

THE GROWING IMPORTANCE OF THE VOICE AND SOUND IN COMMUNICATION IN THE DIGITAL AGE: THE LEADING ROLE OF ORALITY

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Introduction

The voice and sound are a mystery to many – so familiar yet so unknown. Their influence was well known to Silvia, but she was not aware of it until recently. Silvia is a nurse. A few days ago, as a result of a serious misunderstanding with a patient, she realised that bedside manner influences patients' mood and health. Analysing what had happened, she remembered the interview which had earned her a job at the health centre: an interview where her manner of expression was decisive. But she had not been conscious of the power of oral language until then. Yet Silvia is a person who uses many sound sources in her day-to-day life. She goes to the theatre twice a month, but had never stopped to think that she was witnessing the purest form of orality. Silvia also adores music and subscribed to an online music platform not long ago. She likes stories – who doesn't? – and always used to read aloud to her daughter and hired a storyteller for her birthday parties. Lately, as Silvia doesn't have so much time to read, she has discovered she can carry on enjoying good stories through audiobooks. And she has gradually got into the habit of wearing earphones wherever she goes. It was only a matter of time before she discovered podcasts. Now she listens to podcasts, not just music, on the way to the gym and when she is out walking the dog. And she has studied Italian that way. She also listens to programmes about the cinema and about art that help her understand sculpture better and, when she is able to concentrate better, podcasts specialising in health – apart from listening to fiction, that is, for, as we pointed out, Silvia loves stories. Therefore, not only does she live in a world of sound, but sound and voices have become the most important means of communication, learning, cultural improvement and entertainment for Silvia. Like Silvia, many people use sound as a means of accessing the information they need and of accessing culture and entertainment. Some authors regard what is happening as a return to the leading role of orality – an orality we have never lost, though we had reviled it.

We have gone from a world centred purely on written culture to digital orality. But what is the reason for this prominence oral forms enjoy today? To find the answer, we will briefly survey the shift from primary to digital orality. After analysing the reasons for this change, we will then examine its component elements, sound and voice, before going on to examine its contributions to the culture and art industries.

The newfound prominence of orality: from primary to digital orality

It had never occurred to Silvia that orality lies at the origin of human history, as the oldest form of communication. Although the exact date is not known, humans acquired the ability to speak some 300,000 years ago (Mizrach, 1998¹). They started off uttering simple grunts, which gradually developed into language (Salzmann, 1993). This so-called early orality (Ong and Hartley, 2016) was a purely oral form of communication that coexisted with pictorial representations. But humans needed a way of making the spoken word permanent, of somehow recording it. And so, more or less 6,000 years ago, writing was invented as an evolution of oral language, a code for representing the spoken word. The possibility then arose of storing information in its original state. This is another fact of which Silvia was unaware. Her schooling had been strongly centred on written language and she took for granted that it had always been around. Yet writing is a very recent invention compared to how long humans have been speaking.

The appearance of writing deeply changed knowledge and ways of thinking. But this change was not immediate. Poetry recitals continued to be common among the Roman elites. The major transformation occurred with the invention of the Gutenberg printing press in about 1450. This invention made it possible to reproduce and copy manuscripts quickly and they accordingly spread and became popular. But we can only

read if we are familiar with the code of the writing, and this required formal learning which was not yet widespread. We know that in the Middle Ages it was a skill limited to members of the clergy and the upper classes. The main means of transmission continued to be oral, and it would be some years before written culture reached large swathes of the population. Graham (1993) states that reading as we know it today, as a silent and private act, became widespread in the second half of the nineteenth century. Therefore, written language has not been around for long and that is why Professor Sauerberg of the University of Denmark and other authors (Pettitt, 2010²) call this stage “the Gutenberg parenthesis.”³ During this period writing prevailed. But a few years later another manner of recording oral language was discovered and its importance was restored.

The phonograph, invented by Edison, Johnson and Berliner and patented in 1878, was the first device that allowed sounds to be reproduced. Berliner’s gramophone was subsequently used for cinema sound.



