Understanding Quality in Media Accessibility

GIAN MARIA GRECO[1]

[1] TransMedia Catalonia Research Group, Universitat Autònoma de Barcelona, Spain
e-mail: gianmaria.greco@uab.cat

Abstract

For many years now, policies involving Media Accessibility (MA) have been concerned exclusively with quantity, that is, setting quotas for inducing the widespread adoption of MA solutions. Now that quotas are being met in some countries, attention is shifting over to quality. Taking a closer look at the issue of media accessibility quality (MAQ), the resulting picture conveys both a lively yet scattered scene. Lively, precisely because both policy-makers and researchers have increasingly started to focus on quality. Scattered, because said research and policies on quality have thus far been mainly focused on very practical issues, mostly narrowed down to a single modality. This situation was recently highlighted in the first draft of the European Accessibility Act (EAA), one of whose aims is precisely to overcome the plethora of divergent rules and the difficulty in achieving harmonisation of current MA standards. As a case in point, the EAA highlights "the case of Audio Visual Media services where different standards are used for subtitles and audio description". This paper presents the project "Understanding Media Accessibility Quality" (UMAQ, 2017-2019). Under the hypothesis that the core of MA instruments and services is designed to manage, transform and transfer data and information, the UMAQ project will draw on research, models and theories from Data and Information Quality – a mature field with more than three decades of research – and investigate if and how they can help to successfully deal with the problem of MAQ.

1 Introduction

Media Accessibility (MA) is the research area dealing with the "theories, practices, services, technologies and instruments that provide access to media products, services, and environments for people that cannot, or cannot properly, access that content in its original form" (Greco 2016, p. 23). Over the past twenty years, MA has become a fertile research area within the broader emerging field of Accessibility Studies (Greco 2016; 2017). Many MA instruments – such as subtitling and audio description – are now well-established topics within a variety of contexts, including smart cities, museum education, live events, tourism, childhood education, second-language acquisition, filmmaking, and new media. While for a long time its main concern was providing access to persons with disabilities, especially when framed within a strictly audiovisual translation perspective, in recent years MA has broadened its scope: it initially sought to include other groups at risk of cultural and social exclusion such as the elderly, children, and language minorities, and then expanded even further to encompass the human rights of all.

2 Media Accessibility in EU Policies

The recent expansion of MA as a strategic instrument for the human rights of all is in line with several documents released by the European Commission (EC) in the past decade. MA is not only at the core of one of the eight areas of action of the *European Disability Strategy 2010-2020* ("ensure accessibility of products and services"), but also plays a central role in both the *Strategic Implementation Plan on Active and Healthy Ageing* (which mandates to take "specific action on age-friendly innovative and accessible solutions", "mainstream accessibility", and "enhance access to ICT") and in the *New Framework Strategy for Multilingualism* (which attests to the right of all EU citizens to "take part in the European project without encountering any language barriers" and "get universal access to all EU legislation and the right to communicate, contribute and be informed"). Moreover, MA is one of the three pillars of the *Digital Single Market Strategy*, the leading strategy of the EC ("better access for consumers and business to online goods and services across Europe").

Finally, on 2 December 2015, the EC published the first draft of the long-awaited *European Accessibility Act* (EAA), which takes the form of a EU Directive, aiming to "contribute to the realisation of an inclusive e-society put forward in the Digital Single Market Strategy". The EAA defines as its core objective to "remove and prevent barriers for the free movement of accessible products and services", with a specific focus on audiovisual media products and services. All this is due precisely to the acknowledgement that MA impacts not only the lives of the 80 million European citizens with disabilities, but of all persons with temporary or permanent functional or context-dependent limitations, such as the elderly or migrants, and has the potential to improve the quality of life of all EU citizens. Hence, intralingual and interlingual subtitling, subtitling for the deaf and hard-of-hearing, audio description, and voice over, just to consider a few of the so-called MA modalities, are instrumental in guaranteeing the rights of all EU citizens, not only those with disabilities.

3 Defining Media Accessibility Quality

For many years, policies involving MA have been concerned with quantity, that is, setting quotas for inducing the widespread adoption of MA solutions, e.g. hours per year of subtitled TV programmes. Now that quotas are being met in many EU countries, attention is shifting over to quality (Romero Fresco 2013; 2016). This holds true for both policies and research. The principle goal of the EAA is grounded explicitly on the recognition of the fragmented situation to which accessibility standardisation is subject to at the EU level due to divergent rules. Consequently, as specified in the document, "non-harmonised national approaches to accessibility create barriers in the internal market" and "national authorities, manufacturers and service providers face uncertainties concerning the accessibility requirements for potential cross-border services, and concerning the applicable policy framework for accessibility". As a case in point, the EAA highlights "the case of Audio Visual Media services where different standards are used for subtitles and audio description". This plethora of divergent rules has caused difficulties in achieving harmonisation of current MA standards. Standardisation is the very instrument through which quality requirements are implemented at a policy level. Consequently, there is an urgent need to address the issue of standardisation of MA in order to provide the EC with possible ways to resolve this controversy.

Taking a closer look at the landscape of MAQ, the resulting picture conveys both a lively yet scattered scene. Lively, because with the reaching of quotas, that is, of quantity requirements, both policy-makers and researchers have increasingly started to focus on quality. Scattered, because research and policies have been focusing on very practical issues, mostly narrowed down to a single modality, while ignoring the need for a general theory of MAQ to provide a more efficient and interconnected account of those issues. All EU regulators, both international and national, have produced standards that focus on only one specific modality or technical service. Just to name a few: the AENOR (Spain) has released one standard for subtitling and one for audio description; the BAI (Ireland) has published a guideline on subtitling, one on audio description, and a third one on Irish Sign Language; the European Telecommunications Standards Institute issued one standard on subtitling and one on the accessibility of the technological infrastructure of Hybrid Broadcast Broadband TV.

