https://doi.org/10.1344/REYD2024.2-Extraordinario.49174

La regulación del derecho a la educación digital

La regulació del dret a l'educació digital en català

The Regulation of the Right to Digital Education

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Resumen: Hasta hace muy poco, el reconocimiento del derecho a la educación digital ha sido escaso y lleno de dificultades. Estas complicaciones no solo han sido fruto de la ausencia de regulación sino también de la falta de infraestructuras y recursos necesarios para su efectiva implementación entre el profesorado y el alumnado. La Ley Orgánica 3/2018, de 5 de diciembre, de Protección de Datos Personales y garantía de los derechos digitales, recoge, por primera vez en España, el derecho a la educación digital, no solo como un derecho sino también como una herramienta capaz de contribuir a la calidad de la enseñanza y asegurar la integración del alumnado en la sociedad del conocimiento y de la información. La Ley implica a la Administración educativa en la implementación de este derecho, exigiéndole que incluya la competencia digital en el desarrollo curricular. Asimismo, la norma también solicita que se asegure la formación del profesorado con el fin de que adquiera las competencias y habilidades necesarias para abordar con éxito los procesos de aprendizaje digitales o en línea. Adicionalmente, vincula la formación del profesorado y del alumnado en el uso y seguridad de los medios digitales a la garantía de los derechos fundamentales en Internet. En este artículo se analiza el concepto de educación digital, el derecho a la educación digital, sus antecedentes y el marco normativo vigente en España y Europa.

Palabras claves: derechos digitales, educación digital, derecho a la educación digital, educación en línea.

Resum Fins no fa gaire, el reconeixement del dret a l'educació digital ha estat escàs i ple de dificultats. Aquestes complicacions no només han estat fruit de l'absència de regulació sinó també de la manca d'infraestructures i recursos necessaris per implementar-los efectivament entre el professorat i l'alumnat. La Llei orgànica 3/2018, de 5 de desembre, de protecció de dades personals i garantia dels drets digitals, recull, per primera vegada a Espanya, el dret a l'educació digital, no només com un dret sinó també com una eina capaç de contribuir a la qualitat de l'ensenyament i assegurar la integració de l'alumnat a la societat del coneixement i de la informació. La Llei implica l'Administració educativa en la implementació d'aquest dret, i li exigeix que inclogui la competència digital en el desenvolupament curricular. Així mateix, la norma també sol·licita que s'asseguri la formació del professorat per tal que adquireixi les

competències i les habilitats necessàries per abordar amb èxit els processos d'aprenentatge digitals o en línia. Addicionalment, vincula la formació del professorat i de l'alumnat en l'ús i la seguretat dels mitjans digitals a la garantia dels drets fonamentals a Internet. Aquest article analitza el concepte d'educació digital, el dret a l'educació digital, els seus antecedents i el marc normatiu vigent a Espanya i Europa.

Paraules clau: drets digitals, educació digital, dret a leducació digital, educació en línia.

Abstract: Until very recently, the recognition of the right to digital education has been scarce and full of difficulties. These complications have not only been the result of the absence of regulation but also the lack of infrastructure and resources necessary for its effective implementation among teachers and students. The Organic Law 3/2018, of December 5, on Personal Data Protection and guarantee of digital rights, includes, for the first time in Spain, the right to digital education, not only as a right but also as a tool capable of contributing to the quality of teaching and ensuring the integration of students into the knowledge and information society. The Law involves the educational administration in the implementation of this right, requiring it to include digital competence in the curriculum development. Likewise, the norm also requests that the training of teachers be ensured in order for them to acquire the necessary competencies and skills to successfully approach digital or online learning processes. Additionally, it links the training of teachers and students in the use and security of digital media to the guarantee of fundamental rights on the Internet. This article analyzes the concept of digital education, the right to digital education, its background, and the current regulatory framework in Spain and Europe.

Keywords: digital rights, digital education, right to digital education, online education

1 Introduction

The current Spanish Organic Law on Data Protection (Organic Law 3/2018, of December 5, on Personal Data Protection and guarantee of digital rights, hereinafter referred to as LOPDGDD) has incorporated a range of rights that the legislator had not previously included in a law.

The manner in which these rights have been included, as a "list of rights" (which share a digital aspect or connection to the internet), in a text dedicated to adapting Spanish domestic law to the General Data Protection Regulation may not be ideal. However, at the very least, it has served as a starting point for delving deeper into some of these rights. It is precisely through careful and detailed study that the mere formal declaration of these rights can be avoided and that, within a reasonable time frame, a detailed regulation can be obtained, which in turn facilitates their more effective implementation.

This text analyzes the regulation of one of the rights included in the LOPDGDD, specifically Article 83: the right to digital education. While the regulation is not detailed and comprehensive as desired, it is not an isolated reference either. The law itself also dedicates its eighth and tenth final provisions to this matter. The eighth final provision modifies the Organic Law 6/2001, of December 21, on Universities, by adding a new item "l)" in Article 46(2), which lists the rights of students and includes "training in the use and security of digital media and the guarantee of fundamental rights on the Internet" among these rights.

On the other hand, the tenth final provision does the same with Organic Law 2/2006, of May 3, on Education, by adding a new item "l)" in Article 2(1) of Organic Law 2/2006, of May 3, on Education. This includes among the aims of the Spanish educational system "the capacity to ensure the full integration of students into the digital society and the learning of a safe use of digital media that respects human dignity, constitutional values, fundamental rights, and particularly respects and guarantees individual and collective privacy."

As a culmination of the above, and returning to the LOPDGDD, its twenty-first additional provision is a declaration of intentions titled "Digital Education." It imposes on educational authorities the obligation to "comply with the mandate contained in the second paragraph of

Article 83(1) of this organic law within one year from its entry into force," referring to the content of the article that establishes the right to digital education.

Despite the difficulty of regulating any aspect related to a fundamental right such as education, especially when it is connected to the internet (or "the digital realm"), the information and knowledge society in which we live needed a minimum regulation and affirmation of the right to digital education, a regulation that has been delayed for too long.

