Communication Accessibility:
10 Answers to 9 Questions

 Josélia Neves ✉
Universidade Aberta, Portugal

_____

Abstract

This paper reconceptualises accessibility within Audiovisual Translation (AVT) by introducing the broader notion of *Communication Accessibility* (CA). Accessibility for communication purposes is examined through a constructivist lens, which views it not merely as a technical solution but as a fundamental component of effective communication. It is argued that accessibility and translation are inherently linked as enabling practices that facilitate interaction with the world, in all its dimensions. The paper charts the evolution of accessibility from a niche concern within AVT to the dynamic, interdisciplinary field of Communication. While traditional modes like subtitling and audio description continue to be essential for persons with specific needs, the field now explores a multi-multi approach which takes accessibility beyond disability-focused solutions. Innovations in technology, creative practice and multisensory engagement are drivers of this transformation, extending accessibility toward user-centred design and inclusive participation.

The role of academia is emphasised in bridging theory and practice, while preparing professionals for new roles and increasingly interdisciplinary demands. The paper concludes by advocating for a paradigm shift: from accessibility as a supplementary assistive service to an integral aspect of communication itself. This shift highlights a fresh take on accessibility, inclusion, and sustainability, positioning CA as vital to fostering meaningful social interaction and progress.

Key words: communication accessibility, mediation, multi-multi approach.

✉ go@joselianeves.com / joselia.neves@uab.pt; https://orcid.org/0000-0002-4406-8379

Introduction

In the first quarter of the 21st century, accessibility has moved to the forefront of audiovisual translation (AVT). Initially regarded as peripheral, accessibility services and studies have expanded and established themselves, now challenging all boundaries due to their growing complexity and interconnectedness.

Accessibility, in its different representations, remains a wicked problem, presenting "a class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision-makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing" (Churchman, 1967, p. B142). The "wickedness" of accessibility for communication purposes, both in services and studies, is found in its scope, stakeholders, functional parameters, sustainability models, determining disabling constraints and enabling affordances (Gibson, 1979). This happens because "a complex phenomenon can be explained only by a model of higher complexity than itself" (Weimer, 2023, p. 249), and that model is still in the making.

In this paper, I would like to challenge existing notions related to translation and accessibility to consider a broader concept: communication accessibility (CA), i.e., ways to support communication and make it whole. The notion of "accessible communication" is, in reality, a tautology, for only if it is accessible will communication happen.

In doing so, I am thinking of newcomers to the system, who will want to study or work in the field, as well as of people like myself, who are still trying to make sense of the complexity of the problem while attempting to encapsulate it within existing paradigms.

Newcomers will have been drawn to the field through audiovisual translation (AVT) or by their social understanding of accessibility. They will have found this to be an area that is flourishing in both academia and the professional sphere. They will be aware of the impressive number of publications on an array of topics. They will have also realised that accessibility offers enticing opportunities for work and for research. The final realisation may have been that, as they enter the area, they are jumping on a fast-moving train that has come a long way, and that is constantly changing direction.

Those who are in the system may feel how difficult it is to keep up with the speed of change. They may also feel that we have not yet grasped the essence of accessibility, as we look at it through the lens of translation. In reality, we have more questions than those arriving, and our many answers continue to be insufficient.

It is difficult to make something complex look simple. I position myself as a newcomer to imagine their questions and to provide answers through my lived experience as a researcher, teacher, and service provider. I do this with a disclaimer. My perspectives align with the principles of personal and social constructivism (Kelly, 1970; Raskin, 2002), and I accept the inherent subjectivity of knowledge, for "knowledge is symbolically constructed and not objective" (Hatch, 1985, p. 161).

I will be answering questions I have been asking myself for years. I will return to my own work to answer them anew, knowing that, as Savin-Baden and Major (2013, p. 5) put it, "the way in which individuals experience the world directly influences the way in which they think about it", and ultimately communicate it. As I answer them now, I risk contradicting myself, for my viewpoint will have changed.

These are the answers I would give to my students and trainees, within both formal and informal contexts, inevitably bound by existing academic and professional constraints. My answers follow thought in the making and will be inherently partial and biased, shaped by my Western worldview, predominantly Anglophone academic background, and the limitations of my expertise. They will also reflect the perspective of a (passionate) action researcher who embraces "the value of experiential knowledge for addressing problems stemming from unequal and harmful social systems, and for envisioning and implementing alternatives" (Cornish et al., 2023, p. 3).

Questions and answers below.

1.   What is Accessibility When Addressed Through the Lens of Translation Studies?

I start by claiming that there is a natural connection between accessibility and translation. I believe accessibility is a form of translation, and translation only exists because there are (linguistic, cultural, sensory or other) barriers that need to be mitigated so that it can happen.

Among the existing theories that account for the nature of communication, I choose to subscribe to Narula's (2006) formulation, which states that "communication is interaction with ourselves, with others, and with our internal and external environments" (p. 3). Personal, social, and contextual circumstances may impact our ability to interact or simply experience. This take on communication has permeated my views on translation and accessibility. I see translation and accessibility as one. In so doing, I conceptualise *the world as text*, defining accessibility as the effort to enable individuals' engagement with the verbal, social, and environmental *texts* they encounter in their everyday lives. As an extreme case, I see a ramp as a translation of the staircase, an enabler for some and an option for others. Any form of adaptation, substitution or alternative will be a version of something else that may, or may not, serve similar purposes.

What mostly brings translation and accessibility together, ultimately, is the realisation that it (I am now looking at both as one) is an enabler. Some people use it as an alternative with added value, while others cannot live without it. For the latter, it is a kind of "assistive technology", a solution to an existing problem. In this perspective, translation is one among many enablers. And perhaps one that is more about the provider than the actual beneficiary, as Clark (2021) suggests in his essay "Against Access"; at the extreme, "a dead end, leading nowhere", for not serving the actual needs of those who require them the most.

In the last decades, Translation Studies (TS) has placed accessibility under its umbrella. However, even in its most liberal formulations, TS still cannot account for all the modalities accessibility entails. TS has now positioned itself, particularly through audiovisual translation (AVT), as a champion for access to communication. However, a bias towards logocentrism and the distal senses of hearing and vision persists, even as innovative approaches provide experiential recreations of reality through advanced technology and creative genius. Accessible AVT, or Media Accessibility (MA) (Romero-Fresco, 2018; Jankowska, 2020; Greco & Jankowska, 2020), as it has recently established itself, has now become one of the most vital branches of TS.

