DIGITAL INCLUSION IN EDUCATION IN ANGOLA: ADVANCES AND RETREATS

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Introduction

"Not everything that can be counted counts, and not everything that counts can be counted"
Albert Einstein (apud Cameron 1963, 13)

Since 2002, there has been a significant increase of Information and Communication Technology’s users in Angola (ICT) — essentially regarding the access of the internet. In this sense, there has been more investments by the Government in the telecommunication sector and consequently the emergence of more operators and/or services in the area of ICT. It is notorious that, as the XXI century advances, the use of ICT on a daily basis is more required from the citizens; in a period where we are changing to artificial intelligence. This technological penetration has already arrived in schools, in other words, education is immersed in a world where technology is omnipresent and omniscient (Landauer 1988). Despite the advances in this field in the African continent, there are still great challenges for the development; the innovation is visible, as the authors refer:

The innovation is abundant in Africa and it is reflected in multiple areas — in the next generation of social protection; on the new platforms that attend remote and fragile communities; in the diffusion of digital technology; and in the pro-rights movements, leading to the public acceptance of people that were previously excluded (Das Bordia and Espinoza 2019, 4).

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On this matter, the majority of governments are working to potentialize its citizens, mainly the younger ones, in the field of ICT. The author Henriqueeta Costa emphasizes:

The school becomes, then, the privileged space to promote, among the youth, this technological competencies that will bring them advantages not only on a personal level, on the protection against the misuse of technologies, but especially on a professional level, once the dominion of these technologies is a professional requirement in almost all fields (Costa 2014, 8).

The technology inclusion in education, in Angola, marks another transition moment of the System of Basis of Education and Teaching, with the integration of new digital tools that are providing new ways of teaching, new ways of learning and new ways of managing administrative processes. Thereby, in response to the technological invasion that the contemporary society lives, the Government of Angola created, in 2013, the National Plan of Informational Society (PNSI, in Portuguese) 2013-2017 — as an actualization of the Action Plan of Informational Society 2005-2010 — which established Education as one of the strategic pillars to the development of informational society and having the following lines of action: a) To reinforce the ICT’s competencies; b) To reinforce the ICT’s use in the Teaching and Educational System; c) To increase the access to education and contents; d) To promote researches and development (PNSI 2013, 3). On the PNSI spectrum, a set of more directed action plans emerged, for example, the National Plan to Massification and Digital Inclusion (PNMID, in Portuguese) — in this moment, the following projects are already implemented: Rede de Mediatecas, Angola Digital and Telecentros.

In this context, there is an advent of different educational projects for digital inclusion, particularly non-university education, such as the Meu Kamba project, the ProFuturo project and the E-Net project, which are the focus of this study. On the other side, the integration of the Basic Information discipline and/or Introduction to Information in the curriculum of various teaching subsystems has been a practice. In private education, this integration happens earlier, from the 7th grade — in Primary Schools and in the first cycle of Secondary Education; meanwhile, in public education, the inclusion of Basic Information discipline only occurs from the 10th grade, in the second cycle of Secondary Education.
Therefore, with a qualitative approach, this work aims to reflect on the initiatives for digital inclusion in Angola, mainly on non-university education. In accordance with this objective, this work also focuses specifically on:

a) To identify the advances and retreats of the communication and information technologies' inclusion in education in Angola, on non-university education;

b) To reflect on the politics and implementation actions of these projects.

From the assumption that the XXI century citizens are technologically active, in this paper, the results of governmental and private initiatives for digital inclusion in education in Angola are presented. On the other side, a contextual, cultural, circumstantial approach in which the projects were conducted is defended.

Digital Inclusion Projects in Education in Angola

As referred in the last section, this study focuses on the digital inclusion on non-university education. With the update of the National Development Plan (PDN, in Portuguese) 2018-2022, it states, among priority actions, "the promotion of remote education and e-learning" (PDN 2018, 86). The New System of Basis of Education and Teaching Law n.º 17/16 envisages the remote education modality (article 89) and semi-present education (article 92), where the teaching and learning process happens with ICT resources.

For this paper, three digital inclusion projects in education were selected, all of them familiarized with non-university education, which are the Escola Meu Kamba project, the Escola Profuturo project and the Escola-Net project. Subsequently, the description of these projects is presented.