2 The Regulation of the Right to Digital Education

As stated in the first paragraph of Article 83, the legislator recognizes the right of students to be integrated into the digital society and to use digital media. It also seeks to connect this right with other fundamental rights and values enshrined in the 1978 Constitution. The responsibility for guaranteeing this right lies with the educational system and, therefore, the educational administration.

The COVID-19 pandemic (which began in 2020) demonstrated that despite the one-year deadline set by the twenty-first additional provision to comply with the law, neither the educational system was prepared to ensure the right to digital education nor had the educational administration (at any level) made the necessary provisions to fulfill the mandate of the law. The necessary tools, teacher training, and suitable hardware and software for both teachers and students had not been adequately anticipated.

The second paragraph of Article 83 states that "teachers shall receive digital competencies and the necessary training for teaching and transmitting the values and rights referred to in the previous paragraph." This is essential and fundamental to make the regulated right an effective reality.

Building on the experience during the 2020 pandemic, it was also evident that school administrators, teachers, and students mostly lacked the necessary knowledge to carry out even a minimum online teaching-learning process that would allow them to continue with their programs and curriculum. Schools, institutes, and universities (especially public ones) were unable to react beyond isolated efforts made by teachers who had already experienced or

voluntarily trained themselves in online or blended learning. Additionally, significant disparities, particularly among students, were observed in terms of access to the necessary devices to participate in classes and lessons conducted online by some institutions.

Three years after the law was published, teachers had not acquired the necessary digital competencies or basic training to make the right to digital education a real and effective right that students could enjoy from their homes. As mentioned before, many of them also lacked the necessary means, either due to a lack of suitable devices or insufficient internet connectivity to sustain video conferencing from their homes.

To incorporate these competencies into the cultural background of teachers, the third paragraph of Article 83 does specify that the curricula of university degree programs, especially those that enable professional performance in student education, shall ensure training in the use and security of digital media and the guarantee of fundamental rights on the Internet. Following this provision, it is evident that one to four years should be expected for graduates of education degrees or teacher training master's programs to incorporate these competencies into their curricula, allowing student learning outcomes to include digital skills and knowledge of the latest digital technology and its various applications. In reality, this is a reasonable and sufficient timeframe for teachers and future educators to acquire these skills and apply them in their day-to-day work, whether in physical or online classrooms.

Finally, Article 83.4 states that "Public Administrations shall include in the syllabi of the entrance examinations for senior positions and those positions that typically involve access to personal data subjects related subjects concerning the guarantee of digital rights, particularly data protection." This aspect is directly connected to the first part of the law, which comprehensively regulates the right to personal data protection and the guarantee of digital rights. .

Now, when we talk about digital education, it is worth considering the enormous scope of this right because, at first glance, it might seem that only online training is being regulated. It is true that, as of today, it is the fastest-growing and most rapidly evolving form of education; however, digital education also involves the incorporation of new teaching models based on a combination

of traditional tools and methods with technology in physical classrooms (such as digital presentations, video conferences, digital storytelling, wikis, online research, blogs, word clouds, social networks, and, of course, current electronic devices - tablets, smartphones, electronic whiteboards, etc.).

If we look at the wording of Article 83 of the Spanish Data Protection and Digital Rights Guarantee Law (LOPDGDD), it seems reasonable to think that the Spanish legislator is designing a guarantee for the right to digital education rather than a pure regulation of such right. However, if we analyze the concept of digital education in depth, as described above, it is evident that its scope is much broader as it not only affects the right itself but everything necessary to achieve the individual's immersion in the digital society. Here lies a first problem, as if the objective is to guarantee a right, it is necessary to specify and fully define its entire content: to know what is meant by digital education, that is, what is the concept of digital education? How can it be defined? It is a process of lifelong learning that utilizes digital tools, technology, and the internet for the acquisition of competencies and skills for learning, both in face-to-face and online modalities.

The legislator and the educational administration have a laborious task if they wish to guarantee the right of access to digital education for students. It is not enough to have appropriate pedagogical tools, smart devices, a good technological infrastructure that provides reliable and robust internet connection, upload content to an LMS or tele-training platform, and evaluate. Digital education requires specific regulations, unique teaching models, adequately trained teachers, and appropriate tools to promote the real and effective exercise of a genuine right to digital education.

3 Background

3.1 Brief Historical Reference

The potential of digital education, in its three versions (face-to-face, hybrid, and online), has led the field of pedagogy to seriously reconsider the individual and collective dimensions of teaching and learning processes, their timing, the way information is structured and presented

for knowledge construction, as well as the responsibilities and competencies of both teachers and learners.

It is undeniable that this process has become more visible in higher education (universities and vocational training centers), as there has been a significant proliferation of institutions that exclusively offer online academic programs, and the number of students in this modality has increased significantly. However, it is also evident that at the lower academic levels, the implementation has been more challenging and the process is still slow, primarily due to a lack of resources to carry it out.

Furthermore, in Europe, the Bologna Process, the community guidelines for the European Higher Education Area (EHEA), and the implementation of the European Credit Transfer and Accumulation System (ECTS) compelled universities to introduce substantial changes in the way knowledge is transmitted. Particularly, universities had to confront a new teaching framework to respond to new models and methodologies that facilitated the inevitable process of pedagogical renewal and the alignment of the education system with the European harmonization mechanisms. Although universities were the ones who experienced this adaptation the most, it has actually permeated the entire system.

However, what does this renewed regulatory and pedagogical framework actually entail? Essentially, it involves a change in the role of the teacher, which evolves and enriches their functions. These functions go beyond knowledge transmission, as teachers assume a new role that involves managing competencies and knowledge and taking on new responsibilities related to the internet, digital technology, and, ultimately, constant change and adaptation.

In light of the evolution experienced in the last 25 years, it can be stated that education is undergoing an unprecedented transformation: work methods are changing, and the potential of information and communication tools at its disposal is multiplying. The speed at which these changes occur and the development and acquisition of new technical competencies and skills demand original and appropriate responses from educational administrations to keep up with the times.