Aware of the difficulties in containing accessibility under TS, Greco (2018) has suggested the establishment of Accessibility Studies (AS) as a new multi-disciplinary domain. Aware of its complexity, Greco (2022) acknowledges that by acquiring a standing on its own, AS has influenced the ways access is framed and discussed. Still intimately related to disability, Greco (2022, p. 17) calls for a "new accessibility stance" that goes beyond the traditional translation paradigm to develop new services and research domains, thus moving beyond and enriching TS.

2. Why is Accessibility, as Seen Through TS, so Closely Connected to Audiovisual Translation?

Accessibility issues found their way into TS through AVT. Modalities such as (open/interlingual) subtitling or dubbing are primal forms of linguistic/cultural accessibility. The nature of audiovisual texts, and of film in particular, entails barriers beyond those of language. The use of subtitling and dubbing alone does not guarantee full access, as audiovisual messages often extend beyond the words themselves.

The introduction of captioning or subtitling for deaf and hard-of-hearing viewers (SDH) and of audio description (AD) for blind audiences came to verbalise what is non-verbal in audio/visual texts. SDH and AD have become the primary accessibility services in the context. In 2003, Gambier listed SDH and AD as "challenging types" (p. 174). Four years later, a volume edited by Díaz Cintas et al. (2007) was fully dedicated to SDH, AD and sign language interpreting. I see this publication as a landmark in Audiovisual Translation Studies (AVTS) and a clear establishment of accessibility as a core component of AVTS. While sign language has never been truly embraced within AVTS, SDH and AD have since taken central stage.

Over the years, practitioners and scholars, still under the formal umbrella of AVT, have expanded beyond SDH and AD to explore other forms of communication accessibility, presenting their findings in conferences and mainstream publications. Notable contributions include work on easy language (EL) (Matamala, 2022; Arias-Badia & Matamala, 2023), access to museums and cultural heritage (Soller Gallego, 2018; Rizzo, 2019; Taylor & Perego, 2021), and multiformat books (Neves, 2020), among others. Often, these new proposals are introduced alongside traditional forms. For instance, we find the integration of AD with easy language (Arias-Badia & Matamala, 2023) and the combination of AD with museum guides (Luque Colmenero & Soller Gallego, 2020; Chica-Núñez &

Jiménez-Hurtado, 2020; Reviers & Hanoulle, 2023; Bartolini, 2023; Wang, 2024). An additional example is the EASIT (Easy Access for Social Inclusion Training) project, presented by Perego (2020). This project integrates SDH, AD, and EL under the umbrella of "audiovisual communication services", linking newer forms of accessibility to traditional approaches while maintaining a primary focus on audiovisual media and disability. Interestingly, AVTS scholars working on accessibility topics are increasingly publishing in interdisciplinary scholarly outlets to address the growing need for expansion beyond the sphere of TS, as not all issues being addressed fall neatly within AVT.

3. How Can Audiovisual Translation Account for Accessibility Solutions That Are Not Verbal or Audio-Visual in Nature?

I honestly think it cannot. It is for this reason that AVT scholars have, of late, preferred to use the term *Media Accessibility* instead of "Accessible AVT" or "AVT for Access". In their discussions on MA, Greco and co-researchers (Greco, 2018, 2019, 2022; Greco & Jankowska, 2020; Fresno & Greco, 2024) have amplified the scope of many existing concepts in the light of new understandings.

By "media", we are no longer referring to traditional forms of communication, such as television, film, and radio, or even digital platforms. In the broadened understanding, media refers to any means by which information, cultural content, and experiences are conveyed across various channels to hugely diverse audiences.

The notion of "accessibility" is also changing. It is now seen as a multifaceted concept that encompasses a commitment to inclusivity, adaptability, and user-centred design, aiming to meet diverse needs and enable meaningful participation for all. This new construct entails social, cultural, technological, and contextual factors, and accessibility has become a fundamental and deliberate component of modern communication rather than an afterthought or secondary consideration.

In theory, this approach takes us beyond the conventional notions found in Accessible AVT by opening the scope to new services, stakeholders, technologies, and approaches. However, in practice, society is still not ready to embrace such a formulation. While researchers herald new paradigms, society is holding on to traditional beliefs and finding it difficult to both comply with conventional standards and navigate the opportunities of technical developments and changing perceptions about accessibility services.

In reality, AVTS is still struggling with the implications of MA. In acknowledgement of its emancipation, MA and Accessible AVT/AVT for access have become distinct areas under the overarching domain of AVT. This is found in the now frequent formulation of "Audiovisual Translation *and* Media Accessibility" observed in recent works by Bogucki and Deckert (2020), Romero-Fresco and Chaume (2022), Valdez et al. (2023), Manfredi et al. (2023), Oncins and Serrrat-Roozen (2024) and García-Escribano et al. (2024), among others.

This suggests that the field of AVT is still holding on to tradition. Although it may have accepted MA as a sister branch, the two have not come together seamlessly. Neither has it managed to organically integrate accessibility modalities beyond SDH and AD or some of the "creative" enactments that mix and disrupt genres. And less still, has it embraced its position within the broader discipline of AS. Its struggle to capture the full scope of all that has forcefully been packed under the existing umbrellas allows us to reinforce the need to enlarge the viewpoint to go beyond that of translation, taking it to a higher level, that of communication.

4. Who Are Accessible AVT/MA Services for?

There are social constructs of accessibility that are difficult to change. Despite the wide array of contexts to which the term "accessibility" can be applied, it is commonly associated with disability, a view that remains central to AVT.

In 2007, Díaz Cintas et al. mentioned the role of accessible AVT "uniting all population groups and ensuring that cultural events, in the broadest sense of the word, can be enjoyed by all" (pp. 13–14). While it is often stated that accessibility services directed at specific groups can benefit other users, or even "all" users, most accessibility services remain particularist as they focus predominantly on specific disabilities. The desire to expand the scope of addressees has led to the concept of universal design, also known as "design for all" (Persson et al., 2015). However, while there is a call for adaptable design "for each", at best, we can aim at accessibility "for more". And as Clark (2021) candidly puts it, "striving after access can actually create a barrier".

If we were to review all the works addressing accessibility in AVTS, we would conclude that the vast majority focus on audiences with a vision, hearing, or intellectual/reading disability. Vital strands of AVTS have addressed the use of accessible AVT and MA for educational purposes (Ibáñez Moreno & Vermulen, 2013; Cenni & Izzo, 2016; Bausells-Espin, 2022). More progressive approaches have also explored the impact of cultural access on well-being (Di Giovanni & Raffi, 2022), for instance. There is still scope to address accessibility for other groups, including children, the elderly, families, and immigrants, among others. However, the sense of marginality, minority, and otherness remains.