Escola Meu Kamba Project\(^2\)

The Escola Meu Kamba project, created in 2014, is a Government of Angola’s initiative, integrated in the National Plan of Informational Society 2013-2017, in partnership with a private company for its execution. Aligned with the National Development Plan 2013-2017, currently renewed in 2018-2022, this project pursued the integration of informatic equipments, such

\(^2\) The word Kamba has Kimbundo origins — one of Angola’s national languages —, which literally means “friend, comrade, companion”.


as computers, cabinets, routers, servers, interactive boards, projectors, and others, in public schools, in the Primary Education Subsystem, in all provinces and in a staggered manner. This project was created with the objective of facilitating access to education — a more inclusive education — through technology, mainly on distant locations to impoverished people. The computers were portable, with 11 inches, Intel Atom processor, 300 GB hard drive, 2h30 minutes battery approximately, professional operational system Microsoft Windows 7 with 32 bits, one input type RJ45\(^3\), three inputs type USB 2.0 (Universal Serial Bus "Porta Universal", in Portuguese), one audio input/output, one microphone and one input type VGA (Video Graphics Array) (cf. Figure 1).

Figure 1: *Meu Kamba* project’s computer

The project also envisaged a training plan for teachers and directors of the covered schools, with a formative cycle of seven days; its objectives were the insertion of Communication and Information Technologies in the primary education subsystem and its familiarization among teachers and students. The project also contemplated programmatic contents in the disciplines of Portuguese language, mathematics and natural sciences, on the computer software, with interactive contents, videos, simulations, exercises and other tools.

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\(^3\) RJ45 means registered jack; it is a type of connector utilized for the Ethernet network.
**Escola ProFuturo Project**

The *Escola ProFuturo* project, a private initiative, is an educational program launched by the Fundación Telefónica⁴ and the Fundación la Caixa⁵ in 2016, whose mission is to diminish educational inequality by quality digital education for boys and girls in deprived environments in Latin America, Sub Saharan Africa and Asia. The project had an aim to achieve 10 million children by 2010 and 20 million by 2030. For this, the project integrates, in an interrelated way, technologies, educational resources and teaching and learning methods, aiming to capacitate teachers and enable students to acquire abilities and competencies for their personal and professional future (ProFuturo 2017).

At this moment, according to aggregated data from 2018, ProFuturo contemplates 8 million children, 300 million professors and 28 countries — in Africa it is present in the following countries: Angola, Nigeria, Madagascar, Uganda, Ethiopia, Kenya, Tanzania, Equatorial Guinea, Zimbabwe, Liberia and Rwanda (ProFuturo 2017).

*ProFuturo* is a universal educational program opened to third parties — companies, institutions and international actors who support large scale initiative. In this sense, the Roman Apostolic Catholic Church, by its missionary schools, joined this project and, in Angola, coordinates its implementation.

In Angola, the project intended to include until 2020 a total of 260 thousand students of the Primary Education Subsystem — from the initial years until the sixth grade — beyond the missionary schools, the *ProFuturo* also expects to benefit students of public institutions, all over the country. The project envisages a training plan to teachers, school directors and it has a specialized technical support. In sum, the project works as follows: it distributes a suitcase with technological devices with which an internet network can be created, where the teacher creates its class and the students can access it through a tablet — it operates with the aid of photovoltaic energy. At this moment, the project has already expanded in twelve provinces, which are Malanje, Uíge, Moxico, Lunda-Norte, Lunda-Sul, Luanda, Benguela, Huambo, Bengo, Cuanza Norte, Cuanza Sul and Huíla.

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⁴ The Fundación Telefónica was funded in 1998 and it is based in Madrid, Spain. It develops educational, cultural, employability and voluntary projects that attend the digital world.

⁵ The Fundación la Caixa is a financing institution that is based in Barcelona, Spain.
E-Net Project

Regarding the Escola E-Net project, it is an initiative of the telecommunications company Unitel, the largest mobile operator in the country, which is responsible for the management and supervision of the project and it has as direct partners the Chinese telecommunications company Huawei — who provides the computers for the project —, and Angola’s Ministry of Education, the project’s executing entity. The project aims to provide a free internet signal to the academic community, mainly to students in their learning activities and for the interaction among students.