It is within this context of profound transformations that the recognition of the right to digital education emerges. This context is marked by information and communication technology (hereinafter referred to as ICT), which plays a crucial role in innovating teaching functions and shaping research methods. It is precisely these ICT tools that allow for the "personalization" of access to knowledge in their design and use. Alternatives such as multimedia teaching, blended learning, or online modalities enable the combination of face-to-face classroom work with distance learning, reducing or eliminating the limitations of space and time imposed by traditional teaching. As a result, there is a flexibility in learning that harnesses all the resources of digital technology, especially the Internet.

It is in this digital realm that the recognition, regulation, and guarantee of the right to digital education are established.

It seems reasonable to think that a phenomenon like digital education, which is changing teaching models, routines, and ways of teaching, learning, and working, deserves recognition and a minimal level of regulation. The existing regulations are often based on concepts and procedures that are linked to outdated models, making them inadequate for the current digital landscape.

This regulation must necessarily address the pedagogical training of teachers in ICT, as it is one of the key factors for their effective use in both formal and non-formal education systems. This implies the need for funding to build this new pedagogy supported by these new resources, which allows for the integration of local and global elements and makes it possible to combine education in educational institutions with the establishment of telematics that build, share, and update knowledge. It is through properly regulated means that this potential should be channeled, using new models and forms of pedagogical management that enable the exploitation of the interactive possibilities offered by digital education.

In 2002, the European Commission commissioned a study called "Virtual Models of European Universities" to the Danish consultancy Rambøll Management. Its objective was to analyze to what extent European universities were using ICT for educational purposes. Surprisingly, only 18% of the universities had made timid attempts to integrate ICT into their organization and

teaching-learning processes. However, more than twenty years later, Spain now has seven online universities, with over three hundred fifty thousand students enrolled in this modality. The inclusion of digital tools in classrooms at all educational levels has become a reality.

Despite this progressive and growing implementation of digital technologies in classrooms, the legislator had not explicitly recognized this reality as an ideal means to contribute to improving quality and ensuring the full integration of students into the digital society.

4 Legal Background

While it may seem reasonable that there are no notable legal precedents (the most significant developments have occurred with the advent of the internet), the right to digital education does show some revealing antecedents. Moreover, it can be argued that certain precedents, as well as the doctrinal contributions of certain authors, have been shaping the origins and features of this right to digital education.

The positive stance of the right to digital education in the LOPDGDD (Spanish Data Protection and Digital Rights Guarantee Law) serves to confirm what had already been a reality in Spain since the 1990s. Numerous international milestones and texts have emphasized the importance of digital literacy and the integration of technology into the teaching-learning process. Although there are additional sources, the following are the most significant instruments that have fostered the introduction of digital technology in education and have prompted relevant regulations.

Above all others, two fundamental references underpin the fundamental right to education as we know it and have subsequently facilitated the specification and updating of the content of the right to digital education:

1. The Universal Declaration of Human Rights (Paris, 1948), which in Article 26 recognizes the right to education.

2. The International Covenant on Economic, Social, and Cultural Rights (New York, 1966), which emphasizes the recognition of the right to education in its Articles 13 and 14.

While it is true that none of the mentioned texts made specific reference to digital education, from that point on, and considering the gradual emergence and application of technology in education, texts began to emerge increasingly aligned with the right to digital education (or at least connected with the emerging tools and technologies that could promote such a right). The following items account for the concept:

3. World Conference on Education for All (Jomtien, Thailand, 1990).

During this conference, two texts emerged that responded to the evolving nature of the right to education concerning the "then" new technologies: the World Declaration on Education for All (EFA) and the Framework for Action to Meet Basic Learning Needs. Their objective was to meet the learning needs of all children, youth, and adults by the year 2015. Both documents clearly highlighted the need for the learning process to adapt to new circumstances, including emerging information and communication technologies. However, digital technology was not yet the central element; it was rather conceived as one among other learning needs. Nevertheless, Point 10 of the Framework for Action already recognized it as a useful instrument to support basic learning activities.

4. Dakar Framework for Action (26-28 April 2000).

In the year 2000, the international community gathered once again at the World Education Forum in Dakar (Senegal). It became evident that many countries were still far from achieving the goals set at the Jomtien World Conference on Education for All. To address this, participating states established essential objectives to guarantee the right to education, setting measurable parameters for the year 2015. In Dakar, two explicit references were made referring to Points 8 and 10 to the utilization of new technologies in relation to education. Point 8 established objectives directly related to the right to digital education, emphasizing the need to "harness new information and communication technologies to contribute to the achievement of Education for All objectives." Point 10 emphasized “the need for new technologies to serve educational strategies rather than directing them”.

Another example of the successful approach to the commitments made is found in the Regional Action Framework for the Americas (Point 11), in which countries commit to the utilization of technologies in education, specifically:

- Supporting the use of information and communication technologies (ICT) in the classroom.
- Promoting permanent and equitable access to ICT for teachers and communities, as well as providing continuous training opportunities through information centres, networks of best practices, and other mechanisms for sharing and exchanging experiences.
- Adopting and strengthening, where already in use, ICT to improve decision-making in educational policy and planning; school administration to facilitate decentralization and autonomy in management; and providing training for administrators and teachers in the introduction and management of ICT.
- Revalorizing the presence of books as an essential instrument for accessing culture and as a fundamental means for utilizing new technologies.

5. Incheon Declaration, May 2015.

This is an education declaration adopted at the World Education Forum in Incheon, South Korea. It addresses three fundamental aspects: equality and access, improvement of outcomes and funding. It also includes a small mention of urging the commitment to quality education through the use of ICT. Funding: another recommendation in the Declaration concerns education financing. Signatories are urged to commit 4 to 6% of their gross domestic product or 15 to 20% of their public expenditure to improve education.

6. Education for All Global Monitoring Report - UNESCO (Paris, 2015).

This report is significant for two reasons: first, there has been sufficient time since the arrival of technology in education to assess its impact; second, it highlights two realities: the uneven implementation and development of ICT in the world, and the fact that not all experiences related to the "ICT-education" phenomenon have been as satisfactory as expected. While

acknowledging that technology is crucial for fostering quality education, the report also raises awareness of the complexity involved in the effective integration of ICT into educational systems.

