

Do you want an accessible e-book? Come back in 2025

English translation of the original paper: “¿Quiere un libro electrónico accesible? Vuelva en 2025”

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Abstract:

The new European Directive «on the accessibility requirements for products and services» is, in fact, a directive about certain products and services, and among the five mentioned on this directive, e-books are the product that libraries serving persons with a print disability – such as ONCE, the National Organization of Spanish Blind persons – are more interested in. Especially, because it refers not only to the e-books themselves, but also to all the devices and software programs required to achieve an accessible reading experience in that format: from the computer and its operating system to the e-book reader, including the webpage used to purchase and/or download those e-books. This paper also touches the limitations and vaguenesses present in the directive, evaluating its validity and its limited reach.

Keywords: Electronic books, Accessibility, Products and services, Visual impairment, European legislation.

Introduction

28 June 2025 is the date chosen by the European Union (Directive 2019/882, 2019) to start demanding from e-book publishers to comply with the accessibility requirements needed for persons with print disabilities to make use of those books just as a person without such disabilities does. This is certainly good news and, at the same time, one more evidence of the lack of criteria and compromise that — in this case — European authorities show when trying

to comply with the obligations acquired by the ratification of the *Convention on the Rights of Persons with disabilities* (UN CRPD).

The starting point was laudable – making products and services that are widely used by the 80 million persons with disabilities and elderly persons living in the European Union (around 20 % of its total population) completely accessible, so that they become equally useful for everyone. At the same time, and seen from the angle of the European internal market, it was necessary to harmonise the various laws and regulations and the accessibility requirements to allow manufacturers, importers, and distributors of those products and services to make them available in the EU in a normalised, homogeneous, and therefore more profitable way.

The result, however, leaves much to be desired. Maybe because the second objective mentioned — clearly defined right since the first draft was presented in 2015 as «to improve the functioning of the internal market for accessible products and services», and ratified by the Directive when it says that «[Harmonised] European standards should be market-driven»— has clearly beaten the first and principal objective: making truly and functionally accessible as many everyday-use goods and services as possible. That is probably why, contrary to what was expected, this Directive — which, in an excessive exercise of self-complacency refers itself as the *European Accessibility Act* — is nothing but a sketch of that fully accessible European Union that persons with disabilities and elderly persons yearn for.

Overall assessment of the Directive

Fragmentation has always been one of the constants and one of our worst enemies when drafting new legislation regarding accessibility at a European Union level, followed closely by the repeated non-compliance of the existing laws. Except for the Directive and the Regulation published in 2017 to ratify and implement the Marrakesh Treaty in the EU, which cover a very specific objective based on a concrete piece of text, EU legislation regarding access to products and services by persons with disabilities tend to produce partial and heavily-conditioned solutions. We can take the *Directive on the accessibility of the websites and mobile applications of public sector bodies*, adopted in 2016, as an example, as it ignores all websites belonging to private companies, even though they are certainly more widely used than those from the public sector. To illustrate its narrow-mindedness, the Directive defines in less than 60 words in article 1 point 1 its entire subject matter and scope, while it uses 370 words, later in the same article, to describe in detail when and in what cases the law does not apply. We will find close similarities with this approach when going through the *European Accessibility Act*.

Actually, another limiting factor to the good intentions of this Directive is the list of exceptions it contains, both in length and in vagueness: «The accessibility requirements [...] shall apply only to the extent that compliance: a) does not require a significant change in a product or service [...] and b) does not result in the imposition of a disproportionate burden on the economic operators concerned».¹ Therefore, if as a result of making it accessible, the product or service suffers a «fundamental alteration of its basic nature» or if this process imposes a disproportionate burden² to the economic operator concerned, this Directive will

¹ The way it is expressed seems to imply very clearly that in order to elude the obligations imposed by the Directive both circumstances need to concur. However, both in the initial recitals and in further references across the text, it is laid out very clearly that either would suffice.

² Annex VI of the Directive lists all the criteria to take into account when evaluating if the burden is disproportionate or not. All related costs will be used for the assessment, from the design to the manufacturing

not apply for this product or service. This exemption removes from the list at a single stroke practically all SMEs and, of course, all microenterprises.

Last but not least, the timeline. The transposition of the Directive in each of the Member States has to take place before 28 June 2022, three years from now, and will come into effect on 28 June 2025, in six years' time. It is no wonder that the Directive avoids mentioning any specific technology or accessibility features – non-compliance and delays left aside, who knows what electronic books, personal computers, tablets, smartphones or TV sets will look like after all these years.