The project sought to benefit 18 thousand students of the II Cycle of Secondary Education public and private institutions, in all of Angola’s provinces. In each school covered by the project, free computers and routers were received with a monthly balance of 625 UTT’s (the equivalent of 6250,00 kwanzas). The project has been running since June 2012 and it is currently expanding in eleven provinces of the country, namely Luanda, Benguela, Huambo, Bié, Cabinda, Uíge, Cuanza Norte, Huila, Malanje, Cunene and Bengo.

Similar projects

For a better framing of this study, other similar governmental programs in other countries were researched, preferably lusophone countries, with emphasis to Portugal and Brazil, for being considered prominent among this community in almost all sectors, mainly in Education and Communication and Information Technologies’ areas.

In this regard, it is highlighted the MINERVA project in Portugal between 1985 and 1994, "having as an objective to promote the introduction of information technologies in non-university education in Portugal" (Ponte 1994, 3 apud Barbante 2018); the Technological Plan in Education (PTE, in Portuguese), in 2007, envisaging the technological modernization of the education in Portugal; the EDUCOM project — Educação com Computador, in Brazil, the first information program for education, implemented in 1984 by the Ministry of Education (MEC, in Portuguese) —, which "Promoted the creation of pilot-centers in five Brazilian public universities with the intention to execute a multidisciplinary research and to capacitate human resources to subsidize the decision of informatization of Brazilian public education" (Almeida 2008, 26 apud Barbante, 2018). Still in Brazil, in 2010, it is highlighted the Um computador por aluno program (PROUCA, in Portuguese), implemented by the Brazilian Federal Government in multiple public schools.
with the purpose of digital inclusion of primary education students, in other words, the use of DCIT (Digital Communication and Information Technologies) in education. The PROUCA:

aims to promote digital pedagogical inclusion and the development of learning and teaching processes to students and teachers of Brazilian public schools, by the use of portable computers named educational laptops (Fundo Nacional de Desenvolvimento da Educação 2010).

Methodology

This paper aims to reflect on the digital inclusion initiatives in education, mainly in Angola, on non-university education. To this purpose, the following specific objectives were traced:

a) To identify the advances and retreats of the technological projects in education being developed;

b) To reflect on the politics and implementation actions of these projects.

Contextualized in the field of communication and information technologies inclusion in Angolan schools and focused, in particular, in existing projects, this work utilizes an empirical qualitative approach, with a descriptive type of research, where it sought to act objectively and in a non interventionist way by the researchers (Creswell 2003). The authors Bogdan and Biklen (1994, 47) emphasize that, in this type of investigation, "the researchers participate and spend great amounts of time in schools, families, neighborhoods and other places trying to clarify educational questions". Therefore, we had direct contact with some of these digital inclusion projects in education — *Meu Kamba, ProFuturo* and *E-Net*, while visiting the schools contemplated by these projects, with proper authorization; we talked with students, teachers, directors and trainers in these schools — they were informed about the study's objectives and freely participated, being guaranteed the results' confidentiality — in order to obtain a more cleared perspective about the object of our study. The participants did not want to be interviewed, but accepted having an informal conversation without commitment and no recording, which was respected. At the occasion, the events were registered in a logbook.
The research centered, essentially, in analysing three digital inclusion projects with the largest impact in the country, familiarized with non-university education, described above, as well as the consultation of the curriculum of diverse education subsystems, to examine if they integrated disciplines related to the ICT. Hence, this research objective aims to reflect on the digital inclusion in education, in Angola. The study also discusses the advances and retreats about the integration politics of the referred projects.

Data was collected between January and May 2019, in a first moment, in a disaggregated manner (Metz 1978), by participant observation in three schools approached by these digital inclusion projects in education, in Huambo province. Documents and scientific notes and official records which were related to this study's thematic were also used. As mentioned before, data was also obtained by informal talks with multiple public involved in these projects. In order to comply with the aims of the investigation, a flexible observational framework was utilized, there were various adjustments in relation to the contents approached. The framework presented the following dimensions: project type, financing, year of implementation, coverage, education subsystem, target population, year of creation, objectives, characteristics of the devices.

In the analysis of qualitative data, a comparative analysis was implemented — cross analysis — (Miles and Huberman 1994). In this phase, the constant comparative method was utilized (Glaser and Strauss 1967) which allowed to search common patterns, as well as differences. A comparison among the three projects approached in this text was conducted, and linked with similar technological inclusion projects in education, namely the MINERVA project in Portugal between 1985 and 1994 and the PROUCA program in Brazil. In general, three schools of non-university education participated in the study — referred to as School A, School B and School C —, in Huambo province.