Phonograph, gramophone

This meant that for the first time in history sound could be recorded and reproduced. The introduction of technology therefore ushered in a new stage that Ong and Hartley (2016) call second orality. The phonograph and gramophone were followed by other systems for storing information. The cassette, developed in 1970, gave huge impetus to orality because sound forms, as well as being recordable, were now portable. Later on, in the eighties, came compact discs, videotapes and, from 2002, streaming and the Internet, bringing the possibility of downloading sound content in MP3 format (Rubery, 2011). The transmission of sound over distances – specifically the spoken word – was also developing through the telephone, which was patented by Bell in 1876 though it was invented by Meucci. All these means of communication and sound storage have contributed to restoring orality to its importance.

The definitive impetus, however, the return to orality, came from the appearance of the radio. This is something that Silvia did understand, because she liked listening to the radio during her night shifts at the hospital.



The sound medium par excellence, the radio, made mass communication possible. Whereas a book needed to be printed and purchased by each reader, a single radio broadcast could reach a large number of people easily and cheaply. In this connection Silvia always recalls the social alarm triggered by the broadcast of *The War of the Worlds*⁴ directed by Orson Welles and aired over the CBS network on 31 October 1938. It drew attention to the power of a radio broadcast that reached thousands of people.



Indeed, according to McLuhan (1989), radio and mass communication were the factor that caused a shift in the then prevailing western print culture. Thanks to motion pictures and the subsequent emergence of television (in the 1930s), mass communication spread and audiovisual language began to take on importance.

Nowadays we are experiencing what Barrow (2008) calls digital orality arising from the Internet era. The main change with respect to the traditional audiovisual media like radio and television is that people are beginning to be active users as opposed to mere recipients, and interaction is encouraged. Now Silvia decides what content she wishes to consume, as well as when and where. She also seeks to be able to interact, give her opinion and share what she likes. This characteristic is made possible by the latest technological advances. The smaller size and weight of modern mobile phones has made them people's most important means of communication, information and entertainment today.

New audiovisual formats have appeared that store sound (podcast) or images (YouTube). The communication system has also incorporated images and likewise reproduces digital orality in formats such as Skype, which differs from pure orality only in the distance between speakers. They are formats which, like the well-known TED Talks, greatly resemble early oral forms. Therefore, digital orality is characterised by four factors: use of technology, long-distance transmission on a mass scale, storage and reproduction capacity when the subject decides and possibilities of interaction. But in this context, why are voices and sound so easy to transmit? We will now analyse these two elements to attempt to understand the reason for their rise.

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Elements of orality: voice and sound

When Silvia was at school, most of what she did was focused on learning the written language. For some years now education has been centred on writing and attaches less importance to orality, taking it for granted to be a secondary process. In contrast to this idea, according to Goody (1968) most cultures convey their attitudes and values face-to-face, and for this reason Rosenberg (1987) coined the term "oralature". It is true. We have forgotten that orality is previous to and precedes writing. Most children learn to speak without going to school (Mizrach, 1998). But as writing is a code that represents oral language, a formal learning process is needed. To read and write well, it is first necessary to speak and listen "well", that is, it is first necessary to have a good command of oral language.

Oral language and the voice

The basic characteristic of orality is that there is a person who speaks – a voice that tells us a story, offers us information or asks us to perform an activity, among many other functions. The powerful influence of the voice is based on the fact that it is the most important instrument of human communication.

When we listen to a voice, we receive two types of information: verbal and nonverbal. Listeners not only access language, words and sentences, but also the idiosyncratic characteristics of the speaker (gender, age...) and their manner of speaking (Alexander and Nygaard, 2008). Each person's voice is unique. But, more importantly: the voice provides valuable information about our personality and our state of mind. For example, people who talk very fast tend to be nervous or extroverts; those who speak in a low voice may be sad or bored. Each person's manner of speaking is what is called prosody. Prosody helps us make the message understandable, show our intention and convey what we feel. Humans use melodic voice combinations through intonation, accentuation and changes of speed and pauses to give sense to our words. Therefore, prosody heightens the listener's attention and enhances their understanding (Rodero, Potter and Prieto, 2017). Indeed, according to the neuroscientist [Ramachandran](#),⁵ prosody is linked to the emotional parts of the brain and therefore, when we hear a voice, we have the sensation of being accompanied. Listening to a voice with all its prosodic connotations creates a strong emotional bond, an intimate atmosphere (Horton and Wohl, 1997) that leads us to think that we are accompanied. All this causes a pleasant sensation of wellbeing. Prosody takes on an even more important role in artistic expressions. A good performance is key to enriching the experience of a work, a sung musical piece, a play, a podcast or an audiobook.

