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ABSTRACT

The contribution arises from the reflection on the concept of special educational needs, on what does not fall within the “normotipicity”. Operating an effective representative distinction is not easy. School classrooms are a huge puzzle of differences in which each individual contributes with his own piece of work. Diversity is normal if to include means to open up to the “ecological” needs of each subject. This involves the choice of suitable contexts, effective learning environments and universalizable methodologies such as the UDL for a democratic teaching where digital promotes the uniqueness to be shared.

Il contributo nasce dalla riflessione sul concetto di bisogni educativi speciali, su ciò che non rientra nella “normotipicità”. Operare un distinguo efficacemente rappresentativo non è facile. Le aule scolastiche sono un enorme puzzle di differenze in cui ogni individuo contribuisce con il suo tassello. La diversità è normalità se includere significa aprirsi ai bisogni “ecologici” di ogni soggetto. Ciò comporta la scelta di contesti adeguati, ambienti di apprendimento efficaci e metodologie universalizzabili come l’UDL per una didattica democratica in cui il digitale favorisce l’unicità da condividere.

KEYWORDS

Inclusione, digitale. progettazione digitale
Inclusion, digital, digital design

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Introduction¹

The evolution of legislation in Italy from Act 517 of 1977 to Legislative Decree 66 of 2017 photographs a growing attention to diversity. Forty years of studies and research have shaped new paths to reduce the perceptual and practical gaps in relation to educational needs. Today the study scenery illustrates a better reception of the different from us, also in consideration of a social flexibility that shares and accepts the typicality of the individual.

To welcome, however, is not to include. Inclusion is a gradual process of transformation that aims at the development of a society open to "differences", which transcends, indeed, the idea of difference by embracing the speciality of uniqueness. This address starts first and foremost from school, where the citizen of the future learns the three pillars that will support his life: education, scholastic education, training.

In the synergy of intentions and practices with the other educational agencies, the school must be a privileged witness of a place open to confrontation, it itself promotes divergent acts aimed at promoting pedagogical, structural and organizational changes. To this, digital media, vehicles of messages and culture, are configured as allies in an inclusive education because of their inherent nature that uses various learning channels, drawing on self-esteem and the development of ad hoc skills that promote different learning styles. The support of new technologies, furthermore, facilitates the full application of the productive interaction between subject and context as the digital, wisely used in the classrooms with universalizable methodologies allows to bring out the gifts of the individual, creating equity and equal opportunities.

Regulatory and social context

After a long period characterized by the exclusion of persons with disabilities from the common schools, i.e. those schools and classes attended by able-bodied students, since the 70s of the last century, in Italy, a normative excursus aimed at the integration and inclusion of disabled students within the classes frequented

¹ This paper is the result of the shared work of the authors; however, for the purposes of the attributions of its individual parts, it is divided as follows: Angelina Vivona e Ida Caruccio: Introduction and Conclusions §§; Ida Caruccio: Regulatory and social context and Accessible learning environments and assistive technologies §§, Patrizia Consalvo: § Agid Guidance Lines and Genesis of the UDL; Angelina Vivona Inclusive digital design §§

by the rest of their peers has been witnessed. The law No. 118 of 1971 was promulgated, "Conversion into law of D.L. 30 January 1971, No. 5 and new rules in favour of the civilian mutilated and disabled".¹ Specifically, article 28 stipulated that "The education of the duty must take place in the normal classes of the Public School". However, the above-mentioned forecast remained unimplemented. Where it was done, the inclusion of the disabled student in the normal classroom was called "wild", as it was characterized by the mere presence of the student with disabilities in the classroom. The path that led Italy towards the active participation of all students in school life received an important impetus with the establishment, in 1975, of a Ministerial Study Commission chaired by Hon. Franca Falcucci, in which representatives of the associations of parents of children with different skills also took part. The final report of the Commission's work is a blame on the school system with regard to disabled pupils. In this important document were laid the foundations for the subsequent steps, so much that from there gradually came the emanation of the law 517 of 1972 with which it was established that "the disabled student has not only the right to education and training, but to the common processes of socialization, learning and full participation in the dynamics of the classroom with the help of the specialized teacher and beyond". A fundamental step in the integration of persons with disabilities into life, so much that it still constitutes an indisputable point of reference in this area (Gandolfi S. 2006), was the enactment of the law 104 of 1992 entitled "Framework law for the care, social integration and the rights of people with disability"³. This intervention marks the transition towards a full takeover of the person with disabilities, offering protection and rights for full integration. After having legitimately led all the disabled to public schools, the pedagogical world wondered whether that could be enough, or whether, on the contrary, the process, which has now been initiated, could not lead to much more substantial results. A decisive step forward has been made thanks to the dissemination of the perspective proposed by O.M.S. which embraces the new bio-psycho-social model of classification of disability «ICF» (International Classification of Functioning, Disability and Health, 2001), in which the person should not be considered only in relation to the diagnosis, but, in the development of his potential, personal characteristics and competences. This vision has produced a new way of designing activities for students with disabilities, focusing on their functioning rather than on an abstract diagnosis.

