a natural foley, outside its original context.

Artificial foley correspond to the creation of a sound whose immediate referent did not exist "outside the studios" (non-diegetic or extradiegetic sound). It is used as a sound representation of an unknown object or else merely as a more abstract and formal function, without being associated with a specific sound source, and yet not confused with music.

Sound effects are any intentional type of filter, distortion or manipulation that significantly changes the final shape of the sound in its physical constitution (wavelength). Currently, sound effects are numerous and can be produced and combined with each other *ad infinitum* in soundboard, mixer or specific software. The echo, for instance, is one of the most well-known sound effects: it's a reflection that makes the sound arrive at the listener with a delay when we consider the moment of its emission.

The absence of audible sounds, that is, silence can also be considered as a form of expression, as we find it in minimalist works, notably in John Cage's work. The American musician and composer, influenced by the teachings of Zen Buddhism, had two significant experiences to think about the role and importance of silence in a sound piece.

Absolute silence can only exist in situations in which sound cannot propagate - as in a vacuum, for example. Humans can listen to frequencies between 20 and 20,000 Hz, which means that no natural environment provides absolute silence for the human being. Even the quietest environment or situation that we may know or have experienced has a minimal sound unit, identified by audio professionals as "breath," and varies at each specific location. In searching for the characteristics and possibilities of silence, John Cage remained for some time in an anechoic chamber, which prevents the reflection of sound waves and is isolated from any noise. About this experience, he tells:

"I thought there was something wrong with the room, some leak. I looked for the sound engineer and told him that the anechoic chamber had some problems: 'I can hear sounds inside. How is it possible?'. Then he asked me to describe them; I described them as a bass and treble sounds. 'Well,' he said, 'the treble sound is your nervous system, and the bass sound is the noise in your bloodstream.' So, it became clear to me that silence does not exist, that it is a mental matter. The sounds you hear are probably silent if you do not want them. But they're always ringing. There is always something to listen" [14].

In the second experiment, Cage composed, in 1952, a work entitled 4′33″, whose score has only time comments, without musical notes, which shifted the focus of interest out of work itself. In this manner, the composition incorporated the external characteristics of its surrounding reality, the sound to which attention is paid during its performance. The music is always the same, what changes is precisely the sound environment

around you. This work will produce, each time it is executed, a different result depending on the time and space. About 4′33″, the composer stated:

"(…) Has changed my mind, of course, in the sense of appreciating all those sounds that I do not compose. I discovered that this piece is the one that is happening all the time. I wanted people to find out that ambient sounds are often more interesting than the sounds we hear in a concert hall" [14].

Therefore, silence in audio fiction should always be considered in its figurative sense, because in the studio and the reception environment of the listener, there will always be sound, desirable or not (unwanted noise). The "silence" can, therefore, appear in different forms with different functions. In principle, every form of speech (and sound, in a general way) is understandable only by the presence of "silence." If speech were to form an eternal continuum, we would probably not be able to distinguish the changes and nuances present in its dynamics. Pauses during speech may still represent characteristics of the character with nervousness, anxiety, doubt, sadness, hesitation, etc. Also, "silence" can also be used as an element of absence, allowing the creation of an idea of the passage of time, of reflection by the listener or of expectation of a fact that will occur, creating a climate of suspense that precedes the action.

The use of these five elements of the sound design of an audio fiction usually takes place via the use of electronic or digital equipment, such as the soundboard, mixers, and, more recently, the computers. The art of audio fiction is born into this equipment through the intermediation of a technical-creative process between its first conception and its final transmission.

Besides this technical knowledge, that is essential to building a repertoire of possibilities to the sound designer; he must also consider the available data about BVIP sensory perception. To create exciting art pieces for people with disabilities, authors and producers must take this public into account from the beginning of the conception of audio fiction. "People who are blind use parts of their brain that normally handle for vision to process language, as well as sounds – highlighting the brain's extraordinary ability to requisition unused real estate for new functions." [15]

The concept of neuroplasticity in the blind demonstrates that sensory deprivation can cause the brain to modify itself to perfect its behavioral adaptation. In an experiment to investigate an alternative approach to visual rehabilitation, Ella Striem-Amitt used a sensory substitution device (SSD) to translate visual information using sounds. "A neuroimaging investigation of the processing of SSD information showed that despite their lack of visual experience during development, the visual cortex of the congenitally blind was activated during the processing of soundscapes (images represented by sounds)" [16].

Therefore, art can dialogue with science to create potentially playful audio fictions, but also stimulate the senses of BVIP audience. If the brain structure that is usually responsible for vision is used to process the sounds for blind people, we might think of audio fiction as a potential substitute to audiovisual entertainment for those who have vision loss. Working the soundscape with layers, textures, voice, and music - all of it punctuated by silence - can build audio fictions that reach BVIP in extraordinary ways, amplifying their sensibility and helping to expand their imagination.