In contrast, for example, when we read silently we do so with our inner voice and, therefore,

there is no performance, no prosody. In this case the process is twofold. When Silvia reads, she first needs to decode the printed letters, using the visual system, and must then afford them meaning by processing the language itself (Gough and Tumner, 1986). During the language processing phase, reading uses the same mental processes as oral language, which it has adapted over time. Therefore, there is no special mental process for reading; rather, we borrow it from oral language, as explained by professor of psychology [Daniel Willingham](#).⁶ In addition, when we read quietly we access the phonological representation of words, that is, the phonological part of our brain is also activated (Peng *et al.*, 2004). It is easy to understand. When we have difficulties understanding a word, we often find ourselves pronouncing it out loud to help identify it and grasp its meaning (Alexander and Nygaard, 2008).

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That reading and listening are complementary and are both conducive to language skills is borne out by the fact that studies comparing level of memory and levels of comprehension also yield similar results (Bell and Perfetti, 1994). When the learning of the written language is completed during schooling, a similar degree of comprehension is achieved, according to the psychologist [Daniel Willingham](#).⁷ This might seem surprising bearing in mind that it is more difficult to retain information when it is listened to, as communication is ephemeral and our short-term memory is very limited. This reinforces the notion that oral processing is very simple and gives an idea of why we often prefer to speak rather than write in everyday life. Orality fits today's lifestyle like a glove. The importance and significance of sound forms stems from the hectic pace of life today, and the growth of multitasking. In today's hurried world speaking and having a device record what we say and act accordingly is the easiest and quickest means of

getting what we want done. Therefore, we are tending towards a system where all activities involve speaking because it is able to keep pace with people's lives, even in total and utter darkness (Irwin, 2009). Silvia is well aware of this, as she is used to sending spoken messages via WhatsApp. There are already applications that can convert spoken messages into text. This is a very useful tool for writers, who can dictate to their devices wherever they are. The same is true of voice-controlled devices which are becoming popular and which everyone will have in their homes within a few years' time (Amazon Echo, Google Home...). In the future we will use these devices to listen to various expressions: radio, podcasts, audiobooks, music... All we need to do is give a simple spoken order and these devices can reproduce what we want. Sound will be a central part of the process, and we will therefore analyse it at length in the following section.

Sound

Silvia is well aware that sound, like the voice, is central to digital orality. Sound envelops and surrounds us and accompanies us in all our daily activities. It furthermore plays an essential role in our subsistence: it informs us of the nature, space and distance of objects. And it is always subject to periodicity. Sound is ephemeral, the audible is fleeting, always subject to a particular period of time. The same characteristic can be attributed to audiovisual communication, though not to written communication. As the message is perceived and processed as a continuum with sound, the process of comprehension is more difficult to control. When we listen, we cannot choose the speed at which we receive the message, nor can we decide to stop at a particular point. However, today this is no longer a problem. With recorded sound products, such as podcasts, listeners can stop at any time and go back; and in some applications they can even choose different listening speeds. Podcasts, recorded audio files available on the Internet

to be listened to or downloaded and with the possibility of subscription, have done much to restore the importance sound enjoys today. As an audio file, a podcast can feature all the kinds of sound content imaginable. In Spain the Cadena Ser radio station recently started up [Podium Podcast](#).⁸ In addition, the leading platforms [iTunes](#),⁹ [Spreaker](#),¹⁰ [Stitcher](#)¹¹ and [Libsyn](#)¹² offer podcasts on any subject, naturally including culture and art. It is sufficient merely to download an aggregator onto our mobile to be able to enjoy them. And if we decide to produce them to publicise our trademark, company, cultural products or services, [Podcast Pro holds all the keys to doing so](#).¹³ For sound is an ideal means of promoting culture, at least for three reasons (Rodero, 2005). The first is that sounds have the power to create mental images when they occur in isolation, without the image. When Silvia listens to a fiction podcast, she has to supply the missing images by picturing them in her mind. The images she creates are unique and her own. The processing of sound is thus a highly gratifying activity in which Silvia actively engages by producing mental images based on the stimulus of listening and on her own experience. The second reason why sound is relevant to an artwork is its ability to move the spectator. Sound by nature and the voice and music in particular have a powerful expressive force that arouses different emotions in the listener. In fact, music alone is capable of creating or modifying moods. The third characteristic of sound is the realism listeners sense when they immerse themselves in a good sound production. When all the elements of sound (voice, music and sound effects) are well combined, listeners can feel they are inside the story or the scene that is being described. Two elements of sound greatly influence this sensation of realism: sound effects and sonorous planes. Sound effects allow us to listen to real sounds (a door, the noise of traffic...), whereas sonorous planes introduce space and help us establish the position of people and objects. Many present-day sound productions already include binaural sound – that is, they