The Convention on the Rights of Persons with Disabilities, approved by the General Assembly of the United Nations in 2006 and ratified in Italy by Law

18/2009 1, states among its purposes that “to promote, protect and guarantee the full and equal enjoyment of all human rights and fundamental freedoms by persons with disabilities and to guarantee respect for their inherent dignity”. In particular, in the area of education, it states that “States Parties shall promote an inclusive education system at all levels and lifelong learning”. We are therefore moving towards a logic of inclusion. “This Convention, in assuming the ICF perspective and in sharing the conception of the social model of disability, i.e. the bio-psychosocial and anthropological-educational value according to which disability is due to the interaction between the functioning deficit of the individual and the social, cultural and personal context in which he lives, represents the highest expression of the promotion of the rights of persons with disabilities and recognizes the high value of common and inclusive educational contexts, in order to an integrated primary and secondary education, of quality and free”(Schianchi M., 2009). Attributing importance to elements of a socio-environmental and cultural nature has helped to broaden the number of pupils who need individualized and personalized educational responses, in terms of context attention, adoption of teaching-learning methodologies centered on the student (puerocentric) and not on the teacher (magistrocentric). (ICF-CY 2007). Speaking in this regard of "special educational needs" (SEN).

This expression was introduced by the Ministerial Directive of 27 December 2012, entitled "Instruments of intervention for pupils with Special Educational Needs and territorial organization for school inclusion". The first part of this directive states that the area of school disadvantage is wider than that which can only be attributed to the presence of deficits. In fact, in each class, there are, often, cases that present, even in the absence of a disability, the need for special attention for a number of reasons. Of all these cases, the directive in comment gave a comprehensive description, identifying categories:

- that of disability (regulated by law 104/1992),
-that of the specific evolutionary disorders (including the specific learning disturbances, cd. D.S.A., regulated by law 170/20101 and the attention deficit and hyperactivity disorder, CD. A.D.H.D.),
- that of the socio-economic, linguistic, cultural disadvantage (Valsecchi G., 2013) including the difficulties arising from the lack of knowledge of the Italian culture and language because belonging to different cultures. Some of the above cases, although they relate to the area of psycho-physical well-being, give rise to special needs not arising from disability; while others, they are completely out of the bio-psychic characteristics,

falling into the social sphere that can also constitute a barrier or a facilitator of the environment in which the student is inserted.

It is therefore essential to influence the context in which the disabled person is encountered; So much so that the I.C.F. (International Classification of Functioning, Disability and Health), a new model of classification of health, drawn up in 2011 by the World Health Organization, puts at the centre of this approach the concept that while the “deficit” is present in the subject (understood from a bio-psycho-social point of view) and cannot be eliminated, the disability is nothing more than the result of the encounter or collision between the individual (personal factors) and the context (environmental factors) that can assume in relation to the first, a role of facilitator (of learning, communication) or a barrier. It follows that, under certain conditions, the deficit may not even lead to a disadvantage. But I.C.F. does more: focuses on the functioning of the subject, on his potential, regardless of the disability he has. And on the other hand, just as the able-bodied subjects “function” each in its own way, we do not see why the functioning of persons with disabilities should be assimilated according to disease. According to this approach, to make an assessment of the functioning of a subject (disabled and non-disabled) it is necessary to observe the six components of the system (body functions, body structures, activity, participation, environmental factors, personal factors), divided, in turn, into domains. The evaluation is expressed through a “qualificator” of a numerical nature that expresses the existence or not of the operation, with reference to the “performance” and the ability to express themselves to the maximum of the subjective potential. From this, one can conclude once again the importance that the I.C.F. attributes to the environment, thus understood as an element that can influence positively or negatively the functioning of the person, which can therefore result in different results depending on the environment in which it operates. And in this approach, the context plays a key role: The contextual factors, in fact, must prove to be facilitators of inclusion, not barriers, understood by the latter all those factors that limit the inclusion and realization of the person in its innumerable facets.

