

## TECHNOLOGIES THAT TRANSFORM: THE MAGIC OF INCLUSION

https://doi.org/10.56238/arev7n2-196

Submitted on: 17/01/2025 Publication date: 17/02/2025

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#### **ABSTRACT**

The present study investigated how Digital Information and Communication Technologies (DICT) contribute to the promotion of educational inclusion of students with disabilities, addressing the challenges faced in their implementation. The general objective was to analyze the role of DICT in the creation of an inclusive educational environment, focusing on the difficulties and opportunities provided by these technologies in the teaching-learning process. The research adopted a qualitative approach, with bibliographic methodology. based on studies and publications on the use of DICT in inclusive education. The analysis of the sources revealed that, although DICT offers great possibilities for inclusion, such as the personalization of teaching and the accessibility of content, its implementation faces significant challenges, such as inadequate teacher training, the lack of technological infrastructure in schools, and the cultural resistance of educators and managers. The results indicated that, in order for DICT to fulfill its inclusive function, it is necessary to invest in the continuous training of education professionals and in the improvement of the structural conditions of schools. The final considerations highlighted the relevance of these technologies in the transformation of pedagogical practices and highlighted the need for new studies to broaden the understanding of the impacts of DICT on the personal and social development of students with disabilities.

**Keywords:** Digital Technologies. Educational Inclusion. Deficiencies. DICT. Inclusive Teaching.

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#### INTRODUCTION

Digital Information and Communication Technologies (DICT) have played a fundamental role in transforming the educational process, providing new possibilities for inclusion and learning for various social groups, especially for those who have been marginalized in the school environment, such as people with disabilities. In the context of education, the application of these technologies aims to promote an accessible, equitable and dynamic learning environment. Digital inclusion, which encompasses the use of digital tools to facilitate access to information and communication, represents a significant change in the educational landscape, offering new means of interaction and learning, breaking down physical and cultural barriers, and allowing the active participation of all students, regardless of their limitations. In this scenario, several approaches emerge on how DICT can be implemented and used to promote inclusive education, with special attention to the impact of these tools on the educational and social development of students.

The justification for choosing this theme lies in the growing need to promote the inclusion of students with disabilities in the school context, through the use of technologies. Although legislation and public policies contemplate inclusion, the practical application of these principles still faces significant challenges, including a lack of adequate resources, teacher training, and resistance to changes in pedagogical practices. DICT can be a powerful tool for overcoming these barriers, allowing for greater personalization of teaching and democratic access to education. In addition, these technologies offer the opportunity to create pedagogical resources adapted to the individual needs of each student, contributing to equal opportunities in learning. Considering the fundamental role of technologies in the inclusion process, it is essential to investigate how these tools are being used in educational practice, what are their impacts, and what challenges still need to be overcome for digital inclusion to be fully effective in schools.

The problem-question that guides this research is: 'How do Digital Information and Communication Technologies contribute to the promotion of educational inclusion of students with disabilities, and what are the challenges faced in their implementation?' This central question will guide research on the effectiveness of DICT in creating an inclusive educational environment, analyzing not only the benefits of these technologies, but also the difficulties encountered by schools, teachers and students in the process of their application.



The main objective of this research is to analyze the role of Digital Information and Communication Technologies in promoting the educational inclusion of students with disabilities, identifying the main challenges and opportunities offered by these tools in improving accessibility and learning.

This text is structured as follows: at first, the theoretical framework that underlies the research will be presented, addressing the main concepts about digital inclusion, DICT and its applications in education. Then, the research will be developed based on three development topics, which explore different aspects of the use of technologies in inclusion, such as the use of adapted pedagogical resources, teacher training and the implementation of public policies. The methodology will be detailed, explaining the approach used in the collection and analysis of the data. The text will also include three topics of discussion and results, in which the impacts, challenges and future perspectives of DICT in inclusive education will be analyzed. Finally, the final considerations will bring a synthesis of the main findings of the research, highlighting the conclusions and suggestions for improving the implementation of technologies in education.