Some services face an even bleaker future – the accessibility of the emergency communications to the single European emergency number «112» does not need to be implemented until 2027. And to add yet another layer of uncertainty, article 32 offers a 5-year transitional period, ending in 2030, during which service providers may continue to provide the products or services already in use. All things considered, the last bit of this paper's title might well be *Come back in 2030*.

Subject matter and scope

The products and services that fall within the scope of this Directive are certainly relevant, but they are but a small sample of a long list that have not stopped shrinking since the first draft of the Directive. Bárbara Martín Muñoz, Second Vice-president of the European Blind Union and Head of the Technical Office for European Affairs at ONCE for more than a decade, affirms that this was the first time she has seen the European Parliament adding even more restrictions to those the Council usually imposes. This gives us an idea of the shortsightedness with which we still approach the lack of access to fundamental products and services by persons with disabilities.

Article 2 of the Directive refers, therefore, to merely five types of products and six services³ out of the 87 included in the first draft of the list that resulted from a detailed analysis of the compromises included in the UN CRPD (Deloitte, 2015; 17). It refers to products and services originating in the EU and those imported for sale or distribution in the internal market. The latter will need to carry the corresponding CE marking, which may not be granted if, on top of the standard compliance requirements, the product or service does not comply with those regarding accessibility as expressed in this Directive for that specific good.

The products within the scope of the Directive are:

- General-purpose computer hardware systems and their operating systems.
- Automated teller machines, ticketing machines, check-in machines, and those interactive self-service terminals providing information.
- Consumer terminal equipment used for electronic communication and audiovisual media services (tablets, smartphones, and TV sets).
- E-readers.

process, and from the distribution to the documentation of the product – a much longer and more detailed list than that of the accessibility requirements.

³ Answering emergency communications to the single European emergency number «112» could be listed as a seventh service, though it is somehow treated differently in this Directive.

The services included are:

- Electronic communications services (instant messaging apps, e-mail services, etc.).
- Audiovisual media services, i.e., digital TV, public or otherwise, including pay per view services.
- Certain passenger transport services (websites, e-ticketing, check-in terminals, etc.).
- Consumer banking services.
- E-books and dedicated software.
- E-commerce services.

All entities and target groups affected agree that, against the expectations raised, this is but the first Directive of many, in order to go through the entire list of products and services that need to be accessible by law to be marketed in the European Union. Thus, we sincerely hope that the prophecy recorded in the study commissioned by the EU regarding the expected socio-economic impact of this Directive comes true: «It is important to note that ‘relevant’ goods and services that have not been prioritised in the present analysis are not excluded from further EU policy action (in the future). On the contrary, UN CRPD parties have engaged to address accessibility issues for all of the ‘relevant’ goods and services.» (Deloitte, 2015; 20).

Products and services of interest to libraries

Among the scarce list of products and services dealt with by this Directive, e-books are, for obvious reasons, the ones that raise more interest from a library angle. Even though e-books are the only item within the scope of the Directive related to the vast area of access to information, its accessibility requirements have been rightly approached from a holistic perspective. Hence maybe why e-books are listed under *services* instead of *products*.

Though the definition in the Directive — «an electronic version of a book» (Directive 2019/882, 2019) — seems to constrain the concept of *electronic book* to the files that represent in digital form works previously or simultaneously published in more traditional formats, it does not simply requires the EPUB, MOBI, LIT or other type of file containing the text of the book to be accessible. In order to guarantee that the acquisition, reading experience, and navigability of the book are equally adequate, also the software tools and whatever hardware product is required to enjoy the work need to be accessible.

This concept of reading an accessible e-book as a process that involves a number of agents — manufacturers, publishers, programmers, etc.—, various objects and products — a computer, the book itself, an e-reader, etc.— and that covers from the discovery of the book on a website or a library catalogue to the actual reading of the e-book in the device of their choice, is an innovation in European legislation, and we are pleased to have it.

On a side note, more as providers than true «economic operators» (which, as defined by the Directive, include all *service providers*, beside manufactures, authorised representatives, importers, etc.), we should highlight that the computers or tablets in our libraries and their operating systems, the online catalogues, and the e-readers that we offer to our users need also be accessible at some point after 2025. This implies, on one hand, an obligation – that our libraries provide equipment and products that comply with the expected accessibility requirements. On the other hand, it is also an opportunity to provide a wider and better service to our elderly users and to those with a disability that prevent them from reading printed books.