The fluid society, based on the production of knowledge and personalized content, allows universal access to information and learning, but is this really so obvious? How to take action to include all the most fragile categories of society remains a question that requires constant research and experimentation. In pedagogical practice, there is a need to concrete school regulations and policies by putting the person at the centre of the process, who is allowed to participate fully in all aspects of school life. In this direction, the European Community, in the Lisbon 2020 strategy, has intervened with specific directives aimed at the creation

of a single information area, preparing investments in the ICT sector to facilitate the realization of an inclusive European information society¹. In the educational field, research related to digital and ICTs aims to analyse the inclusive potential of the sector, also based on the philosophical and pedagogical research that has allowed, over time, to give real value to the practices of inclusion and cooperation. From a theoretical point of view, the basis of the concept of inclusion and cooperation is Bronfenbrenner's ecological theory, which details how and to what extent the social environment influences the development of the person. The context of belonging influences and conditions all planes of personal life to the point that the thoughts, emotions, tastes and preferences of the subject would be strongly determined by different social influences. Bronfenbrenner thus considers man as an active constructor of the meanings that surround him and in this technology plays a fundamental role not only because it provides new devices, but above all because it offers new learning environments, inclusive and ecological

Accessible learning environments and assistive technologies

The social and ecological model of disability stems from the discovery that disability is more a social practice than an individual condition. A person may have a particular disability, but it is the impact of decisions taken by society that makes him/her disabled (Oliver 1996; Finkelstein 1980). A person who uses a wheelchair may have a specific motor disability, but it is the lack of ramps for wheelchairs that causes him/her to be unable to enjoy what is reserved for others. However, defects that might encounter significant disabling environments in the analog world, may have a smaller impact when using the Internet. There is no doubt that the digital system offers many possibilities for inclusion, but in order to this, it must ensure access to all students and, unfortunately, this is not always the case or it is not something that can be taken for granted. The adoption of traditional teaching supported by digital has a number of advantages: greater flexibility for both students and staff (Heijstra & Rafnsdottir 2010), efficient and economical distribution of teaching materials, presentation of content in multiple modes (e.g. virtual learning environments, digital archives, multimedia, web portals and discussion forums)

Digital and digital learning can promote inclusion because it allows students who, for various reasons, are unable to attend lessons to attend classes (Fichten et al 2009); as well as the digitization of the materials provided, favours all those who need a personalization of the structure of the document to be studied (you think,

for example, the possibility of modifying the font for the dislexic subjects or the size of the font, for the visually impaired subject; In addition, electronic text can be read aloud and translated into braille, audio files can be transcribed electronically as text). However, these benefits are not limited only to students with disabilities; Accommodations made for the design of accessible courses help, in fact, all students and share them in their use, which promotes quality inclusion. Technologies such as web-based teaching systems are valuable for both students with disabilities and the wider student population (Williams & Fardon 2005).

The World Wide Web Consortium (W3C) is an international organization aimed at developing high-quality web standards that will inspire web designers. Led by Web inventor and director Tim Berners-Lee and C.E.O., Jeffrey Jaffe, the goal is to disclose some design principles that should inspire the entire Web. One among them is to make the opportunities offered by the web accessible to everyone, regardless of language, geographical location, physical, mental and hardware skills used. The web, from a read-only tool, has become a tool for sharing information and communication. From here, the need arises to identify principles of architecture and design of web pages that allow everyone the possibility to fully use the potential offered. On this point, the W3C Web Accessibility Initiative published the first version of the Web Content Accessibility Guidelines in 1999 to help authors and developers create web content that is accessible to people with disabilities. Failure to comply with these recommendations results in the impossibility or, in any case, the difficulty, for some users, to access a lot of information. The guidelines are 14 and each of them includes its own objective, the underlying logic, a series of definitions of checkpoints, i.e. those parameters used by those who review a page or a site to assess its accessibility. In general, the logic that inspires the guidelines is inspired by the usability of the Web by users with various needs, requirements that must guide developers at the design stage. Think of those who are unable to see, hear or move, those who have difficulties in reading rather than understanding the text, in using a keyboard or a mouse, or who have difficulty in understanding the language in which the content is disseminated. The following are the 14 WCAG 1.0 accessibility guidelines of 1999

- 1) Provide equivalent alternatives to audio and visual content.
- 2) Do not rely only on color.
- 3) Use markers and style sheets and do so appropriately.
- 4) Clarify the use of natural languages.
- 5) Create tables that turn elegantly.
- 6) Make sure that the pages that give room to new technologies are transformed in an elegant way.