Thus, after dwelling on the specificities of the audio fiction genre, we need to think about its current situation and consider its future transformations that may contribute to increasing its interest not only for BVIP but also for a wider audience.

4 State of the Art and Perspectives

The fields of entertainment and information in the contemporary world seem to point out to two main approaches. The first of them lies on the fictionalization of the real and the creation of fantastic universes, tasks that are facilitated by the technological resources of the present. The second is based on the search for truth, anchored in the reality of the facts. Whether through an audio fiction or news broadcast on the radio, both of them have a mediation of the language that is crossed by the medium where this information will be transmitted.

This same technical-technological feature in the making of audio fiction also permeates the process of transmitting the audio itself. Thus, audio fiction could assume the character of *ars multiplicata*, which allowed the appropriation and subversion of the radio as a means of mass communication. It was possible, then, to take advantage of the learning process achieved by radio production to make works of sophisticated quality and great cultural and social potential.

It was precisely those possibilities that attracted authors such as Eugene Ionescu, Bertold Brecht, Walter Benjamin and Orson Welles, among countless others, to write and direct their radio plays. This significant moment in radio became known as its "Golden Age," with a program schedule full of good quality pieces coupled with an extreme diversity of genres. Moreover, in most countries, the radio played the role of the central means of mass communication. All this made the radio count, in addition to a broad reach, with a large staff of professionals and with substantial financial incomes to support this structure.

The arrival and the popularization of television caused that, in most parts of the world, the radio lost its hegemonic post for the audiovisual rival and, more recently, for the internet. When the broadcasters lost part of their audience and resources, they had to gradually adjust themselves to a new reality, represented mainly by a decrease in their costs and structures - which, in principle, should not necessarily justify a creative and experimental limitation of the medium.

As the private and public capital diminished in the radio, most of the artists and professionals migrated to the television, lending their knowledge and experiences to the construction of the language of the new environment. In addition to some technical innovations in its history - such as the cassette tape, the effect table, the transistor and the headset - the radio starts to be rethought and begins to restructure itself. However, in this process of rebirth, the radio has renounced the kind of programming that made its glory in the past, the narrative genre and its various formats, such as radio soap opera, documentary, sketches, series and the *hörspiel*.

However, this reorganization of the vehicle represents, in addition to the abandonment of many of its formats, the abandonment of many of its potentialities, since radio

broadcasters have given up studios, artists, writers, producers, to operate within much more restricted perspectives than those of the period of its apogee.

Some may argue that this is due to a change in the public's taste or the fact that television has occupied that space. But to maintain a "24-hour on-air" schedule and at the same time to operate with a shortage of funds has limited the radio to a production structure that does not allow it to perform this type of production. At least, not in the same way and with the same frequency as it has been done previously. Even in the news media, so crucial in today's radio, there are almost no documentaries and reports of more massive scale and formal elaboration. The communication is usually limited in these cases to coverage of events and live commentary.

The reduction of productions such as radio soap operas, radio documentaries, and sound adaptations does not necessarily mean disinterest of the public about these productions, but the inability, for various reasons, of the radio to realize them. As rare as they are praiseworthy are the spaces within the stations destined for the production and transmission of the narrative genre, and even of other modalities considered more experimental. Thus, conventional radio is, unfortunately, less and less the space for innovation or even the production of more elaborate and sophisticated works.

In this sense, in recent years, besides community and state radios, new alternatives have appeared for an expanded performance of the radio medium. Educational and university projects, in addition to a plethora of actions for the third sector, are demonstrating that there are perspectives on the creative use of sound language. The advent of digital and new technologies, such as Web radios and podcasts, offers new possibilities for the production and dissemination of the genre in sound media. Here we cite the example of BBC audio dramas, where we find potent adaptations of books such as Gibson's *Neuromancer* [17] and Bradbury's *Fahrenheit 451* [18].

These potentialities make viable the idea of a "possible radio," as imagined by Brecht [19], who defended the end of the bourgeois radio and its transformation into a weapon of a democratic society. The author believed in the effective bidirectionality in broadcasting and that, therefore, the medium could no longer be an instrument controlled by a privileged minority: producers and owners of radio stations. We can speculate that this non-hierarchical conception, from a many-to-many production, in which all could be simultaneously emitters and receivers, has some structural similarity to what is nowadays called potential of the internet.