If we cannot, yet, step away from the particularist approach due to mainstream understandings, we can envision ways in which CA can contribute to changing social perceptions. Professionals will continue to be hired to provide accessibility services for persons with disabilities (PwD), but the way in which those services are made available and are marketed can invite a wider range of users. Slowly, perceptions will change. The movement has started, mainly through creativity. The next step may be to explore the principles of user-sensitive inclusive design (Newell et al., 2011) and collaborative co-creative efforts (Chottin & Thompson, 2021), as well as participatory access (Greco, 2022, p. 22), while empathising with user groups as we support their interactions in context, all while respecting individuality. Perhaps, then, "for the…" will be dropped, to open the spectrum of end-users and space for experimentation and innovation, in a broader sense: the many that make the "all".

5. Can Communication Accessibility Move Beyond Particularist Approaches?

As long as accessibility is seen as a solution to a problem of a minority, the existing paradigm will remain. The very terminology we use to name services is particularistic and hindering progress. Why would anybody want to use SDH if they are not deaf? The personalised focus of the mainstream modalities reinforces their assistive and functional nature. Progress will come through change in discourse and by embracing multimodality and creativity at the very point where communication originally takes place. This can move the needle from accessibility to inclusivity. To be included implies not to be singled out as different. Accessibility should not be viewed as an afterthought or a requirement, but rather as an option. There will be those who will choose out of necessity. However, others may choose simply to experience the world in a different way, or may deliberately opt otherwise, as inclusivity is bi-directional; both sides need to want to include and to be included.

In recent publications, I point towards paradigm shifts. I use the context of multisensory access to museums (Neves, 2018a) and to books (Neves, 2022b), – areas that have found some difficulty in fitting within the constraints of traditional accessible AVT–, to think about plural ways to promote inclusion. I focused on how humans experience reality through all the senses (Neves, 2020a, 2022b), hoping to disrupt the hegemony of sight and hearing inherent to audiovisual media. This approach returned to the notion of the *world as text*, and of translation as any means by which individuals can engage with themselves, others, and the world(s) around them. It further acknowledged that, as formulated by Huxley (1994, p. 109), "what we ordinarily call 'reality' is merely that slice of total fact which our biological equipment, our linguistic heritage and our social conventions of thought and feeling make it possible for us to apprehend."

Through multisensory engagement, should any of the senses be impaired or disabled for any reason, we can resort to compensatory options, for the brain is naturally equipped to perform "sense-mixing" as part of the perceptual process (Durie, 2005). Perception is individually constructed through the personal lenses with which we all process sensory stimuli. This comes naturally to all human beings.

The creation or revisioning of messages, in both verbal and non-verbal encodings, expands the receiver's "achievement space", that comfort zone in which minimal effort is required for the construction of personal perceptions. The creation of such comfort zones may lie beyond the sphere of conventional translation, and certainly beyond the mainstream shifts between sight and hearing. They entail engaging the distal senses of vision and hearing as well as the proximal senses of touch, balance, kinaesthesis, proprioception, smell and taste, and all forms of internal and external body awareness. Each experience is a unique "performance", in which time and space are as determining as personal skills and abilities. No meaning-making is possible without the senses as conduits. And the more the senses are stimulated, the greater the chance for communication to take place.

In essence, my take on intersensory translation and multisensory engagement aligns with notions of multimodal translation, also seen as a subfield of accessibility (Carroll & Remael, 2022). Tippet et al. (2023) elucidate: "Modes can refer to sensory modes (e.g., sight, hearing, touch, smell, taste), or to

specific ways of achieving complex communications (e.g., speech, static images, animated images, gestures, music, writing, three-dimensional models)." And as Carroll and Remael (2022) remind us, multimodality is inherent to all human communication and is particularly explored through art. Even if unintentionally, artists "promote audience participation, even user autonomy, and diversity in terms of gender, race, age, physical appearance and abilities" (p. 5).

In conclusion, the notions I have been exploring, and which I return to now, are particularly useful when addressing multisensory experiential explorations for the purpose of inclusive and accessible entertainment, culture, and education. The achievement space framework inherently emphasises diversity and choice, shifting away from disability-centred lack-compensation approaches that still prevail in mainstream models. In reality, I am advocating for a multi-multi approach, in which multi-disciplinary teams come together to create multiformat products, apply multimodal communication strategies, and enable multisensory experiences to enhance people's interaction with the multiple materialities reality entails.

While still framed within translation paradigms, I believe the points mentioned above extend beyond the sphere of AVT. Unknowingly, too, in my previous reflections, I have been leaving a gap in the equation, as I was simply focusing on the nature of products, events and mediation strategies that would provide opportunities for greater sensory engagement. I was not considering the possibility of accessibility being seen as a simple (and natural) matter of communication, nor was I capturing the multiple contextual factors that can disrupt an experience, a topic to be addressed below.

6. How is Innovation and Creativity Changing the Landscape of Accessible AVT/MA?

Innovation and creativity have captured the interest of MA scholars and practitioners. Accessibility is no longer seen as an afterthought, a solution to a problem, or necessarily as a version of something else. This paradigm shift is clearly seen in publications on accessible filmmaking (Romero-Fresco, 2019; Dangerfield, 2021), works on integrated AD in the theatre (Fryer, 2018; Fryer & Cavallo, 2021) audio introductions and theatre podcasts (Hermosa-Ramírez & Reviers, 2024); the use of multisensory engagement in museums (Eardley et al., 2018); the mediation of musical performances (Tarantini, 2023), instances of decolonisation (Dangerfield et al., 2024) or intimacy (Fresco, 2024), among others. However, an ongoing debate exists among practitioners and end-users, who fail to agree on the preference of creativity over functional approaches.

Let's take AD as an example. Although AD is primarily intended for blind audiences, describers are usually given guidelines; however, the nature of the "source text" often demands critical, context-sensitive decisions that may diverge from established norms. Recently, both academics and end-users have engaged in a lively debate over functional versus creative approaches to AD (Romero-Fresco & Chaume 2022; Schaeffer-Lacroix et al., 2023). While creative approaches to AD are not entirely new (see Fels et al., 2006; Udo & Fels, 2009; Neves, 2010), they are gaining renewed interest, particularly for expanding AD's appeal to wider audiences. Through creative enhancements, AD can

become a "poietic" art form (Greco, 2019a), engaging audiences who may not necessarily require the service.

Let's look at recent cases in museums. In 2021, an exhibition on Nise da Silveira[1] in Rio de Janeiro offered an "audio descriptive experience" using often unsettling audio narratives to explore themes of mental health. Going against traditional audio guides, visitors were captivated by theatrical enactments of the exhibits on display. This experience was so well received that equally disruptive approaches to AD have since been implemented in other Brazilian museums[2].