- 7) Ensure that the user can keep track of content changes over time.
- 8) Ensure direct accessibility of embedded user interfaces.
- 9) Design to ensure device independence.
- 10) Use provisional solutions.
- 11) Use the technologies and recommendations of the W3C.
- 12) Provide information for contextualization and guidance.
- 13) Provide clear navigation mechanisms.
- 14) Ensure that the documents are clear and simple.

In 2008, the W3C updated the WCAG to version 2.0, simultaneously publishing a set of documents (“How to Meet WCAG 2.0”, “Understanding WCAG 2.0” and “Techniques for WCAG 2”) with the objective of clarifying the meaning of the guidelines, providing examples and concrete references on the main technologies for creating, transmitting and displaying information on the web. WCAG 2.0 is based on four universal principles of accessibility, which in turn are expressed in a total of 12 guidelines

Principle	Guidelines
Principle 1 - Perceivable	1.1 Text alternatives: Provide text alternatives for any non-text content so that it can be transformed into other usable forms according to user needs such as enlarged printing, Braille, voice synthesis, symbols or a simpler language.
	1.2 Types of timed averages: Provide alternatives for timed average types.
	1.3 Adaptable: Create content that can be represented in different modes (for example, with simpler layouts) without losing information or structure.
	1.4 Distinguishable: Make it easier for users to see and listen to content by separating foreground content from background
Principle 2- Usable	2.1 Accessible from keyboard: Make it easier for users to view and listen to content by separating the content in the foreground from the background.
	2.2 Adequate time available: Give users enough time to read and use content
	2.3 Convulsions: Do not develop content that may cause seizures.
	2.4 Navigable: Provide user support to browse, find content,

	and locate.
Principale 3 - Comprehensible	3.1 Readable: Make text readable and understandable
	3.2 Predictable: Create web pages that appear and are predictable.
	3.3 Assistance in insertion: Help users avoid errors and make it easier to correct them.
Principle 4 - Robust	4.1 Compatible: Ensure maximum compatibility with current and future user programs, including assistive technologies.

Figure 1 (Fonte:<https://www.w3.org/Translations/WCAG21-it-20180913>)

The W3C provides a free service for validating web pages to the quality standards identified, although it is not mandatory to receive such validation is undoubtedly useful to improve the quality of web pages.

Agid Guidance Lines and Genesis of the UDL

Following what was happening in the international landscape (vd. para. prec.), in Italy, the CD. law Stanca1 (Law 9 January 2004, n. 4 - G.U. n. 13 of 17 January), entitled "Dispositions for facilitating the access of persons with disabilities to computer tools" was issued, which introduced in our legislation provisions aimed at facilitated access of people with disability to the computer tools of public and private administrations. With Decree-Law No. 76/2020, amendments were made to the Law Stanca, aimed primarily to extend the scope of application to other legal entities not included in the first batch. The implementing provisions of the Law Stanca have been established by Agid (Agenzia per l'Italia Digitale), with the Decision no.117/20221, through guidelines on the accessibility of computer tools, which establish:

- technical requirements for the accessibility of IT tools, including websites and mobile applications;
- methods to verify the accessibility of websites and mobile applications;
- the model of the accessibility declaration that providers are required to provide and periodically update on the compliance of their websites and mobile applications;
- the modalities for monitoring and evaluating the conformity of

websites and mobile applications with regard to accessibility requirements:

- the circumstances in which, owing to a disproportionate burden, the providers can reasonably restrict the accessibility of a website or a mobile application.

In this context, it has been established that public and private providers cannot conclude contracts for the creation and modification of websites or mobile applications if their products do not meet the accessibility requirements set out in the Agid guidelines, except in cases of disproportionate burden. The above-mentioned legislation provides that services can be considered accessible when two requirements are met:

- the accessibility of the content of the service by the user;
- the usability of the information offered, characterized by ease of use, efficiency in use, effectiveness in use and response to the needs of the user, satisfaction in use.