The process of reading an accessible e-book

In order to test if from 2025 onwards, and thanks to this new directive, a person with a print disability will be able to enjoy reading an e-book in a complete autonomous way, we could enumerate the various stages through which such person will have to pass to achieve that goal and check them against the accessibility requirements listed in the Directive for each stage (Annexes I to III).

- **Mobility**, when necessary. Annex III envisages «accessibility requirements [...] concerning the built environment where the services under the scope of this Directive are provided», i.e., our library. It is required that both the approaches to buildings and all the free circulation areas and facilities can be used in an independent manner by persons with disabilities and elderly persons.
- **General-purpose computer hardware systems.** Labelling, instructions, and warnings that go with the computer or tablet need to be readable and easy to understand, and will be made available via more than one sensory channel (none specified). Instructions will include «a list of those assistive devices which have been tested together with the product» (Annex I, Section I, 2). The packaging needs to be made accessible, including the information provided in it and its contents. (It does not specify how either – it could be a text in Braille describing the content or a QR code pointing to a text or website, for all we know).
- **Operating system.** «Shall contain features, elements and functions that allow persons with disabilities to access, perceive, operate, understand and control the product».
- **Web browser and visited web sites, on a computer or a mobile device.** They have to be «accessible in a consistent and adequate way by making them perceivable, operable, understandable and robust» (Annex I, Section III, c)). This includes both the websites to purchase e-books as the online catalogues available in our libraries. They need to allow the user to search, find (if it exists), purchase (using their preferred payment services), and download the e-book in a completely independent manner. In order to achieve this, the information provided about the book (metadata), especially that related to its level of accessibility and the assistive technologies compatible with it, have to be perceivable and as precise as possible.
- **The e-book.** As a novelty, the term «accessible e-book» does not appear anywhere in the Directive. Thus, we can infer that the definition for this type of books is a fully inclusive one, based on the principle of ‘Design for All’ and the demand for a unique type of e-book that everyone can use. According to this, the e-books to be made available from 2025 onwards need to guarantee that:
 - When they contain audio in addition to text, these have to be synchronized.
 - Their own digital files do not prevent assistive technology from operating properly.
 - The content and its navigation can be accessed, including «dynamic layout, the provision of the structure, flexibility and choice in the presentation of the content».
 - «Digital rights management measures do not block accessibility features», an essential feature to facilitate the distribution of works as granted by the Marrakesh Treaty.

- **The e-reader.** As with computers, the packaging, documentation, instructions, and other warnings contained or accompanying e-book readers must be made available in accessible formats. Besides, and as the only accessibility requirement, they must provide for text-to-speech technology. The Directive does not clarify, however, if this synthetic speech should allow the user to listen to the book itself, enhance the level of navigability of the device, or both.
- **Support services.** If the user needs (and there are) help desks, technical support, or training services to help them make a correct use of the different products, these «shall provide information on the accessibility of the product and its compatibility with assistive technologies, in accessible modes of communication».

What will e-books look like in 2025

Clearly, the Directive has been exhaustive enough to take into account the entire process involved in the reading of an accessible e-book. However, its lack of specification regarding technical criteria and the confusing and cumbersome wording of Annex I about the accessibility requirements and of Annex II about the example of possible solutions, cast many doubts about the true efficiency of this Directive regarding the rights of persons with disabilities.

Despite the highly reduced scope of the Directive, Annex I, which covers in seven sections the *general accessibility requirements related to all products covered by this directive*, is terribly confusing. It tries to cover everything using a very low level of specification, when any at all. It is unclear what applies to all products and what is applicable to some of them only; why the information about the product provided on the product itself can be less exhaustive than that same information when made available through the use of the product, or why a product must protect the privacy of the user when they use accessibility features instead of in all cases.

We hope that when each EU Member State transposes into their domestic legislation the wording of the Directive, the standards and information access formats, as well as the remaining technical requirements that may apply to our e-books gain in specificity, at the risk of compromising the much-desired European harmonisation.

