

"Translator Training in the Digital Age: Common International Framework for Extended Digital Accessibility" (CIFEDA)

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"تدريب المترجمين في العصر الرقمي الإطار الدولي المشترك لإمكانية الوصول الرقمي الموسعة"

(CIFEDA)

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International Framework for Extended Digital Accessibility (CIFEDA).

ملخص الدراسة:

تتناول هذه الدراسة موضوع التواصل الرقمي من منظور علمي واجتماعي، وبالتحديد مفهوم «الوصول الموسع» الذي يستهدف جميع الفئات الضعيفة. وفي هذا المجال، تعمل المنظمات الدولية والجمعيات، وإن كان ذلك محفوفًا ببعض الغموض، على وضع عدد من القوانين والتوصيات التي تشهد تطورًا إيجابيًا مستمرًا. كما أن التقدم العلمي والتكنولوجي يتيح فهم الوضع وتحسينه بشكل متزايد. لكن، كيف تتعامل ممارسات التدريب مع مسألة الوصول الرقمي؟ هل تدمج نتائج الأعمال غير المنسقة التي يقوم بها المشرعون والعلماء؟ وما هي أوجه القصور فيها؟ ما هو النهج التربوي الجديد الذي ينبغي اعتماده؟ وفقًا لأي نموذج؟ وكيف يمكن تفعيله؟ استنادًا إلى عملية تنقية مفاهيمية تستهدف مصطلحات الاستخدام بهدف تثبيتها، ومن خلال التحليل النقدي لكل من النصوص القانونية والأبحاث العلمية الحالية، تم تحديد عقبات دلالية وتقنية واجتماعية واقتصادية، ومعالجة اختزالية، ومفارقات لا سيما بين النظرية والتطبيق. وللتعامل بفعالية مع هذه المفارقة الأخيرة، تمت صياغة اقتراح تربوي في شكل «مرجع دولي مشترك للوصول

Abstract:

The present study explores digital communication from a scientifically and socially fertile perspective, with a particular emphasis on "extended" accessibility targeting all vulnerable individuals. In this field, international organizations and associations are developing, albeit not without ambiguity, numerous evolving laws and recommendations. Scientific and technological breakthroughs also enable a better understanding and improvement of the situation. However, how do training practices deal with digital accessibility? Do they take into account the non-coordinated findings of legislators and scientists? What are their shortcomings? What new pedagogical approach should be implemented? According to which paradigm? How can this be operationalized?

Based on a conceptual catharsis aimed at stabilizing the terms of use, and through a critical analysis of both legal texts and current scientific research, semantic, technical, social, and economic obstacles were identified, along with reductionist treatment and paradoxes, especially between theory and practice. To effectively address this latter paradox, a pedagogical proposal has been formulated in the form of a Common International Framework for Extended Digital Accessibility (CIFEDA), which aims to promote a new approach to generalized, inclusive, systemic training, aligned with the ongoing changes in law and science.

Keywords: Digital communication, "extended" digital accessibility, People with disabilities, Conceptual catharsis, Trainer training, Translation, Common

الكلمات المفتاحية: التواصل الرقمي، «الوصول الرقمي الموسع»، الأشخاص ذوو الإعاقة، التنفيس المفاهيمي، تدريب المدربين، الترجمة، المرجع الدولي المشترك للوصول الرقمي الموسع.(CIFEDA)

الرقمي الموسع (CIFEDA) «الذي يطمح إلى تعزيز هندسة جديدة للتدريب تكون شاملة وجامعة ونظامية ومستندة إلى التغيرات المستمرة في القانون والعلوم.

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Introduction:

Like other forms of communication, digital communication is not immune to the ambiguity and imprecision surrounding the concept of communication itself. Communicating is not always “exchanging,” as posited by the Palo Alto interactionist theory (Watzlawick, Beavin, Jackson, 1967:79). Communication can be reduced to the transmission of information (Shannon, 1948), take the form of an act of influence (Lasswell, 1927: 34), or refer to a negotiation activity (Wolton, 2009: 21). Digital communication, moreover, poses not only socioeconomic problems but also procedural challenges related to the complex use of available resources. From this perspective, limiting accessibility solely to people with disabilities in the strict sense (the visually impaired, the deaf, etc.) seems reductive.

Digital accessibility within the context of this complex and problematic communicational dynamic necessitates broadening the scope of study and, consequently, diversifying the target populations. To be inclusive, digital accessibility should broaden its scope to include all people with disabilities whose vulnerability—whether physical, mental, cognitive, social, or otherwise—prevents them from taking advantage of the Web’s multifaceted potential. “Image illiterates,” older adults, uneducated immigrants, people from socially disadvantaged backgrounds, the visually impaired, and the deaf, among others, are affected by this democratization of digital technology.