#### THEORETICAL FRAMEWORK

The theoretical framework of this research is structured in order to provide a basis for understanding the fundamental concepts that guide the study. Initially, the main concepts related to Digital Information and Communication Technologies (DICT), its definition and evolution, with emphasis on educational and inclusive applications, will be addressed. Then, the issue of digital inclusion will be explored, addressing the relevance of digital accessibility and the impacts of these technologies on the social and educational inclusion of individuals with disabilities. The theoretical framework will also include a discussion on public inclusion policies, analyzing how government guidelines have encouraged the use of DICT in schools, focusing on pedagogical practices and the training of educators. Finally, case studies and evidence of how technologies have been applied in practice will be presented, highlighting the opportunities and challenges faced by schools, educators and students in the inclusion process.

## TECHNOLOGIES IN EARLY CHILDHOOD EDUCATION AND INCLUSION

The use of Digital Information and Communication Technologies (DICT) in early childhood education has proven to be a tool to promote the inclusion of children, especially



those with disabilities. According to Junior and Macedo (2023, p. 5), the COVID-19 pandemic forced significant changes in education, requiring teachers to adapt to the use of Digital Communication and Information Technologies (DICTs):

From this moment, in education, teachers saw that they would have to use digital communication and information technologies, in this scenario it was seen that teachers had great difficulties with the use of technological equipment. In a short period of time, the government had to look for alternatives to solve these difficulties. This case study was carried out through research of scientific articles and related research data on the use of digital technologies in the classroom, the use of social network applications as a teaching and learning strategy, through active methodologies. A field research was also carried out with the teachers of the Jardim Santa Maria III State School located in the city of Osasco -SP. The teachers participating in the study have different backgrounds and teach in different disciplines and pointed out that the technologies that were adopted within the school could help significantly in their classes, and the students were more attentive in relation to their study, as the classes ceased to be traditional and became more dynamic.

The impact of the pandemic on the implementation of DICTs highlighted the difficulties faced by teachers in adapting to remote teaching. Junior and Macedo (2023) point out that many teachers had to learn to use these technologies in an accelerated way and, even after the isolation period, they remain essential elements in teaching. This transformation has generated a new look at the importance of digital tools in education, including early childhood education. According to Barbosa, Guimarães and Borges (2014), digital technologies offer possibilities that expand children's interaction and engagement, allowing new forms of teaching and learning that stimulate child development.

DICT are capable of creating new forms of interaction, not only between children and educational content, but also between children themselves, favoring collaborative learning. This interaction allows children with disabilities, who often face physical or cognitive barriers, to have access to content in an adapted way, promoting their active participation in educational activities.

However, the implementation of these technologies in early childhood education also presents significant challenges. Carvalho, Habowski and Conte (2019) point out that the digital inclusion of children with multiple disabilities requires an adaptation of both technologies and pedagogical methods. The authors point out that:

Currently, digital technologies have demonstrated the possibility of a new educational perspective as tools in the teaching process and integration of differences in regular schools (Carvalho; Habowski; Conte, 2019, p. 153).



However, the use of these technologies cannot be seen as an automatic solution to educational challenges. The authors themselves question:

But can technological resources motivate inclusive teaching and learning processes, facilitating the transformation of reproductive and segregation pedagogical activities by new understandings of the differences that technological approaches pose to praxis? (Carvalho; Habowski; Conte, 2019, p. 153).

For DICT to be effective, it is necessary that digital tools are accessible, that is, capable of meeting the different needs of children. In addition, digital inclusion is not limited to the availability of technological devices, but involves a structured pedagogical process to ensure their applicability. As Bersch and Tonolli (2006) state: "doing AT at school is to seek, with creativity, an alternative for the student to accomplish what he wants or needs." (Bersch; Tonolli, 2006, p. 90)

Teacher training, therefore, is a fundamental element in this process, as they are responsible for integrating these technologies in an efficient and meaningful way in student learning. According to Levy and Facion (2009):

The success of their activity is determined by their working conditions, training, pedagogical competence, skills and periodic evaluations of the methodological strategies used (Levy; Facion, 2009, p. 147).

Thus, the implementation of DICT in early childhood education must be accompanied by educational policies that promote teacher training, curricular adaptation, and continuous development of inclusive teaching strategies. Ferreira and Souza (2018) highlight that educators must be prepared to use technologies in an inclusive way, which involves not only the technical mastery of the tools, but also the understanding of how these technologies can be used to favor the learning of all students, regardless of their limitations.