introduce spatiality and come very close to how we hear. Binaural sound is like 3D sound that makes it possible to distinguish the position of sounds (behind, right...). This characteristic is very important when the aim is to build sound spaces in a cultural sound product, for example, a podcast. Indeed, there are already productions by [RNE](#)¹⁴ that use binaural sound to improve user experience.

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All in all, the advantage of digital orality lies in the ability to access content where a human being tells a story, informs, helps, advises or interacts with us using all the prosodic aspects of their voice. If they do so with the support of sounds which reinforce their emotional impact, such as music, and make the story realistic, such as sound effects and 3D sound, the result will be a complete cognitive and sensory experience that will succeed in stimulating mental images in the listener, engage them emotionally and allow them to experience and feel the story from inside. These are the advantages that the voice and sound, as the most remarkable characteristics of orality, can lend any expression of art or culture. But what are those possible contributions? We will provide a few examples in the following section.

Applications of orality to creative and cultural expressions

Silvia is aware of the power of sound because she experiences it in everyday life through various creative and cultural expressions. Let us take a look at some of them.

Visual arts: drawing, painting, sculpture

It seems contradictory to speak of orality when referring to the visual arts, but it is not if we realise that sound and image are perfectly complementary. The experience of admiring a drawing, a sculpture or a painting can be more enriching if we add sound. Let us imagine that Silvia is visiting an art museum and admires some particular works while wearing headphones. When Silvia stands opposite a painting, an audio guide provides an explanation of the work. This would be the most conventional way. But we can be more creative and employ a device that radio has used very effectively. We can personify the painting and make it speak. Silvia could now listen to the voice of the *Mona Lisa* telling her own story and explaining her feelings. It is not even difficult to make them interact and hold a conversation. This degree of emotional engagement, listening to the subject's voice and interacting with the painting, will make the experience memorable. In addition to enjoying a sensory experience, we will have achieved the aim of assimilating and remembering information about the work. Now let us go one step further and imagine that, instead of information, the track tells a sound story illustrating what happened in the painting. This brings us to storytelling, and a greater degree of personal involvement. But we can make the experience even better – for example, if, instead of simply presenting information, we recreate in sounds what occurred in the picture. Let us imagine what Silvia would feel listening to the heart-rending cry depicted by Edvard Munch in *The Scream* or the serenity of *Anne at the Window*, as Dalí conceived it. In such cases we will make a qualitative leap, as we will be placing Silvia inside the story, enabling her to experience the action alongside the characters, thanks to the immersive power of sound. As we have seen, we will also be stimulating the creation of images. In this regard, the [Museo del Prado](#)¹⁵ has already produced audio guides for children. Margarita and her friends, fictitious characters, accompany

children around the museum, providing information about the paintings. If to these ingredients we add binaural sound, the experience is highly realistic. The consortium [Eurecat](#)¹⁶ already makes it possible to apply 3D sound as an immersive experience in museums and is also being used in countries like [Great Britain](#).¹⁷ Lastly, we can add movement to any pictorial or sculptural work so that Silvia can view the story represented. Bringing a painting to life is an experience that has already been conducted in a few museums, such as the [Rijksmuseum](#).¹⁸ But no doubt this is more complicated, less imaginative and costlier than sound. At any rate, these initiatives can be complemented with an audio podcast about a particular painter or work analysing the characteristics of the work in greater detail or interviewing specialists. The podcast can, of course, contain dramatised scenes. Or a radio station can be set up offering complementary information or sound experiences for visitors to download in podcast format, as the radio station of the [Museu d'Art Contemporani de Barcelona](#) does.¹⁹