Accessibility to digital communication, thus expanded, requires a new comprehensive and systemic approach to address the right to information and communication advocated by various international organizations (UNESCO, Universal Declaration of Human Rights)¹ as well as the right to the internet². What further justifies this new approach is the exponential evolution of technologies and the multifaceted “digital divides” (Soupizet, 2004; Rizza, 2006: 25–32) that it generates, which particularly affect people with disabilities. Consequently, it is useful if not necessary to rethink accessibility in light of these new parameters in order to guide and empower the identified vulnerable populations.

In this regard, many questions arise that call for a new approach. How can we address the current needs of the new community of “people with disabilities” in terms of digital communication? Shouldn’t we reexamine the “anthropology” of legal and institutional discourse—that is, the way it is used? What is the university’s stance regarding these needs? What should be the new mission of translation and interpretation instructors? How can we train them to teach extended accessibility in digital communication? What planning and tools should be mobilized for this purpose? The answers to these questions lead us first to examine the commonly used terminology and the instability that characterizes it (disability, accessibility, extended accessibility...), and then to consider the state of knowledge in the field of digital accessibility.

This article will begin by examining the conceptual framework currently in use in order to clarify the key concepts that are employed without bothering to define them in a consensual and dynamic manner (one that adapts to technological and social changes). Along the way, we will examine the nature and impact of official texts (from international organizations, laws,

¹ This refers specifically to Article 19 of the Universal Declaration of Human Rights. In UN (1948), “Universal Declaration of Human Rights.” In: <https://www.un.org/fr/universal-declaration-human-rights/> / Accessed on September 13, 2023 .

² This refers to the address by Mr. António Guterres, Secretary-General of the United Nations, during the 74th session, on the occasion of his second appointment as Secretary-General of the United Nations. In GUTERRES, A. (2021), “Official Speech.” In: <https://press.un.org/fr/2021/ag12339.doc.htm> Accessed September 13, 2023.

etc.) regarding digital access for the target populations. The analysis of the existing body of work will also address the current state of research in this area. Based on this theoretical foundation and the reflection underpinning it, we will propose an educational initiative. Falling within the realm of educational engineering and aimed at university instructors in translation and interpretation, this contribution will take the form of a Common International Framework for Extended Digital Accessibility (CIFEDA).

Development

As announced, we will first examine the three key concepts: “communication,” “disability/person with a disability,” and “accessibility/extended accessibility.” Far from being universally accepted, these concepts pose representational challenges even though they form the basis of legal, institutional, and scientific work. We will therefore strive to examine them in order to identify their complexity and ambiguity and to contribute to their stabilization.

1. Terminological Clarification and Conceptual Stabilization

To begin, we will address the concept of communication, as we mentioned in the introduction, the term “communication” functions as a leitmotif in the discourse of diplomats, influencers, and trainers, as well as in scientific publications. However, this inflationary use of an erratic concept raises questions. In fact, as explained earlier, communication is not always an exchange or interaction. Depending on the context, it can mean transmission, persuasion, or negotiation. This is, moreover, consistent with the various paradigms of contemporary communication theory (Claude Shannon’s linear paradigm, the Palo Alto interactionist paradigm, etc.).

In this vein, the noun “communication” requires the addition of a qualifying term that specifies its nature (transmissive communication, orchestral communication, etc.) and by, clarifies its usage and purpose. When it comes to digital technology, in the absence of technical skills, people with disabilities are unable to access the content and services offered or to make proposals in this regard (Vendramin and Valenduc, 2006, p. 143). Communication is therefore linear and unidirectional. This lack of precision in the term “communication” consequently calls for revision and nuance, as is also the case with the concept of disability. Etymologically, the word “handicap” comes from the English phrase “hand in cap,” which literally means “hand in the hat”—a phrase referring to an exchange of personal belongings that dates back to the 16th century. Since ancient times, disability has always been associated with infirmity and exclusion. However, the use of the word “handicap” to refer to impairments is a recent development and, as such, has been a concern for organizations and lawmakers since the first half of the 20th century. Consequently, measures to provide compensation and support have been implemented for people with disabilities to ensure their social and professional integration, as well as their access to information and communication. It must be noted that these efforts have shifted the discourse and, consequently, the situation of “people with disabilities.” This is evidenced, for example, by the two international classifications issued by the WHO and their implications for the status of this population (WHO, 1980, 2001); nevertheless, this population continues to be “objectified” and subject to social categorization whose boundaries are unclear and whose treatment varies by country (Northern/Southern countries). It is also important to emphasize that disability is characterized by its fluidity and complex nature, combining a multitude of organic, functional, environmental, and relational factors. A person with a disability or, as the case may be, experiencing disabling situations, remains a human being among others (French and Swain 2004: 34), a “being-as-project to borrow Sartre’s term, as used by, a non-alienated being (Sartre, 1943: 32) whom the term “disability” freezes and strips of its evolving and adaptive nature. It is time to rethink this label, that is the way we view others based on who we are. Disability is situational and arises in terms of accessibility, which concerns not only people with physical or mental impairments but also others who, for other reasons, are unable to access their rights. Given the relativity, dynamism, and contextual nature of disabilities, the designation that seems appropriate and nondiscriminatory to us is “people facing situations of disability.”