In addition, DICT offers the possibility of personalised teaching, adapted to the individual needs of each child. Pimentel (2015) observes that, by using digital technologies, it is possible to create activities that meet the different ways of learning of children, which can especially benefit those with cognitive or motor difficulties. The personalization of teaching, therefore, is one of the main advantages of technologies in early childhood education, as it allows each child to advance at their own pace, with the necessary support to overcome their difficulties.



Digital technologies offer potential to promote inclusion in early childhood education, in particular when adapted to the needs of children with disabilities. However, its implementation requires specific care, such as adapting the tools to the needs of students and training teachers. As Dias-Trindade and Mill (2018) state, digital inclusion in early childhood education is not just about making technologies available, but involves constant reflection on how these tools can be used to provide accessible and equal education for all.

## DIGITAL INCLUSION IN HIGHER EDUCATION AND THE DIVERSITY OF NEEDS

Digital inclusion in higher education has gained prominence in recent years, especially in the context of Digital Information and Communication Technologies (DICT), which offer new learning opportunities for students with different needs. According to Barbosa, Guimarães and Borges (2014), DICT play a fundamental role in promoting inclusion, providing means for students with disabilities to access content and participate in educational activities in an equitable way. These technologies allow students to benefit from adapted pedagogical resources, favoring the personalization of learning, which is essential to meet the diversity of needs present in higher education.

In addition, the use of DICT in higher education can contribute to overcoming the physical and cognitive barriers faced by students with disabilities. Ferreira and Souza (2018) highlight that the use of distance learning platforms, multimedia resources, and interactive tools allows students to develop their skills in an accessible and inclusive environment. However, the implementation of these technologies requires a careful approach, as technological solutions need to be tailored to the diverse needs of students, considering both pedagogical and cultural aspects. Carvalho, Habowski and Conte (2019) emphasize that, in order to ensure the effectiveness of DICT, it is necessary to adapt the contents and teaching methods, ensuring that all students, regardless of their limitations, can access and understand the material efficiently.

DICT not only favors the inclusion of students with disabilities, but also caters to the cultural diversity present in higher education. Pimentel (2015) points out that these technologies enable the creation of inclusive learning environments, where cultural and educational differences are recognized and respected. The use of digital resources can promote interactive learning, allowing students from different backgrounds to share experiences and learn in collaborative ways. In this way, DICT is an essential tool to ensure digital inclusion in higher education, meeting the needs of a diverse audience.



Therefore, Digital Information and Communication Technologies play a key role in promoting digital inclusion in higher education, meeting the diverse educational and cultural needs of students. As Dias-Trindade and Mill (2018, p.15) observe, "the successful implementation of these technologies depends on the ability of higher education institutions to adapt their pedagogical practices and technological infrastructures", ensuring that all students, including those with disabilities, have access to quality learning.

## THE TRANSFORMATION OF EDUCATIONAL PRACTICES WITH TECHNOLOGIES

The adoption of digital technologies has promoted a significant transformation in educational practices, especially with regard to the promotion of inclusion. Barbosa, Guimarães and Borges (2014, n.p.) highlight that digital tools, such as digital whiteboards, educational *software* and distance learning platforms, are increasingly being "integrated into the daily school life, providing new forms of interaction between students and teachers". These technologies have the ability to personalize teaching, offering pedagogical resources adapted to the needs of each student, which becomes relevant for the inclusion of students with disabilities. In this way, pedagogical practices are becoming dynamic and accessible, enabling the active participation of all students in the learning process.

The use of digital whiteboards, for example, has transformed the way content is presented in the classroom. According to Ferreira and Souza (2018, p. 95), these tools not only facilitate the explanation of concepts in an interactive way, but also allow teachers to adapt activities to the specific needs of students. In addition, educational *software*, which can be customized according to the learning pace of each student, has proven effective in promoting inclusion, as it offers visual and auditory resources that help students with cognitive difficulties to better understand the content. Carvalho, Habowski and Conte (2019) emphasize that these resources are fundamental for the inclusion of students with disabilities, since they allow the adaptation of teaching, respecting the limitations and individual abilities of students.