7. Framework for the Implementation of Sustainable Development Goal 4, Education 2030.

The Framework for the Implementation of Sustainable Development Goal (SDG) 4 aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. It highlights the importance of acquiring digital skills as one of the key elements for education. Notably, it calls for "aligning education systems with rapidly evolving labour markets and technological advancements" (Point 6 of the Framework). Additionally, Point 14 links learning outcomes "with the quality of the right to education, which also implies that teachers are supported with appropriate ICT." Finally, it associates the quality of education with technological innovation (Point 18), indicating a clear conviction that education benefits from leveraging innovation and available technological tools.

8. Qingdao Declaration, May 2015.

The Qingdao Declaration emerged from the Conference on ICT and Education after 2015 and represents a significant turning point in educational policy and strategy supported by ICT. It is, in fact, the first global declaration on ICT in education that outlines how technology should be utilized to achieve educational objectives for equity, access, quality, and lifelong learning in the Sustainable Development Goals (SDGs) to be coordinated internationally until 2030.

Beyond access, equity, inclusion, and quality, the signatory states agreed on the decisive importance of ICT in education. Until this point, ICT was considered an optional aspect that could be incorporated or not into educational systems. However, from this moment on, it became a priority and a fundamental tool for improving education in all aspects: more equitable, more social, more accessible, and inclusive, as it allows reaching any part of the world equally. It becomes a strategic objective (Point 5 of the declaration) and an essential component to fulfil the commitments of the Incheon Declaration and to overcome the evident "digital divide" that existed between individuals (and countries) in accessing digital education.

The declaration is critical because it directly relates education quality to technology. The section of the Declaration specifically dedicated to Quality Learning opens with the commitment to formulate "well-founded long-term policies and strategies aimed at harnessing the potential of ICT to improve the quality of education and transform learning." .

9. Qingdao Communiqué, 2017.

Only two years after the declaration, the Qingdao Communiqué was proclaimed, adopted at the "International Forum on ICT and Education 2030" organized by UNESCO and the People's Republic of China, which is named "Strategies for Mobilizing ICT to Achieve the Education 2030 Agenda." This document also emphasizes the importance of technology and the internet as a strategic tool for access and improvement of educational systems and the achievement of sustainability goals.

10. Beijing Consensus, May 2019.

Finally, in 2019, the Beijing Consensus on Artificial Intelligence and Education was approved. Until then, discussions had focused on ICT, the internet, but the topic of artificial intelligence applied to education had not been addressed (an issue that nowadays is surrounded by controversy due to its various implications). Rapid technological advances involve numerous risks and challenges, and policy debates and regulatory frameworks still struggle to regulate them.

In any case, this is the first document that provides advice and recommendations on how to make better use of artificial intelligence technologies to achieve the Education 2030 Agenda. The Consensus involved representatives from over 105 Member States and around 100 representatives from United Nations agencies, academic institutions, civil society, and the private sector.

The text concludes that the implementation of artificial intelligence in education has the necessary capacity to enhance human capabilities toward effective collaboration between humans and machinery in life, learning, and sustainable development. It also states that the systematic integration of artificial intelligence in education enables addressing the major

challenges in education, innovating teaching and learning practices, and ultimately accelerating progress toward achieving Sustainable Development Goal 4. .

The last recommendations of the UNESCO Member States pivot around the incorporation of artificial intelligence into their educational policies to leverage its possibilities and address the challenges posed by this technology. It also calls for approaches that involve the participation of the entire government, intersectoral and multi-party cooperation, and support for the development of new technological models to provide educational and training services where advantages outweigh risks.

In this way, the Beijing Consensus aligns, to some extent, with the objectives set by the Bologna Process in the European Union. It demonstrates a commitment to using technological tools to propose lifelong learning systems that allow personalized learning anytime, anywhere, and for everyone. Both initiatives aim to harness technology's potential to enhance education and provide accessible and tailored learning opportunities for all.

5 Strategy to Ensure the Right to Digital Education

Referring to some of the objectives of the United Nations' Agenda 2030 for sustainable development, it seems reasonable to consider that purposes such as quality education or achieving "inclusive and equitable quality education and promoting lifelong learning opportunities for all" are directly connected to the right to digital education. This is further supported by the various programs and actions that have been promoted by UNESCO and the European Union since 2015 to incorporate technology and the internet into educational systems.

Although digital education is not explicitly listed as a separate objective in the Agenda 2030, the integration of technology and the internet into education has effectively become an additional sustainable development goal and has been fully incorporated into UNESCO's strategy.

The European Commission itself outlined its strategic approach for implementation in the communication "Next steps for a sustainable European future. European action for sustainability." It described how the sustainable development goals were being pursued through

EU policies and integrated into each of the ten priorities of the previous Commission. In November 2019, the new European Commission was established, setting its political guidelines and six priorities. In the document outlining the political guidelines of the current President of the European Commission, Ursula von der Leyen, accelerating the development of digital skills, both among young people and adults, through the updating of the Digital Education Action Plan, is highlighted as a priority. The text emphasizes the need to rethink education by leveraging the potential of the internet to make learning materials available to everyone, for example, through greater use of large-scale open online courses. Digital literacy is recognized as a fundamental competency for all .

If we consider the priorities, the second one refers to "A Europe Fit for the Digital Age," based on a digital strategy in which the EU aims to empower people with a new generation of technologies. Moreover, the Commission has expressed its determination to make this the "Digital Decade" of Europe. Europe must also consolidate its digital sovereignty and set the standards, with a clear focus on data, technology, and infrastructure .

Spain has been somewhat delayed in making a strong commitment to promoting the use of ICT in education. While there have been good examples of online universities (with excellent results) and movements of teachers who, on their own initiative, have experimented with and built new teaching models supported by new technological tools and the internet, there has been a lack of determined policy from the administration. Spain's decisive push did not come until the COVID pandemic of 2020. Since that moment, and for obvious reasons, there has been a clear commitment to enhancing the use of ICT to improve and strengthen the education system. In June 2020, the Government launched the "Educa en Digital" programme. to drive the digital transformation of Education in Spain. The initiatives began to be implemented during the second quarter of the 2020-2021 academic year.