The third term to be examined and clarified concerns the central focus of our discussion, namely accessibility/scope. The Larousse dictionary offers two definitions for this term. Accessibility is “the quality of something or a place being accessible; the right or possibility for someone to have access to something.”³ When applied to people facing situations of disability, the concept of accessibility has been explored by numerous researchers (Dubois and Mahieu 2002, Larrouy 2007, Beauchamps 2009). Initially linked to disability and addressed through public policy, accessibility has since come to be viewed from a broad, systemic, and empowerment-oriented perspective (Larrouy, 2011).

When broadly defined, accessibility shifts its focus to include all individuals facing disabling circumstances: people with disabilities, refugees, the illiterate, the impoverished, the elderly, and so on. All vulnerable individuals—who are therefore unable to access available equipment and resources on the same terms as others—have the right to access digital services and content. This involves applying the principle of equity (Zaffran, 2015) despite physical, environmental, geographic, and

³ <https://www.larousse.fr/dictionnaires/francais/accessibilite/>

social differences. Expanded accessibility“ to digital technology or vi to digital technology” (Pinède, 2018:3) represents the realization of the “ideal” of the global information society.

The following points emerge from this conceptual review (and the attempt to clarify) of the three key concepts:

- Inflated use of the terms “communication,” “disability,” “accessibility,” “digital accessibility,” and “extended accessibility,” along with terminological and conceptual ambiguity;
- The need to relativize and contextualize these notions to prevent any representational drift or “semantic noise,” to borrow Claude Shannon’s expression;
- The value of qualifying, for example, the concept of communication by characterizing it—as appropriate—with an adjective: “transmissive communication,” “interactionist communication,” etc.;
- Desired use of expressions such as “people with disabilities” or, as we have proposed, “people facing situations of disability” to avoid discrimination and hierarchization;
- The recommended broadening of the concept of accessibility to include all people facing situations of disability or disabling circumstances, regardless of their nature (physical, geographic, social, or other), with the aim of democratizing global access to the digital world.

In light of this conceptual framework (and the accompanying discussion, which highlights the instability of the conceptual apparatus and potential improvements), it is now appropriate to examine the current status of laws and regulations regarding digital accessibility, as well as that of scientific research. Let us begin, first and foremost, with the legal aspect.

2. Extended Digital Accessibility and the “Anthropology” of Laws

In this section, we will focus on the evolution of legal texts pertaining to this issue, while analyzing them in terms of their applicability and impact. We will focus on recent laws, given the abundance and long history of normative discourse produced by various international, regional, and local organizations. In fact, institutional recognition of accessibility is not a recent development. As early as 1948, the Universal Declaration of Human Rights, which includes the rights of people with disabilities, was adopted by the United Nations, whose General Assembly in 1993 approved various provisions aimed at ensuring equal opportunities for the affected population.

Throughout developed countries, in the United States and Europe, legislation and government agencies have addressed accessibility (by expanding it) for the benefit of people with “disabilities.” These initiatives have been guided by the decisions and actions of international organizations and various “pro-disability” associations. In addition to the new WHO classification (WHO, 2001), which expanded the rights of people with “disabilities” by adopting a more progressive, comprehensive, and inclusive approach, other leading bodies (representing different perspectives) have joined this effort. The United Nations and the World Organization of People with Disabilities, to name just two such organizations.

In Europe, the European Parliament established the right of people with disabilities to access digital resources in 2016. In France, Law No. 2005-102, dated February 11, 2005, establishes “equal rights and opportunities, participation, and citizenship for people with disabilities”⁴. Article 47 makes this clear: “Communication services are accessible to people with disabilities under the conditions defined in this article and in accordance with the accessibility requirements set forth by the Council of State decree mentioned in Section V...”⁵ Decree No. 546 of May 14, 2009, implements the aforementioned law by establishing a “fixed accessibility framework” that enables “people with disabilities to receive and understand all types of information disseminated in digital form.”⁶ In Belgium⁷, and in Portugal⁸, policymakers have also demonstrated an interest in digital accessibility for people with disabilities. A bit further from Europe, in Morocco, and in accordance with the 2011 Constitution⁹, the High Authority for Audiovisual Communication (HACA) has committed to launching a website with “responsive design” that is accessible and compliant with the WCAG 2.0 international accessibility standards¹⁰. Admittedly, all the regulatory texts mentioned above seek to promote interactive digital communication for the benefit of the

⁴ France, Law 102 (2005) “Equal Rights and Opportunities, Participation, and Citizenship for People with Disabilities”. In https://www.legifrance.gouv.fr/loda/article_lc/LEGIARTI000037388867/

⁵ Ibid

⁶ Decree No. 2009-546 of May 14, 2009, issued pursuant to Article 47 of Law No. 2005-102.