Another example is the community-driven project in which "descriptive commentaries" were co-created for the 2024 Wildlife Photographer of the Year exhibition at London's Natural History Museum[3]. There, traditional AD norms are being challenged, as the descriptions go beyond mere depiction, venturing into subjective interpretations and imaginative elaborations, thereby inviting a richer, more personal engagement with the artworks.

Creative approaches to AD, or to any other modality, do not entail greater efficacy or guarantee user satisfaction. However exciting creativity and innovation may be, ambivalence persists when measuring impact. Attracting and engaging wider audiences and making accessibility services more attractive will, at best, turn them into mainstream entertainment. In a nutshell, experimental methods are gradually transforming accessibility services from purely assistive tools into offerings with aesthetic, entertainment, and experiential value. The reality is that there will continue to be space for both approaches and for how far creativity will take us beyond translation.

7. Is Technology Contributing to a Move Towards Communication Accessibility?

Technological advancements have had a significant impact on the lives of all people, including those with disabilities. Scholars from different disciplines have described how digital media can fight stigma (Tsatsou, 2021) and promote inclusion (Baumgartner & Rohrbach, 2023); how social media support PwD (Anderson et al., 2023); how video games are enablers (Anderson, 2024); the impact of accessibility on the digital world (Ha, 2024); and how AI is impacting digital accessibility (Chemnad & Othman, 2024), among others.

---

[1] Exposição Nise da Silveira – A Revolução pelo Afeto. Centro Cultural Banco do Brasil, Rio de Janeiro, Brasil – 7 June to 15 November 2021 – theatrical audio descriptive experience (in Brazilian Portuguese: https://www.nisenoccbb.com.br/audiodescricao/

[2] FUNK: Um grito de ousadia e liberdade. Museu de Arte do Rio. September 2023 to March 2025 – soundpainting (in Brazilian Portuguese: https://museudeartedorio.org.br/funk-audiodescricao/).

[3] Wildlife Photographer of the Year, Natural National Museum, London, 11 October 2024 to 29 June 2025. Winning photograph descriptions: https://www.nhm.ac.uk/visit/exhibitions/wildlife-photographer-of-the-year/wildlife-photographer-of-the-year-audio-guides.html

Technology has also allowed for interesting developments in the multisensory enhancement of auditory and visual experiences, for instance. Initially experimental, such solutions have become increasingly available in virtual or interactive exhibitions and live events.

Museums, in particular, have embraced multisensory engagement to enhance accessibility and inclusivity, reaching out to those who have historically felt excluded for personal, social, economic, or cultural reasons (Mercier, 2017). Multisensory museums have gained popularity, using sensory exploration to benefit individuals with disabilities, children, families, the elderly, and minority groups (Levent & Pascual-Leone, 2014; Eardley et al., 2018; Martins, 2020).

User-experience (UX) design and Extended reality (XR) have played pivotal roles in offering new dimensions to immersive experiences (Luo et al., 2024). Multisensory engagement is also happening through virtual cues (Damayanti et al., 2021). VR360 technology is enabling cultural experiences, particularly for individuals who cannot physically visit the space of interest (Montagud et al., 2020). These offerings depart from conventional museum communication that has traditionally been analogue and purely ocular- and logo-centric. They also challenge standard mediation/accessibility strategies by connecting both distal and proximal senses, encouraging synesthetic engagement.

Live music and sports events have recently adopted innovative approaches to enhancing the sound experience. Deaf patrons, for instance, can now engage with performances beyond traditional surtitling or sign language interpreting. Vibrotactile devices, such as vibrating chairs (Baijal et al., 2012), haptic vests, and wrist and ankle bands (Sion et al., 2023) are being provided for immersive interoceptive experiences. Haptic sound shirts now let Deaf football fans literally "vibrate" with the crowd (TechInformed, 2024). Such sensory-enhanced experiences are becoming increasingly available in entertainment venues worldwide. They were used in the 2024 Paris Paralympic Games and are also being presented in live events across the globe. Lisbon's MEO Arena has recently introduced vibrotactile vests alongside sign language interpreting for deaf audiences in many of its performances. While promising, the service has been slow in uptake. This may be attributed to the novelty of such technology, a perception of invasion of personal space, the underlining of disability, or simply to insufficient information about the service.

Additional solutions cater to patrons with sensory impairments. Cloud-based technology has largely facilitated the delivery and broadcast of mediation services in live performances, for instance. Traditional dedicated setups have become obsolete. Now, service providers can work remotely, and patrons use apps on their mobile phones to listen to the AD or watch subtitles. AI is also contributing to real-time automated translation and interpretation, enabling simultaneous multilingual distribution.

Such solutions were used extensively during the 2018, 2020, and 2022 FIFA World Cups, allowing fans to follow seamless, descriptive commentaries of football matches both in stadiums and across the globe in different languages (InsideFIFA, 2022). Similar cloud-based approaches have recently been introduced in live performances across the globe, minimising costs and logistics. Despite the

potential, in many instances, it has been difficult to entice users to attend such live events and use the services. While these innovative alternatives are most exciting and a move in the right direction to democratise access, there is still space to amplify their impact. I believe extensive use of technological mediation services will only be mainstreamed when accessibility is not directed towards PwD alone, but alternative means of access are made available to all interested users in every cultural offer.

8. How Does Academia Impact Professional Practices?

Many academics working on MA have engaged with real applications of accessibility services in their research projects. Chapters in *The Routledge Handbook of Audiovisual Translation* (Pérez-Gonzalez, 2018) and in *The Palgrave Handbook of Audiovisual Translation and Media Accessibility* (Bogucki & Deckert, 2020), for instance, as well as articles published in specialised TS and AVT journals, illustrate how academics are increasingly aware of the importance of grounding their studies in real-world contexts. In many cases, these scholars are also practitioners, ensuring a close connection between theoretical research and practical application. The field of accessibility is open to enacting Fresno and Greco's (2024) call for alliances between theory and practice, across disciplines, research, industry, practitioners, and end-users. Such circumstances provide space for knowledge transfer, innovation, experimentation, and the creation of new theoretical models.

We have also seen that academic programmes in MA-related areas integrate practical projects that enable students to engage with the industry and with the multiple stakeholders that accessibility services entail. This has been enabled by constructivist approaches to translator training as advocated by Kiraly (2012); Meseguer and Ramos (2015); and Khasawneh (2024), among others. Interesting accounts are found in recent publications on such approaches in MA (Neves, 2022a; Valdez et al., 2023), revealing how students can acquire transversal skills that will impact their performance as professionals and as socially engaged citizens. Students are given opportunities to explore the complexities that the professional environment entails. They learn about the value of participatory actions and the richness of co-creation. They often find themselves engaging in crowdsourcing initiatives as a way to develop skills or in the name of social activism (Jiménez-Crespo, 2024). These are experiences for life.