Finally, with Circular No. 25 of 1st August 2022 entitled “Dispositions on the accessibility of websites and mobile applications of private entities”, Assonime (association of Italian joint-stock companies) illustrates the new compliance for some private entity in order to comply with the rules on the accessibility of websites and mobile apps by persons with disabilities. By 5 November 2022, subject to the imposition of a fine by Agid, it is necessary to adapt websites and mobile applications to the accessibility requirements. The school is one of the main educational agencies where you can express your needs, promote educational development and learn to live. In addition, it has the merit of contributing to the change of discriminatory social attitudes, promoting welcoming and inclusive communities. Today, in the school of all and everyone, the need to realize democratic and shared educational projects, oriented to the principles of inclusion with attention to the essential educational needs, which finds response with a flexibility and a heterogeneity of the paths, strategies and teaching methods, “in order to contribute to the development of the maximum and infinite potential” (Savia, 2016) of individuals.

Universal Design for Learning emerges, as an expansion in the field of education, from the principles of the Universal Design movement (UD). The latter is born from an innovative design method, applied in the field of architecture and conceived by the architect Ronald L. Mace of the University of North Carolina, in 1985. On that occasion, Mace defined the U.D. as “the study of the conformation of buildings and products, in order to make them as accessible as possible to all

people, including those with special disabilities and with specific situations of disability” (Cottini, 2017). It’s a quality design with a wide target of users. Universal Design is characterized by universal designs that are useful for everyone but indispensable for someone, especially for people with disabilities, children, the elderly, and other groups that are typically neglected in the design process. Following the principles of Universal Design, an approach called Universal Design for Learning (UDL) is born in the pedagogical and educational field, which introduces the concept of universality. (design for all). The term “Universal Design for Learning” was coined in 1995 by the American research group C.A.S.T. (Center for Applied Special Technology of North Carolina University, founded by D. Rose and A. Meyer), an independent research and development centre, which formulated a series of Principles and Guidelines¹, with the aim of improving the educational quality of all students, regardless of disability or special needs.

“The leading idea of the UDL is at the same time simple and revolutionary because it shifts the concept of disability from the pupil to the curriculum, stimulating the teacher to design educational paths without barriers that facilitate everyone’s access to learning without leaving anyone behind” (Savia, 2016). The UDL has two main objectives: promote the design of flexible educational paths, both in terms of the way in which knowledge is presented and the ways in which students interact, express and engage; reduce barriers that can hinder access to information and learning success for all pupils, with significant repercussions on school inclusion for all. The design method is to ensure the faculty of choice in the design phase, avoiding the recourse in the aftermath adaptations based on the specific needs that emerge, to make the products or environments more accessible and functional with tools available to teachers and students, with the objective of creating a fully accessible and inclusive learning context first. This educational framework aims to ensure adaptability and equity in the educational offer, customizable according to the needs of each student (Savia, 2018)

The UDL focuses on the limitations of the curriculum in the learning processes and not on the student, proposing a model for the creation of educational objectives, methods, materials and evaluations that are valid for all: “not a single solution, a unique one-size-fits-all size, but flexible approaches that can be customized and adapted to individual needs and that facilitate participation, involvement and learning based on personal needs and abilities” (Savia, 2018).

There are four elements that make up the UDL curriculum (C.A.S.T., 2011). Objectives (learning expectations, knowledge, concepts and skills) that all students should master.

The methods, the educational choices, the approaches. The materials (the means used to present the content of learning). Evaluation (the process of collecting information on student performance). The UDL researchers, first in 2008 (version 1.0), then in 2011 with version 2.0 and, finally, in 2018 with the latest version, proposed the following three principles:

Provide multiple means of involvement (the “why” of learning). Each student can be involved and motivated differently. There are several factors that can influence these aspects. Some students love the novelty and can experience it as a stimulus, others prefer the routine and live every new element in a negative way; therefore, it is essential to ensure various options of involvement to offer different incentives to motivate to learn (aspect connected to the emotional network). (CAST 2011).

Provide multiple means of representation (principle linked to the “thing” of learning) of the content, to propose to students different options and modes of assimilation of information and knowledge. Each student, thanks to the diversity of means of representation, can make internal connections and, in this way, learning will undoubtedly be favoured. Therefore, since a single means of representation is not conceivable, proposing many means covering the needs of all.