⁷ Regulation of May 6, 2011, concerning the accessibility of programs for people with sensory impairments. Available at: http://csa.be/system/documents_files/1534/original/CAV

⁸ Article 51, paragraph 2, of the Law on Television and On-Demand Audiovisual Media Services. Available at: <http://www.gmcs.pt/en/television-and-on-demand-audiovisual-media-services-law>

⁹ New Moroccan Constitution adopted by referendum on July 1, 2011. Available at: <https://www.chambrederespectants.ma>. Accessed September 17, 2023.

¹⁰ haca.ma/fr/accessibilite. Accessed September 9, 2023.

people concerned. International, regional, and local laws uphold digital accessibility for this population just as they do for others. However, the enforcement or implementation of these laws remains an issue.

Indeed, scientific research reveals a paradox between “what is recommended and what is actually implemented”—between the law and how it is applied. Digital accessibility is far from being a reality, given the limited number of websites that comply (Klein and al., 2003; Kelly and al., 2007; Griffith and al., 2008). Furthermore, international accessibility standards are rarely followed (Petrie & Kheir, 2007). This situation has led, for example, the European Commission to establish rules to make the websites of public sector organizations accessible to all¹¹. It follows from the above that the “anthropology” of laws promoting accessibility distorts them, to borrow Montesquieu’s idea (Montesquieu, 1948), as revealed by scientific research that has given prominence to the central issue of digital accessibility.

3. The Current State of Science and “Inaccessible Accessibility” for All

In addition to scientists’ findings regarding the limited number of websites accessible to their target audiences, it is worth noting the focus of current research on the added value that digital technology provides to people with disabilities (Lussier-Desrochers et al., 2016; Pinède, 2018). However, to take advantage of these benefits, users must be treated fairly and have access to credible and personalized information (Folcher and Lompré, 2012:89–90).

Digital technology is not accessible to everyone, some researchers note. In fact, older adults, people with physical or mental disabilities, and low-income individuals lacking technological resources are affected by digital accessibility (Lussier-Desrochers et al., 2016). This social dimension, which has been highlighted (Szostak, 2022), is currently the subject of study given its importance. For scholars, digital inclusion is a matter of social justice. (Plantard, 2021). Nevertheless, it requires resources, skills, and tools that this vulnerable population lacks. In this regard, Casilli distinguishes between “empowering technology” and the “disability divide.” While the web facilitates the social inclusion of “people with disabilities” by providing them with access to various information and communication resources, it paradoxically generates negative effects, including numerous “inter-disability” divides (Casilli, 2010: 327).

The scientific analysis presented above, in its current form, reveals numerous anomalies and paradoxes regarding digital access for people facing situations of disability (as proposed to encompass all cases of physical, mental, technical, social, geographic, and economic vulnerability). Scientific knowledge also highlights the problematic complexity of the issue and its social and economic implications. This complexity extends to the terminology used and the relevant laws. For this reason, digital accessibility can only be expanded and addressed through a systemic and universal approach that encompasses multiple political, social, technical, and economic dimensions.

But how can we address expanded digital accessibility—one that is tailored to all people with disabilities, regardless of their profiles, social backgrounds, or origins? The answer to this question is partially addressed by international laws and advocacy groups, as well as by researchers. In reality, laws have clearly evolved (as exemplified by the WHO’s International Classifications of Functioning, Disability, and Health from 1980 and 2001), drawing on scientific research that has identified terminological ambiguities, “digital divides,” social disparities, and limitations in regulatory texts. At this stage in the evolution of law and science, it would be appropriate to consider the ways and means of capitalizing on the results achieved. In this regard, an educational approach seems appropriate. Indeed, training has the potential to give concrete form to various legal and scientific initiatives. Effectively training translators and interpreters in comprehensive digital accessibility for the benefit of people with disabilities is the path to the autonomy, social integration, and equal opportunities that are expected. However, before formulating our proposal regarding training design, it would be relevant to examine the current state of affairs.

4. Training in digital accessibility: What has been achieved?

To identify various educational works related to expanded digital accessibility, international search engines and databases were utilized. Thus, both general-purpose databases such as Springer and specialized ones such as the Association for Computing Machinery (ACM) and the Education Resources Information Center (ERIC) (which focus on educational sciences) were searched. Data collection took place during the month of May 2023. The literature review also drew on works available at the Regional Center for Education and Training Professions¹². With regard to the articles used, the review was limited to those published in journals indexed in Scopus.

The reviewed literature highlights a growing awareness among policymakers and educational planners of the crucial importance of training in digital accessibility. This awareness is reflected both in the decisions made and in the diversity of

¹¹ http://europa.eu/rapid/press-release_IP-12-1305_fr.htm

¹² The Regional Center for Education and Training Professions is a higher education institution located in Tangier, Morocco. This center provides initial and continuing training for teachers,

offerings: teacher training programs, instructional materials, master's degrees, module components, and competency frameworks.