Results

The main focus of digital inclusion in education is, essentially, allowing content diversity and a more open education. On the other side, the ICT contributes to a more inclusive schooling and allows citizens to stay connected with the world, what Castells (1996) designated as network society.
Curricular Integration of the Discipline ICT

The incorporation of the discipline Introduction to Information and/or Basic Information was verified in the following education subsystems: Technical and Professional Education Subsystem, in 7th and 10th grade; in Teachers Formation Subsystem, in 10th grade, in General Education Subsystem, in 10th grade, and Adult Education Subsystem, in 10th grade.

Digital Inclusion in Education

About the incorporation of communication and information technologies in education, it was observed the existence of digital inclusion projects in non-university education — Primary and Secondary Education — with special attention to the Escola Meu Kamba project, the Escola ProFuturo project and Escola E-Net project. Regarding the Meu Kamba project, it is present in twelve provinces, namely Zaire, Bengo, Uíge, Luanda, Cuanza Sul, Huambo, Namibe, Benguela, Bié, Huíla, Lunda Sul and Cuando Cubango. The project has already installed 7056 computers, covering an academic population of 36 354 students and more than 45 trained teachers (Cruz 2019), having, still, a formation plan for the various parties involved.

Concerning the Escola E-Net project, created in 2012, it is currently attending eleven provinces of the country, namely Luanda, Benguela, Huambo, Bié, Cabinda, Uíge, Cuanza Norte, Huíla, Malanje, Cunene and Bengo. Besides, it seeks to comprise students and teachers of the secondary education of public and private institutions.

As for the ProFuturo project, presently, it is distributed in twelve of the eighteen provinces of the country, that are Malanje, Uíge, Moixo, Lunda-Norte, Lunda-Sul, Luanda, Benguela, Huambo, Bengo, Cuanza Norte, Cuanza Sul and Huíla. The three projects, in a connection among them, are geolocated in the eighteen provinces of the country, as illustrated on table 1, where the provinces of Benguela, Huíla, Huambo, Bengo, Uíge and Luanda, were benefited with all of the three projects; followed by the provinces of Cuanza Sul, Bié, Lunda Sul, Cuanza Norte and Malanje, with two projects; and the provinces of Cuando Cubango, Cabinda, Cunene, Moixo, Lunda Norte, Zaire, Namibe, with only one project each, are the less contemplated.
Table 1: Geolocalization of the digital inclusion projects in education in Angola

<table>
<thead>
<tr>
<th>Provinces</th>
<th>Escola Meu Kamba Project</th>
<th>Escola ProFuturo Project</th>
<th>Escola E-Net Project</th>
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<tbody>
<tr>
<td>Bengo</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Benguela</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Luanda</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Uíge</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Huíla</td>
<td>Yes</td>
<td>Yes</td>
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<td>Huambo</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Cuanza Norte</td>
<td>Yes</td>
<td>Yes</td>
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<td>Cuanza Sul</td>
<td>Yes</td>
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<td>Bié</td>
<td>Yes</td>
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<td>Malange</td>
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<td>Yes</td>
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<td>Lunda Sul</td>
<td>Yes</td>
<td>Yes</td>
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<td>Lunda Norte</td>
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<td>Yes</td>
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<td>Cuando Cubango</td>
<td>Yes</td>
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<tr>
<td>México</td>
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<td>Yes</td>
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<tr>
<td>Cunene</td>
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<td>Yes</td>
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<tr>
<td>Namibe</td>
<td>Yes</td>
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<tr>
<td>Cabinda</td>
<td></td>
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<td>Yes</td>
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<tr>
<td>Zaire</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis and Discussion of the Results

The inclusion of ICT in education marks another moment of transition in the System of Basis of Education and Teaching in Angola. We recognize the investments and initiatives the government has implemented,
in order to modernize education and, therefore, allow more access to information. In this sense, Angola would be aligned with the 2030 Agenda for Sustainable Development of the United Nations — "objective 4. To assure inclusive and equitable and quality education, and to promote learning opportunities throughout life for all" (Nações Unidas Brasil 2015, 18).