The programme establishes the implementation of assistance platforms for teachers, students, and educational authorities through the application of Artificial Intelligence to promote a more personalized education. This development should enable the creation of personalized learning paths for students, more effective monitoring of their progress, and individualized analysis of their development by teachers .

As of 2023, it is unquestionable that in the European Union and around the world, the short-term strategy is to achieve digital transformation in education, overcoming resistance to change and striving to facilitate the path to digital education. This includes ensuring access at all levels and reconciling and integrating it with traditional teaching models.

6 Legal Regulation of the Right to Digital Education

6.1 Legal Regulation in Spain

All the precedents, declarations, reports, and communications mentioned in the previous sections are of little use if the final result is not the incorporation of the right to digital education into law. Any right is the product of a social construction that requires formal recognition, which means obtaining legal recognition from national and international bodies and, if necessary, being protected by judicial bodies. The legal regulation of the right to digital education in Spain is recent and comes through Article 83 of the Organic Law 3/2018, of December 5, on Personal Data Protection and the guarantee of digital rights.

The Spanish Constitution includes the right to education in Article 27, stating that its purpose is the full development of the human personality while respecting democratic principles of coexistence and fundamental rights and freedoms (Article 27.2). It also assigns public authorities the responsibility to guarantee the right to education for all, through a general program of education, with effective participation of all sectors involved and the creation of educational centres (Article 27.5). It is precisely in this mandate that it connects with the twenty-first additional provision of the Organic Law on Data Protection and Digital Rights (LOPDGDD), titled "Digital Education," which imposes an obligation on educational administrations to comply with the mandate contained in the second paragraph of section 1 of Article 83 of this organic law within one year from its entry into force. This mandate refers to the obligation of the education system to ensure "the full integration of students in the digital society and the learning of a safe and respectful use of digital media, in accordance with human dignity, constitutional principles, fundamental rights, and particularly, respecting and guaranteeing personal and family privacy and the protection of personal data. The actions carried out in this area will be inclusive, especially regarding students with special educational

needs. Educational administrations must include in the design of the block of subjects of free configuration the digital competence referred to in the previous section, as well as elements related to situations of risk derived from the inadequate use of ICT, with special attention to situations of violence on the internet."

However, the Spanish Constitution does not explicitly address the digital dimension of education. It could have followed the lead of Article 18.4, foreseeing the importance of computer science in the very near future. It could have made a generic reference to the continuous improvement process of the quality of education and connected it to the implementation of available resources and technologies. But the first educational experiences supported by what were then primitive "technological" tools applied to education were still far off: language labs (early 1980s), floppy disks and CD-ROMs complementing the teacher's work, student work supported by computers (1990s), or specific software designed as a basic learning tool for various purposes (2000s and beyond).

As seen in previous sections, this gap was attempted to be filled by the set of international agreements and treaties signed by Spain, focusing on guaranteeing quality as the core of the right to education. Quality is precisely the gateway for ICT in education, as most of these treaties, especially from 2015 onwards, highlight technology as a necessary element to ensure that quality.

However, to analyse the current regulation, it is necessary to briefly review the precedents, as Spanish education laws had not extensively addressed the importance of technology applied to education, although they did significantly so in 2002 (Organic Law on Education Quality) and in 2006 (Organic Law on Education).

In 1990, the LOGSE (Ley Orgánica de Ordenación General del Sistema Educativo) made a veiled reference in its Preamble, stating that "the vertiginous speed of cultural, technological, and productive changes places us in a horizon of frequent readaptations, updates, and new qualifications. Education and training will acquire a more comprehensive dimension than they have traditionally had, transcending the vital period to which they have been confined so far, extending to sectors with previous active experience, and alternating with work activities.

Education will be lifelong, and the law proclaims it as the basic principle of the educational system." In fact, lifelong learning is now inseparably linked to technology, as no previous generation has been able to continuously receive such comprehensive and extensive education, regardless of when and where, which can only be achieved through online learning or in-person training with internet access. Moreover, the majority of lifelong learners or individuals seeking to update their skills and knowledge tend to be mature individuals with professional and family responsibilities. Balancing work, family, and education is challenging without resorting to online or hybrid (blended learning) education modalities .

We find the first organic law that recognizes the need for students to acquire the necessary competencies to "profit from new technologies": the LOCE (Organic Law on the Quality of Education) . The LOCE qualifies these competences as "non-negotiable" and states that they will allow students to make the most of the new European educational space in terms of training, qualification, and personal experience. Among the objectives of the law, it includes promoting "early initiation experiences in information and communication technologies" in early childhood education, and it entrusts the fulfilment of this objective to the educational administrations (art. 12.3). It also includes it in the objectives set for primary education, which should contribute to developing in students, among other abilities, the ability to "initiate the use of information and communication technologies for learning" (art. 15.2.j); and in the objectives of secondary education, where students should "acquire a basic preparation in the field of technologies, mainly through the acquisition of skills related to information and communication technologies, in order to use them, in the learning process, to find, analyse, exchange, and present acquired information and knowledge."

The LOE (2006) and its reform, the LOMCE, follow the path set by the LOCE in terms of the concern to add to students' competencies those that allow them to adapt to technological changes and those that the job market already demands, so that they are capable of developing experiences and capacities related to ICT. The Preamble of the LOE recognizes this: "In view of the accelerated evolution of science and technology and the impact that this evolution has on social development, it is more necessary than ever for education to adequately prepare for living in the new knowledge society and be able to face the challenges that arise from it." It also

connects this with the objectives and policies outlined by UNESCO and the EU, which "have aimed to improve the quality and effectiveness of education and training systems, which implies," among other things, "guaranteeing access for all to information and communication technologies."

This is an important turning point because, for the first time, the legislator assumes that achieving the quality and effectiveness of education inevitably involves the incorporation of technology into education. Furthermore, it is considered so important that it is also perceived as a decisive element for the organization of teachings, and in its article 3, it envisages that "to guarantee the right to education for those who cannot regularly attend educational centres, an appropriate offer of distance education or, where appropriate, specific educational support and attention will be developed," which can only be guaranteed by making good use of digital technology and the internet.