Thus, bidirectionality becomes possible not only within the equation "listener-listener," but also in the sense that the distance between "producer-consumer" becomes smaller and smaller. As in the musical field, sound productions of a more independent character can already be performed with a more straightforward and more accessible structure than before. It is already within reach to listen to sound narratives, sound poems and other more experimental works produced within studios and structures much smaller than those of radio stations.

Once the desired bidirectionality is achieved, it is still the moment, according to Brecht [19], to think of creating quality pieces that are effective with the intrinsic characteristics of that media. That is, works designed, produced and transmitted exclusively for sound language, and that know how to explore the expression forms of each audio medium.

Moreover, if we consider the research in which Agnieszka Walczak and Louise Fryer tested the impact of audio description (AD) on dimensions of presence, we can state that the creative and detailed narratives provide more immersive experience to BVIP than the objective descriptions. Thus, the sound design used with excellence to produce good audio fictions from an artistic point of view can also contribute to enhance the understanding of space and location for people with vision loss [20].

5 Conclusion

The traditional radio play is also known as *hörspiel* constitutes a link between narrative, one of the most traditional elements of our culture, and radio, one of the most interesting and democratic technological achievements of humankind. The narrative forms initially transmitted by the radio waves today can be expanded by the most diverse media and diffuse sound codes through the internet.

One must also consider that the act of narrating facts and events, of storytelling, accompanies man long before the emergence of the radio. The desire to record these narratives reveals itself in diverse forms, from the first cave paintings to the video games that use technological supports of the last generation.

"Moreover, under these almost infinite forms, the narrative is present at all times, all places, in all societies and begins with the history of humanity. There is nowhere, no people without narrative. All human groups have their narratives, and often these narratives are shared by men of different and even opposing cultures. Narrative ridicules good and bad literature. International, transhistorical, transcultural, the narrative is there, with life" [21].

In this way, the sound narrative, while dialoguing with an entire narratological heritage, incorporates characteristics of sound language and its means of production, transmission, and reception. It is necessary not only to rescue the genre but also to update it for the new generations in the face of the profound social and technological changes experienced in the last decades.

Such changes have raised some possibilities already pointed out by Schöning regarding the development of *hörspiel* as an "(…) autonomous artistic product and disconnectable from the medium in which it was born" [7]. Today, audio drama can overcome the limits inherent in radio, thus exceeding the boundaries of its home environment. With this, the genre came to be called audio fiction, sound narrative or even audio play, which are broader and generic designations, capable of accounting for the new scope reached.

Regardless of its transmission or distribution support, the narrative sound is a possible way to shelter and disseminate, either for specific niches or millions of people, the most diverse folkloric, mythical, romantic or popular narrative modalities. This genre helps to rescue, stimulate, research, exchange and recreate stories that have always fascinated man.

The audio fiction can still reach a portion of the population that can't access content in other media, such as the blind and the visually impaired people. Because BVIP doesn't find in audiovisual vehicles, like television or internet sites, for instance, independence

from the visual aspect, they are discriminated by the mainstream culture. Watching a movie or navigating through Facebook can be defying and frustrating at the same time because those who lack vision misses most of the content.

Beyond BVIP, audio fiction also reaches a public who already establish relations with other media and supports, but who do not know the constitutive forms of sound language. It should be noted that, in this case, audio fiction does not represent a "threat" to other forms; it is "old news" capable of (re) teaching people to listen. It is not, therefore, a matter of seeking to rescue the past, but to reinvent the future.

If the sound designers are familiar with the concept of universal design [22, 23], they must pursue its principles and apply them to achieve an amplified notion of accessibility. Particularly about perceptible information (principle four), which reinforces the importance of redundancy and provides compatibility with devices used by people with sensory limitations [22]. As previously stated, audio narratives have both cognitive enhancement and entertainment potentialities for BVIP. Considering the development of audio-fiction not only the elements of sound but also of accessibility, is fundamental. Therefore, universal design can inspire the delivery of content in various audio formats, which can be accessed online or downloaded to the listener's smartphone, for example. Also, information and additional material on each production can be disseminated in different ways, considering the four officially classified types of vision [1]. Why not create, for example, a site about an audio fiction, which brings the details of this work in audio, but also in images and letters that can be enlarged?

Decentralized distribution and collaborative possibilities not restricted to the geographical proximity afforded by digital media can amplify the diversity of audio fiction. We hope, therefore, that alongside the adaptations, specific narratives for the sound medium will also be produced, whose contents may be relevant to the BVIP with themes and scripts motivated by their reflections and experiences. Ideally, these pieces could hire BVIP as consultants, actors, and directors of content to increase the employability of people with visual disabilities. The more creative these audio fictions are, the higher the audience they will attract, and may even include transmedia elements to enable interaction with relatives and friends of BVIP, making the society more aware of the specific challenges they face in the world.

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