Regarding the digital projects in the schools, the 3 projects — Meu Kamba, ProFuturo and E-Net — are innovators and aim to encourage the use of communication and information technologies in the teaching and learning process. The fact that these projects are inserted, predominantly, on non-university education, provides children and teenagers to begin earlier the use of ICT and, consequently a great opportunity of teaching the children to correctly use them.

Comparison among the three digital inclusion projects

In comparative terms, among the three projects, the ProFuturo project presented a personalized pedagogical model; adaptive flexibility; use of learning analytics devices based on algorithms and big data to evaluate the results and impact generated by the quality and transformation of education. This system of analysis and measurements of results allows decision making about the progress of the solution. For its characteristics, it seemed to us the most promising and, indeed, it adjusted perfectly to the Angolan context. On the other hand, ProFuturo is more entertaining for the children's learning, firstly, by its use of tactile technology, where the contact is direct, providing better usability and, secondly, is in conformity with the mobility and autonomy; in other words, the mobile devices have greater autonomy in relation to conventional computers, and facilitate the mobility of teachers and students in the classroom. Lastly, it is the only one, for what was analyzed, in which technical assistance is guaranteed, as well as it counts with an alternative power supply of public network — the use of solar panels.

Considering the E-Net project, the main goal is to provide internet access to students, despite the project also contemplating computer access, not individually, but in cybercafes — a desktop computer equipped room with internet access to be shared among all the students each time. Given the difficulties and/or limitations of internet access in Angola, in particular, by students, this project was, in fact, an enhancement compared to the current moment, as Barbante refers (2019, 898), "the access to most of the data basis is free, only being necessary the access to the world's largest network,
the Internet. In other words, the internet has served as a passport to the access of digital libraries”. Unfortunately, as it has happened with multiple projects that, on the first hand, looked ambitious, for unknown and unclear reasons, this project was discontinued in 2014. In practice, the project only worked normally for two years, between 2012 and 2013, as seen before, in twelve provinces. In almost six years this project is not mentioned, with only a few equipment left, in this case, computers, which have been used for other purposes — administrative activities in the referred schools. On the other side, the routers have never been charged with the monthly balance envisaged in the project.

About the project *Meu Kamba*, which had direct government financing, it is being developed, hesitantly, across the country, already being present in twelve provinces — it seems to have been an obstacle by part of the sponsoring company for unknown reasons. On the other hand, it is limited, in other words, the children (students) of private education have not been covered by the project — this project is limited to public education students. The private education does not individualize its students, on the contrary, it is a partner of the government on this noble mission of teaching and educating its citizens. It is not the child who chooses where he is going to study, but, many times, the circumstances and the opportunities that parents and those responsible for educating find to be able to enroll their children and students. Given the fact that in Angola there are many children out of the Education and Learning System, for the lack of classrooms, private education has been an alternative for many children to have access to education. Therefore, considering public funding, the Government has to look to education in its totality and not to just part of its process. Next, a comparative analysis is made among the three projects and a short description of each dimension (c.f. Table 2).

Table 2: Comparative Analysis among the three projects *(Meu Kamba, E-Net, ProFuturo)*

<table>
<thead>
<tr>
<th>N.º</th>
<th>Dimensions</th>
<th><em>Meu Kamba</em></th>
<th><em>ProFuturo</em></th>
<th><em>E-Net</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Communication and Information Technologies</td>
<td>Portable Computers of <em>Magalhães</em> type</td>
<td>Tablets</td>
<td>Computers and Internet Access</td>
</tr>
<tr>
<td>2.</td>
<td>Year of Implementation in Angola</td>
<td>2014</td>
<td>2016</td>
<td>2012</td>
</tr>
<tr>
<td>3.</td>
<td>Financing</td>
<td>Public</td>
<td>Private</td>
<td>Public-Private</td>
</tr>
</tbody>
</table>
However, a lot of these projects are elaborated unilaterally by the political elite, which, in many occasions, does not supply the real necessities of the main actors in the learning and teaching process, students and teachers. A better and more modern education is interesting to all of the society and not only to those who rule, because education is a task of "politicians, families, teachers and students" (Estanqueiro 2010, 9). These digital inclusion plans in education also are, many times, introduced in a "pamphleteer tone (...) and dangerously populist and glorify the common sense — triumph of neoliberal politics, worked skillfully by the hand of social media companies — and what consists in articulating and disarticulating" (Oliveira 2012, 167).