The LOMCE (Organic Law for the Improvement of Educational Quality) goes one step further and dedicates one of the chapters of its preamble to technology and education as basic pillars to guarantee the right to education. It presents technology as a shaping element of education throughout history and sets the goal of achieving personalization and universalization of education through ICT. The legislator already emphasizes the fundamental role of technology in education, stating in the preamble of the law that "the widespread incorporation of ICT into the educational system, taking into account the principles of universal design and accessibility, will allow the personalization of education and adaptation to the needs and pace of each student. On one hand, it will serve for reinforcement and support in cases of low performance, and on the other hand, it will allow the unlimited expansion of knowledge transmitted in the classroom." There is no doubt that digital and internet resources are a total asset that will not only improve the quality of education but also facilitate accessibility and personalization according to the specific needs of each student (providing help to those who need it the most) and the possibility of reaching any corner of the world (something that is a reality today .

With the LOE (Organic Law for the Education) there is a quantitative and qualitative leap in the regulation of education in connection with technology. On one hand, it carries out a more organized regulation, and on the other hand, it proposes concrete actions in the field of education

and ICT, setting specific objectives for each educational stage. It does so for Early Childhood Education in article 14.5 ; for Primary Education, in Article 17 ; and in article 23.e) with Compulsory Secondary Education . Now we can speak of a digital educational strategy, individualized for each school level. Regarding the Baccalaureate, the objective is set for students to be capable of using ICT (Information and Communication Technologies) effectively and responsibly.

Although university education is left aside, measures are foreseen for Vocational Training, promoting "the integration of scientific, technological, and organizational contents and ensuring that students acquire competencies related to digitization, career management skills, innovation, entrepreneurship, technological versatility, knowledge management," and social commitment (Article 42.3).

The commitment is now so clear and determined that the legislator places the acquisition of digital competencies at the same level as reading comprehension or oral and written expression. However, it is true that the main aim is to ensure the implementation of technology as a basic competence for students rather than just an instrument to guarantee access to the system, educational quality, or all that had been included in the international texts and declarations mentioned in section 3.2 of this article.

With the modification of the LOE by the LOMCE, a new Article 111 bis is added, titled "Information and Communication Technologies," which represents an important momentum for the application of digital technology, the creation of sufficient technological platforms and infrastructure, teacher training, and everything necessary for a complete and effective transformation. The change not only affects teaching and learning processes and the teaching model but also aspects related to the academic management of schools. . The wording of its section 6 is remarkable: it foresees that the Ministry of Education will develop and revise the reference frameworks for digital competence to guide the initial and continuous training of teachers and facilitate the development of a digital culture in schools and classrooms. With this measure, the aim is to involve all stakeholders (administrations, educational institutions, teachers, and students) in the digital transformation. This commitment is finally accompanied by providing the necessary financial resources to ensure the implementation of programs to

enhance ICT learning , as can be inferred from what is included in Title VIII of the law itself (Economic Resources).

Finally, it is worth considering Order ECD/65/2015 . The Order describes the relationships between competences, contents, and evaluation criteria for primary education, compulsory secondary education, and baccalaureate, in accordance with the provisions of the thirty-fifth additional provision of Organic Law 2/2006, of May 3, on Education. In Article 2, among the key competences of the Spanish education system, it includes digital competence (Article 2.c) and describes it in Section 3 of Annex I as "the creative, critical, and safe use of information and communication technologies to achieve objectives related to work, employability, learning, leisure time, inclusion, and participation in society. This competence implies, in addition to adapting to changes introduced by new technologies in literacy, reading, and writing, a new set of knowledge, skills, and attitudes necessary nowadays to be competent in a digital environment." This text already places digital competence as a central element of collaborative work, motivation, curiosity for learning, and improvement in the use of technologies.

Furthermore, it delves into the conditions and requirements necessary for the successful development of this competence, including information management, transforming it into knowledge through appropriate selection of different storage options, and the importance of knowledge of ethical issues such as digital identity and digital interaction norms. All these point towards digital education, which must naturally extend to the right of every person to access it.

Towards the end of Annex 3, it emphasizes the need to have a good understanding of digital devices, their potentials, and limitations in relation to achieving personal goals, as well as knowing where to seek help for theoretical and technical problem-solving, which implies a heterogeneous and well-balanced combination of the most important digital and non-digital technologies in this field of knowledge.

However, if there is something that directly connects with one of the main pillars of digital education, it is the creation of content, which this Spanish regulation includes (for the first time in this 2015 Order) as one of the elements that must be addressed for the appropriate development of digital competence.

6.2 Legal Regulation in the European Union

If we apply the same framework used for analysing the regulation of the right to education in Spain, it becomes evident that in Europe, the starting points are the European Convention on Human Rights and Fundamental Freedoms of 1950. , and the Charter of Fundamental Rights of the European Union. .

The evolution of its regulation has not been as rapid as desired within the European Union (EU). However, despite its slow progress, there has been significant advancement over the last few decades, mostly encompassing education and training in general terms through texts, treaties, and declarations. While vocational training was recognized as an area of community action in the Treaty of Rome in 1957, education was officially acknowledged as a sector under the competence of the Union almost forty years later, in 1992, by the Treaty of Maastricht. The Treaty stipulates that the Community must contribute to "the development of quality education by promoting cooperation between Member States and, if necessary, supporting and complementing their actions while fully respecting their responsibilities regarding the content of education and the organization of the educational system, as well as their cultural and linguistic diversity."

Similarly, the Treaty of Lisbon retained the provisions regarding the role of the Union in education and training (Title XII, Articles 165 and 166), adding a provision that can be described as a "social clause." Article 9 of the Treaty on the Functioning of the European Union (TFEU) states that "in defining and implementing its policies and actions, the Union shall take into account the requirements linked to the promotion of a high level of employment, the guarantee of adequate social protection, the fight against social exclusion, and a high level of education, training, and human health protection." Moreover, the Charter of Fundamental Rights of the European Union affirms that "everyone has the right to education and access to vocational and continuing training" (Article 14) and also has the "right to work and to exercise the profession of their choice or accept work freely chosen" (Article 15) .