Beyond acknowledging the importance of bringing research, education, and practice together to train future accessibility professionals, it is also interesting to see that research is contributing to innovation in training methodologies (Zhang, 2021), which need to adapt to the technological and social changes underway. There is evidence that academia has contributed not only to the implementation of accessibility services in mainstream contexts, but has also brought visibility to practitioners (Reviers & Hanoulle, 2023; Wang, 2004) and minority or marginalised social groups (Szkriba, 2022; Jertberg et al., 2024).

Another contribution comes in the form of guidelines and recommendations that scholars compile to support professionals. Some results from PhD research (e.g., Neves, 2007; Uzzo, 2024); others are the outcome of international, large-scale projects (Remael et al., 2014); others still are personal pointers into the future (Miggiani, 2024).

As I examine accessibility from my multifaceted perspective, I believe that accessible AVT/MA studies have been central to social change through advancements and the development of experimental projects in real-world contexts. Much of the field's vitality comes from the ongoing dialogues between researchers, service providers, the industry, software developers, trainers and trainees, and the end-users themselves. However, I believe the time has come to take a step forward and prepare future professionals to address accessibility through broader lenses, to widen the scope of potential users.

9. Who Are the Professionals Working in Communication Accessibility?

I look back at the circumstances in which the examples mentioned above have happened. In some countries, such as Brazil, conventional accessibility services are mandated by law. Across the UK and Europe, the principles are laid down, and entities are given a choice to comply. Action is most often instigated by social pressure. In the Middle East, accessibility matters are still a novelty, but growing awareness is rapidly changing perceptions. Different contexts warrant different human and capital investment in accessibility issues.

Regardless of a country's stage in accessibility uptake, with or without policies in place, certain issues recur. Accessibility measures need to be considered necessary; professionals need to be trained; services need to be set up; the industry needs to shape itself and to guarantee sustainability; technology needs to localise to serve distinct contexts; venues and products need to adapt to a diversity of users while respecting individual traits, social standings and cultural perceptions; producers and suppliers need to understand the social and economic value of embracing accessibility; end-users need to stand up for their rights and show up when efforts are exerted to include them; governments need to fulfil their responsibility to mandate and monitor actions to promote inclusivity. This list demonstrates that there is a shared responsibility in the construction of equitable societies.

Accessibility-minded professionals are important links across the chain. As seen in the section above, researchers and educators have a responsibility in shaping knowledgeable and socially engaged professionals. In a similar guise, practitioners hold responsibilities towards themselves, their peers and all the stakeholders they engage with. In this context, we widen the scope to acknowledge two communication accessibility professionals: (1) the service provider –subtitler, audio describer, UX designer, …–; and (2) the accessibility manager/coordinator (AC) (Orero, 2017; Zhang, 2019).

I believe the profile of the MA service provider (audio describer, subtitler, cultural mediator) is now amply known and described. I turn my attention to the second profile: the person who ensures that

all requirements are met so that any given service responds to all the stakeholders' needs. If we are to look at job descriptions for ACs, we will find the makings of an all-rounded people mediator, a communication broker who supports those involved in providing inclusive products and events.

Let's look at live performances, for instance. The AC will need to work closely with the MA translator to secure all technical and logistical requirements, such as access to supporting documents, venue, and technology. They will liaise with the program management team, supporting ticketing, marketing, scheduling and all the logistics of setting up a safe, welcoming and inclusive environment for all patrons, including those with disabilities. They will advise the marketing team on the best way to present the offer to diverse audiences/users. They will also play a vital role in engaging directly with audiences. Their support during the event will guarantee that patrons who require specific support will feel they are taken care of, in a discreet and yet caring manner.

There are reasons to believe that, as awareness and social responsibility increase, job opportunities in the sector are diversifying. At a time when translators are dreading the impact of AI and technological development, this is good news. While accessibility is not consciously embraced in every human action, we need professionals who have skills beyond those traditionally required from MA translators. The "new" professional will need to be all-rounded: have mediation competencies, be tech-savvy, have strong management and communication skills and a highly humanistic mindset. While technology can serve as a mediation tool, services will continue to require the close coordination of multidisciplinary teams carrying out distinct tasks that come together seamlessly to create experiences that will ultimately be lived in the flesh. While AI may come to take over some of the tasks now carried out by AVT/MA translators, human communication mediators will always be needed to guarantee that all those involved in any communicative act will achieve their ultimate goals: to "be" and to "do".

10. … the Answer to the Question That Was Not Asked…

As I write about CA, I remain uncertain whether the phenomenon of accessibility for communication purposes can still be categorised within the existing societal and academic frameworks. At this stage, I advocate for a more encompassing approach. I believe that by widening our scope we may come to understand the interplay of factors that enable or hinder engagement with material and immaterial realities. Each exchange is unique and non-replicable, encompassing a myriad of variables. These include the agents involved, the content and messages, the means and mediums employed, the temporal and spatial contexts, as well as cultural norms, individual profiles, needs and preferences. By focusing on the part, we continue to overlook the complexity of the whole. For any service to be effective, it needs to sit neatly nested within an overall strategy that is clearly anchored in communication among all stakeholders.

This takes me to Pearce's (1989) assertion that "we live 'in' communication (rather than outside communication, using it for secondary purposes)." In this view, individuals and society are

constituted through communication. If communication is not effective, interaction is impeded, progress is hindered and social inclusion becomes unattainable. This reinforces the intrinsic connection between inclusion, accessibility, sustainability and communication: participation and development are only possible when communication is fully achieved; and accessibility measures are activated to guarantee that messages get across to the intended addressees. By naturalizing multi-multi communication approaches, we will be expanding the possibility of reach, thus making accessibility measures more cost-effective and inclusive.

We may continue to address the wicked problem through the lens of Translation Studies. Accessibility Studies will certainly be an aggregating force, bringing together what fails to fit neatly into any specific field. However, if the essence of accessibility lies in communication, perhaps communication accessibility ultimately pertains to Communication Studies.

References

Anderson, S. L. (2024). *Ability machines: What video games mean for disability*. Indiana University Press.

Anderson, S., Araten-Bergman, T., & Steel, G. (2023). Adults with intellectual disabilities as users of social media: A scoping review. *British Journal of Learning Disabilities, 51*(4), 544–564.

Arias-Badia, B., & Matamala, A. (2023). Audio description from an easy-to-understand language perspective: A corpus-based study in Catalan. *The Journal of Specialised Translation, 40*, 268–292.