We know that information is remembered better when image and sound complement each other

We can likewise animate a comic strip using sound. For example, the [BBC](#)²⁰ has already created graphic novels with binaural sound. In this regard we can let our imagination fly by giving a voice and life to drawings, paintings and sculptures. Imagine if Abraham Lincoln were to greet us when we came to his monument in Washington. An [art association](#)²¹ of Philadelphia has started up a similar initiative whereby users listen to a story produced by a radio station on the outdoor sculpture they are looking at. We know that information is remembered better when image and sound complement each other, and in this case sound can be a major ally.

Performing arts: theatre, dance, music, cinema

The relationship between the performing arts and orality is very clear and based on sounds and voices. Needless to say, the theatre is the pure essence of orality, the expression of the body and the voice used to perform a story. The theatre has benefited and still benefits from the radio and podcasts in its relationship with orality. One of the channels through which many people have had access to dramatised works in the past is the radio plays which were widely broadcast in Spain between the 1950s and 1970s (Rodero and Soengas, 2010). Back then many people without money to spend could meet to enjoy plays broadcast on the radio, as well as novels. Even today [Radio Nacional de España](#)²² still produces audio dramas. There are also independent initiatives in podcast format for listening to audio plays, such as [TEAFM](#),²³ or for attending live radio plays at [La Casa Encendida](#)²⁴ and the performances of [Audiodrama](#).²⁵

Dance is perhaps further removed from the spoken word because it is a more visual art, though it is also affected by sound through music. Technology now makes it possible to synchronise sound with movement or to vary rhythms in accordance with this movement. Although the spoken voice is absent when the melody has no lyrics, we might imagine a dance scene with incursions of sound and even a voice-over that explains certain concepts which are unclear without interrupting the performance. Another idea is to create a podcast for people to listen to after enjoying the performance.

Music is one of the most important elements of the language of sound. It is the one that most arouses emotions and elicits mood changes because it is processed emotionally rather than rationally (Rodero, 2015). Two functions can be distinguished in music: music as a creative work, as an autonomous element, and the music used to accompany other cultural creations, as a complementary element. In the first case, it

is evident that musical radio stations, concerts and devices for playing music have come a long way. Streaming platforms like Spotify, which have converted music into a service, even allow listeners to save their tastes and programme songs in accordance with these preferences. In addition, other initiatives specialising in a single type of music, such as classical, are starting to appear. As Carreras²⁶ (2017) explains the transformation music is undergoing in the digital world in this annual report, we will not go into these developments in detail.

In the case of music as a complementary element, we should remember that any cultural sound experience can use it for this purpose. Since it is capable of changing moods, it is very useful for creating atmospheres, for example, in a museum prior to a particular activity or at any cultural event we wish to steep in a particular mood. Music is highly effective when used in combination with other elements of language. Imagine poetry being recited with background music so that the voice and music merge to create a unique, very powerful mood and sensory experience. Music likewise evokes memories and people find it easy to associate a melody with an idea, person or brand, as advertising knows well.

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Lastly, cinema is one of the cultural media that make the best use of sound. The influence of sound in films becomes evident if we attempt to watch a film without it. Without music, we cannot experience the emotion of a sad scene or the suspense that comes from listening to intriguing music which tells us that something is going to happen. Finally, we miss the sense because, without access to the message – the words – we might not understand anything. Indeed, this importance became clear when talking pictures were invented. Many actors and actress stopped working because their voices did not sound good. John Gilbert’s voice, which was

high-pitched, put an end to his acting career, as did that of the actress Gloria Swanson, who fell into oblivion following the advent of talkies. It should be remembered in this connection that film, together with radio, is the medium that has most influenced the creation of stereotypes associated with characters (Chion, 1999). We could all deduce what sort of voice the villain of the film has and what voice the hero should have (Águila and Rodero, 2005). If we use these sound stereotypes, listeners will gain a better understanding of cultural expressions. Cinema has a special sound that people easily recognise when they hear it. If we can achieve “film” sound in cultural sound productions, we will easily grab listeners’ attention.