Article 24 of the United Nations Convention on the Rights of Persons with Disabilities emphasizes the dual function of inclusive education: creating an environment adapted to this situation and combating stereotypes¹³. In 2009, UNESCO-IBE and the European Agency for the Development of Education for People with Special Needs launched the project titled "Education for Inclusion in Action." This project focuses on teacher training with the aim of preparing teachers to work in an inclusive setting¹⁴. The 48th session of the International Conference on Education urges policymakers to accept the premise that: "inclusive education is a constantly evolving process that aims to provide quality education for all, while respecting diversity" (Acedo, 2008).

Although not exhaustive, this overview of international recommendations demonstrates the priority that is being placed on training trainers in the field of accessibility in general. However, implementing these recommendations is not straightforward. The literature highlights the gap between theory and practice (Mattson, 2006; Muñoz, 2009). With this goal of operationalization in mind, a variety of studies have been conducted. For example, note the project to develop competency frameworks for digital accessibility and the call for preparing teachers to adapt to different needs (Pugach and Blanton, 2009). It is also worth noting the need to design initial training for teachers that is free from prejudice and focused on an egalitarian pedagogical. (Hollins and Gunzman, 2005). Other initiatives to implement digital accessibility have taken the form of modules, degrees, or courses. However, these diverse training initiatives—whether recommended or implemented—target specific countries (Europe, the United States, etc.) and focus on the population of people with disabilities without taking into account its heterogeneity ("people with disabilities" and social classes; "people with disabilities" and the North-South divide, etc.). These initiatives only partially reflect the current state of scientific knowledge and the law. Finally, other forms of disabling situations are not taken into account. Given these shortcomings, and in light of the international laws enacted and the scientific research conducted on behalf of these vulnerable individuals, a comprehensive, practical, and inclusive training initiative (centered on a shared global vision) for extended digital accessibility is urgently needed.

5. Common International Framework for Extended Digital Accessibility (CIFEDA)

This paper aims to partially address the identified gap. This is an initiative in the field of training engineering; an initiative that is international, systemic, and comprehensive in nature. It is intended for university-level trainers of trainers in extended digital accessibility. This contribution takes the form of a web, the Common International Framework for Extended Digital Accessibility (CIFEDA). Here is a description of it.

The CIFEDA is a reference document consistent with the values of an inclusive, democratic, and universal society. It is aligned with the recommendations of advocacy groups and international laws, defending the right of people with disabilities to access digital opportunities and, consequently, to information and communication. The CIFEDA offers added value in terms of ethics and equity, as it addresses the needs of all people facing disabilities Translator Training in the Digital Age¹⁶ across all categories (the impoverished, refugees, people with physical or mental disabilities, the elderly, etc.). Hence the addition of the qualifying adjective "extended" (extended accessibility). Backed by scientific and technological advances, the framework is also adapted to new ideas proposed by researchers. It encourages the adoption of a permanent strategic monitoring approach to training. In addition to this systemic and evolving focus, the work is ultimately grounded in a co constructivist and interactionist pedagogy based on the action-oriented approach and project-based learning.

5.1 Prolégomènes

The Framework is based on four core principles aligned with the spirit of the law, the recommendations of nongovernmental organizations, and the findings of ongoing research.

- **Universality:** Digital accessibility is intended for people with disabilities, wherever they may be. This applies to both Northern and Southern countries. CIFEDA is aimed at global citizens and is designed to be used by all instructors and in all higher education institutions dedicated to translation.
- **Inclusivity:** The framework aims to democratize digital accessibility. It broadens its scope of application. It targets all individuals regardless of disability. Racial and social discrimination are prohibited.

¹³ UN. (2006), "United Nations Convention on the Rights of Persons with Disabilities," Article 24

<http://www.un.org/disabilities/>

¹⁴ UNESCO-IBE, Special Education Division. (2009), Project for "Inclusive Education in Action." In

<https://www.ibe.unesco.org/fr>

- **Systemic Approach:** “Reliance” (Bolle De Bal, 2003) characterizes the perspective that emerges through this framework. Communication, digital technology, disability, and accessibility are approached as complex and interdependent realities to be handled with care within a multidisciplinary framework, from various angles.
- **Adaptability:** The multifaceted content of the framework is dynamic and evolving. It involves the continuous construction, deconstruction, and reconstruction of competencies and objectives in light of advances in the social sciences, law, and communication sciences.

5.2 Three level planning

To ensure overall coherence, CIFEDA examines the three levels of educational planning: strategic planning, curricular planning, and operational planning. Strategic planning focuses on the overarching vision of an educational system. This vision is embodied by a specific set of objectives. The framework highlights an integrative and contextual vision of digital accessibility. It adopts a systemic approach that combines scientific, social, and economic perspectives. Finally, its relativistic dimension is evident in that it takes into account the complexity of phenomena and concepts.