When it comes to electronic books, as of today there is only one international standard that allows producing fully accessible books. I am referring to the EPUB standard, which has embedded in its specifications features from another standard better known among the institutions providing services to persons with a visual impairment – the DAISY standard. E-books produced using the EPUB 3/DAISY standard may include audio, text, audiodescribed video, graphics, scientific notation, etc.; can offer synchronized text and audio (just as the Directive requests), and, above all, a structure that allows the user to navigate through the book as a person without disabilities does with a printed book. As an example, a DAISY book allows users to move to a specific page; move paragraph by paragraph, sentence by sentence, and even word by word; go to a specific sub-chapter, and if it contains synchronized text and audio, search for a word or phrase in the text and listen to their corresponding audio.

DAISY books can be read or listened to on a computer, on e-readers manufactured specifically for that format, on mobile devices, etc., and all of these gadgets, as soon as the Directive comes into force, will need also to be accessible, from the packaging of the hardware product to the last software tool required to make it work.

It is convenient to note that the fact that the EPUB format has embedded in it the accessibility features developed by the DAISY standard does not imply that all EPUB books are, for this fact only, accessible. For that to happen, the publisher of that book in the EPUB format has to apply those DAISY navigability features to the final product, features that are indispensable for study books and other works with a complex structure. The EPUB e-books that are already commercially available usually include both the text and the graphics that appear in the printed version, which can (and, according to the Directive, must) be transformed into audio on the e-reader itself using synthetic speech. This might make them readable, but not always fully accessible.

The [DAISY Consortium](#), the entity that created and standardised in the last years of the last century that book format initially conceived for persons with a visual disability, has as part of its mission not only to keep the standard alive and in constant evolution and growth, but also to work hand in hand with any publisher who wishes to produce EPUB books that are fully accessible. That is why they developed [ACE by DAISY](#), a software tool that allows those publishers interested in creating EPUB books for all to validate that their content comply with the accessibility requirements needed.⁴

Conclusion

When comparing the list of requirements with the list of examples in Annexes I and II of the Directive, one can clearly see the legislators' good intentions behind them and, even though everything that has been said so far seems to leave little room for optimism, we have to acknowledge without reserve that, with all its flaws, this directive on the accessibility of certain products and services opens a door that so far had been, if not closed, ajar.

The Directive has room for improvement, ample room, and I would like to think that its transposition into domestic law will make it gain in concreteness, transforming that long wish list, full of good intentions and unclear requirements, into European standards that offer more specific, concise, and clear guidance on how to reach the desired level of accessibility from a technical point of view. Hopefully, at some point in time between the publication of the Directive and its entry into force, the standardisation mandates issued by the EU in 2005, 2007 and 2010 (!)⁵ finally become the European accessibility standards for public procurement of products and services in the ICT domain, Design for All, and the built environment, respectively. We also hope that, in order not to reinvent the wheel, those already existing standards that are being widely used in some of the domains that the Directive wishes to address — such as the EPUB 3/DAISY standard for accessible e-books — are not left aside. Spanish law, for instance, enforces the compliance with some W3C accessibility standards for certain webpages, as well as with some Spanish, European, and international standards on the accessibility of documents in formats such as PDF.

⁴ There is a large number of publishers that produce EPUB books, becoming the worldwide de-facto standard in the production of electronic books. Publishing houses such as Harper Collins have even started — thanks to this DAISY validation tool — to produce e-books for all that include DAISY accessibility. A case to follow closely refers to probably the largest book distributor in the world today — Amazon. Amazon demands from those publishers who wish to sell their e-books via its portal to upload them in a proprietary format nearly exclusively used by the Kindle family of e-readers, the MOBI format. This e-book format is one of the least accessible, though they are easily converted into EPUB using any of the numerous e-book converters available in the market. From 2025 onwards, if Amazon wishes to sell e-books in the European Union, will need to consider converting their MOBI holdings into EPUB/DAISY, or to make their Kindle e-readers and files accessible enough.

⁵ See recitals 74 and following of the Directive.

These are real and concrete solutions that could successfully fulfil some of the objectives that fall within the scope of the Directive. Our task now, with the help of existing and new European and international standards, is to transform the vaguenesses in the *Directive on the accessibility requirements for products and services* into harmonised solutions suitable for all EU countries that enhance and help to implement true accessibility. We need to promote new directives and domestic laws that describe in detail the «what» and the «how», to whom and with what objective, and laws designed to cover, slowly but surely, the more than 60 products and services listed by the UN CRPD that have not been yet approached.

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