Press and literature

The biggest breakthrough related to sound in the press is applications that read a printed text out loud. They initially arose as a means of improving the access of people with reading difficulties, such as blind or dyslexic people, but nowadays these applications are widely used. In fact, Silvia uses them to listen to the news while performing other tasks. She also sometimes listens to podcasts analysing current affairs or sound documentaries, which are her favourites.

As for literature, the most popular sound product today is audio books. Furniss (2004) explains that they arose in the 1930s, when the United States’ Library of Congress began to make recordings so that blind people could access literature. But their biggest breakthrough was portability (Jacobs,²⁷ 2014). Nowadays everything revolves around telephones and most people use them for listening, generally accessing titles by subscribing to the most important market platforms [Storytel](#)²⁸ and [Audible](#).²⁹

To date many people have regarded audio books as a subgenre, but the research conducted indicates that listening to an audiobook has many advantages. One is that orality can be a

participatory and group activity, whereas reading is a solitary experience conducted in silence. When someone listens to an audiobook they feel they are not alone – they are immersed in the story because the narrator addresses them using all the nuances of his or her voice. But people can also arrange to listen in a group, and this helps improve reading comprehension, develop oral language and combat loneliness. This is what Lang and Brooks (2015) found in a study conducted with elderly people with impaired sight who listened to audiobooks in group sessions. They concluded that this experience not only stimulated reading as an important pastime in their lives but also reduced the social isolation associated with loss of vision. A study carried out by the [Royal National Institute of Blind People](#)³⁰ (RNIB) in Britain concluded that 80% of over-65s with loss of sight carried on “reading” audiobooks subsequently. Naturally, the institution uses sound as the main means of transmitting its initiatives – its radio station, podcasts and free Talking Books. Not only elderly people enjoy listening to audiobooks; so do youngsters. Beers (1998) states that children prefer them to reading as they make them feel more relaxed and entertained. Lesesne (2009) stresses that audiobooks, used jointly with printed text, help improve schoolchildren’s reading comprehension and fluency, in keeping with the findings of Riding and Burt (1982).

Therefore, like sound in general, audiobooks hold a number of advantages which listeners describe and which were confirmed by a study where the subjects were instructed to read and listen to two stories (Rodero, 2017). These advantages were: a sensation of greater identification and connection with the characters due to hearing their voices and how they speak; greater emotional engagement measured by recording physiological activity; greater creation of mental images; and greater involvement. These results are consonant with the findings of Rubery’s survey (2011) on audiobooks: “I like it because it sounds realistic”, “I like it because it sounded credible”, “It was exciting”.

Although audiobooks were initially associated with children and blind, illiterate or dyslexic people, nowadays they appeal to many other groups, who are addicted to them (*El País*,³¹ 2017). The Danish town of [Padborg](#)³² has started up an initiative whereby lorry drivers can collect free audiobooks to listen to during their journeys (Have and Pedersen, 2013). As a complement to audiobooks, the literary world can be enriched by listening to podcasts on literature. It is impossible to list them all here, but they are easy to find on the major platforms.

In a world where there is increasingly less time, interacting with digital devices through the voice continues to be the fastest and simplest way.

Conclusions

Orality is as old as mankind itself. We are designed to speak and therefore oral forms of transmission have always had the greatest influence. The importance of oral language throughout history is due to its simplicity, ease of transmission and accessibility compared to written language or the technical complexity of audiovisual language. And this still holds true today. It is easy for Silvia to listen to a voice or sound and to speak – she can do so anywhere and at any time, even while going about other activities. Therefore, in a world where there is increasingly less time, interacting with digital devices through the voice continues to be the fastest and simplest way. What is more, when Silvia listens to these devices or any cultural object, a painting or the narrator of an audiobook, she feels she is accompanied. This also occurs, for example, when she listens to cultural podcasts. It is an easy task that allows her to relax and taking out subscriptions to her favourite programmes makes it easier. But what is most important to her is the gratifying sensory and cognitive experience of listening to these products owing to the ability of sound to stimulate mental images, trigger emotions and draw

the listener into the scene, creating a highly realistic and immersive experience owing above all to binaural sound. Silvia was already aware of the benefits of applying the voice and sound to the cultural industries. Now it is your turn. With sound, all you need to do is let your imagination wander.

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