With regard to curriculum planning, the focus is on “the development of curricula, from their design to their evaluation” (Pelletier and Huot, 2017: 5) . CIFEDA advocates for the development of curricula that embody the stated guidelines and objectives. Furthermore, adopting a strategic monitoring approach is recommended, as this will enable programs to be updated in light of legal, scientific, and technical advances. During curriculum planning, a hybrid pedagogy combining the action-oriented approach and “pedagogical project management” should be used.

Operational planning is commonly defined as the implementation of the content outlined in the curriculum. In our case, we limit ourselves to the essentials, namely the formulation of competencies and the corresponding objectives. As for competencies, there are two: first, disciplinary and technical competencies (translation/interpretation and proficiency in technologies and high-performance software useful for standard practices: dubbing, subtitling, audio description, etc.). In addition to these procedural aspects, there are behavioral competencies (empathy, caution, a sense of fairness, etc.). As for the objectives, they naturally stem from the competencies and are aligned with the selected pedagogical approaches.

5.3 Target audience

As part of training design, CIFEDA is intended for trainer-trainers. This includes faculty members and researchers specializing in translation and interpretation. They are encouraged to adapt the proposed document to their specific context. However, the framework is also intended for decision-makers involved in strategic planning. They could use it to inform their future vision of education, training focused on broad accessibility, and, more generally, on diversity.

5.4 Objectives or expected Outcomes

Putting the framework’s guidelines into practice should enable trainers to achieve the objectives listed below:

- Provide people with disabilities of all types with access to digital resources;
- Enable these individuals to participate in all digital activities, whether for entertainment or economic purposes;
- Empower this group both technically and socially.

5.5 Information Sources/Stakeholders

To provide meaningful training that keeps pace with changing realities, the framework identifies the information sources to be used and the various stakeholders, as follows.

- Websites of international organizations (WHO, ONU, UNESCO, etc.);
- Associations;
- Colleges and schools of translation and interpretation;
- Colleges and schools specializing in ICT (artificial intelligence);
- Research centers (CNRS, etc.);

- A panel of people with disabilities (representative sample).

5.6 “Competency-based” profile of the teacher to be trained

The training of instructors under the CIFEDA framework, based on the above, aims to develop specific skills—divided into two categories—in future instructors of “disability- inclusive” digital accessibility. First, the following disciplinary/technical skills are identified:

- Effectively use artificial intelligence tools (programming, Big Data, cloud computing, etc.);
- Effectively employing the tools and techniques of subtitling, dubbing, and audio description;
- Understand the principles and functioning of synergology;
- Make effective use of semiology.

On the other hand, social and interpersonal skills are just as important as the previous ones. Below is a list of them.

- **Imagination:** the ability to easily come up with ideas and handle unexpected situations;
- **Empathy and perspective-taking:** understanding the ideas and emotions of people with disabilities. Rational empathy and rational empathy.
- **Curiosity and openness:** staying informed about current events, comparing oneself to others, and updating one’s processes;
- **Sociability and interpersonal skills:** working as part of a team, involving others (collaborating).

5.7 The e-portfolio or accessible assessment

CIFEDA approaches training in terms of “empowering assessment.” In fact, we use an advanced form of assessment, consistent with the autonomy we generally seek. We have opted for the e-portfolio, which combines digital technology with the dual practice of co-evaluation and self-evaluation (peer evaluation and self-assessment). This dynamic portfolio is accessible to:

- Teachers;
- Students;
- Traditional and digital media professionals;
- People with any type of disability.

The E-portfolio serves a number of functions grouped into four categories:

- Learning assessment (self- and peer-assessment);
- Integration by professionals of new issues related to people with disabilities, their evolving needs, and their concerns;
- Addressing these issues by students through case studies, lab/tutorial sessions, or projects;
- Continuous adaptation to current scientific and technological developments (strategic monitoring)

5.8 A multifaceted portfolio with multiple sections

In line with the intended purposes, principles, and objectives, the portfolio’s structure is organized around five sections, each dedicated to a specific area of focus.

“Innovations” section: projects promoting digital accessibility;

- **Section:** a database of real-world problems to be addressed (provided by professionals);

- **Section:** Self- and peer-assessment of learning outcomes;
- **Space:** sharing of successful experiences, suggestions, and concerns (forum = feedback and forward-looking adjustments);
- **Space:** action research.

In closing, it must be emphasized that CIFEDA is an educational initiative related to the initial and continuing training of instructors in expanded digital accessibility. Although it falls under curriculum planning, the framework serves as a foundation for strategic planning because it offers an innovative perspective that aligns with evolving laws and scientific advancements. It indirectly fosters coordinated and interactive communication among the various stakeholders. With an international scope, the framework promotes the values of inclusivity and diversity.