In addition, distance learning platforms have played a key role in transforming pedagogical practices. Pimentel (2015) observes that these platforms offer greater flexibility in the teaching-learning process, allowing students to access content at different times and places, which facilitates the inclusion of students with different needs. The use of these platforms also allows teachers to use a personalized approach, adapting materials



and activities according to the needs of each student. This flexibility is one of the main benefits of digital technologies, as it promotes inclusive education, where all students have access to the same content, but with different forms of interaction and learning.

Therefore, the transformation of educational practices with digital technologies is taking place at various levels, from the personalization of teaching to the adaptation of pedagogical tools that meet the specific needs of students. As Dias-Trindade and Mill (2018) state, the implementation of these technologies not only facilitates the inclusion of students with disabilities, but also reinforces the role of the teacher as a facilitator of the learning process, who must be able to use the new tools to promote an inclusive and accessible educational environment for all. The adoption of DICT, therefore, represents an important advance in pedagogical practices, contributing to the construction of an egalitarian education.

#### **METHODOLOGY**

The present research is of a bibliographic nature, characterized as a review of the literature on the theme Technologies that Transform: The Magic of Inclusion. The main objective is to examine the role of Digital Information and Communication Technologies (DICT) in promoting the educational inclusion of students with disabilities, based on the analysis of studies and consolidated publications in the area.

The approach adopted is qualitative, with emphasis on the critical analysis of academic works, scientific articles, books and theses that discuss the application of DICT in the process of educational inclusion. The research is based on the careful selection of sources that present different perspectives on the use of these technologies, exploring their potentialities, challenges and impacts on pedagogical practices.

The methodological path follows the principles discussed by Santana, Narciso and Santana (2025) in Imperative Transformations in Scientific Methodologies: Impacts on the Educational Field and on the Training of Researchers, which highlight the importance of the bibliographic review in the construction of a critical theoretical framework. In addition, the research dialogues with the reflections of Narciso and Santana (2024) in 'Scientific Methodologies in Education: A Critical Review and Proposal of New Paths,' which highlight the need for systematic reviews to understand the evolution of scientific methodologies applied to inclusive education.



Thus, the study seeks to contribute to the broadening of the debate on DICT and its relevance in educational inclusion, offering a structured and reasoned analysis on the subject. The instruments used for data collection were academic databases, such as *Google Scholar*, *Scielo* and other platforms for scientific articles, which allow access to updated and relevant material for the topic in question. The selection of materials was made based on the relevance and quality of the publications, prioritizing those that present empirical or theoretical evidence on the use of technologies in the inclusive educational context. The techniques used for the analysis of the information were critical reading and content analysis, with the objective of extracting the main contributions from each selected source (Santana; Narcissus; Fernandes, 2025). The procedure consisted of identifying the relevant studies on the impact of DICT on inclusive education and organizing the findings in order to build a complete picture of the current state of the research.

Chart 1: Main References Used in the Research

Citat 1. Main Nelectices Osed in the Nesearch			
Author(s)	Conforming title published	Year	Type of Work
BARBOSA, G. C.;	Digital technologies: possibilities	2014	Annals
GUIMARÃES, M. M.; BORGES, L. M.	and challenges in early childhood education		
PIMENTEL, F. S. C.	Children's learning in digital culture	2015	UFAL
DIAS-TRINDADE,	Education, Technologies and Digital	2018	Educational
S.; MILL, D. R. S.	Inclusion		Dialogue
			Magazine
FERREIRA, A. P.;	The use of digital information and	2018	Ric CPS
SOUZA, G. P.	communication technologies to		
,	promote the inclusion of children		
	with disabilities		
CARVALHO, C. E.	The digital inclusion of children with	2019	Linhas Magazine
O.; HABOWSKI, A.	multiple disabilities at school		
C.; CONTE, E.	-		
FELICISSIMA, A.	Digital Communication and	2022	IF Goiano
,	Information Technologies in Early		
	Childhood Education: a study on		
	social role, pedagogical resources		
	and child development		
JUNIOR, R. B.;	The use of digital communication	2023	RECIMA21 -
MACEDO, M.	and information technologies		Multidisciplinary
	(DICTs) in the classroom		Scientific Journal