Baijal, A., Kim, J., Branje, C., Russo, F., & Fels, D. I. (2012, March). Composing vibrotactile music: A multi-sensory experience with the Emoti-Chair. In *Proceedings of the IEEE Haptics Symposium* (pp. 509–515). IEEE. https://doi.org/10.1109/HAPTIC.2012.6183839

Bartolini, C. (2023). Museum audio descriptions vs. general audio guides: Describing or interpreting cultural heritage? *Journal of Audiovisual Translation, 6*(2), 77–98. https://doi.org/10.47476/jat.v6i2.2023.253

Baumgartner, A., Rohrbach, T., & Schönhagen, P. (2023). "If the phone were broken, I'd be screwed": Media use of people with disabilities in the digital era. *Disability & Society, 38*(1), 73–97.

Bogucki, Ł., & Deckert, M. (Eds.). (2020). *Handbook of audiovisual translation and media accessibility*. Palgrave Macmillan.

Carroll, M., & Remael, A. (2022). Sketching tomorrow's mediascape – And beyond. *Journal of Audiovisual Translation, 5*(2), 1–14. https://doi.org/10.47476/jat.v5i2.2022.256

Cenni, I., & Izzo, G. (2016). Audiodescrizione nella classe di italiano L2: Un experimento didattico [Audio description in an Italian L2 classroom: A teaching experiment]. *Incontri, 31*(2), 45–60. https://doi.org/10.18352/incontri.10169

Chemnad, K., & Othman, A. (2024). Digital accessibility in the era of artificial intelligence— Bibliometric analysis and systematic review. *Frontiers in Artificial Intelligence*, 7, Article 1349668.

Chica-Núñez, A. J., & Jiménez-Hurtado, C. (2020). Accessibility to leisure and culture: Evaluation of contents by means of web-based reception studies with PRA2. *Journal of Audiovisual Translation, 3*(2), 264–285. https://doi.org/10.47476/jat.v3i2.2020.142

Chottin, M., & Thompson, H. (2021). Blindness gain as world-making: Creative audiodescription as a new "partage du sensible". *L'Esprit Créateur, 61*(4), 32–44. https://doi.org/10.1353/esp.2021.0045

Churchman, C. W. (1967). Wicked problems. *Management Science, 14*(4), B142–B143.

Clark, J. L. (2021). Against access. *McSweeney's Quarterly Concern*, (64). https://audio.mcsweeneys.net/transcripts/against_access.html

Cornish, F., Breton, N., Moreno-Tabarez, U., Delgado, J., Rua, M., de-Graft Aikins, A., & Hodgetts, D. (2023). Participatory action research. *Nature Reviews Methods Primers, 3*(34). https://doi.org/10.1038/s43586-023-00214-1

Damayanti, R., Redyantanu, B. P., & Kossak, F. (2021, November). A study of multisensory senses in museum virtual-visits. *IOP Conference Series: Earth and Environmental Science, 907*(1), 012020.

Dangerfield, K. (2021). *Between sound and image: The practice and theory of accessible filmmaking* [Unpublished doctoral dissertation]. University of Roehampton.

Dangerfield, K., Moores, Z., & Romero Fresco, P. (2024). Decolonising media accessibility: Alternative approaches to media access for film and live events. *Journal of Audiovisual Translation, 7*(2), 1–22. https://doi.org/10.47476/jat.v7i2.2024.300

Di Giovanni, E., & Raffi, F. (2022). Inclusive theatres as boosters of well-being: Concepts and practices. *Journal of Audiovisual Translation, 5*(1), 166–185. https://doi.org/10.47476/jat.v5i1.2022.223

Díaz Cintas, J., Remael, A., & Orero, P. (Eds.). (2007). *Media for all: Subtitling for the deaf, audio description, and sign language*. Rodopi.

Durie, B. (2005). *Senses special: Doors of perception*. New Scientist. https://www.newscientist.com/article/mg18524841-600-senses-special-doors-of-perception/

Eardley, A., Dobbin, C., Neves, J., & Ride, P. (2018). Hands-on, shoes-off: Multisensory tools enhance family engagement within an art museum. *Visitor Studies, 21*(1), 79–97.

Fels, D. I., Udo, J. P., Diamond, J. E., & Diamond, J. I. (2006). A comparison of alternative narrative approaches to video description for animated comedy. *Journal of Visual Impairment & Blindness, 100*(5), 295–305.

Fresno, N., & Greco, G. M. (2024). Media accessibility: In search for alliances. *Universal Access in the Information Society, 23*(3), 505–510.

Fryer, L. (2018). The independent audio describer is dead: Long live audio description! *Journal of Audiovisual Translation, 1*(1), 170–186. https://doi.org/10.47476/jat.v1i1.52

Fryer, L., & Cavallo, A. (2021). *Integrated access in live performances*. Routledge.

Gambier, Y. (Ed.). (2003). Screen translation [Special Issue]. *The Translator, 9*, (2).

García-Escribano, A. B., Talaván, N., & Fernández-Costales, A. (2024). Audiovisual translation and media accessibility in language education. *Parallèles, 36*(1).

Gibson, J. J. (1979). *The ecological approach to visual perception*. Houghton Mifflin.

Greco, G. M. (2018). The nature of accessibility studies. *Journal of Audiovisual Translation, 1*(1), 205–232. https://doi.org/10.47476/jat.v1i1.51

Greco, G. M. (2019). Accessibility studies: Abuses, misuses, and the method of poietic design. In C. Stephanidis (Ed.), *HCI International 2019 – Late breaking papers. Lecture notes in computer science* (Vol. 11786, pp. 13–26). Springer. https://doi.org/10.1007/978-3-030-30033-3_2

Greco, G. M. (2022). The question of accessibility. In E. Perego & C. Taylor (Eds.), *The Routledge handbook of audio description* (pp. 13–26). Routledge.

Greco, G. M., & Jankowska, A. (2020). Media accessibility within and beyond audiovisual translation. In Ł. Bogucki & M. Deckert (Eds.), *The Palgrave handbook of audiovisual translation and media accessibility* (pp. 57–81). Palgrave Macmillan.

Ha, S. (2024). *Is digital world accessible to all? A comprehensive review of digital accessibility research (1996–2024)* [Conference presentation]. 24th ITS Biennial Conference, New bottles for new wine: digital transformation demands new policies and strategies 302477, International Telecommunications Society (ITS). Seoul 2024.

Hatch, J. A. (1985). The quantoids versus the smooshes: Struggling with methodological rapprochement. *Issues in Education*, 3, 158–167.

Hermosa-Ramírez, I., & Reviers, N. (2024). From accessibility to inclusion in the theatre: Exploring the spectrum between traditional audio introductions and mainstream theatre podcasts. *Universal Access in the Information Society, 23*(2), 561–575.