Regarding education, the EU has based its policies on the approach of multiannual strategies that set a series of objectives. Until the year 2020, its efforts were focused on meeting the

requirements related to promoting a high level of lifelong education and training, mobility of students and teachers in Europe, and fostering a sense of belonging to the Union. This resulted in the achievement of six objectives: quality of education and training, inclusion, ecological and digital transition, teachers and trainers, higher education, and geopolitical dimension.

It is important to highlight that here, reference is already made to the digital transition, as it was evident and necessary. It was so apparent that, at the beginning of 2018, the European Commission began the dissemination of its Digital Education Action Plan, within the context of the actions of the European Education Area 2025, which encompassed three main priorities (with eleven actions) . Those priorities aimed to promote and support the use of technology in education, as well as the development of digital skills. The priorities were as follows:

a) Make better use of digital technology applied to teaching and learning processes.

b) Develop digital competences and skills for digital transformation.

Improve educational systems through data analysis and forecasting processes. Starting from 2021, the need for having documentary and regulatory support for digital education is pressing, and the EU intensifies its efforts by proposing a new strategy focused on Digital Education: The Digital Education Action Plan 2021-2027. This Plan emerges to support a sustainable and effective adaptation of education and training systems in the EU member states to the digital era. It is designed as a long-term strategy for digital education, aimed at achieving quality, inclusivity, and accessibility objectives. The plan incorporates more information and takes into account the experiences gained during the COVID-19 pandemic. . Exactly, that is why the Digital Education Action Plan 2021-2027 aims to promote the digitization of various teaching models. ,and to provide the necessary infrastructure for inclusive and resilient distance learning.

To achieve these objectives, the Action Plan establishes two priority areas and thirteen actions. The priority areas are as follows:

a) Foster the development of a high-performance digital educational ecosystem. The actions to achieve the objectives in this area mainly focus on infrastructure and connectivity, teacher training in digital competences, high-quality digital content, user-

friendly tools, and ensuring privacy guarantees for teachers and students on platforms.

b) Enhance digital skills and capabilities for digital transformation: In this case, the actions aim to create conditions that enable the acquisition of digital skills at an early age and a good knowledge and understanding of data-intensive technologies such as artificial intelligence. Additionally, this area emphasizes actions that ensure "equal representation of girls and young women in digital studies and careers." .

As expressed in the political guidelines of the President of the European Commission, Ursula von der Leyen, in July 2019 (see footnote n. 9), a new Action Plan was deemed necessary. The strategy for 2021-2027 is designed to contribute to the Commission's priority of "a Europe fit for the digital age" and Next Generation EU. .

Despite everything, the regulation of the right to digital education has not reached Europe as clearly as it has in Spain. At least, there is no true regulation specifically enshrining the right to digital education. There is no Directive or Regulation that governs it. However, there is a Resolution of the European Parliament, dated March 25, 2021, on the formulation of digital education policy (2020/2135(INI)). While it should be noted that resolutions only express a political position or highlight an international event on behalf of the EU, it is the first time that a document emanating from the sovereign community body indicates the willingness to regulate digital education, which is a preliminary step to recognizing it as a right.

Indeed, this Resolution becomes a comprehensive statement of reasons or considerations that serve as a preliminary step towards the desired recognition and regulation of the right to digital education in the EU. The text considers the right to access digital education as a necessary element to promote inclusion, combat inequality in internet access or access to devices, and reduce the digital divide among students and individuals based on social, economic, gender, or age reasons. It asserts that digital technology is reshaping society and making basic digital skills and digital literacy essential for all citizens.

For the purpose of this article, the best summary of what the resolution encompasses is found in section N, where it attributes crucial relevance to digital education and its potential to transform society. It considers that digital technology holds significant potential for teachers, trainers, and

educators, as well as for students in all educational sectors and environments, in terms of providing accessible, open, social, and personalized technologies that can offer more inclusive learning pathways. It emphasizes that the smart use of digital technologies, driven by innovative teaching methods and student training, can equip citizens with essential life skills, such as creative thinking, curiosity, and problem-solving abilities. It stresses that the use of digital technology should never be regarded as a cost-cutting measure and that teachers' freedom to choose the best combination of teaching methods and content should remain at the core of the educational process.

In a single paragraph, it connects digital technology with the role and potential of teachers (who are free to choose the most suitable model) and students in all educational environments. It refers to innovative teaching models that can provide new learning pathways, emphasizing the potential societal impact, access to technology, inclusiveness, and the capacity of digital education to be the key for citizens to acquire essential life skills. Despite this formidable statement of intent and the full implementation of online education or digital tools in face-to-face education at various educational levels, there is still no specific and binding regulation in the EU addressing the right to digital education. Reliable statistics for primary, secondary, or high school education are still unavailable, but in countries like Spain, in 2019 (before the COVID-19 pandemic), on-line universities had 245,421 enrolled students, accounting for 15.4% of the total number of students. . It seems reasonable to assume that in the last three academic years, this figure has increased significantly, especially considering the pandemic situation experienced from March 2020 until mid-2022.

The right to digital education is rooted in an unstoppable social reality that requires, like almost everything related to the internet or digital domain, a specific and uniform regulation that directly involves the member states. The European Higher Education Area should be an ideal vector to facilitate this urgently needed and necessary organization, especially after the experiences endured during the pandemic.

7 Digital Education and Artificial Intelligence: Navigating Complex Regulation

Artificial Intelligence (AI) is here to stay and is rapidly permeating every facet of our society: health, government, finance, logistics, transportation, energy, commerce, agriculture, and of course, education. It has become a pivotal tool in the ongoing digital transformation of our world and is poised to play an even more significant role in the near future. Advocates of AI argue that it is one of the most impactful sustainable technologies, primarily because it promises greater productivity with fewer resources. This potential enhances the technological foundation of organizations and ensures faster and more efficient digital evolution.