Conclusion

At the conclusion of this two-pronged research effort combining critical reflection and pedagogical practice, it is important to recognize the complexity of the issue at hand, with its multiple intertwined and interdependent linguistic, legal, scientific, social, and economic aspects. This complexity leads to distortions in understanding (reductionism and a rigid perception of reality) and, consequently, in how the issue is addressed, resulting in significant discrepancies between laws and their “anthropology,” and between laws and scientific research.

From a linguistic perspective, examining the concepts in use (communication, disability, accessibility/digital) has revealed imprecisions and ambiguities that have a clear impact on the perceptions of legal professionals, civil society actors, and practitioners in the field (nonprofits, digital professionals, etc.). To address these shortcomings, adjustments were proposed in the form of adjectival qualifiers (communication that is “transmissive or interactionist,” as appropriate; “extended” accessibility) or phrasing with inclusive and euphemistic connotations (“people facing situations of disability”).

The state-of-the-art review highlighted the various initiatives undertaken in the legal field related to the issue at hand. A positive trend was observed. Analysis of international laws and recommendations revealed progress regarding the approach to accessibility in general and digital accessibility in particular. In this regard, changes were identified not only in terminology and concepts (such as the shift from the term “people with disabilities” to “people in situations of disability”) but also in functional terms (for example, the successive WHO classifications of 1980 and 2001). However, despite these changes, limitations regarding the widespread implementation of these normative texts have been highlighted and analyzed.

From a scientific perspective, the current state of knowledge has highlighted paradoxes between the benefits of digital technology for people with disabilities and its limited accessibility (given “intra- and inter-country” social disparities, between the informational and communicational resources of the web and technical or instrumental barriers (“enabling technologies” and the “disability divide”), between the expected digital inclusion and the actual exclusion observed, and between theory and its problematic implementation.

This final paradox has led to the identification of shortcomings in initiatives related to digital accessibility training. Training programs (master’s degrees, competency frameworks, modules, and courses) are not aligned with scientific and legal advancements; they are fragmented, regional, and isolated, and furthermore, do not adapt to the diverse needs (Pugach and Blanton, 2009) of this vulnerable population. This situation has led us to formulate an alternative proposal for training design by developing a Common International Framework for Extended Digital Accessibility (CIFEDA) intended for trainers of translation instructors. Based on a systemic, orchestral, and inclusive approach, this framework aims to establish a dynamic, evolving training process that is implemented in real-world contexts and grounded in ongoing advances in science and the law.

However, certain limitations and future directions warrant discussion, implying potential extensions and thus opportunities for improvement of this inaugural study. CIFEDA requires modeling to be carried out to make it more operational, using the UML (Unified Modeling Language) tool. Another prospective study involves measuring the impact of this framework based on a representative experiment. Ultimately, the conceptual clarification achieved requires more in-depth studies to solidify the reference concepts. The ultimate goal is the legal, scientific, social, and educational promotion of diversity and equity so that the community of contextually vulnerable individuals can achieve autonomy.

Prospects for Empirical Validation

This research constitutes the first stage in the design and formalization of the CIFEDA model. Although the model is based on theoretical and conceptual foundations drawn from the literature on digital accessibility and the integration of digital technology into translator training, it must be tested and implemented to validate it. As a follow-up to this research, we aim to conduct an experimental study with faculty members specializing in translation and interpretation to evaluate the model's feasibility, relevance, and pedagogical effectiveness in real-world educational settings. This phase will allow us to examine the model's various components and the extent to which instructors adopt the model by involving them in the design of their courses, their instructional resources, and their assessment methods.

Thus, this proposal is intended to serve as a theoretical and conceptual framework that will be progressively tested, adjusted, and refined through empirical research. The proposed experimental study will constitute a crucial step in moving from the conceptual development of the CIFEDA model to the evaluation and testing of its actual use in real-world settings.

References :