Source: The authors

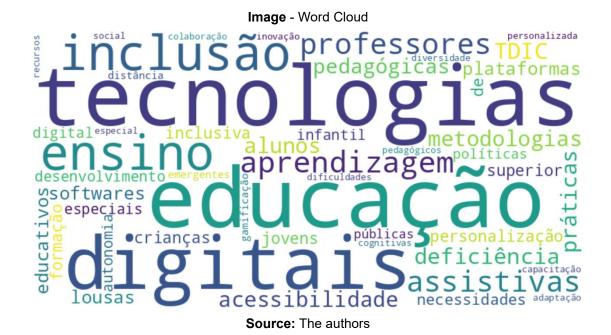
The following table presents the main bibliographic references used in this research, organized by author(s), title, year of publication and type of work. These sources were selected to provide a theoretical basis that allows a critical analysis of the role of digital technologies in the process of educational inclusion.



After inserting this table, it is evident the care in the choice of sources and the wealth of information that each one of them offers for the construction of the theoretical framework of this research. The selected publications contribute to a comprehensive understanding of the use of digital technologies as facilitators of educational inclusion, in addition to highlighting the challenges and opportunities that arise with the implementation of these tools in schools.

#### **RESULTS AND DISCUSSION**

The following word cloud highlights the frequent and significant terms drawn from the frame of reference, which will be covered in the topics, results, and discussions of this survey. These terms reflect the central concepts and key areas that permeate the study of the impact of digital technologies on the process of educational inclusion. The prominent words, such as 'inclusion', 'digital technologies', 'education', 'disability', and methodologies', are essential for understanding the issues discussed throughout the research, helping to identify the main themes that guided the analysis and interpretation of the data.



The visualization of the word cloud allows the reader to intuitively perceive the concepts that stand out in the context of the research. The frequency and length of the words indicate the relevance of these terms in the process of digital inclusion, highlighting the intrinsic relationship between educational technologies and teaching methodologies



aimed at students with special needs. These elements will be explored in detail throughout the development of the work, especially with regard to innovative pedagogical solutions and the challenges faced by educators and students in the implementation of DICTs.

## IMPACT OF TECHNOLOGIES ON THE EDUCATIONAL AND PERSONAL DEVELOPMENT OF STUDENTS WITH DISABILITIES

Digital Information and Communication Technologies (DICT) have demonstrated a significant impact on the educational and personal development of students with disabilities, creating new possibilities for the learning and personal growth of these students.

According to Felicissima (2022, p. 13), Digital Communication and Information Technologies (DICTs) do not act in isolation, but are inserted in a social context that influences their adoption and use in the school environment:

Technologies do not operate in a social vacuum. To attribute to technology a power of transformation by itself erases the fact that [...] they are incorporated into particular social contexts by specific social actors'. This means that children learn DICTs from their surroundings (home, school, etc.) and when they see the use by their peers, they start to practice it, little by little they incorporate technological skills (download videos, play *online games*, access children's channels, record speeches and images, etc.). In this process, the social role of the school comes in, guiding them to understand what they consume, what they are consuming, teaching them to separate what is important and highlight what adds nothing to the formation of the little ones.

This fact highlights the need for pedagogical mediation in the process of incorporating DICTs into educational practice, ensuring that technology is used in a critical and formative way. According to Barbosa, Guimarães and Borges (2014), DICT offers resources and tools that facilitate the adaptation of teaching, allowing students with different types of disabilities to access content in an accessible and efficient way. The personalization of teaching, provided by technologies, enables students to advance at their own pace, receiving the necessary support to overcome their limitations, which contributes to inclusive and egalitarian educational development.

In addition, Ferreira and Souza (2018) state that the use of tools such as *educational software* and digital platforms have allowed students with disabilities not only to learn in an adapted way, but also to develop skills for their daily lives. These digital resources favor students' autonomy, stimulating their ability to solve problems and make decisions. This autonomy contributes to the personal development of students, promoting



ISSN: 2358-2472

self-esteem and confidence in skills. Pimentel (2015) complements, highlighting that the use of DICT also allows students with disabilities to explore their own potential, since they have access to materials that respect their particularities and offer personalized learning.