Huxley, A. (1994). *Moksha*. Flamingo.

Ibáñez Moreno, A., & Vermeulen, A. (2013). Audio description as a tool to improve lexical and phraseological competence in foreign language learning. In D. Tsagari & G. Floros (Eds.), *Translation in language teaching and assessment* (pp. 45–61). Cambridge Scholars Publishing.

InsideFIFA. (2022, December 3). Audio descriptive commentary makes Qatar 2022 accessible for blind fans. *Inside FIFA*. https://inside.fifa.com/social-impact/news/audio-descriptive-commentary-makes-qatar-2022-accessible-for-blind-fans

Jertberg, R. M., Wienicke, F. J., Andruszkiewicz, K., Begeer, S., Chakrabarti, B., Geurts, H. M., … & Van der Burg, E. (2024). Differences between autistic and non-autistic individuals in audiovisual speech integration: A systematic review and meta-analysis. *Neuroscience & Biobehavioral Reviews*, 164, Article 105787.

Jankowska, A. (2020). Audiovisual media accessibility. In E. Angelone, M. Ehrensberger-Dow, & G. Massey (Eds.), *The Bloomsbury companion to language industry studies* (pp. 231–260). Bloomsbury Academic.

Jiménez-Crespo, M. A. (2024). Of professionals, non-professionals and everything in between: Redefining the notion of the 'translator' in the crowdsourcing era. *The Translator, 30*(1), 29–46.

Kelly, G. A. (1970). A brief introduction to personal construct psychology. In D. Bannister (Ed.), *Perspectives in personal construct psychology* (pp. 1–30). Academic Press.

Khasawneh, M. A. S. (2024). Closing the industry-academia gap in translation education: Exploring collaborative strategies as tools for effective curriculum alignment. *Kurdish Studies, 12*(1).

Kiraly, D. (2012). Growing a project-based translation pedagogy: A fractal perspective. *Meta: Translators' Journal, 57*(1), 82–95.

Levent, N., & Pascual-Leone, A. (Eds.). (2014). *The multisensory museum: Cross-disciplinary perspectives on touch, sound, smell, memory, and space*. Rowman & Littlefield.

Luo, D., Doucé, L., & Nys, K. (2024). *Multisensory museum experience: An integrative view and future research directions*. Museum Management and Curatorship. https://doi.org/10.1080/09647775.2024.2357071

Luque Colmenero, M. O., & Soler Gallego, S. (2020). Metaphor as creativity in audio descriptive tours for art museums: From description to practice. *Journal of Audiovisual Translation, 3*(2), 64–78. https://doi.org/10.47476/jat.v3i2.2020.128

Manfredi, M., Nannoni, C., & Pugliese, R. (2023). Audiovisual translation and media accessibility in language learning contexts. *Translation and Translanguaging in Multilingual Contexts, 9*(2), 143–159.

Martins, C. (2020). Multisensory experiences in museums. In A. J. Chica Núñez & S. Martínez Martínez (Eds.), *Acceso al patrimonio cultural, científico y natural: Contribuciones desde la traductología* [Access to cultural, cientific and natural heritage: Contributions from Translation Studies] (pp. 105–116). Ediciones Tragacanto.

Matamala, A. (2022). Easy-to-understand language in audiovisual translation and accessibility: State of the art and future challenges. *XLinguae, 15*(2), 130–144.

Mercier, G. K. (2017). *Differential concerns: Perceived benefits and barriers to visitation from the mental models of museum visitors and non-visitors* [Unpublished doctoral dissertation]. University of Central Lancashire.

Meseguer, M., & Ramos, P. (2015). Learning through real assignments in the audiovisual translation classroom. *Current Trends in Translation Teaching and Learning*, 2, 72–96.

Miggiani, G. S. (2024). Inclusive subtitles for all: Developing practices and guidelines for accessible media content in newly experimenting territories. *London Journal of Research in Humanities and Social Sciences, 24*(7), 31–52.

Montagud, M., Orero, P., & Matamala, A. (2020). Culture 4 all: Accessibility-enabled cultural experiences through immersive VR360 content. *Personal and Ubiquitous Computing, 24*(6), 887–905.

Narula, U. (2006). *Handbook of communication: Models, perspectives, strategies*. Atlantic Publishers and Distributors.

Neves, J. (2007). *Vozes que se Vêem. Guia de Legendagem para Surdos* [Visible Voices. Subtitling for Deaf and Hard of Hearing Audiences Guidelines]. Instituto Politécnico de Leiria & Universidade de Aveiro.

Neves, J. (2010). Sound painting: Audio description in another light. In *Conference Catalogue of the 8th International Conference & Exhibition on Language Transfer in the Audiovisual Media – Languages & The Media* (pp. 43–45). ICWE. Berlin, 6–8 October 2008.

Neves, J. (2016). Enriched descriptive guides: A case for collaborative meaning-making in museums. Cultus: *The Journal of Intercultural Mediation and Communication*, 9, 137–154.

Neves, J. (2018a). Cultures of accessibility: Translation making cultural heritage in museums accessible to people of all abilities. In S.-A. Harding & O. Carbonell (Eds.), *The Routledge handbook of translation and culture* (pp. 415–430). Routledge. https://doi.org/10.4324/9781003221678

Neves, J. (2018b). Subtitling for deaf and hard of hearing audiences: Moving forward. In L. Perez-Gonzalez (Ed.), *The Routledge handbook of audiovisual translation* (pp. 82–95). Routledge. https://doi.org/10.4324/9781315717166

Neves, J. (2020). Intersensory translation mitigating communication mismatches. In Ł. Bogucki & M. Deckert (Eds.), *Handbook of audiovisual translation and media accessibility* (pp. 315–338). Palgrave Macmillan. https://doi.org/10.1075/babel.00265.zha

Neves, J. (2022a). Project-based learning for the development of social transformative competence in socially engaged translators. *The Interpreter and Translator Trainer, 14*(4), 465–483. https://doi.org/10.1080/1750399X.2022.2084258

Neves, J. (2022b). Translation and accessibility: The translation of everyday things. In F. Zanettin & C. Rundle (Eds.), *Routledge handbook of translation and methodology* (pp. 441–456). Routledge. https://doi.org/10.4324/9781315158945

Newell, A. F., Gregor, P., Morgan, M., Pullin, G., & Macaulay, C. (2011). User-sensitive inclusive design. *Universal Access in the Information Society*, 10, 235–243.

Oncins, E., & Serrat-Roozen, I. (2024). Making copyright management agile: Challenges and opportunities in audiovisual translation and media accessibility for a new digital era. In *Transforming media accessibility in Europe: Digital media, education and city space accessibility contexts* (pp. 121–134). Springer Cham.