The majority of the government initiative projects have ended often in setback objectives, by being submitted to politics and centralism, what has been in effect for at least four decades in Angola, and appears now renovated as a "conservative modernization" (Apple 2003). The authors Mandela and Langa (2017, 101), refer that "the majority of the political leaders make decisions in order to minimize the threats to their political survival". The government should be the only one who deliberate and/or supervise the projects that are considered essential in education, in such case the technologists, while the specialists in the field — teachers and researchers — would be the executors, with the minimum autonomy necessary to add new ideas and/or inventions. These digital inclusion projects in the country should not be part of propaganda and should be, indeed, a collective mission, having, nevertheless, task distribution and competencies in favor of a common objective, which is a better education, more inclusive, accessible and with equal opportunities to all citizens. In sum, one cannot change from one project to another as if flipping the pages of a book; it is important to register visible
and significant advances that it is something useful that is being made. It is not enough to have good initiatives, it is necessary, effectively, put them into action and in the best way possible.

Conclusion

It is believed, therefore, that the Government of Angola's intentions in wanting, from an early moment, in the basic subsystems of education, to develop digital competencies in children and teenagers is an aspect to be applauded and supported by all of us. These projects are implicitly suitable in the National Development Plan (PDN) 2018-2022, to a better education, more expanded and a more digital Angola. Considering the dynamics of contemporary society, which is considerably dependent on communication and information technologies, these initiatives can and should contribute to the reinforcement of social and economic development of the country, allowing citizens to stay connected to the global network, benefiting from the access to global education. In this paper, the three main plans of digital inclusion in education have been highlighted, namely the Escola Meu Kamba project, the Escola ProFuturo project and the Escola E-Net project. These projects privilege public-private partnerships — Government, Companies and institutions.

Despite the quality of these projects, subsist, however, gaps in relation to infrastructure, qualified human resources, contents and specialized technical assistance. It has also been observed a deviation of the real objectives in which these projects were conceived, for example, some equipment of these projects are used to other means. On the other hand, these projects are found in an accelerated slowdown and/or discontinuity.

Comparatively, the Escola Meu Kamba project was the most solid, because it had direct financial coverture by part of the government; the ProFuturo project, on the other hand, was the most innovative by using mobile and tactile devices, besides counting on an alternative energy supply source to the public network; and, finally, the E-Net project contributes the most to the access to the Internet by the academic community. It was not our intention to classify them as if they are competing with each other, on the contrary, their interdependence is recognized. On the other hand, the Meu Kamba project, which counts with public funding, needs to be expanded, in order to benefit the largest number of children that is possible.

Finally, these digital inclusion projects in education, meanwhile, are a mirage and have a long way to go through, mainly in organizational
terms — tasks distribution, competencies, autonomy, training, technical assistance and collaborative work. It is a fact that many good initiatives and/or digital inclusion ideas in education exist, above all political initiatives, but in practice, they have been nothing but "false promises and myths" (Oliveira 2012, 166).

On the other side, the discontinuity of these projects in the majority of the covered schools, contrast with the objectives of the National Development Plan 2018-2022 of Angola and the 2030 Agenda for the Sustainable Development of the United Nations, which aim to secure an inclusive, equitable and quality education, besides promoting learning opportunities throughout life for all.

References


**ABSTRACT**

The inclusion of technology in education in Angola marks yet another moment of transition in the Education and Teaching System, with the integration of new digital tools that have provided a new use, new learning and management standards for administrative processes. The study presented in this document aims to reflect on the digital inclusion initiatives in education in Angola, mainly in basic education. Contextualized in the domain of the inclusion of information and communication technologies in Angolan schools and focused, in particular, on existing projects, this study is part of an empirical approach of a qualitative nature, assuming a descriptive investigation. In comparative terms, the *Escola Meu Kamba* Project was the most solid, due to the fact that it had direct financial coverage from the State; the *ProFuturo* Project was the most innovative when using mobile and tactile devices, in addition to having an alternative power supply to the public network; and, finally, the *E-Net* project was the one that had contributed the most to Internet access by the school community. On the other hand, there are regrets about the discontinuities of both projects.

**KEYWORDS**