Provide multiple means of action and expression (the “how” of learning), to offer students the possibility of choosing different alternatives to demonstrate what they have learned. Some may be able to speak well orally rather than in writing, or vice versa. (Figure 2)



Figure 2

Inclusive digital design

The UDL promotes the use of information technology as a means of achieving the objectives of accessibility and flexibility. They allow to present the content in different formats, with activities appropriate to the expression of each student and, finally, encourage the motivation to learn, adapting the languages to cognitive styles, thus responding to the need to guarantee equity in education. Computer technologies make the teaching action more effective when they perform “a complementary function to traditional teaching” (Calvani, 2018), when they facilitate collaboration between students and when they can be used independently by students without the requirement of the control/intervention of teachers. Presenting a digitized text, instead of the written one, offers students the possibility to re-manage it, enlarging the characters, selecting a part of it to paste it next to a meaningful image, attributing different colors to the writing, etc. With the main objective of facilitating the acquisition of a personal and unique learning method. To get students to ask questions about their own learning process is crucial to understanding that each of us learns differently. But if, besides that, we do not offer adequate tools that, precisely, allow the personalization of the course of studies, the objective can hardly be achieved. The following are the four characteristics (Savia, 2018) that present the technologies applied to teaching:

Versatility: It is about the ability to adapt with ease and speed to different tasks, i.e. it allows the same content in digital format to be presented and displayed in

different formats (text, fixed or moving image, sound, combination of text and image) without this involving an alteration of the content. In this case, unlike the static nature of printed media, both the teacher and the student can choose which tool best suits their needs and interact with several of them simultaneously (e.g. text, voice or video).

Transformation Capacity: This refers to the possibility of content moving from one format to another, without its conversion involving a change of the same. This transformation may involve the change of the medium itself or may be an adjustment of the format of the text, the contrast or the background-letter combination; or it can be the conversion of one medium into another, such as from text written in audio and vice versa.

Marking: possibility of highlighting some parts of the document, so that they can be reorganized and reconstructed according to the needs of the students. This allows a teacher, for example, in relation to the same text that a whole group is working on, to select the key paragraphs or sentences, so that they can carry out the activities with students of different levels.

Connectivity: ability to establish relationships and links in the same content or outside, creating connections with additional materials. For example, you can incorporate links that allow you to establish links with other items, with a concept map or a video.

On the side of digital technologies, we cannot fail to mention the Assistant Technology (AT). By this expression, it refers to “any technology, system, object or part thereof that is used to increase, maintain or improve an individual’s abilities”¹. These tools sometimes act as motor support, other times as a teaching aid or as computer devices that allow the individual to communicate. Initially, this system was associated with people with disabilities, who otherwise would not have access to a large number of services. In fact, recently, as it has been seen that anyone can benefit and profit from the use of assisted technologies, the field has been extended to anyone who would like to use them.

On the use of technologies the CAST has specified that they are not the only means of applying the PUA (Universal Design for Learning); therefore, it will be the care of the teacher, to modulate the various technological and non-technological tools, places at his disposal to promote learning and offer everyone the opportunity to become experienced students, i.e. subjects who love to learn strategically and who, with a very flexible and personalized style, are well prepared for lifelong learning. Furthermore, it is worth adding that, in a universal perspective, as well as respecting the I.C.F. approach, an auxiliary technology can also be conceived for

the environment and not just for the user. Indeed, a learning environment that is equipped with technological resources to respond more effectively to specific needs can be considered inclusive, suitable for everyone and characterised by facilitators rather than barriers.

Conclusions

The contribution makes it clear that the ecological needs of not only the SENs, but all of them, can be better met with targeted standards, precise policies and the spread of the digital world. In particular, the high effectiveness of the solutions proposed by technological innovation offers tools and routes suitable for all, able-bodied and non-able-bodied. This, therefore, does not involve a high diversification of educational proposals depending on the type of users, but rather a proposal characterized by high flexibility in the ways and times of use. This responds to the logic underlying the pedagogical approach of Universal Design for Learning and makes Bronfenbrenner's theory stronger when he states that "the ecological system is conceived as a set of structures included in each other, similar to a series of Russian dolls" (Bronfenbrenner, 1986). We are all "special educational needs" and digital, for flexibility and adaptation, could be the place and the tool where to find answers to educational and training needs.

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