Orero, P. (2017). The professional profile of the expert in media accessibility for the scenic arts. *Rivista Internazionale di Tecnica della Traduzione*, 19, 143–161.

Pearce, W. B. (1989). *Communication and the human condition*. Southern Illinois University Press.

Perego, E. (2020). *Accessible communication: A cross-country journey*. Frank & Timme.

Persson, H., Ahman, A., Yngling, A., & Gulliksen, J. (2015). Universal design, inclusive of accessibility—Historical, methodological and philosophical aspects. *Universal Access in the Information Society, 14*(4), 505–526.

Pérez-Gonzalez, L. (Ed.). (2018). *The Routledge Handbook of Audiovisual Translation. London and New York.* Taylor and Francis. https://doi.org/10.4324/9781315717166

Raskin, J. D. (2002). Constructivism in psychology: Personal construct psychology, radical constructivism, and social constructionism. In J. D. Raskin & S. K. Bridges (Eds.), *Studies in meaning: Exploring constructivist psychology* (pp. 1–25). Pace University Press.

Remael, A., Reviers, N., & Vercauteren, G. (Eds.). (2014). Pictures painted in words. ADLAB audio description guidelines. http://www.adlabproject.eu/Docs/adlab%20book/index.html

Reviers, N., & Hanoulle, S. (2023). Aesthetics and participation in accessible art experiences: Reflections on an action research project of an audio guide. *Journal of Audiovisual Translation, 6*(2), 99–121. https://doi.org/10.47476/jat.v6i2.2023.277

Rizzo, A. (2019). Museums as disseminators of niche knowledge: Universality in accessibility for all. *Journal of Audiovisual Translation, 2*(2), 92–136. https://doi.org/10.47476/jat.v2i2.93

Romero-Fresco, P. (2018). In support of a wide notion of media accessibility: Access to content and access to creation. *Journal of Audiovisual Translation, 1*(1), 187–204. https://doi.org/10.47476/jat.v1i1.53

Romero-Fresco, P. (2019). *Accessible filmmaking: Integrating translation and accessibility into the filmmaking process*. Routledge.

Romero-Fresco, P. (2024). Access intimacy in media accessibility: The audio description of where memory ends. *Journal of Audiovisual Translation, 7*(2), 1–23. https://doi.org/10.47476/jat.v7i2.2024.299E

Romero-Fresco, P., & Chaume, F. (2022). Creativity on audiovisual translation and media accessibility. *The Journal of Specialised Translation*, 38, 75–101.

Savin-Baden, M., & Major, C. H. (2013). *Qualitative research: The essential guide to theory and practice*. Routledge.

Schaeffer-Lacroix, E., Reviers, N., & Di Giovanni, E. (2023). Beyond objectivity in audio description: New practices and perspectives. *Journal of Audiovisual Translation, 6*(2), 1–7. https://doi.org/10.47476/jat.v6i2.2023.309

Sion, Y., Sudevan, S., & Lamas, D. (2023). Be Me Vest - Exploring the emotional effects of music and sound-based vibrotactile stimuli. In M. Kurosu & A. Hashizume (Eds.), *Human-computer interaction. HCII 2023. Lecture notes in computer science* (Vol. 14012, pp. 236–245). Springer. https://doi.org/10.1007/978-3-031-35599-8_20

Soler Gallego, S. (2018). Audio descriptive guides in art museums: A corpus-based semantic analysis. *Translation and Interpreting Studies, 13*(2), 230–249.

Szkriba, S. (2022). Accessible cinema for older adults: Can an app for blind viewers benefit the sighted population? *Journal of Audiovisual Translation, 5*(2), 134–151. https://doi.org/10.47476/jat.v5i2.2022.221

Tarantini, A. T. (2023). When accessibility becomes performance: Performativity as an element and carrier of accessibility in sign-language-interpreted music. *Journal of Audiovisual Translation, 6*(1), 93–109. https://doi.org/10.47476/jat.v6i1.2023.241

Taylor, C., & Perego, E. (2021). New approaches to accessibility and audio description in museum environments. In S. Braun & K. Starr (Eds.), *Innovation in audio description research* (pp. 33–54). Routledge.

TechInformed. (2024, May 1). How haptic tech and 5G is transforming football matchdays for deaf fans. *Tech Informed*. https://techinformed.com/haptic-5g-football-for-deaf-fans/

Tippet, C. D., McDermott, M. A., & Todd, M. M. (2023). The multimodal affordances of language in STEM education. In L. Corno, E. Anderman, & J. C. Richardson (Eds.), *International encyclopedia of education* (4th ed., pp. 42–49). Elsevier. https://doi.org/10.1016/B978-0-12-818630-5.04008-6

Tsatsou, P. (2021). Is digital inclusion fighting disability stigma? Opportunities, barriers, and recommendations. *Disability & Society, 36*(5), 702–729.

Udo, J. P., & Fels, D. I. (2009). "Suit the action to the word, the word to the action": An unconventional approach to describing Shakespeare's Hamlet. *Journal of Visual Impairment & Blindness, 103*(3), 178–181.

Uzzo, G. (2024). *Accessibility at film festivals: Guidelines for inclusive subtitling* [Unpublished doctoral dissertation]. Università degli Studi di Palermo.

Valdez, S., Secara, A., Perez, E., & Bywood, L. (2023). Audiovisual translation and media accessibility training in the EMT network. *Journal of Audiovisual Translation, 6*(1), 19–44.

Wang, X. (2024). Co-design of a voice-driven interactive smart guide for museum accessibility and management. *Journal of Audiovisual Translation, 7*(1), 1–24. https://doi.org/10.47476/jat.v7i1.2024.267

Wang, X., Crookes, D., Harding, S.-A., & Johnston, D. (2020). Evaluating audio description and BPS visitor experience in Titanic Belfast. *Journal of Audiovisual Translation, 3*(2), 246–263. https://doi.org/10.47476/jat.v3i2.2020.124

Weimer, W. B. (1984). Why all knowing is rhetorical. *Journal of the American Forensic Association*, 20, 63–71.

Weimer, W. B. (2023). Understanding complex phenomena. In *Epistemology of the human sciences* (pp. 249–268). Palgrave Macmillan. https://doi.org/10.1007/978-3-031-17173-4_13

Zhang, X. (2019). Accessibility manager: Creating a profile of a new profession. *Linguistica Antverpiensia, New Series–Themes in Translation Studies*, 18.

Zhang, X. (2021). Gamifying audio description training. *Journal of Audiovisual Translation, 4*(1), 114–136. https://doi.org/10.47476/jat.v4i1.2021.149