As for the research, the situation is not much different, for nearly all scholarly publications in recent years which investigate MAQ tend to focus merely on, or develop a model for, quality that is centred only on a single modality or technology, such as the NER model (Romero Fresco and Martinez 2015), and the FAR model (Pedersen 2017). Even less research focuses on two modalities, mostly audio description and SDH. The same holds for EU research projects; for example: ADLAB focused exclusively on audio description, and the same applies to the recently funded ADLAB PRO; and HBB4ALL focuses exclusively on MAQ for Hybrid Broadcast Broadband TV. The only attempt to address the issue of MAQ from a broader point of view has been produced by the aforementioned HBB4ALL. Unfortunately, despite noting that "one of the most prominent challenges faced by all providers is to establish what is quality in order to comply with the many existing standards and guidelines", the resulting document doesn't go further than a mere collection of all the existing standards released by regulators in Europe and in a few other countries around the world, with a purely narrative analysis of their content (HBB4ALL 2014).

The scant international regulatory bodies trying to deal with MAQ from a holistic approach, such as ACMA (Australia), have introduced what has been called a "holistic" or "one-size-fits-all" provision of quality for access services. As has been noted, this conception of quality is so abstract and unstructured that it inevitably results as too vague to have any actual use (HBB4ALL 2014). Moreover, when applied, it leads to conflicting results since it does not take into account the different actors involved, for the same metrics could be interpreted as high-quality by service providers and poor-quality by end-users.

4 The UMAQ Project

While research on quality in the area of MA is still in its infancy; it is well developed in other fields. Looking at what has been done in those fields might provide new insights for tackling the issue of MAQ. This is the general vision behind the project "Understanding Media Accessibility Quality" (H2020 MSCA IF 2016 - 752659 UMAQ), that will run from September 2017 until September 2019. The core assumption of the project is based on an informational account of MA, which interprets MA as a series of practices to manage, transform and transfer information. Consider the case of subtitling a film. A film contains both aural and visual information. A deaf viewer can access visual information but not the aural information. Subtitling is the process of transforming aural information into visual (textual) information in order to make it accessible to the deaf viewer. The informational account of MA goes back to early attempts to apply Shannon and Weaver's theory of information to audiovisual translation (Mayoral, Kelly and Gallardo 1998). Under the informational account of MA, the UMAQ project will draw on research from the field of data and information quality (IQ) and investigate if and how it can help to successfully deal with the issue of MAQ.

Data and information quality is a mature field with three decades of research since first being launched by the MIT Information Quality group in the 1990s (Wand and Wang 1996; Wang and Strong 1996; and Redman 1996). To date, the group has produced the most influential definition of IQ (information quality is information fit for purpose) and highlighted the multidimensionality of IQ, that is, IQ is defined by the concurrence of different dimensions. Evaluation of IQ is then carried out not by using an all-purpose, "one-size-fits-all" concept of IQ, but through an evaluation of all its dimensions by taking into account both the system used and the purpose for which that information was intended.

Over the last three decades, many approaches have been developed for identifying IQ dimensions and defining their metrics. The main ones have been labelled the theoretical approach, the intuitive approach, and the empirical approach: "the theoretical approach adopts a formal model in order to define or justify the dimensions. The empirical approach constructs the set of dimensions starting from experiments, interviews, and questionnaires. The intuitive approach simply defines dimensions according to common sense and practical experience." (Batini and Scannapieco 2016, p. 36). From a methodological perspective, we could say that the theoretical approach adopts a top-down perspective, the intuitive approach adopts a bottom-up perspective, and the empirical approach a controlled bottom-up perspective.

While investigating the possible impact on MAQ of all the main approaches to IQ, the UMAQ project will focus more specifically on the implementation of the empirical approach. The choice of this approach is mainly due to the fact that it complies with the main methodology of accessibility studies, namely universal/inclusive design. Central to this methodology is the inclusion of all the stakeholders in the accessibility value chain in the design, implementation and evaluation of any type of product, service, environment, or solution. A methodology usually expressed by the motto "nothing about me without me". In accordance with both inclusive design and the empirical approach to IQ, the UMAQ project will try to identify and define the dimensions of MAQ through the submission of questionnaires to all the main actors involved in MA: scholars, policy-makers, European regulators, end-users, and industry.

A similar enterprise – that is, the use of theories, methods and models from the field of IQ – has been already successfully carried out in the field of machine translation with the development of the Multidimensional Quality Metrics (MQM) framework (Lommel, Burchardt, and Uszkoreit 2014). Recent research has suggested the possibility of applying the MQM framework to the field of audiovisual translation (Burchardt, Lommel, et al. 2016). One of the actions of the UMAQ project will be to further investigate this option.

5 Conclusion

Through tackling the issue of MAQ from an interdisciplinary perspective, the overall objective of the UMAQ project is to carry out the first comprehensive analysis of MAQ and investigate the possibility of defining a theoretical framework for understanding quality in media accessibility.

Far from being an issue exclusively related to legislation or technical implementation, MAQ (as an instance of the general issue of quality in Accessibility Studies) goes to the heart of the ethical and political foundations of accessibility. Real inclusiveness is reached not only through quantity but also quality. As Greco 2016 shows, access is a necessary requirement one has to comply with in order to fulfil the human rights of all, and access must consider not just the amount of content, but also its quality. Full equality of the enjoyment of human rights can be reached only if access to communication, information, culture, and education, just to name a few,

is at the same time (a) fully provided in all its aspects and instances and (b) offered as an equitable epistemic experience to all.

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