In the field of education, the integration of AI has been steadily increasing, and in the past three years, its progress has been remarkable. However, this advancement has not been without controversy. Educational institutions are struggling to ensure that both educators and students are using AI in a way that is ethical and appropriate—meaning AI should support and enhance the teaching and learning process, not replace the essential roles of those involved in it.

AI can offer as many benefits as it does risks, depending on how it is utilized. When AI is used responsibly and transparently, the potential to enhance and enrich learning methods is virtually limitless. However, the ethical and responsible use of AI is a growing concern for institutions. For instance, the United Nations, in its report "A Framework for Ethical AI at the United Nations," highlights that governments, organizations, and companies are beginning to consider the implications of AI usage. Some have already issued policies or principles, with the European Commission being one of the leading bodies in political responsibility in this area. The European Commission has proposed the "AI Act," a regulatory framework aimed at providing developers and users with clear requirements and obligations regarding specific AI applications . This proposal is based on a risk-based approach, categorized into four levels of risk. Notably, education is classified as a "high risk" area, the second-highest level in this framework.

As AI continues to integrate into various sectors, establishing a common ethical framework for its application becomes increasingly important. This is particularly true in education, where institutions, administrators, developers, educators, and students must commit to using AI responsibly.

8 First General Regulation

In response to the competitive advantages and inherent risks of AI, the European Union has taken a pioneering step by adopting the first comprehensive regulation to govern AI. This regulation, known as the European Artificial Intelligence Regulation (Regulation (EU) 2024/1689 of the European Parliament and of the Council, dated June 13, 2024), sets out harmonized rules on AI. Its significance lies in being the first global general regulation of artificial intelligence, providing a foundational legal framework to ensure the safe and ethical development and use of AI.

The regulation addresses education from two key perspectives:

- AI Literacy (Article 4): The regulation emphasizes the importance of "AI literacy," which it defines as the need for AI system providers and those responsible for deploying these systems to ensure that their staff and anyone operating or using AI systems on their behalf possess a sufficient level of AI literacy. This literacy should be commensurate with their technical knowledge, experience, education, and training, as well as the intended context of AI system use and the populations or groups involved.

  This focus on AI literacy underscores the need for individuals involved in the deployment and use of AI in education to be well-informed and capable of engaging with AI systems in a way that aligns with ethical standards and supports the broader goals of the educational process.

- The European Artificial Intelligence Regulation also addresses education and professional training by categorizing them as high-risk systems in Annex III, as specified in Article 6(2) of the regulation . AI systems are classified as high-risk when they have a significant impact on fundamental rights. The inclusion of education in this category means that providers and those responsible for deploying these high-risk AI systems, especially when used by public authorities, must take the necessary measures to comply with the regulation's requirements and obligations by August 2, 2030.

The European Union has acted swiftly and diligently to establish a legal framework for the creation and application of AI-based systems. However, reality is moving even faster, especially in the education sector. Almost all platforms involved in teaching and learning processes already utilize AI to tailor educational content to the individual needs of students. The applications are nearly limitless, particularly in educational institutions with experience in digital and online education. Common uses of AI technology in education include:

- Updating digital content: AI can refresh and update course materials based on the content prepared by educators, preventing it from becoming outdated.
- Creating self-grading tests: AI generates and grades quizzes for students based on the content provided by educators, streamlining the assessment process.
- Designing exams: AI formulates and reformulates exam questions according to guidelines set by the subject matter experts.
- Developing virtual assistants: AI-powered assistants can answer frequently asked questions for students, using the course material prepared by educators as a knowledge base.
- Automating administrative tasks: AI simplifies tasks such as the automatic grading of exams, reducing the administrative burden on educators.

These applications might seem straightforward at first glance, but they offer significant time and resource optimization in the daily operations of educational institutions. Moreover, they promote AI literacy and training among staff, fostering the responsible use of AI, enhancing learning resources, and ultimately improving educational outcomes.

9 Conclusions

The regulation of the right to digital education is a necessary process. In some countries, it is already becoming a reality. It is also the logical outcome of the implementation of technology and the internet in teaching and learning processes. And it is the response to a need that has become even more urgent since the 2020 pandemic.

From the year 2000 until today, the path has been prepared to achieve this regulation; first with timid and insecure steps, then by joining efforts and reaching various international agreements aimed at the real and effective fulfilment of the right to digital education as a key element to improve its quality, inclusion, and universal access to the knowledge society.

Experiences vary from country to country, even among continents. As discussed in the previous sections, in Spain, the legislator has aimed to design a guarantee for the right to digital education (following the approach taken with other digital rights covered by the law) rather than a comprehensive regulation of the right. On the other hand, Europe still needs a specific, homogeneous, and binding regulation for its member states, and as mentioned, we have in the European Higher Education Area the ideal vector to channel this urgent and necessary arrangement.

The phenomenon is global, and in Latin America, there are also examples of regulation. The reality is that the crisis caused by COVID-19 affected the region more severely than other parts of the world and highlighted the need for a necessarily inclusive recovery. Even before focusing on quality, greater digital access and strong support for online education have been sought as cornerstones of this agenda, requiring ambitious policies that foster a reliable regulation serving as the foundation to execute significant investments in infrastructure (both hardware and software) and training. Ensuring a true right to digital education requires addressing all the necessary aspects to put it into practice, and this includes addressing various fronts: ensuring quality throughout the teaching-learning process, providing equal access, availability of necessary devices, developing and learning new teaching models, and providing proper teacher training.

In the case of Spain, the pandemic also demonstrated that the education system was not prepared to guarantee an effective right to digital education. The public administration did not have a prepared strategy to fulfil the mandate of the law. Additionally, the limited preparation of teachers and students who lacked the necessary knowledge to continue addressing programs and curricula with normality, leveraging the advantages of the internet and digital technology, became evident. The inequality in access to devices for internet connection was also highlighted. Much remains to be done because the right to digital education, as stated in the LOPDGDD,

only includes the declaration of some minimum guarantees that require specific, adequate regulatory development, and sufficient allocation of resources for this right to become real and effective.

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