However, the implementation of these technologies in the educational process still faces significant challenges, such as the lack of adequate teacher training and resistance to the use of digital tools in some institutions. Carvalho, Habowski and Conte (2019) point out that, although DICT has shown considerable potential to promote inclusion, its effectiveness depends on how it is applied and the preparation of educators to use it inclusively. When used well, these technologies not only facilitate access to education, but also promote the development of cognitive, social, and emotional skills in students with disabilities, which contributes to their personal growth.

The use of DICTs in Early Childhood Education can be an important ally for the cognitive development of children, as long as it is adequately mediated by teachers. According to Felicissima (2022, p. 279):

Therefore, the school must [...] promote activities that bring technology closer to children, in order to build meanings and knowledge, being able to use digital games and games [...]. Therefore, we observe that, in parallel with digital play, it is necessary to enable, in the school space, real collective moments, with toys and activities, only in this way, learning will develop with the children of Early Childhood Education.

In this way, DICT has shown an impact on the educational and personal development of students with disabilities, by offering means for these students to participate in an inclusive and accessible learning process. As stated by Dias-Trindade and Mill (2018), the use of these technologies enables students to develop important skills for their academic and personal lives, favoring social inclusion and promoting greater equality of opportunities in the school environment.

# CHALLENGES AND BARRIERS IN THE IMPLEMENTATION OF TECHNOLOGIES FOR INCLUSION

The implementation of assistive technologies in schools has been one of the biggest challenges to ensure the effective inclusion of students with disabilities. Barbosa, Guimarães and Borges (2014) point out that, although Digital Information and Communication Technologies (DICT) have great potential to promote inclusion, their implementation faces several obstacles, the main one being the inadequate training of



teachers. Many educators, despite recognizing the relevance of technologies, do not have the necessary training to use them in the teaching-learning process. The lack of specific training on how to adapt digital tools for students with special needs limits the potential of DICT, preventing these technologies from achieving their maximum educational benefit.

Another significant challenge is related to the technological infrastructure of schools, which, according to Carvalho, Habowski and Conte (2019), is often insufficient or inadequate to support the digital tools necessary for inclusion. Schools face difficulties in acquiring adequate equipment, such as computers, digital whiteboards, and assistive devices for students with disabilities. In addition, the lack of stable connectivity and access to digital platforms can aggravate this scenario, making it difficult to apply assistive technologies that depend on advanced technological resources. Ferreira and Souza (2018) also highlight that the absence of continuous technical support and the lack of adequate maintenance of technological tools in schools can compromise the use of these technologies in daily school life.

In addition to structural and formative issues, there are cultural resistances that hinder the implementation of DICT in schools. Pimentel (2015) observes that, in many educational contexts, there is resistance on the part of educators and managers to adopt new technologies, due to the lack of familiarity with digital tools or the perception that technology can replace the teacher. The change in mentality about the use of technologies in the educational process is an important cultural obstacle, as it is necessary for all those involved in the school environment to recognize the value of DICT to promote the inclusion and development of students with disabilities. Dias-Trindade and Mill (2018) point out that this cultural resistance is exacerbated when the implementation of technologies is not accompanied by a pedagogical vision that understands inclusion as a continuous and collective process.

Therefore, the main challenges in the implementation of assistive technologies in schools involve teacher training, technological infrastructure, and cultural barriers that still persist in the school environment. As Barbosa, Guimarães and Borges (2014) state, overcoming these barriers requires a joint effort of public policies, investments in continuing education of educators and improvements in the structural conditions of schools. In addition, it is essential to promote a cultural change in the educational context, ensuring that DICT is seen as tools that complement and enrich pedagogical practice, not as a substitute for teaching work.



## FUTURE PERSPECTIVES FOR DIGITAL INCLUSION AND THE USE OF TECHNOLOGIES

The future perspectives for digital inclusion and the use of Digital Information and Communication Technologies (DICT) in schools point to a scenario of significant advances, with the continuous improvement of tools and methodologies that promote educational inclusion. According to Carvalho, Habowski and Conte (2019), emerging trends in education technologies include the growing use of artificial intelligence and augmented reality, which have the potential to create learning environments that are still adaptive and interactive. These technologies will be able to offer personalized resources, adjusting the content to the specific needs of each student, including those with disabilities, and providing inclusive teaching.