- ACEDO, C éditeur. (2008), Perspectives, Revue trimestrielle d'éducation comparée, Vol. XXXVIII, n° ISSN : 0304-3045 N145.
- BEAUCHAMPS, M. (2009), « L'accessibilité numérique. Transformer le risque de renforcement des inégalités numériques en opportunité », Les Cahiers du numérique, vol. 5, n° 1, pp. 101-118.
- BOLLE DE BAL, M. (2003), « Reliance, déliance, liance : émergence de trois notions sociologiques », Sociétés, vol. no 80, n°2, pp. 99-131.
- CASILLI, A. (2010), Les liaisons numériques. Vers une nouvelle sociabilité, Seuil, coll. « La couleur des idées », 331 p.
- FOLCHER, V./ LOMPRES, N. (2012), « Accessibilité pour et dans l'usage : concevoir des situations d'activité adaptées à tous et à chacun », Le travail humain, vol. 75, n°1, pp. 89-120.
- HOLLINS, E./ GUZMAN, M.T. (2005), Research On Preparing Teachers for Diverse Populations. In M. COCHRAN-S./ZEICHNER, K.M. (dir.), Studying Teacher Education : The Report of the AERA Panel on Research and Teacher Education (p. 477-548). Washington, DC : American Education Research Association.
- LARROUY, M. (2011), L'invention de l'accessibilité : des politiques de transports des personnes handicapées aux politiques d'accessibilité de 1975 à 2005, Grenoble, Presses universitaires de Grenoble, 297 p.
- LASSWELL, H. (1938), Propaganda Technique in the World War, New York, Edition, reprint.
- MATTSON, E. (2006), Field-Based models of primary teacher training. Case studies of student support systems from SubSaharan Africa, Cambridge, International Research Foundation for Open Learning.
- MONTESQUIEU, C-S. (1748), De l'esprit des lois (Texte de 1758), Genève, Flammarion.
- PELLETIER, P. /HUOT, A. (2017), Construire l'expertise pédagogique et curriculaire en enseignement supérieur : connaissances, compétences et expériences, Presses de l'Université du Québec (PUQ).
- PETRIE, H./ KHEIR, O. (2007), « The relationship between accessibility and usability of websites », Conference on Human Factors in Computing Systems, CHI, San Jose, California, 28 avril - 3 mai. 379-406.
- PINÈDE, N. (2018), « Penser le numérique au prisme des situations de handicap : enjeux et paradoxes de l'accessibilité », TIC et Société, Vol. 12, n° 2 | 2ème semestre, P.9-43.
- PLANTARD, P. (2021), « La fracture numérique : mythe ou réalité ? », Éducation Permanente n° 226.
- PUGACH, M./BLANTON, L. (2009), « A framework for conducting research on collaborative teacher education », Teaching and Teacher Education 25(4):575-582 <https://www.researchgate.net/publication>.
- RIZZA, C. « La fracture numérique, paradoxe de la génération Internet », Hermès, La Revue, vol. 45, no. 2, 2006, pp. 25-32.
- SHANNON, C. (1948), « A mathematical Theory of Communication », The Bell System Technical Journal, Vol. 27, pp. 379-423, 623-656.
- SARTRE, J-P. (1976), L'être et le néant, Essai d'ontologie phénoménologique, Paris, Gallimard.
- SOUPIZET, J-F.(2004), La fracture numérique Nord-Sud, Collection Nouvelles technologies de l'information et de la communication, Paris, Librairie Eyrolles.
- SWAIN, D-J/ FRENCH, S./BARNES, C/THOMAS, C (2004), Disabling Barriers -Enabling Environment, 2ème édition, London, SAGE Publications.
- VENDRAMIN, P./ VALENDUC, G. (2006), Les impacts de l'informatique sur les métiers et les compétences. In : Akoka Jacky, Comyn-Wattiau Isabelle, Encyclopédie de l'informatique et des systèmes d'information, Vuibert : Paris, p. 1612-1622 (Ouvrage collectif).

- VERITY, D./WATKINS, A « Former les enseignants à l'inclusion en Europe », La nouvelle revue de l'adaptation et de la scolarisation, vol. 55, n°. 3, pp. 11-16.
- WATZLAWICK, P, (1967), Une logique de la communication, trad. fr, rééd, Seuil, coll. « Points essais ».
- Wolton, D. (2009), Informer n'est pas communiquer. Paris, CNRS Éd., coll. Débats.
- ZAFFRAN, J. (2015), Accessibilité et handicap, Grenoble, Presses universitaires, p.p.15-48.
- COMMISSION EUROPEENNE. (2012), « Stratégie numérique ». In http://europa.eu/rapid/press-release_IP-12-1305_fr.htm
- FRANCE, LOI 102 (2005) « l'égalité des droits et des chances, la participation et la citoyenneté des personnes handicapées ».
- In https://www.legifrance.gouv.fr/loda/article_lc/LEGIARTI000037388867/
- GUTERRES, A. (2021), Discours officiel. In : <https://press.un.org/fr/2021/ag12339.doc.htm>
- <https://www.larousse.fr/dictionnaires/francais/accessibilite/C3%A9/421>
- ONU (1948), « Déclaration universelle des droits de l'homme ». [Universal Declaration of Human Rights.] In : <https://www.un.org/fr/universal-declaration-human-rights/>
- ONU. (2006), Convention des Nations unies relative aux droits des personnes en situation de handicap [United Nations Convention on the Rights of Persons with Disabilities], Article 24. In <http://www.un.org/disabilities/>
- ONU, DECLARATION UNIVERSELLE DES DROITS DE L'HOMME [UNIVERSAL DECLARATION OF HUMAN RIGHTS], ARTICLE 19 : <https://www.un.org/fr/universal-declaration-human-rights>
- UNESCO-BIE, AE pour le développement de l'éducation des personnes aux besoins spécifiques. (2009), Projet pour « l'éducation pour l'inclusion en action ». In <https://www.ibe.unesco.org/fr>.