In addition, advances in inclusive methodologies have gained prominence, with a focus on the personalization of teaching and the adaptation of pedagogical resources to the individual characteristics of students. Barbosa, Guimarães and Borges (2014) highlight that, in the future, schools are expected to adopt an integrated approach to DICT, using a combination of digital tools that favor the participation of all students, regardless of their limitations. The use of hybrid learning platforms, for example, is already a growing trend, allowing students to access content flexibly and at their own pace. Ferreira and Souza (2018) emphasize that these platforms may, in the future, be adapted to offer different levels of complexity, meeting the diversity of students' cognitive and motor skills.

In addition, Pimentel (2015) observes that digital education tends to evolve towards a greater integration of different forms of media, such as interactive videos, educational games and virtual simulations, which can transform pedagogical practices, offering students dynamic and practical learning opportunities. Incorporating games and simulations, for example, can encourage active learning, allowing students to interact with content in an engaging and personalized way. These technological innovations can also contribute to the development of socio-emotional skills, which is especially relevant in the context of inclusion, as it facilitates interaction between students with and without disabilities, promoting equal opportunities in the learning process.

Therefore, the prospects for digital inclusion and the use of technologies in education indicate a promising future, with the continuous evolution of technological tools and inclusive methodologies. As Dias-Trindade and Mill (2018) point out, for these trends to materialize effectively, it will be necessary to invest in public policies that encourage the



adoption of these technologies, in addition to ensuring the continuous training of educators, enabling them to use the new tools in an inclusive and efficient way. This technological advancement, combined with inclusive pedagogical practices, can represent a true revolution in education, providing equitable and accessible learning for all students, regardless of their conditions.

## **FINAL CONSIDERATIONS**

Digital Information and Communication Technologies (DICT) have shown a significant impact on the educational inclusion process with regard to the adaptation of teaching and the promotion of equal opportunities for students with disabilities. The research, by analyzing the role of DICT in the inclusive educational context, allowed us to identify that technologies, when applied, are powerful tools for the personalization of teaching and for the creation of an accessible and inclusive environment. However, the main challenges encountered involve teacher training, the technological infrastructure of schools and the cultural resistances that still exist within the educational environment.

The central question of this research was: How do Digital Information and Communication Technologies contribute to the promotion of educational inclusion of students with disabilities, and what are the challenges faced in their implementation? The analysis of the collected data allowed us to conclude that, although DICT has great potential to promote inclusion, its implementation depends on a series of factors, such as the adequacy of technological resources, the continuing education of educators and the creation of a school environment favorable to the adoption of these technologies. The answer to the research question indicates that, in order for DICT to promote educational inclusion, it is necessary that schools commit to providing not only the tools, but also the means to train education professionals, ensuring the appropriate and efficient use of these technologies in daily school life.

In addition, the research pointed out that DICT offers opportunities for the personalization of teaching, allowing each student to have access to content adapted to their needs, especially students with disabilities. These technologies offer the possibility of overcoming cognitive and physical barriers, which contributes to the academic and social development of students. However, it is evident that the application of DICTs in the educational context still faces considerable challenges, such as the lack of adequate



financial resources, the need for greater teacher training, and the resistance on the part of educators and managers to the use of these tools.

The contributions of this study are significant, as they highlight the importance of DICT in promoting educational inclusion and highlight the main obstacles that still need to be overcome. In addition, the results obtained can serve as a basis for the formulation of public policies and pedagogical practices aimed at the implementation of these technologies in schools. The research also reinforces the need for continued investments in teacher training and improving technological infrastructure in order to ensure that DICTs become accessible tools for all students, regardless of their physical or cognitive conditions.

However, to complement the findings of this research, it is necessary that new studies be carried out, focusing on different educational contexts, to analyze how DICTs are applied in schools in different regions and with different socioeconomic realities. In addition, it would be interesting to investigate the impacts of these technologies on the personal and social development of students, in addition to their effects on academic performance. Continuing studies on the use of DICTs in inclusive education can provide important *insights* into how to improve pedagogical practices and make teaching accessible to all.



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